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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1971

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HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

NINETY-FIRST CONGRESS

SECOND SESSION

SUBCOMMITTEE ON DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

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JOSEPH M. McDADE, Pennsylvania
WENDELL WYATT, Oregon

GEORGE E. EVANS, *Staff Assistant*

[1] Assigned to Subcommittee, February 20, 1970.

PART 5

Testimony of Members of Congress and Interested Individuals and Organizations

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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1971

WEDNESDAY, APRIL 15, 1970.

Mrs. HANSEN. The committee will come to order. We have the privilege this morning of hearing from our very distinguished colleagues, the Members of the House of Representatives and other interested individuals and organizations, who are appearing in behalf of various items in or relative to the budget.

THE WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

WITNESSES

HON. HUBERT H. HUMPHREY, CHAIRMAN, BOARD OF TRUSTEES, WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS
BENJAMIN H. READ, DIRECTOR, WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

Mrs. HANSEN. This morning we have our very distinguished former Vice President, Mr. Hubert H. Humphrey, the Chairman of the Board of Trustees of the Woodrow Wilson International Center for Scholars. Please insert your statement in the record and summarize it for us, Mr. Vice President.

(Mr. Humphrey's full statement follows:)

I appreciate the opportunity to appear today as chairman of the board of trustees of the Woodrow Wilson International Center for Scholars to review with the committee the progress and plans of the center to date and to present our estimates and request for appropriations needed in the coming fiscal year to permit this new presidential memorial institution to open next October as presently planned.

ORIGINS

Let me trace briefly the origins of the center.

In response to a joint resolution of the Congress, President Kennedy appointed the Woodrow Wilson Memorial Commission in October of 1961 to plan the Nation's memorial to Woodrow Wilson, 28th President of the United States. In its final report to the President and the Congress in 1966, the Commission recommended that the Wilson memorial include a center for scholars in downtown Washington. The Commission's proposal was considered, expanded upon, and endorsed by then Secretary of Health, Education, and Welfare, John W. Gardner, and the President's Temporary Commission on Pennsylvania Avenue in 1967. Legislation to create the Center was introduced and passed in the 90th Congress.

The Woodrow Wilson International Center for Scholars was established by act of Congress approved October 24, 1968, to be "a living institution expressing the ideals and concerns of Woodrow Wilson * * * symbolizing and strengthening the fruitful relation between the world of learning and the world of public affairs." A copy of the statute (Public Law 90-637) accompanies this statement as attachment E. The Center was placed in the Smithsonian Institution under the administration of a 15-man, Presidential Board of Trustees, eight to be chosen from private life and seven from executive branch positions. The trustees of the Center were appointed subsequently by President Johnson and President

Nixon. I was designated Chairman of the Board with a 6-year term and Mr. Allan Nevins was named Vice Chairman with a 5-year term.

The other private members with their terms of office indicated are: Mr. Harry C. McPherson, Jr., of Washington, D.C. (6 years); Mr. John P. Roche, of Waltham, Mass. (6 years); Mr. James MacGregor Burns, of Williamstown, Mass. (4 years); Mr. Charles A. Horsky, of Washington, D.C. (4 years); Mr. Ernest Cuneo, of Washington, D.C. (2 years); and Mr. Kevin Roche, of Hamden, Conn. (2 years).

The public members are: The Secretary of State, Hon. Wiliam P. Rogers; Secretary of Health, Education, and Welfare, Hon. Robert H. Finch; the Chairman of the National Endowment for the Humanities, Hon. Barnaby C. Keeney; the Secretary of the Smithsonian Institution, Hon. S. Dillon Ripley; the Librarian of Congress, Hon. L. Quincy Mumford; the Archivist of the United States, Hon. James B. Rhoads; and Hon. Daniel P. Moynihan of the White House staff, who was appointed by President Nixon as the one non ex officio public member.

Former President Harry S. Truman and former President Lyndon B. Johnson have both consented to become honorary members of the Board of Trustees.

The Board held its organization meeting on March 6, 1969, adopted bylaws, established an executive committee, and appointed Mr. Benjamin H. Read to serve as the Acting Director of the Center. Mr. Read is an attorney from Pennsylvania, who served as Executive Secretary of the Department of State and Special Assistant to the Secretary of State (1963–69). On the recommendation of the Selection Committee last October, the Board designated Mr. Read as Director of the Center.

During a 7-month planning period last year the Director and I corresponded with several hundred persons—educators, public officials, professional people, businessmen, and others in every State and in many countries to obtain advice about the future substantive programs of the Center. More than a hundred individual interviews and group discussions were held in Washington and elsewhere for the same purpose. To help design programs that would complement those of other institutions for advanced scholars, particularly those in the District of Columbia, and to best serve the needs of visiting scholars working in the Capital area, the staff visited several dozen organizations in the United States and elsewhere and reviewed the programs of a number of others in correspondence and discussions. The conclusions and recommendations were incorporated in a comprehensive report to the trustees from the Acting Director last September.

At its fall 1969 meeting the Board of Trustees decided to open fellowship and guest scholar programs on October 15, 1970, in prime space offered for the interim use of the Center by the Smithsonian Institution in the newly renovated original (1847) Smithsonian Institution Building on the Mall.

FELLOWSHIP PROGRAM

The theme we chose for the fellowship program is designed to accentuate those aspects of Wilson's ideals and concerns for which he is perhaps best known a half century after his Presidency—his search for international peace and the imaginative new approaches he used to meet the pressing issues of his day—translated into current terms.

Thus, the statement of policy adopted by the Board states:

"Emphasis will be placed on studies designed to increase man's understanding of significant international, governmental, and social problems, and to improve the organization of society at all levels to meet such problems. The focus will be on the public policy aspects of contemporary and emerging issues which confront many peoples and, where applicable, on comparative analyses of different cultural, regional, and other approaches to such issues."

While a wide variety of studies of current problems will be welcome under this general statement of policy, the Trustees have selected two subjects on which they would like to see substantial studies undertaken and proposals developed during the opening period at the Center: (1) the development of international understanding, law and cooperation in ocean uses; and (2) contemporary man's overall relations with his deteriorating environment, with special attention to the new forms of international cooperation needed to address effectively environmental problems that transcend boundaries. Brief summaries and longer staff papers on the objective of the oceans and environmental studies are included at attachment G.

When the fellowship program is fully operational, up to 40 scholars—approximately half from the United States and half from other countries—will be selected to work at the Center. They will be chosen—again in approximately equal measure—from academic and nonacademic occupations and professions. The former will come from a number of the social and behavioral sciences, from the humanities, and from the natural sciences. The latter will be drawn from diverse careers including government, international organizations, law, diplomacy, labor, business, foundations, and journalism. The primary concern will be to find persons whose intellect, experience, and dedication will enable them to contribute to the increase and diffusion of knowledge about subjects of interest to the Center in a community of scholars of like purposes.

All fellows invited will be persons of distinguished scholarly capabilities and promise. Academic participants will be limited normally to established scholars at the postdoctoral level (or the equivalent in other countries). There will be no precise higher degree requirements for nonacademic fellows, but their standing in their profession or occupation, advanced degrees, writings, and honors will be considered.

While no arbitrary age limite have been set and there will be a wide spread of ages among the fellows at the Center, it is anticipated that most scholars chosen will be in their thirties or forties.

The average fellowship at the Center will probably extend from several months to a year in duration, but some periods of study of only a few weeks and a limited number of long-term appointments will also be accepted.

The announcement of the opening programs of the Center was mailed in November to a large number of individuals and institutions in every State and in a number of other countries. With the consent of the Secretary of State, we asked the assistance of several Fulbright-Hays binational commissions and foundations in disseminating information about the Center's programs and in preliminary screening of non-U.S. candidates.

By the end of January we had received more than 40 applications for fellowships from scholars in the United States and other countries—largely from political scientists and other social scientists, law professors, diplomats, historians, and some scientists, who wished to work in field falling within the Center's theme. References were obtained and the completed files were submitted to outside advisory panels of distinguished academic and other persons (list at attachment D) for recommendations about the qualifications of the candidates and recommendations about rankings. In advising us on the applications we asked the Center's advisory panels to use the following agreed criteria: (1) scholarly capabilities and promise in areas of primary interest to the Center; (2) likelihood of contributing the complementary experiences and knowledge needed for a lively and productive intellectual community; (3) relevance of Washington area intellectual resources for people to proposed areas of studies; and (4) thorough speaking and writing knowledge of English. The Trustees Fellowship and Guest Scholar Subcommittee met in mid-March and approved the issuance of nine fellowship invitations, as funds permit, and six invitations to guest scholars. The exceptionally high caliber of these scholars is suggested in the brief summaries contained in attachment F to this statement. We are continuing to receive applications all the time and plan to repeat the selection process and issue additional invitations by July 1, 1970.

Each fellow will be asked in the first instance to seek financial support from his own institution, government, foundation or other source, and—until the Center's initial funding requirements are fully met—fellowship candidates with some such outside means of support may be in a preferred position. Thereafter, within an agreed ceiling, the Board hopes the Center will be in a position to offer stipends to help meet the fellow's previous year's salary rate, with cost-of-living adjustments for scholars from other countries, based on the general principle that the fellowship should not involve financial loss or gain to the recipient. Return trip air economy travel expenses for the fellow and his immediate family to and from Washington and limited housing allowances should also be available.

Each fellow at the Center will be expected to pursue his own or his group's scholarly concerns on a full-time basis in Washington during his fellowship except for agreed vacations, trips, and other absences.

Since one of the statutory objectives of the Center is the creation of an intellectual community which could hel pstrengthen the relation between "the world of learning and the world of public affairs," each fellow accepting an appointment will be expected to participate in a regular evening discussion dinner with his

colleagues and invited guests from "the world of public affairs" and the Washington community at large and to take a turn at leading such discussions or in presenting a paper for discussion on such occasions. Two or three times a year each fellow would also be expected to lead or participate in special discussions, seminars, and other meetings for the public or invited guests on themes to be determined by the fellows and Center staff. The papers and transcripts of discussions on such occasions would normally be considered public property, and the Board hopes that the results will yield new insights, perspectives and proposals in significant areas of wide contemporary concern. As I have indicated we anticipate that legislative and executive branch people will be included on these occasions at the Center from the beginning.

GUEST SCHOLAR PROGRAM

The other program approved by the trustees for the opening period at the Center is called the guest scholar program, which we visualize as a sensible and complementary adjunct to the fellowship program.

Under the guest scholar program several offices and desks of the Center will be reserved and other space temporarily vacant will be made available as well as the other privileges of the Center for relatively short-time use by distinguished U.S. and non-U.S. scholars on arrangement with the director of the Center, who will follow criteria to be established by the Trustees Fellowship and Guest Scholar Committee.

By this means the Board hopes that the Center will begin to be able to answer on a limited scale the almost universal plea of those who testified during the Legislative and Memorial Commission proceedings and those who advised us during the planning stage for a center to serve the needs of U.S. and non-U.S. scholars who visit Washington.

Prof. Julian Boyd and President Robert F. Goheen of Princeton University were early advocates of an institution to serve the transient scholarly community.

The 1967 Pennsylvania Avenue Commission report on the Woodrow Wilson Commission recommendations stated the case as follows: "Academic visitors to Washington, whether domestic or foreign, frequently have a limited set of contacts upon which to base their work and an information center at the Woodrow Wilson Center appropriately staffed and maintained will provide a very much needed service in Washington. It can refer scholars to the appropriate people and places and can provide introductions to people within Government and without, and it can maintain a continually updated index of scholarly resources in the Washington area."

H.M.R. Keyes, Secretary-General of the International Association of Universities in Paris, wrote to us about the particularly difficult problems encountered by scholars from other countries who visit Washington: "If, as President Goheen points out, it is already very difficult for an American to take rapid bearings among the various institutions where (intellectual) resources are available, the task is far more complex for foreign visitors. These have often only a slight knowledge of the academic and scientific American landscape, and its complexity, extreme diversity and sheer size can easily take on for them the characteristics of a labyrinth. The existence of a Center able to give them information on the intellectual, artistic, and scientific resources of the United States would be of real value."

Many established intellectual institutions in the capital area help visiting scholars at present, but none of them specifically holds itself out as serving this role as one of its central objectives.

The Woodrow Wilson International Center guest scholar program will begin to provide a small-scale answer to this need. We have already engaged a staff member specifically to gather data to enable the staff to perform a modest information center service, and each of the Center's staff members will be expected to be knowledgeable and helpful in assisting visiting U.S. and non-U.S. scholars to gain knowledge about and access to the rich and growing public and private intellectual resources, programs and expertise of the capital area. While the Center's small staff will have to concentrate primary efforts on assisting the fellows and guest scholars working at the Center, the Board hopes that the Center will be increasingly responsive and helpful to the information needs of the broader visiting scholarly community in Washington. Here, as in so many other areas, the Center will have to fortunate to be able to draw on the strong resources of the Smithsonian Institution, including its Science Information Ex-

change, Washington Academic Register and Information Systems Division programs and facilities.

We have already received several requests for short-term guest scholar appointments, some from experts in the areas we have designated for special encouragement in the fellowship program whose occasional presence would lend great strength to the work of the fellows.

INTERIM QUARTERS IN THE SMITHSONIAN INSTITUTION BUILDING

The Board of Trustees was most pleased to accept for the Center's use in its opening years the Smithsonian Institution's offer of interim quarters, which are uniquely appropriate and fortunate for the purposes needed.

The quarters are in the original Smithsonian Institution Building, which was designed by James Renwick, Jr., in 1846 and has served since 1849 as the headquarters for the worldwide activities of the Smithsonian Institution. This is a most fitting international use of the building, in which young scientists roomed until the turn of the century and which served as the home of the National Academy of Sciences throughout its early history and as the meeting place for many past scholarly conferences. By virtue of the funds appropriated by Congress in recent years the building has undergone top to bottom renovation, which is scheduled for completion by early summer.

On the third and fourth floors of the central section of the building 55 offices have been designated for the use of the Center for office space for the Center's first fellows, guest scholars, and staff. The estimated cost of furnishing these offices, some of which will hold desks for two to four persons, is included in the request I am submitting today. In addition, the Center will have the use of a conference or seminar room, a common or reading room and rooms which will serve as a small reference library on the third and fourth floors, a lounge and desk area and dining room on the first floor, and estimates for furnishing these rooms are also included in the requests submitted today.

It is the unanimous judgment of those other institutions that we consulted during the planning period that it is essential for the Center to have a dining area of its own in order to establish the sense of community which is essential for any new institution of this kind. We hope to be able to engage the food service which presently serves the Smithsonian Institution to cater weekday lunches and occasional dinners in the dining room of the Smithsonian building, which also has a small service area attached.

PERMANENT BUILDING SITE SELECTION

Acceptance of the offer of temporary space in the Smithsonian Institution Building, where the Center's fellowship and guest scholar programs could begin, should not slow down in any way the search for and acquisition of a permanent site for the Center and its early construction.

The Center will not be fulfilling one of its prime legislative purposes until it has its own permanent quarters. The demand for a center in the Nation's Capital where visiting scholars can meet, talk, dine, reside and receive information services is real and widespread as indicated during the legislative hearings on the Woodrow Wilson Memorial Act and in subsequent correspondence and discussion during the planning period. Plainly this demand cannot be met in any substantial way until the Center has a home of its own adequate to meet these needs.

The Woodrow Wilson Memorial Commission and the President's Temporary Commission on Pennsylvania Avenue both recommended that the Center for Scholars which they proposed as a memorial to Wilson be located on the north side of the proposed Market Square (between Pennsylvania Avenue, D, 7th and 9th Streets) in downtown Washington. The legislation creating the Center noted the Memorial Commission's site recommendation and authorized the Board of Trustees in section 4(a)(7) to "prepare plans and specifications for the Center, including the design and development of all buildings, facilities, open spaces and other structures on the site in consultation with the President's Temporary Commission on Pennsylvania Avenue, or its successor, and with other appropriate Federal and local agencies . . . ".

At the same time Congress made clear that it was not authorizing a specific site acquisition, and section 4(a)(4) of the act empowered the Board to "acquire such site as a location for the Center as may subsequently be authorized by the Congress."

To explore the suggestions that the Center be located at the Market Square site, a contract was entered between the Smithsonian Institution and the Urban Design and Development Corporation, a nonprofit District of Columbia corporation established in 1969 by the American Institute of Architects, to study the feasibility of the proposed Market Square site for the Center as well as other possible sites in the area between the National Archives and the National Collection of Fine Arts and Portrait Gallery buildings.

The feasibility study discussed the problems of acquisition of land in the immediate Market Square area and suggested utilization of possible adjacent sites. Any site in this vicinity would pose serious environmental problems unless other adjacent major development efforts were in prospect.

The question has been temporarily shelved pending a decision by the Administration on the submission of legislation to expedite and promote private and public development of the area included in the Pennsylvania Avenue plan, including the proposed site for the Woodrow Wilson Center.

In the coming fiscal year funds will be needed for further studies relating to the selection of a permanent building site, including a survey of the size and nature of the visiting scholarly community in Washington at any one time and more information about scholars' opinions on basic location and design issues as well as a more detailed examination of the specific sites identified in the existing feasibility study.

FUNDING

The legislation creating the Center included an open-ended authorization for appropriations of funds necessary to carry out the purposes of the Act for the fiscal years after 1970, and directed the Board of Trustees to "solicit, accept and dispose of gifts, bequests, and devises of money, securities, and other property of whatever character for the benefit of the Center" as well as to "obtain grants from and make contracts with state, federal, local and private agencies, organizations, institutions and individuals."

We were able to begin operation in March of 1969 by virtue of a $45,000 grant obtained from the Ford Foundation, and in fiscal year 1970 Congress appropriated $100,000 "to meet the expenses of the Board of Trustees of the Center and for necessary studies and planning activities" in the current fiscal year. The table shown at attachment B indicates the expenditures of public and private funds made and estimated from March of 1969, until the end of the current fiscal year. As this table shows, the bulk of the sums expended and to be expended cover the employment costs. Those include the salaries of the director and his secretary, who were the two permanent positions for whom funds were requested when the presentation for the Center was made by the Secretary of the Smithsonian Institution in March of last year, and the subsequent employment of three assistants to the director and two additional secretaries, start in August as anticipated in the 1969 hearings (House hearings p. 724; Senate hearings p. 902).

At its fall 1969 meeting the Board of Trustees approved a fiscal year 1971 budget estimate of $1.4 million, of which $934,000 was requested in the Board's first submission to the Bureau of the Budget, and the balance was to be sought from private sources. The $934,000 sum submitted to the Budget Bureau was to include $440,000 for administrative expenses, including $165,000 for 15 staff positions; $175,000 for furnishings, equipment and supplies, and $140,000 for other services including travel, conferences, consultants fees and planning contracts; and $494,000 to cover the stipends, travel expenses, and housing allowances of the Center's first 20 to 40 fellows. The Board undertook to raise a like or greater sum toward the cost of a like number of fellowships.

Because of the uncertainties of initial financing, the Board stated in the brochure announcing the opening programs of the Center that "fellowship candidates with some outside means of support may be in a preferred position." Although almost none of the non-U.S. candidates to date have reported such outside support, several of the U.S. scholars who were approved by the Trustees Committee for early invitations do have such other financial means. Plainly, however, the Board does not want to limit participation in the Center to those with outside financial means, and the principles on which we have based the stipends we would like to provide in the long run are ones that will assure that the Nation's Center in honor of Woodrow Wilson is not limited to scholars of means only.

Section 6 of the act creating the Woodrow Wilson Center states "there are authorized to be appropriated to the Board such funds as may be necessary * * *."

In keeping with this provision, the Board of Trustees of the Wilson Center and the Secretary of the Smithsonian agreed it would be in keeping with legislative intent to request that any appropriation for the Center be kept separate from the Smithsonian Institution's regular S. & E. appropriation, as in the case of the National Gallery of Art and the Kennedy Center for the Performing Arts. It was also agreed that the Chairman of the Board of the Center would be responsible for the presentation of congressional appropriations.

The Bureau of the Budget recommended that no funds be requested for the Center in the coming fiscal year, and this recommendation was endorsed by the administration. No reasons were given at any point. Presumably the rationale was based on the principle of no new starts in time of inflation. The President merely advised me in a letter, which his staff has advised may be quoted publicly, that "we simply have not been able to include funds directly for the Woodrow Wilson International Center for Scholars in the coming budget," but he expressed the hope that "* * * next year the Center will fare better, as it most certainly should."

But it confronts the Center with an extremely difficult problem. This is not a no-new-starts situation. Thanks to Congress we have made a start. Our plans are carefully laid. With the unanimous approval of the Board, including the administration's representatives, last fall we sent out announcements of the opening programs of the Center. We have received some outstanding applications from scholars in this country and abroad with the intellect, experience, and dedication to enable them to do superior work on some vital contemporary problems. We have put together a topnotch bipartisan advisory committee of distinguished U.S. citizens, including several Members of Congress, to help us with development work and advise us on substantive issues. The committee is chaired by Mr. Stuart T. Saunders, chairman of the board of the Penn Central Railroad. It includes as honorary members several heads of government and foreign ministers of friendly allied nations, including Prime Minister Wilson, Prime Minister Trudeau, Chancellor Brandt, Prime Minister Rumor, Prince Bernhard of The Netherlands, and others. I am attaching a full list for the committee's record. (Attachment C.)

This has not, is not, and should not be permited to become a partisan issue. The Woodrow Wilson Memorial Act was passed with the unanimous bipartisan support, as was the $5 million appropriation for Eisenhower College by the last Congress with the backing of the Johnson administration. The President himself has declared:

"* * * an International Center for Scholars, to be established as a living memorial to Woodrow Wilson * * * could hardly be a more appropriate memorial to a President who combined a devotion to scholarship with a passion for peace. The District has long sought, and long needed, a center for both men of letters and men of affairs. This should be, as it was first proposed, an 'institution of learning that the 22d century will regard as having influenced the 21st'."

The trustees and members of the Advisory Committee of the Center have been and are continuing to make strenuous efforts to raise private funds for the support of the Center in its first year of operations. We have engaged the services of a highly competent professional fund raiser, Mr. Henry C. Suhrke of New York City, who has undertaken similar services for the Eisenhower Exchange Fellowship Program and the Kennedy Center for the Performing Arts. Under the guidance of Mr. Charles Horsky, Ambassador Averell Harriman, and Mr. Robert Baker, we are setting up a Council for the Woodrow Wilson International Center to help us raise funds first in the Washington area and then nationally. The Center's staff and I have personally contacted dozens of possible individual and institutional donors. We will continue vigorous efforts along these lines.

But we are facing unusual difficulties caused by the uncertainty of public support, difficulties of interpretation of the Tax Reform Act of 1969, the falling market of recent months, and the fact that the institution is not yet in operation.

Our limited success in raising private funds to date makes it necessary for us to turn to the Congress for our principal support, particularly in the first year of operations of the Center. The Center was created by Congress as a living memorial to a great president. We have labored long and hard to bring it to life in accordance with congressional intent. We have made a hopeful start toward doing so. But we will not succeed, and we will not be able to open this Center as scheduled this year unless the Congress is willing to support us.

I have reviewed in detail with our staff director the appropriation request we are submitting to the Congress today, and I consider it sound and reasonable in all respects and essential to begin the planned operations of the Center. In the

light of our experience to date we are requesting an appropriation of $784,000. This is the amount we requested in the trustees' submission to the Bureau of the Budget last fall ($934,000) less $150,000 which, with the concurrence of the committee, we would anticipate receiving from the National Endowment for the Humanities—half from Federal sources and half from our own private fund-raising efforts. (On April 9, 1970, the Endowment notified the Center that it would receive a $130,000 matching grant.)

The $784,000 request includes $440,000 for administrative expenses—including salaries and employment costs, administrative expenses, and $130,000 for one-time furnishing costs to equip the Center's interim quarters—and $344,000 to enable us to pay the stipends, travel, and housing allowances of the first 20 to 40 fellows to be appointed by the Center estimated on the principles already stated above. We do not feel the Center should have fewer than 20 scholars since the interaction and interdisciplinary work which is planned would not be likely to prosper in a smaller intellectual community according to the experience of other institutions.

The funds we are requesting for the fellowship program are no year funds because of the necessity of having the means for making commitments to scholars well in advance of their arrival. These estimates are based on the closest experience we can learn from others, but I give the committee the Board's categorical assurance that there will be no reluctance in reporting to the Congress if experience proves that we have overestimated our needs.

As I have indicated we plan to continue to make strong efforts to raise private funds here and abroad to finance additional fellowships, and the sums raised will be added to the appropriations requested to permit us to make commitments next winter to those scholars who would be invited to join the Woodrow Wilson Center community during fiscal year 1972.

Our detailed justification for this request is set forth in the table found at attachment A. Mr. Read and I will be glad to answer any detailed questions of the committee about our plans and submission.

Fiscal year 1971 (estimates)

A. ADMINISTRATIVE EXPENSES

(1) Salaries:	
1 director (GS–18)	$33,495
1 department director (GS–16)	25,044
1 associate director (GS–14)	21,003
1 information services officer (GS–11)	11,233
3 staff secretaries (GS–9, 8, 8)	28,532
1 librarian (GS–13)	15,812
1 part-time services of scholar coordinator of group studies	5,000
6 pool GS–6 secretaries (3 from October 1, 1970; 3 from January 1, 1971)	25,808
Total	165,927
Personal benefits	12,274
In-grade promotions	1,799
Total	180,000
(2) Furnishings, equipment, and supplies:	
(*a*) Furnishings:	
55 offices at $1,000	55,000
Meeting/seminar room	3,000
Common/reading room	20,000
Lounge/desk area	20,000
Dining room	32,000
Total	130,000
(*b*) Equipment (typewriters, dictation, projector)	10,000
(*c*) Supplies	10,000
(*d*) Reference library, books, and periodicals	25,000
Total	175,000

(3) Other:	
Printing costs	$5,000
Travel (administrative, scholars' research, conference attendance)	15,000
Guest scholar consultations	10,000
Seminars, dinner discussions, lectures	5,000
Planning contracts—survey of D.C. scholarly community	15,000
Site selection prearchitectural study	35,000
Total	85,000
Grand total	440,000

B. FELLOWSHIP PROGRAM

(*a*) *Stipends.*—During its first year of operation the Board intends that there will be approximately 20 fellows (and a like number of guest scholars) at the Center. The stipend for the fellows to be chosen based on the scholar's 1969–70 salary rate, less amounts obtained by the fellows from their home institutions, governments, foundations, or otherwise, with cost-of-living adjustments for foreign scholars, will vary according to the estimates of other institutions for advanced scholars from zero to a ceiling of $30,000, averaging $22,000 per fellow	$440,000
(*b*) *Travel expenses.*—For round trip direct route jet economy and family fare to and from Washington for the fellow and his wife and children are estimated to cost $3,000 for 10 U.S. scholars (three single round trips $600; seven family round trips $2,400; and $6,000 for 10 non-U.S. scholars (three singles at $1,500; seven family round trips $4,500)	9,000
(*c*) *Housing allowances.*—Will be provided at the rate of $150/month for six single scholars; $225/month for six married couples without children; and at $50/month/child up to two children or an average of $300 for eight married couples with children	45,000
Total	494,000
Less.—Anticipated matching grant for the support of the Center's fellowship program (see pp. 19–20)	150,000
Subtotal	344,000
Total	784,000

EXPENDITURES AND ESTIMATED EXPENDITURES OF $100,000 APPROPRIATION BY WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS IN FISCAL YEAR 1970

	Expended		Estimated		
	July–September, 1st quarter	October–December 2d quarter	January–March, 3d quarter	April–June, 4th quarter	Total
Personnel compensation	11,271	31,218	27,511		70,000
Personnel benefits	890	2,530	2,180		5,600
Travel-transportation	0	1,000	2,000		3,000
Other services	0	500	14,650		15,150
Supplies and materials	750	1,000	1,000		2,750
Equipment	0	2,000	1,500		3,500
Total	12,911	38,248	48,841		100,000

EXPENDITURES OF $45,000 GRANT FROM FORD FOUNDATION BY WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS IN FISCAL YEAR 1969 AND FISCAL YEAR 1970

	Fiscal year 1969	Fiscal year 1970	Total
Salaries and benefits	10,948	29,185	40,133
Travel	215	1,495	1,710
Printing	0	1,385	1,385
Other—e.g., equipment, supplies, services	1,628	144	1,772
	12,791	32,209	45,000

MEMBERS OF THE ADVISORY COMMITTEE OF THE WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

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Hon. William Benton.
Hon. Ralph J. Bunche.
Hon. Harry Byrd, Jr.
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Mr. James E. Cheek.
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Hon. Mitchell Sharp, Secretary of State for External Affairs, Canada.
Hon. Michael Stewart, Secretary of State for Foreign and Commonwealth Affairs, United Kingdom.
Hon. Pierre Elliott Trudeau, Prime Minister, Canada.
Hon. Harold Wilson, Prime Minister, United Kingdom.

Attachment D

ADVISORY PANELS

Oceans

Lewis Alexander, geographer, University of Rhode Island.
Francis T. Christy, economist, Resources for the Future.
Louis Henkin, law professor, Columbia Law School.
Gerard Mangone, vice chancellor, Temple University (possible head of project).
William Trainor, Chief of External Research Office, Department of State (possible head of project).
Edward Wenk, Jr., executive director, National Council on Marine Resources and Engineering Development (1966–70).

General

Marver Bernstein, dean, Woodrow Wilson School, Princeton.
Max Frankel, Washington correspondent, New York Times.
Margaret Mead, anthropologist.
Henry Riecken, president, Social Science Research Council.
Gordon Turner, acting president, American Council of Learned Societies.
John Voss, executive secretary, American Academy of Arts and Sciences.

Attachment E

PUBLIC LAW 90–637, 90TH CONGRESS, S. 3174, OCTOBER 24, 1968

AN ACT To establish a National Memorial to Woodrow Wilson

Woodrow Wilson Memorial Act of 1968.
82 Stat. 1356

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Woodrow Wilson Memorial Act of 1968."

DECLARATION OF POLICY

SEC. 2. The Congress hereby finds and declares— 82 Stat. 1357

(1) that a living institution expressing the ideals and concerns of Woodrow Wilson would be an appropriate memorial to his accomplishments as the twenty-eighth President of the United States, a distinguished scholar, an outstanding university president, and a brilliant advocate of international understanding;

(2) that the Woodrow Wilson Memorial Commission, created by joint resolution of Congress, recommended that an International Center for Scholars be constructed in the District of Columbia in the area north of the proposed Market Square as part of the Nation's memorial to Woodrow Wilson;

(3) that such a center, symbolizing and strengthening the fruitful relation between the world of learning and the world of public affairs, would be a suitable memorial to the spirit of Woodrw Wilson; and

(4) that the establishment of such a center would be consonant with the purposes of the Smithsonian Institution, created by Congress in 1846 "for the increase and diffusion of knowledge among men."

THE CENTER AND THE BOARD OF TRUSTEES

SEC. 3. (a) There is hereby established in the Smithsonian Institution a Woodrow Wilson International Center for Scholars and a Board of Trustees of the Center (hereinafter referred to as the "Center" and the "Board"), whose duties it shall be to maintain and administer the Center and site thereof and to execute such other functions as are vested in the Board by this Act. Woodrow Wilson International Center for Scholars; Board of Trustees of the Center. Establishment.

(b) The Board of Trustees shall be composed of fifteen members as follows: Memership.

(1) the Secretary of State;

(2) the Secretary of Health, Education, and Welfare;

(3) the Chairman of the National Endowment for the Humanities;

(4) the Secretary of the Smithsonian Institution;

(5) the Librarian of Congress;

(6) the Archivist ofthe United States;

(7) one appointed by the President from time to time from within the Federal Government; and

(8) eight appointed by the President from private life.

(c) Each member of the Board of Trustees specified in paragraphs (1) through (7) of subsection (b) may designate another official to serve on the Board of Trustees in his stead.

(d) Each member of the Board of Trustees appointed under paragraph (8) of subsection (b) shall serve for a term of six years from the expiration of his predecessor's term; except that (1) any trustee appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and (2) the terms of office of the trustees first taking office shall begin on the date of the enactment of this Act, and shall expire as designated at the time of appointment, two at the end of two years, three at the end of four years, and three at the end of six years. No trustee of the Board chosen from private life shall be eligible to serve in excess of two consecutive terms, except that a trustee whose term has expired may serve until his successor has qualified. Term. 82 Stat. 1357 82 Stat. 1358

(e) The President shall designate a Chairman and a Vice Chairman from among the members of the Board chosen from private life.

POWERS AND DUTIES OF THE BOARD

SEC. 4. (a) In administering the Center, the Board shall have all necessary and proper powers, which shall include but not be limited to the power to—

(1) appoint scholars, from the United States and abroad, and where appropriate, provide stipends, grants, and fellowships to such scholars, and to hire or accept the voluntary serv-

ices of consultants, advisory boards, and panels to aid the Board in carrying out its responsibilities;

(2) solicit, accept, and dispose of gifts, bequests, and devices of money, securities, and other property of whatsoever character for the benefit of the Center; any such money, securities, or other property shall, upon receipt, be deposited with the Smithsonian Institution, and unless otherwise restricted by the terms of the gift, expenditures shall be in the discretion of the Board for the purposes of the Center;

(3) obtain grants from, and make contracts with, State, Federal, local, and private agencies, organizations, institutions, and individuals;

(4) acquire such site as a location for the Center as may subsequently be authorized by the Congress;

(5) acquire, hold, maintain, use, operate, and dispose of any physical facilities, including equipment, necessary for the operation of the Center;

(6) appoint and fix the compensation and duties of the director and such other officers of the Center as may be necessary for the efficient administration of the Center; the director and two other officers of the Center may be appointed and compensated without regard to the provisions of title 5 of the United States Code governing appointments in the competitive service and chapter 51 and subchapter III of chapter 53 of title 5 of the United States Code; and

5 USC 5101 *et seq.*, 5331 *et seq.*

(7) prepare plans and specifications for the Center, including the design and development of all buildings, facilities, open spaces, and other structures on the site in consultation with the President's Temporary Commission on Pennsylvania Avenue, or its successor, and with other appropriate Federal and local agencies, such plans to include an exterior classic frieze memorial to Woodrow Wilson.

(b) The Board shall, in connection with acquisition of any site authorized by Congress, as provided for in paragraph (4) of subsection (a) of this section, provide, to businesses and residents displaced from any such site, relocation assistance, including payments and other benefits, equivalent to that authorized to displace businesses and residents under the Housing Act of 1949, as amended. The Board shall develop a relocation program for existing businesses and residents within the site and submit such program to the government of the District of Columbia for a determination as to its adequacy and feasibility. In providing such relocation assistance and developing such relocation program the Board shall utilize to the maximum extent the services and facilities of the appropriate Federal and local agencies.

63 Stat. 413. 42 USC 1441 note.

82 Stat. 1359

ADMINISTRATION

SEC. 5. The Board is authorized to adopt an official seal which shall be judicially noticed and to make such bylaws, rules, and regulations as it deems necessary for the administration of its functions under this Act, including, among other matters, bylaws, rules, and regulations relating to the administration of its trust funds and the organization and procedure of the Board. A majority of the members of the Board shall constitute a quorum for the transaction of business.

APPROPRIATION

SEC. 6. There are hereby authorized to be appropriated to the Board such funds as may be necessary to carry out the purposes of this Act: *Provided*, That no more than $200,000 shall be authorized for appropriation through fiscal year 1970 and no part of that appropriation shall be available for construction purposes.

RECORDS AND AUDIT

SEC. 7. The accounts of the Board shall be audited in accordance with the principles and procedures applicable to, and as part of, the audit of the other Federal and trust funds of the Smithsonian Institution.

Approved October 24, 1968.

Legislative history:

House Report No. 1942 accompanying H.R. 19988 (Comm. on House Administration).

Senate Report No. 1599 (Comm. on Rules & Administration).

Congressional Record, Vol. 114 (1968): Oct. 3: Considered and passed Senate. Oct. 7: Considered and passed House, amended, in lieu of H.R. 19988. Oct. 11: Senate agreed to House amendment.

Attachment F

APPROVED FELLOWSHIP AND GUEST SCHOLAR APPOINTMENTS AT WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

1. APPROVED FELLOWSHIP APPOINTMENTS (9)

a. In field of ocean studies

(1) To coordinate studies in this area as senior fellow, a professor of political science at an east coast university, author and coauthor of a number of books on international law, foreign policy, and the United Nations; former director of the international relations program of a leading eastern university, frequent consultant to U.S. Government and Ford Foundation on problems of foreign policy and peacekeeping.

(2) Dean of faculty of law of a leading Yugoslav university, a foremost scholar of international ocean law in his country, author of numerous publications in the field.

(3) Professor and head of department of international law at leading Indian school of international studies; author of several books and numerous articles on international courts, arbitration and conflict of settlement.

b. In other fields, including environmental

(1) Chairman of a social science department at one of the Nation's top universities, president-elect of the professional association in his field, author of several books and numerous articles on American Goverment and political life. Wants to study how social science research can become more useful and better known to top executive and legislative branch officials.

(2) Leading French science policy administrator with extensive experience in directing science programs for French Government and European community. Intends to study process by which U.S. Government science policy is developed; relevance of U.S. interstate regulating system for European community.

(3) Former head of foreign service and Ambassador, former permanent Representative to the United Nations of his Asian Country; former high peacekeeping official for U.N. Wishes to write book on international peacekeeping, conciliation, and mediation.

(4) Head of urban biology group at leading Australian university; writer and lecturer on broad biological consequences of advancing technology of advanced societies. Desires to work on book on "biology of civilization," which will be an attempt to describe aspects of the contemporary human situation in biological perspective, and to discuss interaction between natural and cultural processes as they relate to problems of modern man.

(5) Young State Department specialist in work of important international agency. Has well-developed study proposal for "organizing transitionally, for environmental control," one of the Center's two subjects of special encouragement.

(6) Young Yale-trained anthropologist, now in department of psychiatry of leading west coast institution. Has published number of articles mainly in field of behavioral biology; strongly interdisciplinary in approach, interested in working on "process by which academic knowledge is translated into social action."

2. APPROVED GUEST SCHOLAR APPOINTMENTS (8)

(1) An internationally known professor of political science at a midwestern university, a long-time specialist in environmental problems, author of many books and articles. Particularly interested in international mechanisms for environmental control.

(2) A chemist, associate director of a U.S. national laboratory, interested in role of science in modern society.

(3) A law professor at a midwestern university with numerous publications in field of international law, working on legal aspects of problems of pollution and environmental degradation.

(4) A professor of history at a midwestern university, specialist in the history of science and technology.

(5) A young Swiss historian currently on research fellowship at a leading eastern university; specialist in Wilson period, interested in variety of peace-keeping problems.

(6) A Latin American specialist with degrees from Fletcher School of Law & Diplomacy, London School of Economics, engaged in study of U.S. military assistance to Latin America.

(7) A professor of political science at a leading midwestern university, who has done advanced work on simulation of international affairs problems and processes and now wishes to explore new methods of promoting new and cooperative uses of these techniques in the Washington community for international research and policy application.

(8) A professor of engineering at a prominent west coast university; previously director of a major agency program of U.S. Government concerned with ocean problems.

ATTACHMENT G

SUMMARY OF TWO SUBJECTS FOR SPECIAL ENCOURAGEMENT AT CENTER IN OPENING PERIOD

Oceans

The first relates to the development of international law and cooperation in the uses of the oceans. Given the fact that the oceans cover 70 percent of the earth's surface and contain a large proportion of the planet's mineral and food resources, including four-fifths of all known animal life, the extension of existing laws has become an urgent necessity to avoid conflict and to safeguard marine environments in the face of advancing population and technology. New and growing hazards, exploitation capabilities, military uses, scientific research, depletion of certain fish stocks, supertanker developments, unresolved legal issues and claims, differences between the few States with advanced marine use capabilities and those without such means—all call for sustained study to extend understanding, law, and cooperative practices.

Environment

The other area designated for special encouragement involves studies 20th-century man in perspective, including consideration of the philosophical, social, political, and economic implications of various environmental problems. Many research centers are well equipped to study man as a machine, and technical environmental studies are relatively plentiful. The Center intends to focus on studies relating to the kinds of attitudinal and institutional changes that are called for if environmental deterioration is to be halted, and on ways in which such changes as are indicated may be brought about. Particular attention will be given to new forms of international cooperations needed if those problems that transcend boundaries are to be addressed effectively.

STAFF PAPERS ON OCEAN AND ENVIRONMENTAL STUDIES

A. OCEAN SPACE STUDIES AT WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

Studies relating to the development of international law and cooperation in ocean space will be encouraged in the new fellowship and guest scholar programs of the Woodrow Wilson International Center for Scholars to open in October of 1970.

The decision by the Center's Board of Trustees was based on the view that there is a rapidly growing potential for conflict and threat of abuse of the marine environment posed by increasing uses of marine areas and the relative absence

of international law and agreed forms of cooperation in ocean space; that is, the high seas and the seabeds and subsoil beyond the limits of coastal State jurisdiction over Continental Shelves.

The vital potential importance of living and nonliving marine resources to the accelerating human census in the years ahead has only recently come into clearer focus. Covering more than 70 percent of the earth's surface, the oceans of the world are estimated to contain 80 percent of all planetary animal life. Recent U.S. Government testimony indicates that the 60 million tons of food now taken from the oceans annually could be multiplied three or four times without depletion of stock by utilization of sound conservation measures. Oil extraction from the Continental Shelves and slopes, now yielding an estimated 15 percent of total non-Communist world output, will account for more than double that percentage by 1980. Ocean metal extraction, now minimal, may provide a majority of the world's consumption of selected metals within the next 20 to 50 years according to certain industrial estimates. The prospects are bright for new and greater ocean uses in the next three decades; for example, for desalinization, for new shipping routes made possible by larger and more powerful carriers, and for achieving methods of environmental modification which will facilitate other ocean uses and protect and enhance certain land interests.

But the potential obstacles to the full realization of the oceans' common legacy for mankind have also grown apace. In many areas, some illustrated below, resources misuse and conflict are threatened and there is a demonstrable need for extension of international law and for new forms of cooperation.

Food.—Existing multilateral and bilateral agreements relating to ocean space fishing and conservation of living marine resources, useful as they are, cover only a small part of the actual or potential catch from the world's fisheries. Only a minority of coastal nations are parties to such agreements. Depletion of certain fish stocks have occurred and disputes have arisen where no recognized sanctions or redress exist. The food and dietary needs, particularly for fish protein, projected for a doubled world population by A.D. 2000, make new and expanded forms of international accords mandatory to realize essential ocean food yields.

Military.—The oceans, already the home of a substantial proportion of United States and Soviet strategic nuclear deterrent forces, are widen open for other actual and planned military uses. Current efforts to ban implacement on the seabeds of nuclear weapons and other weapons of mass destruction, though highly significant, cover only a small fraction of military uses already in place or on the drawing boards for which detection technology presently provides only partial promise of control. The oceans continue to be used as dumping grounds for obsolete and obsolescent war material, including poison gas containers. In most of these cases of actual and intended uses scant consideration, if any, has been given to environmental consequences.

Pollution.—Although concern about ecological problems has become widespread, marine pollution continues to increase far faster than control technology or practice. The effluents of municipal sewage, industrial waste, detergent phosphates runoff, offshore dumping, boat waste discharge, and many other practices all contribute to the increasing pollution of internal, territorial and international waters. (Almost 10 percent of all U.S. shell-fishing grounds have been declared unsafe for human consumption). The danger of oil spills like the recent disastrous one off Santa Barbara is rising according to a recent statement of the Under Secretary of the Interior because increased demand and improved technology have intensified offshore drilling and production by more than 10 percent per year and permitted exploitation in ever deeper waters. The increasing use of super tankers and planned tanker use in arctic areas of delicate ecological balance have increased the chances of accidents even more damaging than the *Torrey Canyon.* Some feel that the largest pollution problem relates to the subtitle changes in ocean chemistry worldwide resulting from increased carbon dioxide content in the air, DDT run-offs, trace-elements from fossil fuels, and so forth. While others dispute these views most would agree that such practices need searching international examination.

But as the 1969 report of the Commission on Marine Science, Engineering and Resources declares, beyond state jurisdiction ". . . there are now no water quality standards and few programs for pollution control." Obviously pollution has increasing international impact, but international understanding and agreement about what to do about it are almost totally lacking.

Nonliving resources.—Offshore production of oil and selected minerals is climbing spectacularly. Now confined largely to depths of a few hundred feet, oil exploratory drilling has occurred in depths over 1300 feet and is predicted in the next 5 years at 4,000–6,000 foot depths, where coring has already taken place. Commercially profitable recovery of oil and other mineral deposits will clearly become feasible soon in marine areas whose control is disputed or which lie well beyond any accepted area of national jurisdiction. There is no commonly accepted, precise limit of coastal state sovereignty over continental shelves today. Commercial interests seeking to recover mineral wealth from outer shelf or deep ocean areas or midocean rises have few reliable safeguards for their investment. No laws governing national or individual activity have undisputed jurisdiction in these zones. Applications have been made to the U.N. for licenses in such instances but the world organization has had to enter jurisdictional disclaimer. Even if technology minimizes pollution hazards, the utilization of such resources for the benefit of man must proceed at its peril today because of lack of applicable law.

Scientific research.—The seventies have been declared by the United Nations to be in the International Decade of Ocean Exploration, and national efforts to conduct scientific marine research promise to reach the new highs during the period. Existing international conventions on the seas are almost completely silent on research activities, including research relating to living and nonliving marine resources. Many experts in the field have urged new efforts to provide explicit safeguards for iternational research in ocean space, although recognizing the hard distinctions between pure science research and research with military and/or commercial benefits. The issue is not moot because coastal States are closing increasing areas to research vessels of other nations without special permits, and such permits are becoming progressively harder to obtain.

Shipping.—Dramatic improvements in ship design, size, and power and cargo handling have opened vistas of new firsts in ocean routing, and bulk commerce records. Alternative approaches will need to be explored by the international community to shape institutional frameworks appropriate to the evolving role of the shipping industry whose ownership and activities will increasingly transcend national controls.

Legal issues.—Common in some degree to all of the areas cited above are unresolved legal issues relating to the extent and measurement of state sovereignty and control over adjacent marine areas for different purposes. With a third International Law of the Sea Conference probably to be scheduled soon, examples of such issues abound. Research is needed to help arrive at fair and commonly accepted standards for, for example, the use of straight baselines to divide internal and territorial waters, actual and threatened "historic waters" claims, special problems of islands and straits, procedures for resolving ocean use and measurement disputes, analysis and improvement of proposed regimes to govern the future uses of the seas, and problems of monitoring and verification of proposed agreements and questions arising from the lack of universality of ratification of or adherence to such agreements.

The trustees are aware of the explosion of knowledge about the oceans that has occurred in recent years and cognizant of the many excellent studies—scientific, technical, geographic, legal and other—which have been done on each of the above cited subjects. But those most expert in the field have been the first to advocate the urgent need for intensive additional research.

The studies which the Board desires to stimulate at the Center would attempt to build on and not duplicate existing knowledge. The objective would be to concentrate primary attention, as suggested by the questions on the attached list, on analysis of the existing state of knowledge and its use insofar as it relates to broad understanding of rational and cooperative uses of ocean space, the legal and institutional deficiencies of such uses, and the development of suggestions for improvements in these areas.

The Board hopes that several fellowships and a few positions in the guest scholar program will be filled in the opening period at the Center with persons from different nations, disciplines, and professions whose intellect, experience and dedication would enable them to contribute to the increase and diffusion of knowledge about the development of international law and cooperation in ocean space. The Board feels that the subject is peculiarly "Wilsonian" in nature and timely and appropriate for sustained, advanced studies at the Center.

The Woodrow Wilson International Center for Scholars was created by Congress in 1968 to be ". . . a living institution expressing the ideals and concerns of

Woodrow Wilson . . . symbolizing and strengthening the fruitful relation between the world of learning and the world of public affairs." The Center was placed in the Smithsonian Institution under the administration of a Presidential Board of Trustees, subsequently appointed by President Johnson and President Nixon. Former Vice President Humphrey was designated Chairman of the Board.

What are the patterns and limitations of the flow of information about ocean space within and between nations? How might the dissemination of information be improved to increase understanding of and response to ocean space problems?

What are the present limits and gaps in coverage of international agreements about the use of ocean space which most threaten conflict or misuse of marine life and resources in coming years?

What are the principal institutional deficiencies on the national and international scene that need to be addressed in the years to insure increasing ocean space use in the best interests of mankind, and "how do we get there from here?"—that is, what are the capabilities and limitations of existing agreements and institutions? Can they be modified or extended? What sequence of action would be most likely to yield results?

What are the principal political, social, and economic factors and trends operating for and against rational extension of accord and cooperation in ocean space—in the U.N., in big States and small, in coastal States with primary interest in distant or in adjacent waters, and in various concerned industries, and how may affirmative features be strengthened and fair understandings promoted? How can the growing gap between the few with capability to explore and exploit ocean space and the many without such means be ameliorated?

B. ENVIRONMENT-CONNECTED STUDIES—WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

The trustees of the Woodrow Wilson International Center for Scholars have designated for special encouragement studies of 20th-century man in perspective, including the implications of social biology and the deteriorating physical and psychological environment that accompanies the ever-accelerating growth in population. Different aspects of these issues are at last receiving increasing attention in the United States and elsewhere. The President of the United States has expressed his intention to commit resources to an invesigation of the factors that affect the quality of life. A United Nations Conference on Human Environment will be convened in 1972.

Many research centers are well equipped to study man as a machine, and technical environmental studies are relatively plentiful. The Center intends to focus on studies relating to the kinds of attitudinal and institutional changes that are called for if environmental deterioration is to be halted, and on ways in which such changes as are indicated may be brought about. Particular attention will be given to new forms of international cooperation needed if those problems that transcend national boundaries are to be addressed effectively.

It is no longer news that the balance between man and his physical environment is dangerously upset as a result of the pollution of air and water, the poisoning of soils, the rape of natural resources and open spaces, and countless other depredations. It has not escaped notice that the quality of human life is deteriorating in many ways, in part because of these depredations and in part because of those factors that give rise to them in the first place: A technology that, for all its boons, tends to create its own set of often destructive imperatives; a population growing by such leaps and bounds that existing institutions, never wholly responsive to human needs, are growing ever less so under the overload; a body of attitudes favoring the primacy of economic considerations and values, and inimical to the development of humane mechanisms for planning and social control; and, of course, sheer indifference.

No effective action is possible without prior understanding. Consequently, there is a need for systematic investigations of just how and why these forces and others operate and interact in different societies. The problems of highly urbanized nations with advanced technologies, where the emphasis must, in the first instance, be on remedial action, are clearly different from those of the developing countries, where there may still be time for preventive action. Attitudes and levers of change are obviously different in countries with democratic traditions and/or relatively unregulated economies, and nations in which political power is centrally held and economic activity is strictly controlled. At the same time, since no society is left untouched by the pressures of urbanization, technological development, and population growth, and the environmental decay

that seems at present to be their inevitable byproduct touches them all, there is a need to study the commonalities that transcend national and societal differences.

The Woodrow Wilson International Center for Scholars has no wish to duplicate work being done elsewhere on these and related issues; nor could any one center hope to study the many problems that cry out for investigation. The topics listed below are among those that have been suggested for early attention by the Center. They are by no means definitive and are presented merely to indicate the kinds of issues that might fruitfully be studied. (Suggestions for studies relevant to the general area of concern are invited.)

The question of information flow on environmental issues, with particular attention to the kinds of inter- and intra-national mechanisms needed for the more effective collection, exchange, and use of information on existing efforts of environmental control.

An investigation of existing legal sanctions, in this country and others, for the regulation of environment, including an examination of both the machinery of enforcement and the factors that inhibit enforcement.

An examination of existing incentives to industries to control or transform waste products, as well as consideration of possible new incentives and how they might be developed, implemented, and audited.

A consideration of the conflicts between the guiding principles of economic theory and ecological precepts, with a view to developing, if possible, a mutually compatible body of thought that incorporates elements of both disciplines.

A study of the ecological implications of present practices in aid to developing nations, taking special account of the natural conflict between economic and social considerations and sound ecological practices.

A consideration of the implications of a rapidly growing population on democratic processes, with particular attention to the kinds of mechanisms needed to safeguard popular participation in decisionmaking at various levels of government.

The Woodrow Wilson International Center for Scholars intends to foster a thoroughly interdisciplinary and interoccupational approach to the studies undertaken under its auspices. Clearly, no one discipline or set of disciplines can be said to hold the key to the crucial questions affecting human survival. The shared expertise and insights of many different specialists—humanists and philosophers as well as social and natural scientists, lawyers and demographers, technologists and practical men of affairs—are needed in order to develop a body of knowledge that will truly illuminate the issues and point the way to solutions.

Mr. HUMPHREY. First, I want to express my thanks for what I know has been an inconvenience on your part in receiving me today and permitting me to talk to the subcommittee.

I am going to discuss with you the Woodrow Wilson International Center, which was established by an act of Congress on a totally bipartisan basis as a living memorial to a former President.

By the way, I can't help but note, this morning on one of the TV shows they were talking about the Franklin D. Roosevelt Memorial and the argument that had been going on for a number of years. Then they showed the pictures of these slabs that have been proposed from time to time. If I may say most respectfully, I think a living memorial like the one established for Woodrow Wilson, where you deal with people and where you have something going that relates to today and tomorrow, is even more appropriate. I don't mean that as a criticism of anything else, but I think this has so much to offer.

In the time available this morning, I would like to highlight and expand briefly on the major points in the detailed statement on the Woodrow Wilson International Center's proposed programs and plans that I have submitted.

I am going to make available for your record and to you individually, if you will permit me to, a very detailed account of what we have tried to do thus far.

We have been at this work of the Center for a little over a year now.

LIVING MEMORIALS

First, let me applaud the congressional move toward presidential "living memorials," as exemplified by both the Woodrow Wilson Memorial Act of 1968 and the $5 million appropriation for Eisenhower College in Seneca, N.Y., in the same year. It seems to me far more fitting to memorialize our Presidents by means of living institutions that serve to perpetuate their memories by serving man's current needs rather than by erecting statues in cold bronze or marble.

The Board and staff—the Board of Trustees made up of 15 members, eight in private life and seven from the governmental structure—the Board and our staff have worked hard in the past year to fashion in honor of our 28th President an institution that will reflect his spirit and do honor to his memory as well as serve a vital contemporary purpose in a manner consonant with the generous charter provided by the Congress. The charter, I would remind you, contained two substantive guidelines which declared that the Center should be a living institution: first, "expressing the ideals and concerns of Woodrow Wilson," and second, "symbolizing and strengthening the fruitful relation between the world of learning and the world of public affairs."

The nature of the international fellowship and guest scholar programs we have designed for the Center are described in detail in my statement. Suffice it here to say that the theme we chose for the fellowship program is designed to accentuate those aspects of Wilson's ideals and concerns for which he is perhaps best known a half century after his presidency—his search for international peace and the imaginative new approaches he used to meet the pressing issues of his day—translated into current terms.

I think I should note at this point that in developing the program we have received counsel and advice as to the nature of this program from people all over the world and all over the United States in preparation for what we might do, because we had to start at baseline zero.

We wrote to several hundred leaders in universities, in governments, in labor, in business and in just about every conceivable aspect of our cultural, social, political, and economic life, both at home and abroad. We received several hundred marvelous communications in depth from outstanding people worldwide and from every State in the Union, giving us suggestions as to what we might do that would make a fitting living memorial to Woodrow Wilson under the terms of the charter granted by the Congress. So, we didn't start off with the preconceived notion on our own. We outlined what the Congress had authorized. We asked for advice and counsel. We went, as I said, to people from many different walks of life. This volume is a compilation of some of the letters we have received from all over the world. As I said, people in every State in the Union have had a role in the process.

THEME AND SPECIAL STUDY AREAS

A wide variety of studies of significant international, governmental and social problems will be welcome under the general theme adopted by the trustees, as set forth on page 4 of my statement. In addition, the Board has selected two subjects on which it would like to see substantial studies undertaken and proposals developed during the opening period at the Center.

(1) The development of international understanding, law and cooperation in ocean uses. There is a great deal of discussion between our country and other countries today about the uses of the oceans and the seabed; how far out national sovereignty extends; and the whole subject of the law of the sea. We have outlined a proposal which has been worked over by the Board of Trustees and we have sent it to a number of scholars. It is included as attachment G to my statement.

(2) The second area of study that we have suggested—and may I note these are suggestions and not definitive proposals—relates to contemporary man's overall relations with his deteriorating environment, with special attention to the new forms of international cooperation needed to address effectively environmental problems that transcend boundaries.

Mrs. HANSEN. Yesterday I noticed in the paper that Canada and the United States are having great difficulties at the present time on transportation within the 12-mile limit.

Mr. HUMPHREY. We are going to find that all of this environmental discussion that we are involved in today at every level—Congress, State legislatures, students, business—ultimately is going to require some international agreement and some base of international law, and little has been done about it. We think this Center would permit noted scholars to pioneer in this, to develop lines of thought and to encourage certain kinds of international cooperation. Mrs. Hansen, you have had quite a record of support for environmental improvements. And in our earlier days when we were just visiting about the Center, this was one of the subjects we made special reference to. Again I note that summary and detailed descriptions of these two study areas are included at attachment G.

FELLOWSHIP AND GUEST SCHOLAR PROGRAMS

When the program we contemplate is fully operational, up to 40 scholars—approximately half from the United States and half from other countries—will be selected to work at the Center. They will be chosen from nonacademic as well as academic occupations and professions; the latter from a number of the social and behavioral sciences, from the humanities, and from the natural sciences; the former from diverse careers including government, international organizations, law, diplomacy, labor, business, foundations and journalism. We want a blend of the academic world and of the outside world, so to speak.

Mr. REIFEL. Mr. Vice President—off the record.

(Discussion off the record.)

Mr. HUMPHREY. We will bring in scholars to the United States, and we will have the advantage of the kind of cross-fertilization of ideas between those scholars from abroad and our own. And much of what they develop in terms of papers or dissertations or discussions or documents will be not only theirs, but they will become the property of the public as well. So that if they come forth with new theory, for example, or if they come forth with proposals of significance, they will become available to the public and to institutions of learning everywhere.

The primary concern will be to find persons whose intellect, experience, and dedication will enable them to contribute to the increase and diffusion of knowledge about subjects of interest to the Center in a community of scholars dedicated to like purposes.

The guest scholar program and modest information center services we hope to provide are described on pages 8 to 11 of my statement.

I think the committee will be interested in attachment F to my statement which includes brief sketches of the distinguished first scholars approved for fellowship and guest scholar appointments at the Center. I would note that we do not give names at this time, because we are not certain how many we can honor in terms of the resources now available.

ADVISORY COMMITTEE

Endorsement of the plans we have developed is, I believe, reflected in the facts that both Presidents Johnson and Truman have consented to become honorary members of our board of trustees, and a number of world and national leaders have agreed to serve on the Center's advisory committee. The advisory subcommittee members will counsel with us and help us during the crucial development period, and we hope they will meet with us and the scholars individually in the future.

Just this week Prime Minister Sato of Japan agreed to become an honorary ex-officio member, as had Chancellor of the Federal Republic of Germany, Willy Brandt, Prime Minister Trudeau of Canada, Harold Wilson, Prime Minister of Great Britain, Prince Bernhard of the Netherlands, Galo Plaza, Secretary-General of the Organization of American States, and the new Prime Minister of Italy, Mariano Rumor, just to mention a few. And then we have a number of distinguished persons from the United States and elsewhere. We have John Eisenhower, Milton Eisenhower, John Gardner; Robert Goheen, the president of Princeton University, and Ralph Bunch. We have Earl Warren, Whitney Young, Stuart Saunders as chairman, Bob McNamara, Jean Monnet, the illustrious Frenchman, Henry Cabot Lodge and so on. We have a good cross section on this advisory committee that will be called upon to advise and counsel us and help us in the development of this program and try to give it a forward movement, and hopefully some adequate attention in their discussions and in their writings.

EXPRESSIONS OF SUPPORT

At this point I am going to ask to have inserted in the record—I asked Mr. Read to bring it along—some excerpts from letters expressing support for the programs of the Woodrow Wilson International Center. They come from Arthur Krock; Judge Philip Jessup; Dr. Holt, president of the University of Tennessee; Philip Mosely of Columbia University, Ohio; Meredith Wilson, the director of the Center for Advanced Study in Behavioral Sciences at Stanford; George McGhee, former Ambassador; Chief Justice Burger, who has given us a splendid statement; President Johnson; Robert Wood, Director of the Joint Center for Urban Studies of MIT and Harvard; U Thant; President Truman; Ambassador Keating and from many others I

won't go through all of them, but these are brief excerpts from their letters.

Mrs. HANSEN. Please insert the document in the record.

(The document follows:)

MISCELLANEOUS EXPRESSIONS OF SUPPORT FOR THE PROGRAMS OF THE WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

"The President, to whose unceasing search for world peace the Center would be a most appropriate tribute and recognition, I admired greatly and knew rather well. And I should like to have a part in projecting to future generations an appreciation of what he stood for."—Arthur Krock, letter to H. H. H.,[1] December 3, 1969.

"I think the program for the Woodrow Wilson International Center * * * is a very good one and the Board has chosen two very timely and interesting topics for the opening period."—Judge Philip C. Jessup, letter to H. H. H., November 29, 1969

"The new fellowship and guest scholar programs of the Woodrow Wilson International Center for Scholars * * * will enhance commitment to international peace and will stimulate new governmental approaches to meeting the significant issues of our society."—A. D. Holt, president, University of Tennessee, letter to H. H. H., November 26, 1969

"The clear and inspiring statement of the purpose and more of operation of the Center are evidence of the careful thought that has gone into creating a living, ever-renewed memorial to a great President and a profound thinker about national and international politics. You are helping create * * * a highly original, innovative and greatly needed institution of genuine intellectual excitement and creativity."—Philip E. Mosely, Columbia University, letter to H. H. H., November 24, 1969.

"* * * What you have planned is extremely attractive and important. I've been over the brochure with care, and I like it very much * * * With very good wishes for the new enterprise."—David Riesman, letter to B. H. R.,[2] November 28, 1969.

"Congratulations on such a fine beginning."—O. Meredith Wilson, Director, Center for Advanced Study in the Behavioral Sciences letter to H. H. H., November 26, 1969.

"* * * great progress has been made in evolving the concept of the Center, which I feel will make a most important contribution."—George C. McGhee, letter to H. H. H., November 24, 1969.

"I will follow the work of the Center with interest. These are matters which you and I have been concerned about all our mature years * * *."—Chief Justice Burger, letter to H. H. H., November 28, 1969.

"I would like to congratulate you on * * * the broad principles on which you see your work developing. So much in your purpose and methods are 'Wiltonian' that I am very pleased with your clarion call."—Warden H. Koeppler, Wilton Park, Sussex, England, letter to B. H. R., December 1, 1969.

"I was deeply pleased to learn of your new programs and the great promise of their success * * *. I appreciate the opportunity to support this most worthwhile undertaking."—President Lyndon B. Johnson, letter to H. H. H., November 25, 1969.

"I had occasion to look at the announcement of the Woodrow Wilson International Center, and I believe it represents an auspicious beginning for that effort."—Robert Wood, Director, Joint Center for Urban Studies of MIT and Harvard, letter to H. H. H., November 28, 1969.

"It seems to me that the subjects selected for investigation at the Center during the first stage are extremely significant and very timely."—Sam M. Lambert, executive secretary, National Education Association, letter to H. H. H., December 4, 1969.

"I congratulate you on having pulled together an excellent program for the Woodrow Wilson Center."—Joseph S. Clark, U.S. Senator from Pennsylvania (1957–69), letter to B. H. R., December 3 ,1969.

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[1] Hon. Hubert H. Humphrey, Chairman of the Board.
[2] Benjamin H. Read, Director.

"I am happy to see significant institutions like yours created in the District to serve long term purposes. Congratulations."—Arnold Kramish, Institute for the Future, letter to B. H. R., December 2, 1969.

"I would certainly give any help I can to the new fellowship program."—Lord C. P. Snow, letter to H. H. H., November 27, 1969.

"I am very much impressed and excited by the brochure for the Woodrow Wilson International Center for Scholars, and I'm glad to see that the program is off the ground."—Fred G. Burke, Dean, International Studies, SUNY at Buffalo, letter to B. H. R., December 3, 1969.

"I am highly pleased to receive your invitation to become an honorary member of the Board of Trustees of the Woodrow Wilson International Center for Scholars and I am delighted to accept."—President Harry S. Truman, letter to H. H. H., December 3, 1969.

"The steps you have taken for the Woodrow Wilson Memorial are admirable. I favor the program you have adopted."—Robert D. Calkins, vice chancellor, University of California, Santa Cruz, letter to H. H. H., November 24, 1969.

"Your proposal is imaginative, large scale, and important. I shall take much satisfaction in assisting in any way I can."—Ambassador Kenneth B. Keating, U.S. Ambassador to India, letter to B. H. R., December 3, 1969.

"I am delighted that the Woodrow Wilson Center is off the ground * * * I am particularly impressed with the importance of the two topics you have identified for initial concentration * * * My congratulations on an auspicious beginning."—Stephen K. Bailey, Syracuse University, letter to H. H. H., December 3, 1969.

"* * * The new program for Woodrow Wilson scholarships * * * is most encouraging and I shall want to be of any help I can."—August Heckscher, New York City Administrator, Parks, Recreation, and Cultural Affairs, letter to H. H. H., December 8, 1969.

"I am pleased to hear about the plans for the Woodrow Wilson International Center for Scholars. It appears to me that the Board has made a wise decision * * * The program is an appropriate tribute to the memory of Woodrow Wilson, and I sincerely hope it has great success."—Herman B. Wells, Chancellor, Indiana University, letter to H. H. H., December 4, 1969.

"I look forward with the greatest eagerness to being a part of this very promising and valuable effort."—Arthur Larson, Duke University Rule of Law Research Center, letter to H. H. H., December 11, 1969.

"I am most impressed by the aims and organization of the Center."—John H. Crook, University of Bristol, United Kingdom, letter to H. H. H., December 9, 1969.

"You may be certain that I will support adequate funding * * * for such a worthwhile project."—Richard S. Schweiker, U.S. Senator, letter to H. H. H., December 11, 1969.

"The brochure detailing finished plans for the Wilson International Center and its assemblages of scholars strikes me as very much 'on track' * * * No special persuasions should be required to attract several first class journalists of scholarly bent to participate in the Center's programs * * * These arrangements should prove so mutually useful to your scholars and many senior people in our profession, that a Wilsonian invitation is assured of acceptance."—Hedley Donovan, editor-in-chief, Time, letter to H. H. H., December 12, 1969.

"I approve heartily of the type of living memorial you are developing and I have a special place in my mind for President Wilson * * * I approve enthusiastically of the plan to emphasize studies by scholars from several countries that are designed to increase our understanding of significant international, governmental, and social problems."—Milton S. Eisenhower, letter to H. H. H., December 12, 1969.

"I would like to state clearly and warmly my great sympathy for the big ideals expressed in the statement of policy of the International Center."—Ragnar Frisch, University of Oslo, Norway, letter to H. H. H., December 9, 1969.

"Your program is most exciting and I enthusiastically agree to serve on the Advisory Committee."—Chet Huntley, NBC News, letter to H. H. H., December 11, 1969.

"The Center's program seems to me to be admirable and consonant with President Wilson's ideal and concerns."—Frank Thistlethwaite, vice-chancellor, University of East Anglia, United Kingdom, letter, December 10.

"I heartily approve the subjects which the Center intends to handle, notably the one on our deteriorating environment and the general stress on environmental

problems."—Ambassador HENRY CABOT LODGE, letter to H. H. H., December 15, 1969.

"I am confident that once the fellowship program becomes fully operational, the Center will make a distinct contribution to increased understanding and cooperation between men from academic circles and men in government for the benefit of the world community."—Secretary General GALO PAZA, Organization of American States, letter to H. H. H., December 12, 1969.

"I am glad to be informed of the details of this Center which I regard as a potentially most important instrument for promoting the concepts of international understanding and cooperation which were 'the ideals and concerns of Woodrow Wilson.' "—Secretary General U THANT, United Nations, letter to H. H. H., December 16, 1969.

"I find it very gratifying to be associated with this most valuable undertaking, the ideals and concerns of which are so intensely shared by the people of my country."—MITCHELL SHARP, Secretary of State for External Affairs, Canada, in letter to H. H. H., December 16, 1969.

"I wholeheartedly agree with your statement of policy for the programs. The two subjects upon which the Center will focus its attention are worthy of your effort and should engender an enthusiastic and, I would expect, effective response."—JOHN P. RAYNOR, S.J., president, Marquette University, letter to H. H. H., December 17, 1969.

"There is hardly any doubt that the aims of the Center are important and they will contribute to the advance of man's understanding of complex social and scientific problems."—Academician M. D. MILLIONSHCHIKOV, vice president, U.S.S.R. Academy of Sciences, letter to H.H.H., December 19, 1969.

"I am pleased to have your brochure on the Center and to learn that its immediate efforts are being directed toward the study of the seas. Your plans seem good * * *".—Professor LOUIS HENKIN, Columbia University School of Law, letter to B. H. R., January 6, 1970.

"I find the whole idea and initial program of your Center exciting. You are embarking upon an enterprise that should be fascinating as it unfolds and develops."—WILBERT M. CHAPMAN, director, Marine Resources, San Diego, letter to B. H. R., January 7, 1970.

"The proposed interdisciplinary study group approach to central problems and issues is an extremely useful idea. The Center would in particular offer a framework for cross-fertilization, not only among the various disciplines which will be represented but also among the various national and cultural approaches to problems which an international group of scholars will provide."—DAVID A. MORSE, director-general, International Labour Office, letter to H. H. H., January 6, 1970.

"I am delighted and honoured to * * * offer the Center my best wishes for a fruitful future."—Prime Minister HAROLD WILSON, letter to H. H. H., January 3, 1970.

"Your precis of marine studies at the Wilson Center is sharp and accurate * * * It will require international cooperation to study. I feel you are right on track * * *".—EDWARD WENK, Jr., executive secretary, National Council on Marine Resources, letter B. H. R., January 9, 1970.

"Literature relating to the Woodrow Wilson Center was received with considerable interest on this campus. Several of our deans have expressed a desire to be apprised of the particulars of this new fellowship and guest scholar program * * * Our commendations for your involvement in a most significant effort."—STANFORD O. CAZIER, vice-provost, Utah State University, letter to. H. H H., January 8, 1970.

"I think that the Woodrow Wilson Center has an opportunity to contribute greatly to the rapid development of environmental studies. I think the statement of purpose, as outlined in the paper, is very good indeed."—RICHARD A. FALK, professor, Woodrow Wilson School of Public and International Affairs, Princeton University, letter to A. M.,[3] December 31, 1969.

"I am very pleased to learn that the Center's fellowship program will focus initially on the development of international law and cooperation in ocean space on man's relations with and response to his deteriorating environment. These appear to be very appropriate, imaginative fields in which to embody the ideals characteristic of President Wilson's approach to the problems of his day."—DAVID ROCKEFELLER, letter to H. H .H., January 7, 1970.

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[3] Albert Meisel, Deputy Director.

"Personally I think your plans might result in important contributions to all nations in their planning for the future * * *".—Dr. Margaret Clapp, Cultural Attaché and Chairman, U.S. Educational Foundation in India, letter to B. H. R., January 16, 1970.

"The WWICS sounds like a brilliant idea, eminently worthwhile."—Dewitt Wallace, cochairman, Reader's Digest, letter to H. H. H., January 19, 1970.

"Personally I feel that the Center's concept has considerable merit * * *"—Edgar F. Kaiser, chairman, Kaiser Industries, letter to H.H.H., January 28, 1970.

"I am impressed with the nature and scope of the various programs that will be undertaken (at the Center) and am especially pleased to learn that substantial effort will be devoted to what you describe as man's relations and response to his deteriorating environment."—Henry Ford III, chairman, Ford Motor Co., letter to H.H.H., January 28, 1970.

"It's a splendid idea and one that will doubtless be a smashing success."—Eugene J. Webb, professor of organizational behavior, Stanford, letter to B.H.R., January 20, 1970.

"* * * express my great enthusiasm for the new institution, and my general approval of the initial plans."—Lynn White, Jr., professor of history, University of California at Los Angeles, letter to A.M., February 5, 1970.

"Your new Woodrow Wilson Center sounds fascinating."—Raymond Vernon, Harvard Graduate School of Business Administration, letter to B.H.R., February 5, 1970.

"* * * the cause is good and the program well thought through * * *"—John Hay Whitney, letter to H.H.H., February 4, 1970.

"* * * this organization has the potential for making a solid contribution to solving some of our pressing problems."—Paul R. Ehrlich, professor of biology, Stanford University, letter to A.M., February 2, 1970.

"I am happy that by the initiative of the Congress of the United States there has been created a study center in honor of President Woodrow Wilson, and I am particularly pleased that the Center has taken as one of its first assignments the study of problems related to international understanding. I send you my best wishes for the successful work of your international scholars on behalf of the peaceful coexistence of people everywhere."—Chancellor Willy Brandt, Federal Republic of Germany, letter to H.H.H., January 12, 1970.

"* * * the Woodrow Wilson International Center for Scholars * * * originates under high ideals and with noble aims. * * * I wish to assure you that I will always be glad to give every possible constructive contribution to the activity of the Center."—Mariano Rumor, president of the Council of Ministers, Italy, letter to H.H.H., February 27, 1970.

"I am quite interested in the role that you have defined and feel that is a much needed function which is in a position to do a great deal of good."—John Diebold, the Diebold Group, Inc., management consultants, New York City, letter to A.M., April 7, 1970.

"I am glad to learn of the establishment of the Woodrow Wilson International Center for Scholars, which seems to me a memorial most appropriate for the President who combined a devotion to scholarship with a passion for peace."—Eisaku Sato, Prime Minister of Japan, letter to H.H.H., March 5, 1970.

Mr. Humphrey. Before getting to the crucial matter of funding for the Center, on which I want to concentrate this morning, let me say just a few additional words about the spirit underlying the fellowship and guest scholar programs we hope to implement.

INTERDISCIPLINARY ACTION

The Board does not view the congressional mandate in establishing the Center as authorizing the creation of a traditional educational program, like the many offered in the excellent existing institutions in this city and elsewhere, where individual scholars come primarily to advance their own education in any one of the diverse fields of human learning. The scholarship which the Board wants to support with public and private funds—we are going to raise, hopefully, substantial private funds—in this program is the application of intelligence, ex-

perience, and dedication by international scholars toward the better understanding and solution of some of the overwhelming and urgent problems confronting man.

From my present position in the academic world as well as from past vantage points in the legislative and executive branches, I have observed with increasing concern the growing gap between the world of learning and the world of public affairs. I am sure many of you men and women who serve in Government have experienced the same thing. All too frequently people in public life have come to believe that the best products of the academic world have little relevance to their public responsibilities and the making of public policy and decisions. I now know the reverse to be true and have seen how futile and removed Government seems to many persons on the campuses, and what a lack of connection there is.

There are many reasons for this growing gap. One reason, in the Board's opinion, is the lack of institutional meeting grounds on which Government people and people drawn from the academic world and other learned professions can come together in an atmosphere of complete freedom of inquiry and equality to work on significant problems of common concern. It is for this reason that the Board has rejected sponsoring Government contract research at the Center.

Let me add that the Board holds that no one discipline or field has a monopoly on the world of learning and that intelligent people with wide experience in practical affairs drawn from many walks of life will be welcome at the Center. We hope that such work on common problems will cut across the boundaries of academic disciplines, professions and nationalities alike, and produce a new example of interdisciplinary action, to which so much lipservice is given today.

Mr. REIFEL. Mr. Vice President, there is no one more aware of the significant role of the American Indian in the development of this country. I am wondering if there would be a place here in which the institute would provide an opportunity for a scholar to really get at a truthful portrayal of the role of the Indian American in this country. They might have had some impact on affairs internationally.

Mr. HUMPHREY. I think this would be a subject matter we should give special attention to. I rode in last night on the plane with a group of Indian citizens from the State of Washington that was coming in from the Seattle area. I just happened to meet them. I didn't discuss too much about their program but just visited with them.

In my State of Minnesota, of course, we are now facing many problems relating to our Indian people. I would think it would be very good just to go out of our way frankly, to see that we had one or more scholars in this field to direct their attention to the life of the Indian in current American society and to many of the problems that the Indian faces today and what we must do about them. I want to call Mr. Read's attention to this.

We have a selection committee, and we can discuss with you how these scholars are selected. So we can go out of our way to make sure this kind of balance gets into the scholarship of the Center. There would be no difficulty at all. As a matter of fact, I think it is much to be desired.

Mrs. HANSEN. The American Indians historical conservation practices are some of the most interesting facets of American history. The American Indian has practiced conservation for centuries. These are some of the most fascinating aspects of the history of conservation in this country.

Mr. REIFEL. I appreciate the Vice President taking this interest because in my judgment, from what information I have, I don't think there has been a Vice President of the United States more sincerely concerned about the Indian American than he is.

Mr. HUMPHREY. Thank you, Congressman. I am concerned and I know of your deep concern. We are just now at a point where there is a real awakening, as a matter of fact, in the Indian community and they are going to demand that things be done that have long been ignored and not done. I will guarantee we will get into this and keep you informed as to what we are going to do.

To give another picture of what we are talking about I want to draw a mental picture. We have a board that meets—we are going to meet on the first of May again. We get together from time to time to discuss the whole program here, to discuss how we should set up this Center. As I said, we started with nothing but ourselves. My purpose and my only purpose has been to get this off the ground in a way that will give it respectability, acceptability in the academic world and to build something that is needed and prestigious. It has got to be good.

In other words, we could charge off in several directions with halfway measures, but as I have said to the Board, we want to do something here that will have a lasting impact. We are under the mantle, so to speak, of the Smithsonian, for administrative purposes. We are separate and distinct as an international center, you could say as a scholarship institution. We are presently privileged to have facilities in the Smithsonian. That old red castle building has been renovated, thank goodness, and the Center's offices are there. We are building a small reference library, that, of course, will tie in with the Congressional Library. There will be a reading room, and a community room, where the scholars can get together and visit. We will have from time to time, perhaps once every 2 weeks or maybe oftener, occasions when the scholars themselves will hold discussions, open to invited guests and to the public, where they will be called upon frankly as a part of their service under the scholarship program, to share their thoughts with people that may be interested in their particular areas of expertise or particular areas of study.

So, they will not be locked in cubicles to study by themselves. They will be part of a community. They will work together, they will use common facilities. There will be meeting halls for them and for the lay public and guests that wish to come in. There will also be symposia and conferences to which people will be invited. It will be a lively, going, working Center. Sometime in the future, according to the act of Congress, maybe when we get inflation under control and a few other things—we have got all kinds of problems these days—the Congress in its wisdom can authorize the building of a center itself which is what the Congress directed the Board to plan for. Eventually the Center should have its own building. But I have made the decision as chairman, in concert with our Board, that this is not the time to do that. We are studying the possibilities. We have asked for funds for a mod-

est feasibility study to see what we might do in terms of facilities. We have some ideas about that. But right now we want to use what we have.

And as I said to our Board, what we want here now is not just to finance scholars working in the stacks of the Library of Congress. We want to bring them together, get their ideas in competition with others, pull in people from different parts of the world, domestic people and people from outside the United States, let the ferment of ideas infiltrate their own study, and, when they finish their period of time—and it can be from 3 months to 6 months to a year, whatever time they have available—we may have the results of their work in printed form. We may also have the output of a scholar's mind as shown in a conference, symposium or seminar. We hope to have them have sessions with Members of Congress, for example. We hope that we can bring in people from the Government to sit with them.

Let's say that every Tuesday night at a certain time we could have discussion meetings. Whether 20 people came or 120, we would try to have a lively going discussion of wide interest at the center. We hope it will become a prestigious, lively intellectual center. In order to become a Wilson Center scholar you will not have to have a Ph.D. degree. What you will have to have is a capacity for learning and an inquiring mind.

We think we can put together something here that you will be proud of. That is why I have been giving an awful lot of time to it. I think you know this has to be kind of a labor of love. I have to get back this afternoon to teach school again, so, I came in last night for this morning.

FUNDING

Now let me get down to the nitty gritty—the all-important question of funding. A detailed account of our financial history, present position, and a justification for a request of $784,000 in congressional appropriations in the coming fiscal year is contained in my statement. The sum requested is $150,000 less than the amount which the Board of Trustees asked for in its submission to the Bureau of the Budget last fall.

The Bureau of the Budget recommended that no funds be requested for the Center in the coming fiscal year, and this recommendation was regrettably endorsed by the administration. No reasons were given at any point. Presumably the rationale was based on the principle of "no new starts" in time of inflation. I think I should say, so you might get the proper setting, that the President is very sympathetic to this program. It is not as if the President said this is a program we don't need. To the contrary, I have talked with him, I have a letter from him. As you know, he prides himself on a great deal of historical interest in and knowledge about Woodrow Wilson. In fact, when I was over to see him he showed me Woodrow Wilson's desk which he uses. I didn't tell him we would like that desk for the Center.

I appreciate the problem the administration runs into in terms of this budget. We all have to wrestle with these things when we are in Congress. The President merely advised me in a letter, which his staff has advised may be quoted publicly, that, "we simply have not been able to include funds directly for the Woodrow Wilson International

Center for Scholars in the coming budget," but he expressed the hope that "* * * next year the Center will fare better, as it most certainly should."

Mr. Moynihan from the White House is on our board, as are the Secretary of HEW, the Secretary of State, the Secretary of the Smithsonian, and other officials.

Mr. REIFEL. There is one omission. They should have put the Director of the Bureau of the Budget on that.

Mr. HUMPHREY. We would have had him convinced.

Mrs. HANSEN. The President issued an order that pollution must cease on all Federal facilities by December 31, 1972. Yet the Bureau of the Budget placed part of the pollution abatement funds in reserve.

Mr. HUMPHREY. Sometimes you know the left hand doesn't know what the right hand does.

But the Budget Bureau decision confronts the Center with an extremely difficult problem. We feel this is not a no-new-starts situation because we have started. Thanks to Congress we have made a start. Our plans are carefully laid.

By the way, I was able to get some funds, too, from outside sources last year.

With the unanimous approval of the Board, including the administration's representatives, last fall we sent out widely announcements of the opening programs of the Center. We developed a brochure which was cleared by the Board and sent out. We have received some outstanding applications from scholars in this country and abroad with the intellect, experience, and dedication to enable them to do superior work on some vital contemporary problems.

We have put together a top notch bipartisan advisory committee of distinguished U.S. citizens, including several Members of Congress, to help us with development work and advise us on substantive issues. The committee is chaired by Mr. Stuart T. Saunders, chairman of the board of the Penn Central Railroad. It includes as honorary members several heads of government and foreign ministers of friendly allied nations, including, as I said, Prime Minister Wilson, Prime Minister Trudeau, Chancellor Brandt, Prime Minister Rumor, Prince Bernhard of the Netherlands and others. A full list is included as attachment C to my statement.

This has not, is not, and should not be permitted to become a partisan issue. There is no partisanship to it.

The Woodrow Wilson Memorial Act was passed with unanimous bipartisan support, as was the $5 million appropriation for Eisenhower College by the last Congress with the backing of the Johnson administration. President Nixon himself has declared.

> * * * an International Center for Scholars, to be established as a living memorial to Woodrow Wilson * * * could hardly be a more appropriate memorial to a President who combined a devotion to scholarship with a passion for peace. The district has long sought, and long needed, a center for both men of letters and men of affairs. This should be, as it was first proposed, "an institution of learning that the 22d century will regard as having influenced the 21st.

And I think that sentence embodies what we are trying to say. We are not interested in just sterile file case research. We are interested in learning that can be applied to the times in which we live. That is why this Center is different from any proposal that has been before you in terms of scholarship.

The trustees and members of the Advisory Committee of the Center have been and are continuing to make strenuous efforts to raise private funds for the support of the Center in its first year of operation. I can tell you we have, because I have been on that telephone in between classes and meetings every moment I have.

We have engaged the services of a highly competent professional fund raiser, Mr. Henry C. Suhrke of New York City, who has undertaken similar services for the Eisenhower Exchange Fellowship program and the Kennedy Center for the Performing Arts.

Under the guidance of Mr. Charles Horsky, Ambassador Averell Harriman, Mr. Robert C. Baker and others, we are setting up a Council for the Woodrow Wilson International Center to help us raise funds first in the Washington area and then nationally. The Center's staff and I have personally contacted dozens of possible individual and institutional donors. I have signed at least a 100 or more letters to people of wealth and to foundations and others trying to get money. The tax laws kind of threw the whole work of the foundations into some turmoil; they don't know just where they stand. We are bearing down on them and we have a professional bearer-downer in Mr. Suhrke.

But we are facing unusual difficulties caused by the uncertainty of public support, difficulties of interpretation of the Tax Reform Act of 1969, the falling market of recent months, and the fact that the institution is not yet in operation.

Our limited success in raising funds to date makes it necessary for us to turn to the Congress for our principal support, particularly in the first year of operations of the Center. The Center was created by Congress as a living memorial to a great President. We have labored long and hard to bring it to life in accordance with congressional intent. We have made a hopeful start toward doing so. But I have to lay it on the line. We will not succeed, and we will not be able to open this Center as scheduled this year unless the Congress is willing to support us.

I have reviewed in detail with our Director the appropriation request we are submitting to the Congress today, and I consider it sound and reasonable in all respects and essential to begin the planned operations of the Center. I want to repeat this request is below what was originally asked for and approved by all 15 members of the Board including Cabinet officers. In the light of our experience to date we are requesting an appropriation of $784,000.

Mrs. HANSEN. Does this request include the $130,000 grant from the National Endowment for the Humanities?

Mr. HUMPHREY. No, that $130,000 is additional. This is over and beyond what we have requested. The Endowment matching grant, by the way, has just been released, for which we are eternally grateful. You have no idea. It was sort of like a blood transfusion, as we were lying there on the operating table gasping for life.

I told the Director to look for anything we can use. We don't need new things. If we can find older desks and older equipment from GSA, well and good. He told me it is not as easy to get equipment from GSA, as when I was Vice President for my office. Whatever it is, I want you to know that I, as a South Dakota boy, am kind of a penny pincher on these things. This is a facet of my character that never comes out to the public. But you should ask my wife. She will tell you.

I am always raising cain about the cost of drapes and furniture, things like that.

The amount of this request of $784,000 was based on the sum ($934,000) asked for in the trustees' submission to the Bureau of the Budget last fall less $150,000, which the Center had requested as part of a matching grant from the National Endowment for the Humanities—half from Federal sources and half from our own private fund raising efforts. The Endowment notified the Center on April 9 of its approval of a matching grant of $130,000, but we are not revising the amount of our appropriation request. As I said, the assistance from the Endowment, which was made with the concurrence of the committee and had White House approval, is essential to let us make commitments now to the first group of scholars we hope to have with us in the fall, but this is peculiarly a first-year-operations problem.

The $784,000 request includes (*a*) $440,000 for administrative expenses—including salaries and employment costs, administrative expenses, and $130,000 for one-time furnishing costs to equip the excellent interim quarters which the Smithsonian Institution has generously made available in its newly renovated original building on the Mall, and (*b*) $344,000 to enable us to pay the stipends, travel, and housing allowances of the first 20 to 40 fellows to be appointed by the Center, estimated on the principles described on page 7 of my statement and in attachment A. We do not feel the Center should have fewer than 20 scholars since the interaction and interdisciplinary work which is planned would not be likely to prosper in a smaller intellectual community according to the experience of other institutions. We feel to have fewer than that would really be less than productive in terms of what we have in mind.

The funds we are requesting for the fellowship program are no-year funds because of the necessity of having the means for making commitments to scholars well in advance of their arrival. These estimates are based on the closest experience we can learn from others, but I give the committee the Board's categorical assurance, and my personal assurance, that there will be no reluctance in reporting to the Congress if experience proves that we have overestimated our needs. We are not trying to build a big staff. We now have four people and secretarial help. We are not trying to do a lot of travel on our own.

As I have indicated, we plan to continue to make strong efforts to raise private funds here and abroad to finance additional fellowships, and the sums raised will be added to the appropriations requested to permit us to make commitments next winter to those scholars who would be invited to join the Woodrow Wilson Center community during fiscal year 1972. I was hoping I could come to you to tell you we would match appropriations dollar for dollar, but I don't want to tell you something we are not sure we can do.

Mrs. HANSEN. In your statement you indicate a request of $784,000, but you have also mentioned $934,000?

Mr. HUMPHREY. $934,000 was what we asked the Bureau of the Budget for, and we have reduced that figure by $150,000 requested from—$130,000 received from—the National Endowment for the Humanities.

Mrs. HANSEN. Is $784,000 the correct figure?

Mr. HUMPHREY. That is correct.

Mrs. HANSEN. Thank you very much.

Mr. HUMPHREY. I wish that I could be more informative to you, but you know I am somewhat in the position of the fellow that was describing how they would get to the moon before they took the first trip. We can only plan and guess what we are going to do. The only thing I want you to know is if we don't get going this year, we will have been conducting a theoretical operation that might be considered misleading to a number of people. We had every reason to believe we would get some funds when we submitted our request to the Bureau of the Budget.

Mrs. HANSEN. Isn't this a matter of international prestige?

Mr. HUMPHREY. It surely is.

Mrs. HANSEN. When you have written letters to a great many countries stating your interest in scholarship and in the center and then funds are not made available to initiate this program, it may indicate to other nations that the United States is not interested in a center for scholars.

Mr. HUMPHREY. I think so, Congresswoman. Honestly, I am fully aware of the budget problems. I don't want to come before you and just say we should be able to do anything we want to do. But we cut this down as far as we dared for a start. The figure requested is $784,000.

We are not talking millions. I think you ought to know the men we have on the Advisory Committee, like the Prime Ministers, are helping us to recruit the scholars we want. So, we are not dealing as Congresswoman Hansen has said, here, with just an ordinary run of the mill kind of operation. We have the finest people in the world that are trying to help us give this an international flavor, and I really believe this can be something that Congress can be very proud of. The charter and our proposed implementation of the charter ties right in with Members of Congress and with congressional staff members. It will provide, you might say, a kind of enrichment program for anybody that might want to take advantage of it. We are inviting some of the best teachers in the world to come; not only to improve their learning, but to share their learning with us.

The requirement for support of their scholarship is that they do what Hubert Humphrey is trying to do this morning, to talk and to share thoughts with others; not just to do research in isolation from others.

I don't know how we are going to work this all in terms of the budget, and I know the power of the recommendations of the Bureau of the Budget, but it is my view——

Mrs. HANSEN. They don't disturb me in the least.

Mr. HUMPHREY. I love to hear that.

All I would suggest to you is that you will be proud of what we do. This was started by Congress; this is your program; you authorized it; you directed it. And I have been with Congress long enough to have a keen interest in what Congress wants to do and to work with them. My heart is very much with the need and the works of the Congress.

Mrs. HANSEN. I am quoting from an article that appeared in the Washington Post:

The tiny Bureau of the Budget pound for pound the most powerful federal agency may have its wings clipped when and if it becomes the Office of Management and Budget.

So, they have some troubles of their own.

Mr. HUMPHREY. I don't think this amount is going to upset the Federal Treasury. But I do know this. It will be something you will remember. It is a real beginning just exactly as you did with the Eisenhower College. These things are important to us. We have been spending much of our money abroad for people abroad. This is one time you have it all at home. People from abroad come here and our scholars are here. Instead of trying to make Rome and Paris cultural centers, you are making Washington, our own Capital, a more vital cultural center. I think it is a wonderful opportunity. This will be the only international program of real prestige you have authorized for your own Nation's Capital in which all of the services of our Government, the Congressional Library, the fine arts museums, the university complex of this entire area can be tied in.

By the way, I think we have the confidence of universities throughout the United States and of the great professional associations.

The chairman of the social science department of one of the Nation's top universities and the president-elect of the professional association in his field, author of several books and numerous articles on American Government and political life, wants to come to the Center to study how social science research can become more useful and better known to top executive and legislative branch officials.

A leading French science policy administrator with extensive experience in directing science programs for French Government and European community wants to come to the Center to study the process by which U.S. Government science policy is developed and the relevance of the U.S. interstate regulating system for the European community.

We have a chance to bring in people that if you paid for their services individually on research contracts would be much more expensive. And we just think we can put together something you can say 5 years from now or 10 years from now, I had a hand in that and I am proud of it. That is what I want to do. I happen to have been given the privilege of serving as chairman. I never realized it was going to be so much work. I want you to know I really didn't. We have worked at it and we are going to do so. I bothered your chairman here time after time, but I really think we have got something going now. If I can be—off the record.

(Discussion off the record.)

Mrs. HANSEN. Mr. Vice President, I may say it has been a privilege to share your discussion. I deeply appreciate your taking time to come this morning. This has been an excellent presentation and we deeply appreciate it.

Mr. Obey?

Mr. OBEY. I have no questions. I just want to join with the chairman in expressing my pleasure at seeing you here this morning. I think you know my fondness and respect for you.

Mr. HUMPHREY. I am very glad to see you this morning.

Mrs. HANSEN. Mr. Reifel?

Mr. REIFEL. Mr. Vice President, I do appreciate your willingness to chair and assume the leadership in the beginnings of this institute.

I am deeply impressed with your desire that high scholarship be a sine qua non. That is what Woodrow Wilson would want.

Mr. HUMPHREY. Yes.

Mr. REIFEL. He insisted on as near perfection as we could get. If we were to strive for anything less we had better forget about it.

Mr. HUMPHREY. That is what we are trying to do.

Mr. REIFEL. Thank you.

Mr. HUMPHREY. Thank you very much and I thank you for your perception of it and your interest in it. It is very gratifying.

Mrs. HANSEN. Mr. Wyatt?

Mr. WYATT. Thank you, Madam Chairman.

Mr. Vice President, I would just like to say it is a very great honor for us to have you appear before us this morning and to make a very, very excellent presentation. Of course, I am sure you will find that Members of this committee are very sympathetic to this whole concept and toward maximum possible funding. You have made a very persuasive case as usual, and I would commend you, sir, with all of the pressures on your time and effort and energy, for taking the active leadership in this great effort.

Mr. HUMPHREY. I am very grateful to you, thank you very much. We will try not to disappoint you.

Mr. REIFEL. I am sure Mr. Read hasn't been entirely in the background.

Mr. HUMPHREY. Mr. Read has been a tower of strength. I recruited him earlier when he wasn't sure what his future plans would be and he actually came aboard with us on an acting basis, but after we got him involved the Board unanimously requested he stay. I put together a finders committee for a Director, and it didn't take us long. He has really worked at it. By the way, I traveled last summer not at public expense, but on my own and I talked to a number of people abroad, and I had Mr. Read meet me abroad on a private mission so we could do some more talking with international representatives about this. We have done a lot of spade work. I don't think we have to apologize for that. The members of the Board have been marvelous. We have full attendance at our meetings. They have really been working at it.

Mrs. HANSEN. Thank you both very much.

EASTERN GULF MARINE LABORATORY

WITNESS

HON. ROBERT L. F. SIKES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mrs. HANSEN. It is a pleasure to welcome this morning our distinguished and able colleague, the Chairman of the Military Construction Subcommittee on Appropriations, Congressman Robert Sikes.

Mr. SIKES. Thank you, Madam Chairman. I feel very much at home here. I have been highly impressed with the quality and volume of the work done by this distinguished group.

Madam Chairman, the panhandle of northwest Florida has long been known for the excellent quality and variety of its sport fishing, both in freshwater and in the waters of the estuaries and coastal zones. Sport fishing is one of the more important assets to the tourist industry

of the area. In fact, many of the small coastal towns are dependent on the income derived from sport fishing. In recent years, the quality of the fishing in the large bays and estuaries has deteriorated.

Requests for the Bureau to initiate a fishery management program have been received to determine if the fishing can be improved. Some of these proposals led to the stocking of striped bass in the 100,000-acre Choctawhatchee Bay in 1968. Stocking has been continued up to the present and limited technical assistance has been provided to evaluate the success of this endeavor. Manpower has been assigned or detailed on a temporary basis from other programs for this purpose and it has been impossible to expand or improve the operation. Preliminary results indicate the striped bass thrive in this environment and a managed sport fishery is a distinct possibility.

The Northwest Florida fishery management project should be established on a permanent basis. Its work area would include the Choctawhatchee Bay and River system; the Apalachee Bay, which includes the St. Marks, Wakulla, and Ochlockonee River systems; the Apalachicola Bay; St. Andrews Bay; and Pensacola Bay.

While these estuarine areas would be of primary consideration, the project would also assist Federal and State agencies with their fishery programs. These would include military installations: Eglin Air Force Base, Tyndall Air Force Base, and Pensacola Naval Air Station; National Wildlife Refuges: St. Marks, Lake Woodruff, and St. Vincents; and Apalachicola National Forest.

The project would supplement and assist the efforts of the State in determining and preventing damages to the aquatic habitats from pollution or other environmental alterations. The estuarine areas are being destroyed or altered at an alarming rate in Florida by man's activities. The concerted efforts of all conservation agencies are essential in preventing further destruction of these irreplaceable resources.

Another important function of the project would be to collect and make available to the sport fishermen information on the distribution, habits, and location of the important game fishes in the estuarine areas. This would assist the anglers in knowing when, where, and how to catch the various fishes. Emphasis will be on the stocking requirement for striped bass, and evaluation of the results of such stocking.

The Northwest Florida project requires two full-time biologists, fishery aids, and clerical assistance. A budget of $75,000 is proposed to meet the costs of the operation. The program would be administered by the Eastern Gulf Marine Laboratory at Panama City in my district.

The members of this subcommittee have made it possible for two Gulf marine laboratories to be constructed, one in the eastern and one in the western portion of the Gulf of Mexico. The work being done at both has fully justified the confidence of the sponsors and of this subcommittee. The Laboratories deal with an important and growing industry, that of sports fishing. Your subcommittee has understood the need for additional information on this subject and without your help, the Laboratories could not have been built. We are indeed grateful for your confidence and we feel it has been fully justified by the results.

Mrs. HANSEN. Have you had any notification on the release of the Panama City project funds?

Mr. SIKES. I have not. The plans are complete for the main building, which this committee funded. A construction contract can be let within a very short time. Officials of the Department feel there is at least a good possibility that funds will be released by July 1, but I doubt that they have specific information at this time. In the case of Military construction, with which my own subcommittee deals, I am told definitely that it is planned to release impounded funds not later than the beginning of the next fiscal year. Apparently there is a general feeling within the Government that this will be the case in all agencies.

Now to reiterate briefly. I am asking the committee to fund a nonbudgeted item of $75,000 for a striped bass restocking program. For the past 2 years, the Panama City laboratory has been restocking Choctawhatchee Bay with striped bass fingerlings. Striped bass were, at one time, a great game fish throughout the Northwest Florida estuarine areas, but now they are largely gone. They have been fished out. The environment is very good and striped bass do well in the area. The results thus far from the small restocking program that has been carried on are outstanding and there is very considerable optimism about the future. In consequence, the Laboratory personnel want to expand the restocking program to the other Northwest Florida areas which appear equally suitable. There are four of them which appear to offer excellent waters for striped bass. The Laboratory personnel feel that with a more substantial stocking and management program which will include the four main estuarine areas we can have in the next 3 or 4 years an exciting new game fish industry for sportsmen. It is estimated that the cost will be $75,000 and the Department says it simply is impossible for $75,000 to be taken from commitments already in progress.

I urge that this committee ask the Department for any information that you think would be helpful to you in order to substantiate what I am saying. But I am excited about the possibilities of the striped bass restocking program for the entire area.

I sincerely hope that your subcommittee can provide the funds which are needed for the program.

Mrs. HANSEN. Very good. I would suggest, Mr. Chairman, that you contact the Bureau of Sport Fisheries and Wildlife about assisting in the release of Panama City funds. I have suggested to them that if the 1970 funds are not released a limitation will be imposed so that they will not be able to spend the 1971 funds until the 1970 funds are released.

Mr. SIKES. I think that would be an excellent thing to do. I shall also talk with the Department again about the release of construction funds. There is, in my opinion, no justification for a freeze on this program.

Mrs. HANSEN. Thank you very much.

Mr. SIKES. Thank you, Madam Chairman.

Fish Hatchery at Kinzua Dam and Allegheny Reservoir, Warren County, Pa.

WITNESS

HON. ALBERT W. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mrs. Hansen. We are very happy to welcome our distinguished colleague from Pennsylvania.

Mr. Johnson. Thank you, Madam Chairman.

Mrs. Hansen. Mr. Johnson, we are delighted to have you appear before this committee again. You are a very distinguished colleague of ours and a very able one.

Congressman, have the funds appropriated last year for this fish hatchery been released yet?

Mr. Johnson. No.

Mrs. Hansen. May I suggest that you urge release of those funds?

Mr. Johnson. I don't want to push the White House too hard. I had them release $100,000 for a flood project in DuBois on or before July 1. My next step is to get them to release this $35,000 before July 1.

Mrs. Hansen. I hope you will take this action. The committee is disturbed, because almost every congressional add-on has been placed in reserve by the Bureau of the Budget.

Mr. Johnson. I am pushing it and we will go to the White House with it this week.

Mrs. Hansen. Thank you.

Mr. Johnson. I might say by way of oral testimony that with respect to this fish hatchery, you have very graciously in the past given us $50,000 for planning and design. In addition, in 1966 you awarded us $90,000, and that was used for the water supply lines and site preparations.

As I have indicated, last year to start the project you did very kindly grant us $35,000. I am coming back this year for additional funds. I have called downtown and the latest estimate on the cost of phase 1 is $481,000. If we could subtract from this amount the $35,000 appropriated last year, the net sum needed is $446,000. Having been before this committee, I think this is my fifth or sixth time on that hatchery, I believe you are so thoroughly familiar with it I will not take any more of your time. But needless to say it's a tremendous project. I want to have the hatchery built out of memory to the late Leon H. Gavin. When it's finished I am hoping that the Public Works Committee will let me name it the Leon H. Gavin Hatchery. It does mean an awful lot to me having this hatchery built.

Mrs. Hansen. How many tourists visit this facility per year?

Mr. Johnson. 2 million people. Last year there were 2 million and this year they expect, of course, many, many more. If you recall last fall the group was down here and made a presentation on this subject.

Mrs. Hansen. That is right.

Mr. Johnson. And they were in your office. I know that you will be as kind and as considerate to me as you can be on this hatchery, consistent with the frightful pressures on your people.

Mrs. Hansen. Mr. Reifel?

Mr. REIFEL. Since the construction of the Kinzua Dam in the reservoir area took away some of the Indian lands, in what ways would the Indians benefit from this?

Mr. JOHNSON. We have an odd situation there. The dam that is in Pennsylvania is controlled by the Forest Service. However, as you get into New York State and where the greater portion of the reservoir lies, fishing is controlled by the Indians. The Indian tribes are even permitted to exact a license fee. So in order to fish you must pay to the Indian tribe there a fee to fish on their lake, let's say.

I want to say to you that when the dam was built, one of the things that was presented to the Indians, in order to make them feel not too badly of having their lands taken away from them, was that there would be a tremendously great fishing paradise there and, by reason of sovereignty around the borders of the lake, particularly in the State of New York, they would be able to exact a license fee. So this hatchery, of course, will help to restock the entire reservoir—there is no question about it—and the adjacent streams.

Mr. REIFEL. You mentioned something about the people up there and the Indians having some benefit from this. I thought we ought to do well to put it in this record.

Mr. JOHNSON. I feel building this hatchery is an obligation we owe to this Indian tribe.

Mr. REIFEL. Thank you very much.

Mr. JOHNSON. My specific request for funds for the first phase of the project is $481,000, less 1969–70 appropriation of $35,000. The net amount requested is $446,000.

Madam Chairman and members of the subcommittee: I appreciate being afforded the apportunity to again appear before you for the purpose of requesting funds to continue construction of a new fish hatchery at the Kinzua Dam and Allegheny Reservoir in Warren County, Pa.

Your records will indicate that while my predecessor and your former colleague, the late Leon H. Gavin, was a Member of Congress there was approved on August 25, 1959, Public Law 86–205 which authorized the establishment of the fish hatchery in northwestern Pennsylvania.

The Federal Fish Hatchery then serving the area was obsolete and was closed on June 30, 1965. Great demands were made on this hatchery and it was a real blow to sportsmen when it was closed that year leaving the area with limited stocking from other hatcheries farther away and already overtaxed.

The site of the new hatchery is set at the base of the Kinzua Dam. The dam is now completed and has created an artificial lake 29 miles long, with 92 miles of shoreline, and has opened up a recreation area unparalleled in the Nation. The gradual release of cold water from the dam in summer makes ideal conditions for trout fishing on the Allegheny River below the dam for many miles.

In the Allegheny National Forest, on which the new lake borders, there are 500 miles of trout streams. Within a radius of 300 miles of the center of the forest, there are 47 million people and I am sure you realize the future fishing demands on the area that this large influx of potential visitors will entail. Presently the streams provide fishing pleasure to about 70,000 fishermen.

Recently the Oil City, Pa. "Derrick" pointed out that the Federal recreation facilities at the Kinzua Dam at Warren, Pa., the site of this hatchery, attracted close to 2 million people in 1969, with considerable increases expected in 1970. A large number of these visitors come with fishing tackle and expect good fishing.

As previously stated to the committee, the dam was designed and constructed with the addition of the fish hatchery in mind. Separate water supply conduits were installed during dam construction so that water from the dam could be used at the hatchery.

In 1965, I appeared before this subcommittee and you very kindly and with wisdom provided the initial planning and design funds for the hatchery in the amount of $50,000. In 1966, $90,000 was granted for water supply lines and site preparation. As a result of these appropriations the plans have been completed and actual construction has started.

Last year I again appeared before this subcommittee urging funds for phase I of this project. Your honorable subcommittee very courageously included $35,000 in the fiscal year 1970 appropriation bill and this sum passed the Congress. However, owing to budget impounding this sum of $35,000 is not presently available for allocation, but is being held in reserve to be released at a later date as the inflationary spiral becomes under control.

Nothing will gladden the hearts of the fishermen in my district, and the many visiting anglers more than to hear that funding of hatchery construction has been secured.

I, therefore, again sincerely appeal to the subcommittee for additional funds.

The latest estimate on the cost of phase I is $481,000. If you subtract from this amount the $35,000 appropriated last year, the net sum needed is $446,000. This is the item I especially urge be provided for fiscal year 1971.

By way of summary, I urge this appropriation for the following reasons:

(1) The hatchery is already under partial construction and should be completed.

(2) The closing of the local Federal hatchery in 1965 on the promise of the construction of a new hatchery has seriously reduced previous stocking facilities.

(3) A huge influx of tourists into the area, as a result of the opening of the Kinzua Dam, has increased fishing pressure astronomically.

(4) A beautiful, modern, well stocked fish hatchery at the foot of the Kinzua Dam will prove to be the outstanding tourist attraction at the dam.

(5) An announcement of substantial funding of the hatchery construction will be welcome news to the thousands of fishermen, the dispossessed Seneca Indians, and other Indian tribes, and sportsmen, and sightseers that are now using the facilities at the dam.

(6) The new hatchery will greatly enhance the economic well-being of the area, and the profits resulting will, of course, mean larger Federal tax payments by merchants and concessionaires.

Again, I wish to express my gratitude to the subcommittee for your kindness to me in the past, and appreciate this opportunity to appear here today.

The other presentation that I wish to make this morning is with respect to the Wildlife Research Laboratory at Warren, Pa. We have been before you on that particular endeavor.

Last year you did add, I believe, some extra funds so that they could hire one additional research scientist. Tomorrow there will be quite a group from Warren, Pa., down. They are testifying with respect to additional research people, particularly for hardwood research. You have heard them before on that.

Mrs. HANSEN. Yes.

Mr. JOHNSON. They feel that particularly the large deer population has practically destroyed the hardwood propagation, and they are researching on how to solve that particular problem. I just want to manifest my interest in additional funds.

Mrs. HANSEN. The committee is also very interested in hardwood research.

Mr. JOHNSON. The paper that I am presenting to you today goes into that in detail. Rather than detail the record further, I just want to say that tomorrow in the testimony of the outside witnesses a presentation will be made.

Madam Chairman, members of the House Subcommittee on Appropriations for the Department of Interior and Related Agencies. I represent the 23d Congressional District of Pennsylvania which is a 10-county area on the Allgeheny Plateau in Pennsylvania.

The Allegheny Plateau is blessed with fine forests of black cherry and related species which yield valuable wood for industries and consumer goods. These forests and their products make major contributions to the economic and social well-being of many communities both within and outside the plateau. The continuation and expansion of these contributions depend heavily upon research—research that will guide the full development and use of these renewable timber resources.

Use of black cherry wood in industry has expanded over 13 times in the past 25 years, and this wood is becoming an increasingly important economic commodity. However, critical problems are being encountered in establishing new crops of black cherry and caring for existing young forests. There is a very real threat of shortages of this valuable wood, and this, in turn, endangers dependent industries. This threat is further compounded by deer-browsing damage to cherry and other associated prime hardwood species.

IMPORTANCE OF THE FOREST RESOURCE

One might ask about the importance of these forests to the economic well-being of the Plateau and the Nation. The Plateau includes nearly 12 million acres of commercial forest land in Pennsylvania, 4 million in southern New York, 1½ million in West Virginia, 290 thousand in Maryland and 680 thousand in Ohio—a total of about 18½ million acres.

Within the Plateau there are 1,459 wood industry plants which employ nearly 30,000 people annually. These plants manufacture lumber, furniture, pulp, paper, and many other kinds of wood products. Four million board feet of cherry was used by wood industries in 1940, but by 1960 these industries were using 53 million board feet

of cherry lumber for furniture, lumber, and fixtures as well as 74 million square feet of cherry veneer, plywood, and paneling. And, for all practical purposes, these industries are dependent upon cherry grown in the Allegheny Plateau.

Black cherry on the Plateau has a timber value second only to black walnut. And, all wood industries on the Plateau add annually a total value in excess of 250 million dollars to the economy.

RESEARCH NEEDS

So we do have a valuable resource in the forests of the Plateau. But, we also have a problem in the successful culture of these forests for wood—managed with great care and intensity. Unfortunately, the information needed for this kind of management is not available. Some research results are available, but they are meager in relation to the economic and human values involved.

The most pressing needs, if met, would yield short-term benefits such as methods of: (*a*) thinning timber stands to accelerate growth of top-grade trees; (*b*) pruning to improve the grade of select trees; (*c*) protecting young trees from animal damage. The long-term needs go much deeper and include an agronomic intensity of developing and culturing of valuable hardwood tree species. Specific areas of research that should be pursued vigorously include:

(1) Soils, nutrition, fertilizer, cultivation, and possible irrigation investigations for growing fine hardwoods such as cherry, ash, and maple.

(2) Seed, seedling, and planting of these same hardwood species.

(3) Genetic improvement of cherry for top-grade logs and for pest resistance.

(4) Cultural methods of treating young timber stands: weeding, thinning and pruning.

(5) Methods of natural regeneration and ways of reducing deer browse damage to seedlings.

The selection of specific problems for research in the above general areas would be done in consultation and cooperation with various groups which have need for and could promptly use this information in their action programs. The more important of these groups are:

(1) The Pennsylvania Department of Forests and Waters which protects and manges 2 million acres of State forests and provides technical assistance to private timberland owners in protecting, developing, and managing their properties;

(2) The Pennsylvania Game Commission that protects and manages 1 million acres of State game land;

(3) The Allegheny National Forest;

(4) Consulting foresters who provide technical service to private landowners;

(5) Wood industries that own and operate forests; and

(6) The School of Forest Resources, Pennsylvania State University.

This procedure would direct short-term research having immediate application to practical problems that handicap those who have responsibility for protecting, managing, developing, and utilizing the forest resources in Pennsylvania. At the same time, it would permit long-term research that would undergird the development of even more scientific and precise forest practices.

CURRENT STATUS

The Northeastern Forest Experiment Station of the Forest Service, U.S. Department of Agriculture, has had three scientists located at Warren, Pa., since 1959. These men have, within the resources available to them, made progress in solving the problems of timber growing. Further progress was made when a $250,000 Forestry Sciences Laboratory was completed in 1964, but the program's major plans for utilizing this new Laboratory have not been realized. Consequently, the pressing needs for research results are not being met.

Full and prompt implementation of the research work described above would require an additional appropriation of $335,000 to the Forest Service. This would provide for a larger staff of scientists in timber and animal damage research as well as for additional supporting personnel such as technical aides, administrative specialists, and clerks. Furthermore, it would permit the full and effective use of the research laboratory which has already been constructed.

The research program outlined here can be initiated at Warren, Pa., just as soon as additional funds become available.

Mr. WYATT. Madam Chairman, may I comment on the excellent presentation made by our colleague from Pennsylvania, one of the most able Members of the delegation from Pennsylvania in Congress. I have been personally in his district and I know how important these two projects are. I know how beloved Congressman Johnson is in his district and how ably he represents them. I hope that his constituents don't expect miracles from him although he has performed minor miracles in the past.

Mr. JOHNSON. I just want to say I am very grateful to this committee for what you have given me on that fish hatchery, knowing that I am one of the few Congressmen who has received that help for a fish hatchery in the last 5 years.

Mrs. HANSEN. We have been deeply interested in this fish hatchery because of its relationship to the economy in that area. We wish the Bureau of the Budget shared our concern.

Thank you, Congressman.

Mr. JOHNSON. Thank you.

AQUARIUM AT THE MERIDIAN FISH HATCHERY, MERIDIAN, MISS.

WITNESS

HON. GILLESPIE V. MONTGOMERY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSISSIPPI

Mrs. HANSEN. We now have our distinguished colleague, the Honorable Gillespie V. Montgomery from Mississippi.

It is a great pleasure to welcome you.

Mr. MONTGOMERY. Thank you, Madam Chairman.

(Discussion off the record).

Mr. MONTGOMERY. Thank you for the opportunity to appear today in behalf of a very worthy project in the State of Mississippi: a proposed aquarium to be built at the Meridian Fish Hatchery in Meridian, Miss.

Established in 1939, the Meridian hatchery produces five species of warmwater fish for stocking the waters of a 24-county area in Mississippi. This includes waters on lands managed by Federal and State agencies, such as military installations, national wildlife refuges, State-owned public fishing waters and hundreds of farm ponds.

The hatchery is adjacent to U.S. Highway 11, 5 miles south of the city of Meridian, which has an estimated population of 57,000 people. Over 400,000 tourists are estimated to stop in this area each year. Construction of a suitable visitor information building with an aquarium would be a fine attraction for the several thousands of visitors who now visit the hatchery. It is a well known fact that few exhibits can match the universal appeal and fascination of an aquarium. In addition it would provide an excellent opportunity to strengthen the Department of Interior's conservation-education program in making the public aware of the importance of the Nation's fish and wildlife and the problems the Department encounters in managing these resources.

In every southeastern State except Mississippi there is at least one aquarium as a part of a fish hatchery. Based on certain statistics which I will cite, it would appear that Meridian is a logical site for such an aquarium to be built.

I urgently request that the committee seriously consider the inclusion of $212,000 in the fiscal 1971 budget to provide an aquarium in Meridian for the following reasons:

1. Meridian is centrally located on both an East-West and North-South basis so that an optimum number of "local" people would have access.

2. Meridian had 49,374 people in the 1960 census and is the largest city in the southeastern States with such a fish hatchery. As I mentioned earlier, the current population estimate is 57,000. Its trade territory encompasses 300,000 people.

3. Two interstate highways intersect in Meridian. In addition there are also three Federal highways and several State highways.

4. Meridian is a natural center for tourists because of 1,100 motel-hotel rooms. Approximately 421,500 people annually use these rooms.

5. It is estimated that over 50,000 people annually would be attracted to the aquarium. The Department of Interior could find no better place to educate people on fish and wildlife in terms of bringing in a maximum attendance.

6. The Okatibbee Reservoir, a 3,800-acre Corps of Engineers multipurpose reservoir that was put into service last year, will act as a further attraction for tourists and will make an ideal combination with the aquarium.

7. The idea of an aquarium in conjunction with the Meridian Fish Hatchery has the wholehearted support of the business and Government leaders in Meridian and these groups have promised to promote the facility as much as possible.

Other items needed to improve the facility presently located in Meridian include a new sewage system of adequate size to take care of both existing and planned facilities, plus some road improvements, landscaping, fencing and other related items.

A complete breakdown of costs is as follows:

Visitor information-aquarium building	$83,000
Replace pump house	9,000
Paving drives and parking area	17,000
Resurface hatchery roads and drives	18,000
Commercial sewerage unit for visitor information building, office and residences	52,000
Drainage ditch 2,500 linear feet	15,000
Landscaping 10 acres	9,000
Fencing	9,000
Total estimated cost of program	212,000

I know the Meridian hatchery is contributing significantly to the fishery resources of Mississippi. The aquarium would make further important contributions. Your support for this request will be greatly appreciated.

Thank you.

Mrs. HANSEN. Do you have any further comments?

Mr. MONTGOMERY. This is, as you know, my third time to appear before this committee. I am back again trying to get my aquarium. It seems that the Indians go pretty well in here. I have a Choctaw Indian Tribe right above Meridian, where I am trying to get my aquarium built at the fish hatchery. According to the estimates provided me by the Department of Interior, the cost of the aquarium would be $212,000. They think it's feasible. We do not have an aquarium in the State of Mississippi.

Mrs. HANSEN. Have the plans for this project been developed?

Mr. MONTGOMERY. No; Madam Chairman. I have tried to get an estimate on costs for planning, and I just couldn't get one. They won't give it to me. They kept coming back with the figure I have there. You mentioned I should have a plan.

Mrs. HANSEN. Planning is a preliminary step to any construction grant.

Mr. MONTGOMERY. Right.

Mrs. HANSEN. Isn't it true that such an aquarium might provide employment for a great many black people in the area?

Mr. MONTGOMERY. Yes. Just about all the employment would be blacks. I might say that 48 percent of my District is black and 52 percent white. It would certainly be an advantage to the blacks.

I might add Madam Chairman that this area is easily accessible to visitors. It's estimated there are about 400,000 visitors that would come to the fish hatchery and aquarium. It's only 2 miles from two interstate highways, which fact was left out of my report. One runs from New Orleans to Chicago and the other one runs from the west coast to the east coast.

Mr. REIFEL. Madam Chairman, if I might suggest to Congressman Montgomery——

Mrs. HANSEN. Surely.

Mr. REIFEL (continuing). That he add in distance the relationship of that hatchery to the Mississippi Choctaw Reservation. Is it nearby?

Mr. MONTGOMERY. It's about 28 miles.

Mr. REIFEL. It is close by.

Mr. MONTGOMERY. Yes, 28 miles from the Choctaw Reservation.

Mr. REIFEL. Are they stocking their streams on or near the reservation?

Mr. MONTGOMERY. No, they are not. However, they are building a new Choctaw school there. We have ruined our streams. We haven't taken care of them. This definitely would help, especially on the Choctaw Reservation. It would give them an opportunity to see fish, see how fish are grown and they could use the facilities there for stocking the little ponds on the reservation.

Mr. REIFEL. Thank you.

Mrs. HANSEN. Thank you very much, Congressman.

Mr. Wyatt?

Mr. WYATT. Madam Chairman, I would like to welcome my distinguished colleague who so ably represents constituents and tell him that although I haven't been in his district lately, I lived there for almost 6 months in the summer of 1941 when I was a special agent in the FBI. I am very familiar with your district and very fond of it.

Mr. MONTGOMERY. Thank you very much.

Thank you, Madam Chairman.

Mrs. HANSEN. I am very pleased to learn of your interest in the Choctaw Tribe, because they have been of deep interest in this committee.

Mr. MONTGOMERY. Thank you. I would appreciate any help you can give us on the aquarium.

(Discussion off the record.)

INTERIOR DEPARTMENT BUDGET FOR 1971

WITNESS

HON. WAYNE N. ASPINALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mrs. HANSEN. The committee will come to order.

We have the pleasure this afternoon of again greeting our very distinguished Chairman of the authorizing committee. I may say, Mr. Chairman, it has come to be a part of our committee's expectancy to have your comments on the overall appropriations that are before this committee. We are delighted to welcome you back.

Mr. ASPINALL. Thank you, Madam Chairman. Once again I am glad to be before this committee and Members who are here present, having been former members of the committee which I have the honor to chair.

Mrs. HANSEN. At this point we will insert your statement in the record.

(The statement follows:)

GENERAL STATEMENT

Madam Chairman, I am pleased to again appear before this subcommittee to share with you some views and comments with respect to matters and appropriations which you have under consideration involving the Department of the Interior. It has been a matter of personal satisfaction to me that over the years we have had an excellent working relationship between this subcommittee and the Interior and Insular Affairs Committee. This close cooperation has enabled the Congress to retain excellent oversight of the Department's programs and, at the same time, has permitted orderly progress in these programs in the national interest.

In addition to the opportunity to make this presentation during these hearings, Madam Chairman. I also am appreciative of our day-to-day contacts in connection with mutual committee problems relating to the Department of the Interior.

LAND AND WATER CONSERVATION FUND

The Federal program

First, I would like to comment on the Land and Water Conservation Fund. Everyone on this subcommittee is quite familiar with the Land and Water Conservation Fund Act, which is the backbone of the Nation's present outdoor recreation program. As it presently stands, the fund is comprised of revenues totaling $200 million annually. To the extent that these moneys have gone unused in the past, the size of the fund has been enhanced. At the beginning of fiscal year 1971—in the absence of fiscal year 1970 supplemental appropriations from it—there will be $364.5 million available in the fund to expand the Nation's needed outdoor recreation program.

The administration has come a long way in this field in the last several months. About a year ago, the authorizing committee was told that it could proceed with its consideration of legislation authorizing increased funds essential to the completion of the Point Reyes National Seashore, but that funds would probably not be forthcoming for several years. I need not recount for you the events that subsequently transpired, because you know them as well as I do. Together with the help of many Members of Congress, including that of the chairman of this subcommittee, we have persuaded this administration to alter its course and put this money to work.

Now, for the first time since the inception of the land and water conservation fund, planned progress can be made. The President's budget recommends the appropriation of $138.5 million at the present time for this program and the President has indicated that he will formulate plans and propose the use of the remainder of the moneys in the fund. These proposals, I understand, will be transmitted to the Congress in the form of supplemental requests during fiscal year 1971. I feel strongly that we should put these moneys to work—they are "earmarked" to accomplish a needed and beneficial national goal—they can be used for no other purpose. It is unwise to allow them to lie idle in order to save a small amount of interest, when recreation land prices are escalating at fantastic rates. I firmly believe that it is false economy to allow these funds to go unused when there are authorized programs waiting to be funded.

For this reason, Madam Chairman, I want to strongly recommend the full funding of the President's request for appropriations from the land and water conservation fund. Not only should these funds enable the acquisition programs at seven authorized areas to be virtually completed, but they will make substantial progress possible at several other authorized areas.

As I view the national effort to povide new, needed outdoor recreation opportunities throughout the country, the Congress cannot logically move forward with new authorization unless some of these older authorizations are liquidated. Based on the President's commitment to this effort the authorizing committee is optimistic about the future. We are ready to consider the merits of several new authorizations and we have undertaken the preliminary work required so that we can be in position to recommend some important additions if there is visible progress with respect to existing authorizations. The time for decision is here for such proposals as the Apostle Islands National Lakeshore in Wisconsin, the Sleeping Bear Dunes National Lakeshore in Michigan, the Gulf Islands National Seashore off the coasts of Mississippi, Florida, and Louisiana, and the Voyageurs National Park in Minnesota. I hope that these areas can be considered before they become too deeply embroiled in controversy and, more importantly, before speculative land prices drive the costs to unconscionable levels.

By working together—your subcommittee and the authorizing committee—can make progress toward this important national objective. The program need not be so aggressive as to be unreasonable in light of the funds available, but it should be a coordinated, planned effort so that when a project is authorized funds will be made available in the foreseeable future—at least to acquire the needed lands. All of our experience shows that delay is costly; if we cannot fund a project promptly, then we should recognize that fact and hold up the authorization until a reasonable funding program can be approved. Few, if any, projects can be realized in a single year, but we should strive to fund them as soon after they are authorized as possible. Otherwise land prices tend to skyrocket and Uncle Sam has to dig deeper into the public pocket.

State programs

Turning to the State side of the Land and Water Conservation Fund program, Madam Chairman, I want to say that I recognize that the current budget deviates from the ratio suggested in the Land and Water Conservation Fund Act. In all likelihood the members of this subcommittee have received communications calling their attention to the fact that only $62.5 million of the $138.5 million in the budget is for State programs. In the event that the subcommittee should decide to alter the present ratio to increase the State's share of the appropriation from the fund, it would seem inadvisable to reduce the Federal share when more moneys could, and probably will, be made available for State purposes from the remaining $126 million in the Land and Water Conservation Fund. In this respect I urge the subcommittee to maintain the recommended level of the Federal program.

Point Reyes supplemental

You are aware, of course, of the fact that the President intends to request a supplemental appropriation of $7.1 million for Point Reyes National Seashore. In light of the approval of the authorization increase for this project, this request is in order and should be granted. We were told that the Point Reyes land acquisition program can be completed below the new authorization ceiling if the funds are forthcoming in the immediate years ahead.

Golden eagle program

One last feature of the Land and Water Conservation Fund program that I want to bring to your attention is the recent action recommended by the authorizing committee with respect to the so-called "golden eagle program." As the members of the subcommittee will recall, the 1968 amendments to the Land and Water Conservation Fund Act provided for the termination of the uniform annual entrance permit, or "golden eagle passport", on March 31, 1970. It was, and has been, evident that this permit has not contributed as significantly to the fund as was anticipated when it was originally conceived. The members of the authorizing committee felt that if it was not working then an alternative program should be implemented. There has been some disagreement as to what alternative would be appropriate so we have recommended a temporary extension of the existing annual entrance fee system while we pursue the development of a suitable program.

I bring this to your attention because Public Law 90–401 terminated the golden eagle program on March 31, 1970. While I expect it to be revived temporarily (through December 31, 1971), I do want you to know of this development because it may have some modest effect on the presentations made to you by the recreation-administering agencies, since they did not know which course of action might be taken at the time of their presentation to your subcommittee.

HISTORIC PRESERVATION PROGRAM

Four years ago the Congress authorized a national program geared to the preservation of places of historic significance. Unlike other Federal efforts seeking to protect nationally significant properties, this program sought to encourage State and local governments to engage in the preservation effort. Insofar as it sought to encourage the States to "gear up" their historic preservation programs, we have been told that the authorizing legislation has been very successful, but the funds to convert the authorization into a meaningful program have never been adequate. In fairness to this subcommittee, I want to point out that the budget requests have consistently fallen far short of the amounts recommended when the program was originally authorized. (I would like to include in the record at this point a table showing precisely the amounts requested at each level in the budgetary process which shows the failure on the part of the executive branch to follow through with this program.)

GRANTS-IN-AID, HISTORY OF APPROPRIATION, PUBLIC LAW 89-665

	Fiscal year			
	1967	1968	1969	1970
Amounts requested by the National Park Service since inception of program	[1] $1,750,000	$9,450,000	$9,450,000 [1] 1,150,000	$9,450,000
Amounts cleared by the Department	[1] 1,750,000	[2] 9,450,000	1,650,000 [1] 1,150,000	1,569,000
Amounts requested in the President's budget	0	1,853,000	680,000	969,000
Amounts appropriated by Congress	0	300,000	100,000	969,000
Amounts actually expended by the Department	0	[3] 300,000	[4] 100,000	[5] 969,000

[1] Supplemental request.
[2] Not part of formal submission; request for planning allowance appeal.
[3] $300,000, national trust.
[4] $82,500, States; $17,500, national trust.
[5] In process; $669,000, States; $300,000, national trust.

1971: Under consideration; to be released after transmittal of the President's budget to the Congress.

Under the terms of Public Law 89-665 the annual authorization lapsed when the appropriations were not approved. As a consequence of the fact that less than $1.5 million of the original $32 million authorization was appropriated, the authority to appropriate the remaining $30.5 million expired. Because the funding level had been so modest, the burden was on the spokesman for the administration to show their intent to make a reasonable request for funds before our committee was willing to authorize a program level anywhere near the estimated needs of the States. Our hearings were held just before the President's Budget recommending an appropriation of $6,950,000 for this program was transmitted to the Congress.

This budget request represents the first really significant effort to convert this authorization into a meaningful program. While we recognize the constraints under which you must operate, the members of the authorizing committee would generally recommend the full funding of this request. Here, Uncle Sam's dollar can be stretched to achieve a most desirable objective. Not only can historically significant properties be protected and made available to the public, but this can be accomplished at a relatively modest cost and with State cooperation and participation.

National park development and operation funds

Madam Chairman, I do not want to burden your record or consume your time with a lengthy statement concerning the funds requested for operation and development activities of the National Park Service. We all know that there are more people traveling more extensively with more money and time than ever before. This means that our National Park System will continue to experience growing pressures on its facilities and personnel. This means that the Service will need to expand its effort to disperse the public so as to protect the valuable natural resources. New innovations and more personnel will be needed if these relatively delicate areas are to withstand the "people pressure" to which they will be exposed in the years ahead. The Congress should recognize these needs now and provide the funds required to do the job that the American public reasonably expects to have done.

WATER PROGRAMS

Office of Saline Water

The program of the Office of Saline Water is unique among those with which this subcommittee and the Committee on Interior and Insular Affairs have a common interest, in that it is the only one which requires annual authorization. This enables the legislative committee to maintain a degree of familiarity with the program that is not always possible on other programs. This year, we took full advantage of this opportunity by sending a team from the Subcommittee on Irrigation and Reclamation to inspect that part of the operation based at San Diego, Calif.

As an outgrowth of this inspection, and a very rewarding hearing, the committee has endorsed the proposed program for fiscal year 1971 except for a nominal cut of $500,000 in the Research and Development category. We felt that this cut was justified in the light of the carryover pattern of the past few years. Even so, the program which has been authorized is more than $3 million larger than that for fiscal year 1970.

Our study of this program this year has given us an added measure of confidence in it and in its management. Our field inspection disclosed that the facilities which the Congress has authorized and funded in recent years are being operated in such a way as to yield important results. Perhaps the most relevant and satisfying of these results is the fact that our domestic desalting industry is, at long last, installing production desalting plants which meet water needs competitively with other means of supply. These plants are going up or are on the drawing boards in Florida, Texas, the Virgin Islands, the Republic of Mexico, the Middle East and in other locations. There is no question but their engineering feasibility rests on and makes use of technology acquired through the OSW program.

There is some suggestion, however, that the total scope of the program needs to be reassessed, and it will be our intention to undertake this study in the next session of the Congress. Our committee believes it is time to see if the program needs new direction. I would hope to take a careful look at whether or not OSW really has anything more to offer in the distillation field, at least in terms of large scale, federally-operated hardware beyond that which is contemplated in the 1971 program. We will review, in depth, the question of foreign involvement. We will take an up-to-date look at the patent policy. Now that we have an established domestic industry, we should look anew at its capability in the Research and Development field.

None of these issues have been prejudged in our committee, we simply think that it is time to take stock and see where we should go in the years that lie immediately ahead. I know that your subcommittee, Madam Chairman, will support our efforts in this respect.

Referring specifically to the budget under consideration, I would like to note a trend toward centralization of effort on distillation and reverse osmosis. The most significant item in this program is the new combination MSF–VTE module which is now authorized at a cost of $4.4 million. Except for this item, the program would be smaller than fiscal year 1970. We were convinced that this module should be developed, perhaps, as the ultimate large plant distillation concept. Our study shows that it has substantial promise of improving water costs in the large plants required for regional water programs that may evolve in the next few years. Its funding is particularly important if we are to have a technological base under our planning assumptions for the future water needs of the Western United States.

Office of Water Resources Research

This program, which has a continuing authorization, is not so readily susceptible of legislative oversight as is the desalting program. It is noted that the proposed budget for fiscal year 1971 involves an increase of $1 million in the amount requested for grants under title II of the Water Resources Research Act. This is the program of grants to individuals, firms and institutions which may or may not be governmentally managed. It has been at the $2 million level in recent years.

I believe there is a justification for increased funding over previous years to offset the effects of inflation on technical and professional salary levels. Also, there is no shortage of problems needing solutions and to the extent that research under this program can contribute to efficient resolution of these problems the effort should be intensified.

Our committee has not, however, had the opportunities for oversight of this program that we have had for the OSW program. In this connection, we believe that the Water Resources Research program requires a legislative review and we propose to undertake one in the next session. At that time, we will consider whether changes in authorized funding levels are desirable, whether the program results are actually reaching those who can put them to use, and seek to determine whether any basic changes in the Water Resources Research Act are warranted. Until there has been the opportunity to make this study, I believe that the program should go forward at the recommended level.

OFFICE OF TERRITORIES

Turning to our territorial responsibilities, the administration has requested for fiscal 1971 the sum of $77,409,600 in new appropriations. This total figure includes the administration's fiscal year 1971 request of $60 million for the administration of the Trust Territory of the Pacific Islands, and $17,409,600 for the administration of territories, including the Washington Office of Territories.

The Committee on Interior and Insular Affairs supports the fiscal 1971 budget request of $17,409,600 for Administration of Territories and respectufily urges this subcommittee's favorable consideration of this request. While this request represents a net increase over the fiscal 1970 program, the increase arises as the result of statutory pay raises, higher deparmental estmates and the normal periodic in-grade salary increments. In addition, the enactment of the Guam and Virgin Islands Elective Governor bills have had some impact on Federal funding of the territories.

Virgin Islands

In the case of the Virgin Islands, the fiscal year 1971 program for the office of the Governor is $60,363. Of this amount $40,000 in new funds requested will provide for only one-half year's support for the Office of the Governor because the Federal responsibility for financing this activity will cease in January 1971, under the provisions of the Virgin Islands Elective Governor Act. The balance of the fiscal 1971 program will be funded from prior year's savings and the result is a program decrease of $63,137.

The fiscal 1971 program for the Office of Government Comptroller for the Virgin Islands involves an expenditure of $341,362. Three hundred thirty thousand dollars of new appropriations are requested and the balance of $11,362 is to be financed from prior year savings. This represents an increase of $30,728, the bulk of which is in personnel costs. As the subcommittee knows, Public Law 90-496 provides that the expenses of the Office of the Government Comptroller for the Virgin Islands shall be paid from the Internal Revenue collections for the Virgin Islands.

Guam. The fiscal 1971 program for the Territory of Guam is $8,601,000, an increase of $1,065,000. This request includes $52,000 for one-half year's support for the Office of the Governor of Guam under the provisions of the Guam Elective Governor Act, Public Law 90-497. However, funding of the Office of the Government Comptroller of Guam under Public Law 90-497, which involves a total program of $257,490 for fiscal 1971 is not included in the $8.6 million request. Only $118,000 of the amount necessary to fund the Office of Government Comptroller for Guam will be transferred from the Internal Revenue collections for Guam, and the balance funded by carryovers from prior years.

The bulk of the fiscal 1971 budget request for Guam is in the form of loans and grants totaling $8,549,000 under the Guam Rehabilitation Act. These funds will support the construction of classrooms for kindergarten, elementary, junior high, and the trade and technical school, construction of water and sewer facilities, and commercial and industrial development.

American Samoa

The adminsiration budget request for American Samoa for fiscal 1971, is $8,200,000, a net increase of $1,264,000 over the current fiscal year. In addition to these funds, local revenues of $6.8 million will supplement the direct Federal appropriation and other Federal grants for a total budget of $15 million. The fiscal 1971 program for American Samoa will, in addition to furnishing direct appropriations to support the Office of the Chief Executive and the Judiciary, provide funds for improvement in the areas of health, education, and welfare, economic and industrial development, communications, public works, and general administration.

Washington office

Supporting the activities in our territories is the general administration provided by the Washington Office of Territories within the Department of the Interior. The request for fiscal 1971 for the operations of this office is for $568,600, which is being requested as new funds since there are no remaining carryovers that could be applied to reduce the request for fiscal 1971. This situation was indicated in last year's budget and results in the request for new obligation authority.

Trust territory

With regard to our responsibility to administer of the Trust Territory of the Pacific Islands, the fiscal 1971 request for the trust territory is $60 million. This is an increase of approximately $12 million over fiscal year 1970, and the request is $10 million over the current appropriation authorization.

The bulk of the increase, or $7,178,000, is in the operations of programs in education, resources and development, transportation, communications, and the

operations without evidence to the Committee on Interior and Insular Aaffirs 000 of this increase is programed for capital improvements.

Essentially, the increase in funds requested is taken up in program expansion operations without evidence to the Committee on Interior and Insular Affairs that the present programs are operating efficiently and effectively at current levels of funding. Evidence of the capability to operate programs at some definite level of experience should be required before an increase in the funding level is authorized.

Madam Chairman, in view of the fact that there has been little experience in operating at the $50 million level of funding, and in view of the growing concern over the political status of the Trust Territory, the question arises as to whether or not this increased level of funding is warranted at this time.

BUREAU OF INDIAN AFFAIRS

The appropriations request for the Bureau of Indian Affairs includes funds for continuing construction of the Navaho Indian irrigation project in New Mexico. I have been advised that this request includes no new money and thus the only funds that will be available for construction in fiscal year 1971 would be fiscal year 1970 funds which the President impounded and which the Congress added last year.

It is my understanding that the Upper Colorado River Commission, representing all of the States of the Upper Colorado River Basin, will request this subcommittee to increase the appropriations for this project and will submit justification for such an increase. I hope that the subcommittee will give consideration to this request of the Upper Basin States. As you know, this is a participating project of the overall comprehensive plan of development for the Upper Colorado River Basin. Like other projects of this nature, once construction has started, it is in the financial interest of both the Federal Government and the project beneficiaries that construction be completed as soon as possible.

OTHER AGENCIES

Madam Chairman, I have no particular comments on the appropriations requests for the other Interior Department agencies included in this appropriation bill. However, I do support the funds recommended in the President's budget.

CONCLUSION

This concludes my statement and again let me express my appreciation for the opportunity to submit it. I look forward to continued cooperation between our two committees.

Mr. ASPINALL. In the beginning may I say I do go into matters of the Land and Water Conservation Fund, the State programs financed from the fund, Point Reyes supplemental, the Golden Eagle program, historic preservation program, the National Park development operating funds, Office of Saline Water, as well as the Office of Water Resources Research.

Then I go into the Office of Territories, referring particularly to the funds requested for the Virgin Islands, Guam, American Samoa, the Washington office, and the Trust Territory.

Also, there is a short statement having to do with a project being constructed by the Bureau of Indian Affairs.

Madam Chairman and members of the committee, I would just make a few brief remarks and then if there are any questions I would be glad to answer them. I won't refer too all of these categories which are contained in my statement. I think that they speak for themselves.

Because of the position of my committee that no new parks or recreation areas should be authorized in the absense of assured funding—this held for over 2 years—finally the President was persuaded to recommend appropriations of all revenues available in the land and Water Conservation Fund. This came up in connection with our

consideration of Point Reyes and after the Bureau of the Budget had advised the committee that the funds to initiate Point Reyes would not be available for some years. That statement in the report of the Bureau of the Budget caused me to go directly to the President. The President was very sympathetic and got in touch with the Bureau of the Budget and now these funds have been released, as of now.

Congress enacted an Historic Preservation program 4 years ago but neither the last administration or this administration has been able to get the program underway and adequately funded. Of the $32 million authorized to be appropriated less than $1,400,000 was appropriated during the 4 years and the remainder lapsed. This year Congress has enacted legislation authorizing additional appropriations in the total of $32 million, as was the first authorization. The administration is finally getting the program underway.

I hope that the committee will approve the approximately $7 million recommended for fiscal year 1971.

(Discussion off the record.)

Mrs. HANSEN. The Land and Water Conservation Fund budget requested this year total about $168 million. I believe a supplemental request will be before the committee in the near future.

Mr. ASPINALL. The chairman is exactly correct. This is the way we understand it.

The one program included in the appropriations bill which you are considering, which requires an annual authorization, is the program of the Office of Saline Water. We have completed legislation authorizing the fiscal year 1971 program. Except for a nominal reduction of $500,000 in the research category, we approved the entire program, including $4.4 million for a new module which the Department, especially the Office of Saline Water, feels is needed to demonstrate the feasibility of large distillation plants, especially with the vertical tube evaporator type of plant. It is the intention of our committee to make an in-depth study of this program next year.

The water resources program also will be reviewed in depth next year.

There are before our committee at this time numerous bills having to do with authorizing additional funds. I think that we need to determine whether this program needs some redirection in view of the increasing concern for our natural environment. In the meantime, I support the full funding of the administration's request.

For the most part, the increase in the appropriations request for the Office of Territory is justified because of statutory pay raises, increase in the administrative costs, etc.

However, I am concerned about the request for $60 million for the Trust Territory. This is $10 million over the current appropriation. Our committee has not yet given consideration to the legislation authorizing this $10 million increase.

Mrs. HANSEN. Has that legislation been introduced?

Mr. ASPINALL. It has been introduced. The Senate is working on it. We don't know what the Senate will do. I question whether the ceiling should be increased since we have had no experience in operating at the present ceiling of $50 million, as this committee knows.

The Upper Colorado Commission, representing all the States of the Upper Colorado River Basin, will present a statement to this com-

mittee requesting an increase in the President's budget request for funds to continue construction of the Navajo Indian Irrigation project. I hope the subcommittee will give favorable consideration to this request. As the chairman and members of the committee know, this was authorization that was a part of the Colorado River storage program, but the funding of the Navajo irrigation project itself is under the Bureau of Indian Affairs and the money must come from the Bureau of Indian Affairs.

Mrs. HANSEN. Mr. Chairman, this committee is deeply disturbed because the funds for the Navajo irrigation project have been placed in reserve by the Bureau of the Budget. This committee appropriated funds last year only to find that these funds were placed in reserve. This has been deeply disturbing to us. I am delighted to have your comment.

Mr. ASPINALL. It's disturbing to us not only in the Navajo project but also the San Juan-Chama project which is nearing completion. With that, Madam Chairman, in order to meet the time limit that your committee has, I will close. If there are any questions that you wish to ask me about any of these matters, I will be glad to try to answer them.

Mrs. HANSEN. The committee has had a great deal of correspondence on the Golden Eagle program. There are many people who did not realize that the Golden Eagle program did not financially reach its goal.

Would you please comment on the Golden Eagle program for us?

Mr. ASPINALL. Of course, the Golden Eagle passport program, as such, expired the 31st of March. At this time there is no program in operation. However, we have reported out a bill from our committee which is not identical but is similar in many respects to the Senate bill which was passed last fall.

The people who are writing to you, Madam Chairman, of course, are those who are using the Golden Eagle passport as an unjustified bargain—some of them getting $50 worth of value out of $7, others getting perhaps $150 because they go from one park to another park or from one place in a park to another place in the same park for camping and use of the available facilities. This Golden Eagle passport was never intended to be used as a substitute for user fees. But because of the position taken by the Army Engineers and to a certain extent by the Forest Service, the National Park Service has been honoring this entrance pass as a user fee operation and permits the use of all the park facilities without additional payments.

This program was supposed to bring to the Land and Water Conservation Fund in the neighborhood of $35 million by the end of the fourth year but, of course, it hasn't brought in anywhere that amount in all 4 years that it has been in operation. This last year it was less than $5 million.

It makes no difference, as far as the Land and Water Conservation Fund is concerned, whether we have a Golden Eagle passport program or not. Because the moneys that are necessary to make up the difference between whatever come out of motor fuel taxes and entrance fees and sale of surplus property is made up by revenues from the Outer Continential Shelf leasing program. But we are proposing in our bill that we have a Golden Eagle passport, as the bill now reads, for $10 a

year. I think that before we are through with the bill it will be $7. Our bill extends the program only until December 31, 1971. In the meantime, the study by the Public Land Law Review Commission will be available and the committees will have time to fully study the whole matter.

Many of us lean to the approach, I might say, whereby we have a nominal fee for access to all Federal lands, no matter what they are. If you go on Federal lands, you have a nominal fee that is charged to you. You pick it up at a post office or other designated locations something like duck stamps. Then that is to be used to go on to Forest Service lands, National Park Lands, or any other Federal lands for recreation purposes. As soon as you get on the lands then you are subject to a user fee which will be determined by a certain formula.

We feel that this would be far better than to try to raise money—as we thought we could when the Land and Water Conservation Fund bill was passed—from people who were interested in the conservation of our lands and the promoting of the National Park program and the recreational program, people who would pay the $7 fee in order to help finance these programs. Well, of course, purchase of the Golden Eagle passport by now users has proved to be wishful thinking.

Mrs. HANSEN. Will this help pay for preservation of the environment?

Mr. ASPINALL. They won't pay for this. They won't pay for the environment. I don't know where we are going to go for financing to clean up the environment. But this is our program as far as the Land and Water Conservation Fund and the Golden Eagle passport are concerned. I have asked for a rule and I suppose the bill will be up within a very short time.

Mrs. HANSEN. The committee deeply appreciates your remarks because we have had a great deal of correspondence on this program.

On page 7, of your statement you say, "The National Park Service will need to expand its effort to disperse the public so as to protect these valuable national resources".

Mr. Chairman, the committee made a valiant effort last year to expand the National Park Service programs. We provided in the Interior and Related Agencies bill funds for pollution abatement, sewage disposal facilities, and road construction. But many of these funds were placed in reserve by the Bureau of the Budget.

Mr. Chairman, this committee is also concerned about proper transportation within the parks so that the ecology will be maintained.

For example, in discussing this matter with the Director of the National Park Service, Mr. Hartzog, we said that we thought it was tragic that adequate rail facilities were not available within the National Parks and that if there were rail facilities in the parks they were being discontinued.

Mr. ASPINALL. Of course, the chairman is right. There is no question about this. We are becoming almost entirely dependent upon automobile transportation as far as the National Parks are concerned.

As the chairman knows, we have just recently lost the train from San Francisco to Salt Lake City and reduced the service of the train from Salt Lake City to Chicago by 3 days out of the 7, making it necessary for bus transportation between Ogden and Salt Lake City. This is becoming a very serious problem, and unless the Park Service is

permitted to take care of the necessary means of ingress and egress and passage through the park, the problem will become worse. We are just providing for the destruction of much more ecological values; a lot of our very worthy supporters of the environmental quality program are depreciating it.

Mrs. HANSEN. Mr. Chairman, thank you again for your very excellent statement.

Mr. Wyatt?

Mr. WYATT. Thank you, Madam Chairman. I would like to welcome the very distinguished chairman of the Interior and Insular Affairs Committee. I would like the record to show that during my 4 years of service on his committee he was always as helpful as it would be possible for any member to be another to member.

Mr. Chairman, I think you ought to know, if you don't, that I probably wouldn't have come back to Congress after my first term if it hadn't been for your encouragement and assistance. You have always run that committee in an extremely democratic way with no partisanship at all. I want to leave a record to show that before I depart from this world.

Mr. ASPINALL. May I thank my colleague from Oregon. Our association is much more than our association here in the Congress.

But may I say very sincerely and with a great deal of appreciation and affection that we never had any member of the committee of which I am chairman, who was more industrious than the chairman of this committee and the gentleman from Oregon who were always in attendance. It just seems like we depend upon the members who are our friends for a quorum these days.

Mr. WYATT. Mr. Chairman, that matter of a quorum meeting was also true during the Colorado River-Columbia River situation.

Mr. ASPINALL. That is right.

Mr. WYATT. Mr. Chairman, I have one thing I would like to discuss very briefly in connection with the extension of the authorization for the OSA program. Is there still a prohibition against the expenditure of money for foreign research or construction as there has been in the past?

Mr. ASPINALL. The gentleman is correct, with a very minor exception, which permits the expenditure of $100,000 total in two different areas—Scotland would be one and Israel would be the other—where we have certain research work going on at the present time that has proved to be rather fruitful and beneficial to the program in the past.

Mr. WYATT. I am delighted to hear those exceptions because about a year and a half ago, Mr. Chairman, I spent 1 week in Israel—and I'd like to add parenthetically at my own expense—and had the pleasure of visiting Professor Kogan at the Techneo Institute at Haifa. He is an aeronautical engineer and he was experimenting with a relatively new desalting process, known as the direct contact method, which was completely new to me at that time.

It was the only thing that I really have seen in the way of a new desalting technique that really offered what I had felt to be a real promise for the breakthrough. He was struggling to try to get a pilot plant built. I couldn't help but think how much a few thousand would mean to him and to the development of this technique, either approv-

ing it or disapproving it. Yet by law I think at that time we were forbidden to do that.

Mr. ASPINALL. He and his group are the ones who are taking care of as far as Israel is concerned in the new authorization bill.

Mr. WYATT. That is excellent. Thank you very much.

Mrs. HANSEN. Thank you again, Mr. Chairman. It is always a pleasure to have you.

Mr. ASPINALL. Thank you. I will see you next year.

MARINE GAME FISH RESEARCH LABORATORY AT PORT ARANSAS, TEX.

WITNESS

HON. JOHN YOUNG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mrs. HANSEN. We now have our very distinguished colleague from that very distinguished and select body, the Rules Committee, Congressman John Young of Texas.

We are delighted to have you. Has the Bureau of the Budget released last year's funds for the Port Aransas project?

Mr. YOUNG. I think they have arranged for its release, at least part of it. It is supposed to move along.

Mrs. HANSEN. Wasn't the total amount $50 thousand?

Mr. YOUNG. Yes; that was last year.

Mrs. HANSEN. Are you sure the funds have been released?

Mr. YOUNG. I am not positively sure.

I genuinely appreciate the opportunity afforded me to appear before you today to request third phase construction funds to complete the Marine Game Fish Research Laboratory building on the western Gulf of Mexico at Port Aransas, Tex., in my congressional district.

In fiscal year 1966 through the wisdom of your subcommittee, Congress appropriated $100,000 for planning and design work on this facility. For fiscal year 1967, $198,000 was approved by your subcommittee and appropriated by Congress for first phase construction consisting of site preparation and seawall. Second phase construction funds in the amount of $200,000 were approved and appropriated for fiscal year 1968, and covered the garage, maintenance, and gear storage building, and roadway preparation. Your subcommittee made available in fiscal year 1970, $50,000 to cover the costs of utilities and complete the interior of the maintenance and gear storage building.

Third phase construction of the main laboratory building requires an appropriation of $1,200,000 if approved for fiscal year 1971, and all necessary plans and specifications have been completed by the Naval Facilities Engineering Command. With construction costs escalating at the approximate rate of 7 percent per year, it is clear that several hundred thousand dollars can be saved by proceeding with third phase construction on this meritorious project in fiscal year 1971.

As members of the subcommittee are aware, the Western Gulf Marine Laboratory is located in the center of the important recrea-

tional fishing area of the western Gulf of Mexico. In 1965, this portion of the gulf coast provided nearly 740,000 anglers with fishing recreation. They are estimated to have spent $65 million and realized a catch of 188 million pounds of fish.

In the fight against pollution and for its kindred subject, conservation, nothing could be more important to the wholesome ecology of the western gulf than completion of this laboratory. An extremely important feature of the laboratory and its location it is association with what is fast becoming an important marine research complex. Located nearby in the greater Corpus Christi area is the Institute of Marine Science of the University of Texas, the Rockport Laboratory of the Texas Parks and Wildlife Department, the Ocean Science and Engineering Laboratory of the Southwest Research Institute, and the Marine Science Facility of the U.S. Geological Survey at the University of Corpus Christi at which will be controlled the research for the entire gulf and Carribean. Let me emphasize that this laboratory and the program it will carry out complements rather than duplicates the efforts of these other institutions in the marine science field. Its program will include studies of marine game fish disease, fisheries hydrography research, studies of the estauarine ecosystems, and other areas of interest.

Madam Chairman and members of the subcommittee, may I express to you again my thanks for appearing before you today. I most respectfully request your support and consideration in approving the $1,200,000 for the laboratory building in fiscal year 1971 in order that we may avoid further spiraling construction costs and move ahead in an orderly and continuing manner with this deserving and meritorious projects.

Thank you profusely for your kindness and interest in this project. This committee has provided in the neighborhood of $600,000 so far and, as you will be from the statement, about $1,200,000 will wrap it all up except for the furnishings. I would commend that to you.

Mrs. HANSEN. What will the requested $1,200,000 accomplish.

Mr. YOUNG. Madam Chairman, in all honesty, which you will find out anyway, that calls for the big building. Of course, if we can't get the big one we would like to have the little one. So I thank you very much, Madam Chairman.

We think it's important. I know the committee does or you wouldn't have gone as far as you have with us. I do appreciate the opportunity to be here.

Mrs. HANSEN. Thank you very much.

Mr. WYATT. We have the alternate figures in the record on this?

Mr. YOUNG. I know that you have them because we discussed them. I don't have it in the statement.

Mr. WYATT. I know your problems because I have an identical problem.

Mr. YOUNG. Thank you. I will see that you get that map.

Mrs. HANSEN. Please do.

Thank you very much. It's always a pleasure to have you.

Marine Biological Laboratory at Milford, Conn.

WITNESS

HON. ROBERT M. GIAIMO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Mrs. Hansen. Congressman Giaimo, it is a pleasure to have you here this morning.

Mr. Giaimo. Thank you very much, Madam Chairman.

I wish to thank you and the members of this subcommittee for affording me the opportunity to appear today on a matter in which I am deeply concerned. As you know, the Bureau of Commercial Fisheries has decided, as part of its most recent economy drive, to close the U.S. Marine Biological Laboratory at Milford, Conn.

The Bureau's decision is disastrous for the commercial shellfish industry and a grave blow to basic research in aquaculture. This committee is most familiar with the outstanding research contributions of the Milford lab and its reputation as the finest shellfish lab in the world. This committee is well aware of the major role the laboratory has played in reviving a once-dying industry.

Past contributions should not serve, however, as the basis of future appropriations. It is the potential of this laboratory which brings me here today. It was my privilege in 1961 to introduce legislation authorizing a $1.3 million construction program for the laboratory. The potential of this unique facility is just now being realized. Promising research programs are now underway using specially designed equipment. The laboratory is developing a hardier breed of oyster and is perfecting better methods of cultivating and harvesting oysters and increasing production.

Today, most Americans consider the oyster a luxury item. This should not be the case. Prior to the increase in pollution and the destruction of oysters by starfish and other predators, the oyster was an inexpensive staple food item enjoyed by Americans. With its protein content and nutritional value, the oyster could and should become an important part of any American's diet.

We know that we can control and increase the production of oysters. The laboratory's past accomplishments bear eloquent testimony to this fact. The cost of making this dream come true is an expenditure of approximately $336,000 per year. This expenditure already has paid for itself in terms of concrete contributions and will certainly continue to do so in the future. This small yearly investment can reap tremendous dividends in the years to come.

If we close the Milford lab, we will deprive all Americans of the opportunity to benefit from its work. If we close this laboratory, we will have wasted valuable time, money, and research which is not yet complete. If we close this laboratory, we will lose a valuable team of research personnel who have worked together to bring us out of the dark ages of shellfish harvesting and have laid the groundwork for a bright future.

Were the shellfish industry able to take over the cost of this research as the Bureau proposes, I would be the first to urge this course of action. The truth is, however, that the industry is in no position to do so. If we permit this laboratory to remain in operation, the time will come

when we can ask a revitalized shellfish industry to assume the cost of research. Until that time, I strongly urge that we continue research which has proven its value and its potential and which can contribute so much to the well-being of all our citizens.

Mrs. HANSEN. What is the required funding level for the laboratory?

Mr. GIAIMO. I believe it is $336,000 for the year. You can correct me if I am wrong.

Let me just say this, Madam Chairman. I was involved in the original legislation which authorized construction of the shellfish laboratory in Milford, Conn. For years the Government has taken the position that we had to do this type of work, that we had to get into the field of oceanography, and that we had to study the ocean as a source of aquaculture. All of these were necessary to learn more about how we could feed populations from the ocean and to discover all of the wonderful things which grow in the ocean and which can sustain populations.

All this has been in keeping with national goals to broaden the ecological know-how of the Nation. Now, suddenly, it seems that the Department of Interior and the Bureau of Commercial Fisheries have become shortsighted by closing installations of this type after they had established a commitment to this pursuit of knowledge. To me, this is a step backward.

Yet, at the same time, we hear pronouncements made by this administration as to how it is committed to and desirous of broadening the ecological knowledge of this Nation.

(Discussion off the record.)

Mr. GIAIMO. I think it would be a terrible mistake to close down a very good laboratory which, by everyone's admission, has done tremendous work in this area. I think it would be shortsighted and a terrible mistake. We are not talking about huge sums of money. It is not a large facility; $336,000 a year is within the realm of reason.

I am not satisfied, and haven't been satisfied at all with the reasons given as to why laboratories of this type—and this particular Laboratory—should be closed down.

Mrs. HANSEN. I think the distinguished gentleman from Connecticut will be happy to know that the daughter of a very distinguished professor of chemistry at the University of Washington, from the town of Oysterville has just written saying:

> I specifically write to protest the imminent closure of the U.S. Marine Biological Laboratory at Milford, Conn., scheduled June 1, that Laboratory being the only one in the world devoted exclusively to the study of shellfish. Their staff, though small, is excellent and once lost cannot be replaced. Staff knowledge is important to the country's welfare if we want aquaculture, if we need marine food, if we want scientific answers to aquaculture problems.

The letter is signed, "Virginia Tarter."

Mr. GIAIMO. I agree with what she says. I am very seriously concerned about this decision of the administration to terminate this program and this facility.

Mrs. HANSEN. She goes on to say:

> We favor economy, but not economy by taking the best and highly trained and able scientists in their laboratory facility out of production especially when the costs are minimal when compared to military expenses.

I think that is important.

Mr. GIAIMO. I think another point to stress in that area, where she talks about the scientists who have done such great work, is that these

Government employees are highly skilled, highly capable people. They shouldn't have to live through these periods of uncertainty. They should know if they are going to be working, where they are going to be working, and what field of knowledge they are going to be pursuing.

If we put them in this uncertain position in today's world, they will find employment elsewhere and the Government will lose these highly trained, knowledgeable men and women.

Mrs. HANSEN. The committee agrees. I want to express the committee's appreciation for your appearance today.

Mr. GIAIMO. I certainly want to express my appreciation to you and all the members of your committee because I am aware of your concern. Our only hope really lies with you and your committee and with the Congress.

Mr. WYATT. Madam Chairman, I would like to tell Mr. Giaimo that I concur wholeheartedly with what he has said, and that I think it's very obvious to people who have any knowledge at all in this area of what we know about the living organisms and fish in the oceans. It's kind of like the tip of an iceberg compared to what we must know.

Mrs. HANSEN. It is just the beginning.

Mr. WYATT. Once you get an operation like this really keyed up and a going concern, it's horribly expensive to duplicate and bring back up to this level. It would appear to me to be the very worst kind of economy.

Mr. GIAIMO. I agree with the gentleman. We are just beginning to learn about all the wonderful and beneficial things which exist in the sea. This food source can be helpful to mankind and we are going to have to call on it in the next few years. We are going to be dependent upon it. We are just beginning now as a nation to concern ourselves with it. To take this shortsighted view, to my way of thinking, is foolish and tragic.

Thank you, Madam Chairman.

Mrs. HANSEN. Thank you, again.

THE BUREAU OF COMMERCIAL FISHERIES AND THE BUREAU OF SPORT FISHERIES AND WILDLIFE

WITNESS

HON. JOHN D. DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mrs. HANSEN. We are pleased to have the testimony of Congressman John Dingell, Chairman of the Subcommittee on Fisheries and Wildlife Conservation of the House Committee on Merchant Marine and Fisheries.

We are delighted to have Congressman Dingell's testimony.

Mr. DINGELL. Madam Chairman, I appreciate the opportunity to appear before your distinguished subcommittee this afternoon to present my views on a number of important programs in the President's budget for fiscal year 1971 for the Department of the Interior.

As chairman of the Subcommittee on Fisheries and Wildlife Conservation, I would like to call to your immediate attention two important programs which are scheduled to expire June 30, 1970. They are the fisheries loan program and the jellyfish program.

With respect to the fisheries loan program, there is now pending in my Subcommittee on Fisheries and Wildlife Conservation several bills which would extend this program for an additional 10 years. One of the bills is H.R. 14124, which was introduced by the distinguished Chairman of the Merchant Marine and Fisheries Committee, Mr. Garmatz, as a result of an executive communication. Hearings have already been held on this legislation and the bills are scheduled for consideration when my subcommittee next meets in executive session. It is my understanding that the Senate Commerce Committee has completed its hearings on similar legislation and is contemplating action on the pending bills at a very early date.

Madam Chairman, the fisheries loan fund was established by section 4 of the Fish and Wildlife Act of 1956. The revolving fund initially had an authorization of $10 million, but in 1958 it was increased to $20 million. In 1965, the program was extended for an addtional 5 years—until June 30, 1970—at the same level of funding.

Under the program, the Secretary of the Interior is authorized to make loans for financing or refinancing the cost of purchasing, constructing, equipping, maintaining, repairing, or operating new or used commercial fishing vessels or gear. Loans bear interest at a rate determined by the Secretary of the Interior—after considering the average market yield on outstanding Treasury obligations plus a reasonable charge for costs of administering the program—and are made for periods up to 10 years to commercial fishermen who would not otherwise be able to obtain financial assistance on reasonable terms and conditions.

Only $13 million of the $20 million authorization has been appropriated. By February 28, 1970, a total of 1,091 loans for nearly $28 million had been approved. Thus, the revolving fund has been used twice and is now starting on its third round. Estimated annual losses from bad debts have been held to less than 1 percent of the average annual outstanding balance of loans.

Madam Chairman, because of the tight money market and to prevent the exhaustion of the revolving fund in November of last year the Secretary, by regulation, provided that loans could not be made in excess of $40,000. This limitation has severly restricted the program and, in effect, has defeated the purpose for which the program was established. I feel confident that this limitation would be removed if more funds were added to the program. After considering annual collections—which amount to about $2.5 million on the average it appears that an appropriation of $1 million to the loan fund would accomplish this purpose. In order to allow for the backlog of applications that would have been made, except for the $40,000 limitation, and in order to provide the necessary funds to commercial fishermen who are unable to otherwise obtain loans under reasonable terms and conditions, I would like to urge this distinguished subcommittee to appropriate $1 million of the remaining $7 million authorized to be appropriated.

With respect to the jellyfish program, which is scheduled to expire June 30, 1970, my distinguished chairman, Mr. Garmatz, introduced legislation which would extend this program for an additional 3 years. Hearings were held on this legislation March 9, 1970, and the legislation is scheduled for consideration when my subcommittee next meets in executive session.

In 1966, the Congress enacted Public Law 89–720, which authorized the Secretary of the Interior to cooperate with and provide assistance to the States in controlling and eliminating jellyfish and other such pests in our coastal waters and in conducting research for the purpose of controlling floating seaweed in such waters. The act authorized to be appropriated not to exceed $500,000 for fiscal year 1968, $750,000 for fiscal year 1969, and $1 million for fiscal year 1970.

Chairman Garmatz's bill, H.R. 12943, in addition to extending the program until June 30, 1973, would authorize the balance of the unappropriated authorization for fiscal year 1970 to be available to be appropriated over the next 3 years of the program. Only $267,000 of the 1970 $1 million authorization has been appropriated, leaving a balance of $733,000 to be carried forward.

Madam Chairman, I would like to call to the attention of this distinguished subcommittee that H.R. 12943 does not provide a new authorization for funds to be appropriated but merely extends an appropriation-authorization that has already been approved by the Congress. The Department of the Interior recommends enactment of the legislation and I would like to request this distinguished subcommittee to appropriate $295,000 of the remaining $733,000 authorization for fiscal year 1971. Madam Chairman, the President's budget calls for only $190,000. However, to restore the $35,000 cut from the normal level of funding of fiscal year 1970 and to allow for new work to be requested by the States, in addition to costs of administering the program, $295,000 will be needed for fiscal year 1971 to adequately meet contemplated needs of the program.

Next, I would like to call special attention to the fishing vessel construction subsidy program. In 1960 the Congress enacted the U.S. Fishing Fleet Improvement Act. This act was designed to correct inequities in the cost of construction of fishing vessels and to assist in rebuilding our obsolete commercial fishing fleet. The program authorized an appropriation of $2.5 million annually and up to 33⅓ percent for construction subsidy.

In 1964, the Congress extended the program to June 30, 1969, increased the maximum subsidy from one-third to one-half of the cost of construction, and authorized an annual appropriation of not more than $10 million.

Forty-two vessels have been constructed under the U.S. Fishing Fleet Improvement Act since its inception. The program has had a tremendous impact upon the fishing industry, providing more incentive for the construction of privately owned fishing vessels than any other single factor now affecting the industry. This was brought about mainly through the development of advance designs of vessels and equipment developed for new construction under the program. Indications are that 400 to 500 new fishing vessels have been constructed from private funds as a result of the subsidy program.

Madam Chairman, on August 12, 1969, the House passed H.R. 4813. This bill was introduced by Chairman Garmatz as a result of an executive communication. H.R. 4813 would extend the construction assistance program for an additional 2 years, until June 30, 1971; broaden the program to include reconditioning, conversion, and remodeling; increase the authorization appropriation from $10 million to $20 million per year; provide that the determination of subsidy be

based on the difference between foreign and domestic costs of constructing a class of similar vessels instead of a separate determination for each individual vessel; eliminate several time consuming provisions resulting in a savings of time and administrative costs; and would authorize a study—until January 1, 1971, at which time the report with recommendations to the Congress through the President would be due—to consider ways and means to improve the effectiveness of the U.S. fishing industry, such as lower insurance costs, improved ship design, feasibility of allowing a trade-in of obsolete vessels, desirability of a construction-reserve fund, and the improvement of safety features aboard fishing vessels.

Madam Chairman, I might point out that the Department of the Interior favors enactment of H.R. 4813, as amended, but recommends that the cost of the program be limited to $10 million per year. At the time the House passed H.R. 4813, these were pending before the Department of the Interior applications for new vessel construction subsidy amounting to approximately $12.5 million. Although many of the applications have been withdrawn, indications are that most of them will be resubmitted when funds are again made available under the program. In view of this and in view of the fact the program would be broadened to include applications for reconstruction, remodeling, and conversion, I am of a firm opinion that $20 million will be required to meet these needs. Accordingly, I strongly urge this distinguished subcommittee to provide this vitally needed assistance to a struggling but deserving industry by fully funding the authorization of $20 million that would be provided by H.R. 4813. Madam Chairman, even if H.R. 4813 is enacted into law in its present form 1 year of the program will have been lost, since the bill would extend the program for fiscal years 1970 and 1971 only. I hope the Senate Commerce Committee in its wisdom will amend the bill to extend the program for 1 additional year, thereby extending the program for a total of 3 years. The program is in dire need of funds and I trust this subcommittee will see that the $20 million is made available in fiscal year 1971 to carry out this worthwhile program.

Next, I would like to call the subcommittee's attention to a program in which I am especially interested and one which I have been following closely since its inception in 1961. It is known as the accelerated wetlands acquisition program. I want to make a special appeal to this distinguished subcommittee to provide the necessary funds to bring our acquisition goal under this program up to date.

In 1961, Congress passed the Wetlands Loan Act which authorized advance appropriations of up to $105 million for a 7-year period to speed up the acquisition program that had been financed from duck stamp sales. These advance appropriations were to be repaid with 75 percent of the annual duck stamp receipts. The $105 million represented annual appropriations of $15 million a year to be added to an estimated $5 million a year of duck stamp receipts.

It took a little time to get the accelerated program in gear. There was no advance appropriation in fiscal year 1962. There was local resistance to the acquisition program which was somewhat alleviated by the amendment of the Revenue-Sharing Act in 1964. Appropriations for the 7-year period which totaled only $46 million, ranged

around $7.5 million a year. The 7-year period has now been extended to 15 years ending with fiscal year 1976.

The low rate of appropriation has been the result of budget restrictions required by the national fiscal situation. The acquisition program has been further complicated by opportunities to acquire large tracts that could not be passed up. Thus, the completion of refuge units and the purchase of the smaller tracts has been gradually postponed from year to year.

If the program is restricted to the current low level of acquisition, price increases on the tracts delayed will make the program cost more because of the general escalation of land values. The estimate of the acreage that can be acquired with the advance appropriations has already been reduced from 2.5 million acres to 2.2 million acres because of cost increases. Through fiscal year 1970 only 1.3 acres of land have been acquired under the accelerated program. Of the total, about 300,000 acres are on major refuges and 1 million acres in the prairie pothole country of the Dakotas and Minnesota.

The $7.5 million request in the President's budget for fiscal year 1971, with an estimated $5 million in duck stamp receipts, would acquire another 20,000 acres of refuge land and 119,000 acres of small wetlands. This is a $1.7 million increase over fiscal year 1970 but is still not enough. About $1.5 million worth of next year's program will be consumed by options already on hand by the end of fiscal year 1970 for waterfowl production areas. The same situation is anticipated for the end of fiscal year 1971. Enough funds should be made available to wipe out this carryover and permit the program to capitalize on an extremely favorable acquisition climate at present.

The situation is no less urgent on the major refuges. Virtually all moneys available for refuges through the end of the loan authorization are scheduled for projects already approved by the Migratory Bird Conservation Commission, of which I have the distinct honor of serving as a member. On that Commission I see a stream of requests for price reapprovals due to increasing land costs. Of the refuges approved and still scheduled for acquisition, over 80 percent were approved by the Commission in 1965 or earlier. This means they will have been under acquisition 6 or more years at the start of fiscal year 1971 and if not acquired before the end of the loan authorization in fiscal year 1976, some will then be 10 years old. These projects should be completed to forestall further price increases and to attain maximum wildlife benefits from them.

For these reasons, I am proposing a modest $2 million increase to the $7.5 million loan fund advance proposed in the appropriations request by the President. This is a sound business procedure and only a partial step in meeting the real needs of this program.

Another matter which I would like to call to the attention of the distinguished subcommittee concerns the regulation of imports of wildlife into the United States. As many of the members of this subcommittee will recall, my subcommittee on Fisheries and Wildlife Conservation reported legislation last year which resulted in the enactment of what is commonly known as the Endangered Species Act of 1969. It is Public Law 91–135. In part, this act would assist in protecting endangered species of fish and wildlife on a worldwide basis by preventing the importation into this country of any species that have

been determined to be threatened with extinction by the Secretary of the Interior.

Regulating importation of foreign wildlife into the United States is a growing problem. There is a need to increase our enforcement effort to control the illegal importation and traffic of wildlife afforded protection by prohibiting the importation, except for limited purposes, of wildlife threatened with extinction or taken in violation of foreign law.

The Endangered Species Conservation Act of 1969 is a comprehensive Act which includes measures to regulate the importation of all wildlife into the United States and, in addition, amends existing laws to make unlawful throughout the United States the interstate shipment of reptiles, amphibians, mollusks, and crustaceans taken contrary to the laws of a State or foreign country. Such additional control on importations and interstate transportation is necessary to provide adequate protection to all species threatened with worldwide extinction.

In reviewing the legislative history of Public Law 91–135, the need and urgeny felt in the United States for giving increased protection to all endangered species at home and abroad becomes obvious. The Secretary of the Interior has identified this legislation as ". . . one of the most significant measures ever enacted by this—or any—country to help preserve its own and the world's wildlife." He has further stated that ". . . this legislation will declare war on poachers" and has directed prompt enforcement.

The President's budget contains a request for $75,000. This would employ four additional agents and initiate the enforcement of the Endangered Species Conservation Act. Although enforcement efforts will be intensified, there is still a need to increase enforcement capability at major designated ports of entry. There also is the need to increase the number of ports of entry eventually as a service to the public and for the protection of wildlife in transit. I am advised that of immediate concern is an importation office at Honolulu, Hawaii, with clerical help. Clerical assistance will also be necessary at the designated ports in Chicago and San Francisco.

Operating expenses are necessary for enforcement of the Endangered Species Act relative to illegal interstate transportation of domestic endangered species. This activity is outside the routine purview of the importation inspectors.

A summary of additional personnel and operating funds over the President's budget for 1971 are as follows:

Honolulu, Hawaii; one U.S. game management agent and one clerk—$36,500; Chicago, Ill., one clerk—$6,750; San Francisco, Calif., one clerk—$6,750; operating expenses for enforcement of domestic endangered species—$25,000, making a total of $75,000. Madam Chairman, I strongly recommend that an additional $75,000 be added to the President's budget in order that this worthwhile program may be properly administered.

Next, Madam Chairman, I would like to call to the attention of the subcommittee a program which is of great importance to me and the States bordering the Great Lakes. It is the Anadromous Fish Conservation Act program. This act was enacted in response to an urgent need for a comprehensive national program designed to benefit the

anadromous and Great Lakes fishery resources. The act authorizes the Secretary of the Interior to enter into cooperative agreements with the States, either jointly or separately, and with other non-Federal interests, for the conservation, development and enhancement of the anadromous fishes and those stocks of fish of the Great Lakes that ascend the streams to spawn.

I have followed this program with great interest, not only because of the tremendous impact it has had on the welfare of the fish resources of my State, but also because of the really outstanding work being done in those States bordering our two great oceans and the Gulf of Mexico. The program has tremendous national significance. It has spurred work on anadromous and Great Lakes fish resources, provided the wherewithal to greatly accelerate a program which benefits all of us today; and, further, affords us the opportunity to leave these wonderful resources as an endowment to those that follow.

With respect to the Great Lakes, the anadromous fish program has played a prominent role in the development of a completely new fishery. This program began in 1965 with the transplanting of the west coast coho salmon into the Great Lakes. Not only has this program produced a new fishery, but it has had a tremendous effect on the economy of the area. It is estimated that each coho salmon in the sport fishery is worth about $50.00 to the economy. In fact, the Department of the Interior has estimated that each million dollars of Federal funds expended under the Anadromous Fish Conservation Act generates approximately $9 million of benefits to the States.

Madam Chairman, the anadromous fish program expires June 30, 1970. However, my Subcommittee on Fisheries and Wildlife Conservation recently reported legislation that would extend this program for an additional 4 years. It is H.R. 1049. The House passed the bill February 16, 1970, and it is now pending in the Senate Commerce Committee. I feel confident the Senate Commerce Committee will report the bill in the very near future.

In addition to extending the program for an additional 4 years, H.R. 1049 would broaden the program and authorize the Federal share of an approved program to be increased from 50 percent to 60 percent whenever two or more States having a common interest in a basin jointly enter into a cooperative agreement with the Secretary of the Interior. The reason for this provision stems from the fact that many States have indicated an interest to participate in the program provided multi-State projects were funded at a level higher than 50 percent, as is the case with single State participation.

Madam Chairman, H.R. 1049 authorizes to be appropriated $6 million for fiscal year 1971. The President's budget calls for $5 million. I strongly urge this subcommittee to fully fund the $6 million authorization so that the expanded program can get off to a good start.

Finally, Madam Chairman, I would like to bring to the attention of this distinguished subcommittee, a matter that has given me and my colleague, Congressman Lennon, Chairman of our Subcommittee on Oceanography, a great deal of concern. On February 26, 1970, Chairman Lennon and I wrote a joint letter to Secretary Hickel expressing our deep concern over the plans of the Bureau of Commercial Fisheries to sharply reduce its research capability in an effort to meet the fiscal year 1971 budget.

For instance, four research vessels have been or are in the process of being deactivated. They are the *Alabatross IV*, operating out of woodshole, Mass.; either the *Cromwell* or the *Gilbert*, operating out of Hawaii; the *Miller Freeman*, operating out of Seattle, Wash.; and the *Undaunted*, operating out of Miami, Fla. The plans of the Bureau also call for closing or sharply reducing the activities of 4 laboratories located in Milford, Conn.; Palo Alto, Calif.; Terminal Island, Calif.; and Ann Arbor, Mich.

In our letter to the Secretary, we requested that he appear before a joint session of my Subcommittee on Fisheries and Wildlife Conservation and Congressman Lennon's Subcommittee on Oceanography to justify the action planned in each of the above mentioned cases, as well as any other similar actions he may contemplate in the near future. The Secretary has agreed to send representatives of the Department of the Interior to explain these cuts, and the joint session is scheduled for Friday of this week, April 17.

Madam Chairman, I do not have complete information on the impact of these proposed cuts on the various programs previously administered. I am, however, well aware that your distinguished subcommittee has held lengthy hearings on this vital subject, and I want to commend this expression of interest and concern. I also want to express my gratitude for your efforts in support of these most important programs.

There is one area of this matter with which I am especially familiar, and over which I am—quite frankly—gravely concerned. I am referring to the very disturbing proposal to drop certain programs at the research laboratory in Ann Arbor, Mich.

The Bureau of Commercial Fisheries Laboratory at Ann Arbor, Mich., is recognized as one of the world's largest and best equipped fresh water biological research laboratories. It has earned this reputation because of the many contributions to fishery science in fresh water biology. In addition to its primary mission in commercial fisheries research, it has made broad contributions to knowledge of the Great Lakes. It was the Ann Arbor Laboratory that first brought to public attention the seriousness of pollution in Lake Erie and later in Lake Michigan. It has provided outstanding work on pesticides in fish and other aquatic life.

Madam Chairman, it is my understanding that—in order to achieve certain economies—the Bureau of Commercial Fisheries is planning to drop research programs at the Ann Arbor Laboratory. As a result of out its entire program that the Bureau of Sport Fisheries will phase out its entie program and that the Bureau of Sport Fisheries and Wildlife will take over the operation of the Ann Arbor Laboratory. According to the Secretary's plans, the Bureau of Sport Fisheries and Wildlife will, in effect, utilize the personnel now employed at the Ann Arbor Laboratory, except for a few of the permanent and temporary employees. However, Madam Chairman, my primary concern about this proposal is the fact that it has not been approved by the Bureau of the Budget. I am greatly interested in seeing that this laboratory continues to provide the research capability that it has in the past, and I would like to strongly urge this subcommittee to study this phase of the President's program very closely and to see that this laboratory—so vital to the Great Lakes area—continues in operation.

Mrs. HANSEN. Thank you.

BUREAU OF INDIAN AFFAIRS

The Omaha and Winnebago Tribes

WITNESSES

HON. ROBERT V. DENNEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEBRASKA

C. W. HOLMQUIST, A SENATOR IN THE NEBRASKA STATE LEGISLATURE

Mrs. Hansen. Congressman Denney, we are very happy to have you with us today.

Mr. Denney. Madam Chairman, I request unanimous consent to submit my statement for the record and speak to it, if I may, and also a statement of State Senator C. W. Holmquist of the Nebraska State Legislature.

Mrs. Hansen. Without objection, it is so ordered.

(The statement follows:)

General Statement of Hon. R. V. Denney

Madam Chairman and members of the committee, I appreciate your honoring my request to appear before this distinguished committee, I shall be brief and to the point.

On April 24, 1969, the Nebraska State Legislature adopted resolution No. 37. This resolution tenders to the United States the retrocession of criminal jurisdiction over offenses committed by or against Indians within the Indian country located in Thurston County, Nebr., except those offenses involving the operation of motor vehicles on public roads or highways. This offer of retrocession is effective July 1, 1970.

The offer of Nebraska is to return to the Federal Government a portion of the jurisdiction it assumed in 1953, pursuant to Public Law 280. Under the terms of the resolution, the State would retain civil jurisdiction and criminal jurisdiction only over offenses on the operation of motor vehicles on public roads.

There are two tribes, each having its own reservation, in Thurston County, Nebr. They are the Omaha Tribe and the Winnebago Tribe. The councils of both tribes have enacted resolutions expressing their positions on retrocession while the Winnebago Tribe is opposed to any such efforts.

It is my understanding that the Bureau of Indian Affairs intends to support the Omaha's bid for acceptance of the offer, to become effective July 1, 1970. Due to the continuing opposition of the Winnebago Tribe to retrocession, no action appears to be contemplated by the Bureau in relation to the Winnebago Indian Reservation at this time.

Although it appears that retrocession with reference to the Omaha Tribe will occur on July 1, 1970, I am advised that there are still some problems to be negotiated and the Bureau has indicated that its position of support to the Omaha Tribe in their bid for acceptance of retrocession in no way commits the Secretary of the Interior or the Attorney General. The Bureau feels that any final decision on acceptance lies within the exclusive province of the Secretary, with the concurrency of the Attorney General under the terms of Executive Order No. 11435. However, the State of Nebraska does not concur and the State fully intends to pull its added officers out by July 1.

In any event, if the Federal Government assumes responsibility on July 1, the Bureau of Indian Affairs advises that to initiate action to operationalize a law and order program on the reservation, there are a number of factors to be considered, including the question of funds. The Bureau's budget for this fiscal year beginning July 1, 1969, contains no funds for law and order services in Nebraska, nor were such costs taken into account in the 1971 budget presentation.

In the total absence of facilities, equipment, and personnel, it will be necessary to establish and implement a completely new program. To accomplish this, the Bureau estimated that an additional $197,000, will be needed for the law and order activity under their education and welfare appropriation for the current

fiscal year with 20 permanent and six part-time positions. An additional $249,000 will be needed for the subsequent year.

A proposed budget outline for the fiscal years 1970 and 1971 is attached to my testimony and I respectfully request that this committee give its consideration to this matter. Thank you.

PROPOSED BUDGET FOR LAW AND ORDER PROGRAM OMAHA INDIAN RESERVATION FISCAL YEARS 1970 (4TH QUARTER) AND 1971

Item: personal services]

Number	Title	Grade	4th quarter fiscal year 1970	Fiscal year 1971
1	Supervisory Criminal Investigator	GS-12	$3,347	$13,389
1	Juvenile Officer	GS-11	2,808	11,233
2	Probation Officer (1 Male and 1 Female)	GS-11	5,617	22,466
1	Supervisory Police Officer	GS-9	2,330	9,320
3	Police Officer (Journeyman)	GS-5	4,632	18,528
3	Police Officer	GS-4	4,142	16,566
6	Jailers/Radio Operators/Desk Clerks	GS-4	8,283	33,132
1	Administrative Assistant	GS-7	1,910	7,639
1	Clerk-Stenographer	GS-5	1,544	6,176
1	Clerk-Typist	GS-4	1,381	5,522
2	Cook/Matron	Part time	1,104	4,416
1	Chief Judge	Part time	1,820	7,280
3	Associate Judge	Part time	2,925	11,700
1	Indian Court Legal Advisor (Professional Attorney)	Part time	1,897	7,587
	Total payroll		43,740	174,954
	Premium compensation and overtime pay		3,475	13,899
	Total payroll and premium compensation pay		47,215	188,853
	Employee benefits (8.5 percent)		4,013	16,052
	Total personal services		51,228	204,905

Item	4th quarter fiscal year 1970	Fiscal year 1971
Travel (except for training)	$4,000	$8,000
General administrative and operational supplies and materials (includes uniforms and police accessory equipment, except firearms)	4,000	2,000
Other expenses	4,000	

Equipment	4th quarter fiscal year 1970
7 police type automobiles with police accessory equipment, including police radios	$23,100
1 police radio (base station)	1,500
1 generator	500
4 typewriters	1,800
10 office desks with chairs	1,250
Firearms (includes personally-assigned weapons and organizational weapons)	3,000
Other miscellaneous administrative and police investigative equipment, e.g., cameras, black lights, tape recorders, duplicating, etc	6,000
Facilities:	
Police and court building (mobile type trailer, 24 by 60 ft.)	18,000

Item	4th quarter fiscal year 1970	Fiscal year 1971
Jail Building (Mobile Type Trailer, 24' x 60')	18,000	
6 3-Bedroom Mobile Type Trailers (12' x 60')	44,000	
Total	80,000	
Grand total	117,150	

OPERATION AND MAINTENANCE OF EQUIPMENT

	Fourth quarter fiscal year 1970	Fiscal year 1971
Automotive	2,700	10,000
Office machines	300	1,440
Total	3,00	11,440
Training, supplies and materials	4,000	3,000
Care and maintenance of prisoners		7,500
Total of all preceding items	$187,378	$236,845
Administrative assessments	9,369	11,842
Grand total	$196,747	$248,687

Mr. DENNEY. Madam Chairman and members of the committee, mine is sort of a peculiar problem. I might just abstract it for you. In Thurston County, which is one of the 27 counties in my district, we have two Indian tribes, the Omaha Tribe and the Winnebago Tribe. In 1953 Nebraska appears to have assumed general civil and criminal jurisdiction over these tribes pursuant to Public Law 280. In 1969 the State legislature by resolution tendered to the United States the retrocession of general criminal jurisdiction.

The Omaha Tribe has accepted this. The Winnebago has not. We are faced with a situation where one tribe wants to go along by resolution, the Omaha Tribe; the Winnebagoes do not.

Then we have the further proposition there was no money in the 1970 budget for the Federal Government to take it over and Nebraska has disclaimed any interest in it as of July 1, 1970.

On the last page of my testimony I set out what it would take for the Bureau of Indian Affairs to take this over and they feel this is a matter for the Secretary of the Interior and the Attorney General to make the command decision, but it would take the Bureau, they estimated, an additional $197,000 for the law and order activity under their education and welfare appropriation for the current fiscal year with 20 permanent and six part-time positions. An additional 249,000 will be needed for the subsequent year. And the proposed budget outlined for the fiscal years 1970 and 1971 attached to my testimony and I respectfully request this committee give its consideration to this matter. I will be glad to answer any questions.

Mrs. HANSEN. Has the Omaha Tribe accepted the resolution?

Mr. DENNEY. That is right.

Mrs. HANSEN. What is going to happen to the Winnebago Tribe?

Mr. DENNEY. The Winnebagoes, as far as I understand it, through a tribal resolution has said they don't want to go along with it but Nebraska refused to maintain any law and order after July 1, 1970, on the Winnebago Reservation.

Mrs. HANSEN. I think you should ascertain from the Bureau of Indian Affairs what they intend to do in this matter. You can't expect the Winnebago Tribe to pay out of their tribal funds for something they don't want.

Mr. DENNEY. The Bureau of Indian Affairs says that it is up to the Secretary of the Interior and the Attorney General of the United States to make that decision.

Mr. REIFEL. Madam Chairman, I think we need to have the matter cleared up with respect to the authority of the tribe to accept jurisdiction. You see, under the act that Congress passed to turn jurisdiction over to the States, Nebraska was one of those as was Minnesota, with the exception of two or three other States. And it is my understanding that the State just can't say well, we are going to give it back now without the Federal Government passing legislation to accept jurisdiction. So, I do not think this committee under the circumstances is going to have the authority to appropriate the money because of the legal circumstances that prevail.

When I was area director in Aberdeen I had jurisdiction over the reservations at Winnebago and Omaha. We could not use any money for law enforcement. We did try to help by putting in a social worker—that we could do—and putting on some youth programs to help reduce maybe some of the law and order problems. But I don't think there is legal authority for us to do this without legislation.

Mr. DENNEY. I might say to you, Congressman Reifel, that the attorney general of Nebraska, Clarence Myer, does not submit that Nebraska has ever legally assumed any responsibility under Public Law 280.

Mrs. HANSEN. May I suggest that you check with the State of Washington. They had a similar situation.

Mr. DENNEY. I have been trying to check this out because I anticipated problems like this when we came to you. I wish I could come and say both tribes are willing but I have to be factual about it. The Omaha Tribe does want it to go back to the Federal Government and the Winnebago Tribe does not want it to go back.

Mr. REIFEL. I would think irrespective of whether one tribe want it or not you have the legal problem of whether the Congress is in a position to appropriate any money at all under the circumstances and irrespective of what the Attorney General has said in the State of Nebraska. I think it would be well to get a ruling from the Solicitor of the Interior Department.

Mr. DENNEY. There is an Executive Order No. 11435 that I understand provides that with the concurrence of both the Attorney General and the Secretary of the Interior the Federal Government can accept back the jurisdiction where it has been granted to the States.

Mr. REIFEL. I think it would be well to get this.

Mr. DENNEY. I ask how long will the record be open?

Mrs. HANSEN. The record will officially close on April 16, 1970. But you can include substantiating material in the record until Friday night.

Mr. DENNEY. I would ask unanimous consent if we could obtain a ruling or whatever material we can to submit it for the record up to Friday evening.

Mrs. HANSEN. We would appreciate having the material.

Mr. REIFEL. I am very sympathetic with the problem.

Mr. DENNEY. It is a real problem to me because they are both in my district.

Mr. REIFEL. I wouldn't want you to leave with the feeling I don't want to do something about it.

Mrs. HANSEN. I suggest you call the Attorney General of the State of Washington because they had a similar problem.

Mr. DENNEY. I appreciate the committee listening to me. I am not taking a stand on it other than to say we have a real problem here and I want to apprise the committee of it.

Mr. REIFEL. Law and order is a most serious problem in that part of the country.

Mr. DENNEY. Especially in Thurston County and it is Thurston County does not have the money to maintain law and order.

Thank you so much.

Mrs. HANSEN. Thank you.

Mr. HOLMQUIST. Chairman Hansen and members of the committee, I wish to make this statement in behalf of the State of Nebraska and the legislature.

A supplemental appropriation is needed by the Bureau of Indian Affairs so they may implement law enforcement and jail facilities for the Omaha Tribe and Reservation where none will exist after July 1, 1970.

In 1953, the Bureau of Indian Affairs turned back to the State of Nebraska the control of the Winnebago and Omaha Reservations located in Thurston County. This was done without the permission or any action by the legislature or the Governor's office.

This procedure was questioned in 1956 by Governor Anderson, but when he retired from office no remedial action had been taken.

In 1959, some relief was granted Thurston County, in which the reservations are located, by the State paying part of the board for Indian prisoners confined in the county jail. The county was being bankrupted by these additional costs.

In 1961, Thurston County requested that the State employ special deputies to aid in law enforcement on the reservations. This was implemented in 1963 and two officers were employed.

The amount of funds required annually have been increased in large amounts each session by the legislature without improving conditions on the reservations. In 1968, when the civil rights bill, which included Indians, was passed by Congress, a committee was appointed by the legislature to study the State's responsibilities under the new law and any problems that could be caused. It was discovered at that time that the State had never agreed to assume control of the reservations by either legislative or executive order. This question was considered by the 1969 legislature and a resolution of retrocession was passed turning back to the Bureau of Indian Affairs criminal jurisdiction on both reservations. This was discussed and studied at great length with the tribes, Bureau of Indian Affairs and the Justice Department. From these meetings an agreement was reached by the Omaha Tribe and the Bureau of Indian Affairs that this retrocession of criminal justice be implemented. This final plan was not agreed to until after the regular budget had been introduced, so it is necessary that a supplemental appropriation be approved.

Conditions on the reservations are deplorable and it is certainly the responsibility of the Bureau of Indian Affairs that they take charge and make improvements.

After July 1, 1970, there will be no police supervision or facilities to confine offenders unless the amount requested is added in this supplementary appropriation. We sincerely hope funds will be made available so a serious situation can be corrected.

Mrs. HANSEN. Thank you.

WITNESS

HON. JOHN MELCHER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MONTANA

Mrs. HANSEN. It is a pleasure to welcome Congressman Melcher, my neighbor from Montana.

Mr. MELCHER. Thank you, Madam Chairman and members of the committee. I have some documents to submit.

Mrs. HANSEN. We will insert the documents in the record.

(The matter referred to follows:)

STATEMENT OF HON. JOHN MELCHER

Madam Chairman and members of the subcommittee, I could easily take several times 5 minutes urging this subcommittee to restore resources development appropriations on a broad basis to pre-Vietnam war levels, plus at least a normal growth increment.

Under pressure for economy because of military costs, we have crippled many programs urgently needed by the people of this Nation, and none more than those of the Interior Department agencies, which involve our environment, conservation, preservation, and the wise use of natural resources.

It is time that we began to catch up. It is time to end the "no new starts" policy, and the stretchout of projects underway, and get development going in States like Montana, not just for the sake of the regions directly involved, but for the sake of the Nation.

Outmigration from the natural resource States to the jam-packed urban, industrial centers is accelerating at a time when everyone agrees that it should be reversed. It is accelerating because we are not creating job opportunities in the less industrialized areas. We are falling further and further behind.

Typical of this is the tremendous recreational potential in Montana which is not being developed, as it should be, and even worse, facilities that we do have are being allowed to run down. One example is Camp Needmore, an old Civilian Conservation Corps camp in our southeastern county—Carter—which serves Boy Scouts, 4–H Clubs and youth groups of many counties in a tristate area. It brims over with youth camps every year. It critically needs repairs and reconstruction, but Forest Service recreation construction funds have been virtually nonexistent in recent years. What you appropriated last year was nearly all impounded and what is proposed for this year is committed to projects underway or halted by last year's freeze. Camp Needmore can't be touched under the budget before you regardless of its critical needs, the Forest Service tells me.

There is a similar situation in the Bureau of Land Management. We have a fine State park in the Charles M. Russell Game Range on Fort Peck Reservoir, but it can't be used safely for lack of funds for an all-weather access road across BLM lands.

I hope you will add materially to both BLM and Forest Service recreational budgets. I ask your permission to file a paper with this statement on Bureau of Land Management recreational funding needs, and urge you to see both it and Forest Service get increased recreational funds.

FISCAL YEAR 1971 PROJECTS FOR RECREATION CONSTRUCTION

Project	State	County	Fiscal year 1971 cost estimated (dollars in thousands)	Remaining cost for completion (dollars in thousands)	Fiscal year 1971 family units
Helena Complex (Holter Lake)	Montana	Lewis and Clark	74	120	35
Superstition Mountain	Arizona	Pinal	150	702	45
Lower Colorado River	Arizona	Yuma	80	915	
California Desert (New York Providence Mountains)	California	San Bernardino	125		45
Organ Mountain	New Mexico	Dona Ana	75	305	35
Survey and design	All States		136		
Total			640	2,042	160

Bureau of Land Management

OUTDOOR RECREATION PROGRAM

(A Statement Submitted by Congressman John Melcher of Montana)

The Bureau of Land Management administers 453 million acres of land in the 11 Western States and Alaska. One of the last segments of the Federal estate to be placed under management, these lands amount to 20 percent of the entire land area of the United States.

In the past 5 years recorded use of the public domain lands for recreation has risen by nearly 400 percent. The BLM has 188 developed recreation sites which can accommodate 14,850 people at one time. Many of them are in Montana. If these sites were used at capacity for the entire recreation season, these facilities would accommodate no more than 4½ percent of some 39 million visitor days on the public lands. Based on current recreation trends, it is estimated that by 1976 an annual capacity for intensive use for 13 million visitor days will be needed to provide the minimum basic requirements on the public lands. This requires a capacity of at least 108,000 one-time use (OTU's) capacity by fiscal year 1976 or at least seven times the existing capacity. Outside of western Oregon, BLM started no work on new sites in fiscal year 1970.

Large numbers of people without appropriate facilities damage the land, its resources and frequently disrupt other legitimate uses of the public domain. Adequate and properly maintained facilities can channel use into appropriate areas designed to withstand recreational use into appropirate areas designed to withstand recreational use, as well as reduce litter, sanitation, and water pollution problems.

I am interested in the BLM program because of increasing recreational use of BLM lands for recreation in my district, and because of a needed projects in my State.

The Bureau 1971 recreation construction program provides for only five sites which are listed and described below, and it should include several more in Montana alone.

Helena complex.—The site is located at Holter Lake within 60 miles of Great Falls, Mont., and 30 miles of Helena, in a very popular swimming, fishing, and water skiing area. Present facilities are insufficient, unsanitary and poorly organized. Rising sharply from the lake is hazardous terrain. Site construction is planned to provide both safe and convenient facilities.

In addition to the construction funds requested for the six recreation sites an increase of $381,000 is needed to provide for cleanup of undeveloped recreation sites and an expended antilitter education campaign.

Littering and unauthorized dumping are a national embarrassment and a serious problem to the Bureau of Land Management. There are an estimated 1,500 unauthorized dumpsites on the public lands, and over 50,000 miles of much used, much littered roads. This litter is not only ugly, it creates unsanitary conditions which can lead to serious land and water pollution problems. It can and does cause disease and extensive damage to the lands. Under some conditions, it can cause fires. A one-time cleanup of all known sites would cost an estimated $15 million.

Bureau of Outdoor Recreation statistics show the average cost per visitor day of picnickers and campers-facility oriented recreation users—is 2 cents for the Bureau of Land Management compared to 40 cents for the Forest Service and $1 for the National Park Service. This is a very modest amount to protect the environment and prevent recreation interfering with other uses.

Because of the urgency of our needs in Montana, which I know are duplicated in other public land States, I hope you will deal with this budget very liberally.

MAGNETO HYDRO DYNAMICS

A new process of generating electricity from coal has been demonstrated, popularly known as MHD, which greatly increases the efficiency of the coal and also greatly reduces air pollution. It is in the development stage. Private industry is prepared to match Federal funds in the development process.

I request permission to file statements on the need to speed the development of this new process by Mr. Kenneth Holum, formerly Assistant Secretary of the Interior for Water and Power, and by Mr. Kenneth A. Roe, president of Burns & Roe, Inc.

STATEMENT OF KENNETH A. ROE

Madam Chairman and members of the committee, for the past 30 years, this Nation's electric energy consumption has grown at an average rate of 7 percent per year, requiring a doubling of power-generating capacity in each decade. All forecasts indicate that this growth in electrical power use will continue unabated during the next two or three decades.

Recently, it has become increasingly clear that this continuous rapid increase in electric power generation is apt to impose an exorbitant demand on this Nation's natural resources unless a determined and concerted effort is made to utilize our sources of energy and available (but limited) land sites efficiently, while protecting our environment against degradation and blight. Through greater effort in research and development, we must be able to satisfy seemingly conflicting public needs for reliable, low-cost power supply and a clean, healthy environment.

The last decades of scientific innovation have produced many ideas that have great attractiveness and that challenge and stimulate the imagination. Magneto Hydro Dynamics (MHD) and the applications of MHD to power generation systems are among the most interesting and provocative of these ideas.

Analytical studies of MHD system generation economics, which we have recently conducted, reveal that a coal-fired open-cycle MHD operated in conjunction with a conventional regenerative steam turbine cycle will achieve maximum fuel economy and will minimize heat rejection to the environment.

The studies compare a combined cycle MHD size for net output of 830,000 kilowatts with alternative methods of generation, using conventional fossil- and nuclear-fueled powerplants of equal size. Coal-fueled generating units located at nine-mouth or sited near load centers were considered. The study's conceptual design involves a coal-fired MHD topping cycle added to a conventional super critical 500,000-kilowatt steam electric generating unit. The steam unit is typical of modern, high efficiency power stations, such as the Fort Martin station completed in 1967 for the Monongahela Power Co. in Pennsylvania.

The attached table 1 summarizes plant performance and generation cost data of the varied types of large electric generating units operating as baseload plants.

For performance regulations, the MHD generator was estimated to have inefficiency of 25 percent, but the combined MHD-steam turbine cycle full load efficiency (after adjustments for station auxiliaries) attains about 49 percent. Significantly, typical modern coal and nuclear-fueled plants are shown to have efficiencies of 38 and 33 percent, respectively. For comparison purposes, all units are assumed to operate at a high annual capacity factor of 80 percent, which is typical of high efficiency baseload plants.

The generation cost results are seen to strongly favor MHD over conventional fossil and nuclear fuels generation. Characteristically, a mine-mouth baseload MHD plant shows the lowest unit generation cost of all alternate cases considered. Evidently, this is the result of significant fuel cost advantages of MHD

over all its competitors, including nuclear-fuel generation. Mine-mouth MHD installations offer attractive possibilities for an industrial center which could combine the availability of low-cost power with an abundance of raw materials.

The application of a combined MHD-steam turbine cycle was also considered and studied for economic power supply for peaking operations. Peaking units are assumed to operate only a few hours per day, generally during periods of maximum demand, and will be on standby emergency duty during the remaining hours. Such a combined cycle installation is generally similar to the MHD concept development for a baseload plant. In this case, however, the steam generator will have provisions for independent firing to allow operation of the steam plant during off-peak hours when the MHD topper is shut down. The results of our study indicate that the combined cycle MHD offers economically favorable prospects for peaking applications.

In addition to the potential economic advantages of MHD, this new method of power generation holds a real promise of minimizing thermal pollution of our streams and rivers. In fact, our analytical study indicates that MHD operated as a topping unit, combined with a steam turbine cycle, will reduce heat rejected to cooling waters by nearly 40 percent in comparison with the most efficient conventional fossil-fueled plants of the same size, and by more than 50 percent when compared with the present nuclear plant design.

Because of better cycle efficiency, the MHD system burns a somewhat smaller quantity of fuel than a conventional plant equivalently sized. Accordingly, reduced quantities of combustion products will be discharged into the atmosphere. Technological improvements in air pollution control methods are expected to further reduce atmospheric discharges from MHD plants.

In conclusion, our studies indicate that MHD does have a place in the field of electric power generation. When used in a topping system, significant improvement in cycle efficiency and attendant decrease in environmental discharges, in relation to the power generated, are indicated. The successful development of MHD technology offers excellent prospects for maintaining an equitable share of the power production market for our coal industry.

Before MHD power systems generation become a commercial reality, additional research and development is needed in a number of technically unresolved areas. We strongly believe that there is an ample justification for accelerated research and development effort leading to a large-scale demonstration plant. We urge the Congress to increase the proposed appropriation to the Office of Coal Research to allow funding of MHD efforts, at least at a level recently recommended by the Panel on Magneto Hydro Dynamics in the Office of Science and Technology.

TABLE I—UNIT GENERATION COSTS BASELOAD PLANTS (ANNUAL CAPACITY FACTOR 80 PERCENT)

Plant type, plant location	MHD-steam turbine		Fossil-steam turbine		Nuclear-steam turbine
	Mine-mouth	Load center	Mine-mouth	Load center	
Net plant output, MW	832	832	832	832	832
MHD generator output, MW	407	407			
Overall plant efficiency, percent	49	49	38.2	38.2	33.0
Net plant heat rate, BTU/kwhr	6964	6964	8910	8910	10,400
Estimated plant cost, dollars per kilowatt	[1] 170	[1] 170	170	170	250
Type of fuel	Coal	Coal	Coal	Coal	Nuclear
Unit fuel cost, cents per MBTU	19	30	19	30	16
Unit generation costs, mills/kwhr:					
Fixed charges at 10 percent	2.43	2.43	2.43	2.43	3.57
Fuel cost	1.32	2.10	1.70	2.67	1.66
Operating and maintenance	0.30	0.30	0.30	0.30	0.30
Total, mills/kwhr	4.05	4.83	4.43	5.40	5.53

[1] MHD Plant cost in dollars per kilowat tof capacity assumed same as conventional steam plant costs.

STATEMENT OF KENNETH HOLUM

Madam Chairman and members of the committee, in January of this year, we completed and released the findings of a reconnaissance study investigating the potential use of Rocky Mountain coal as an energy source for electric power supply on an interregional basis. Anticipating the use of high voltage transmission facilities and interregional cooperation between utilities, the study proposes the construction of mine mouth generating stations in Montana or Wyoming to serve power loads in the Pacific Northwest and the Missouri Basin.

An earlier study, completed in 1968 by the power marketing agencies of the Department of Interior, analyzed the technical and economic potential inherent in the construction of an extra high voltage transmission system interconnecting the West from the Mississippi to the Pacific. Considering only the economic advantages created by the transmission system itself, the Interior team found the construction of such a system highly advantageous. The most desirable system, from the economic point of view, produced a benefit-cost ratio of 1.91 to 1 under the economic criteria utilized for studying Federal resources projects at the time.

In addition to the economic gains created by the transmission system itself, our study benefits from locating a very large generating station at the source of the largest and potentially cheapest supply of fossil fuel in the country. Additional savings and benefits are achieved because combining a large generating station with high voltage transmission lines makes it possible to locate a major source of power generation at midpoint between the load centers of the far Northwest and the upper Middle West.

Although "Coal Resources for Power Generation" is a reconnaissance grade report, we were able to conclude that Rocky Mountain coal, utilizing presently available conventional technology, is potentially the cheapest source of low-cost power for much of the West. Although nuclear powerplants could be located much closer to load, we concluded that coal-fired plants would in all probability produce cheaper energy than the nuclear alternative if they were planned, built, and operated on an interregional basis.

Having established the potential economic advantage of utilizing Rocky Mountain coal as a major source of future power supply, we consider it our responsibility to do everything possible to utilize the coal and water efficiently and to diligently seek techniques for minimizing whatever adverse environmental effects might be involved in our proposal.

Our investigations have lead us to conclude that MHD is the emerging technology that holds real promise of both increasing the efficiency with which we utilize our fossil fuel resources. As a corollary to that achievement, MHD will reduce and may well eliminate the adverse thermal effects on our rivers and streams that are inherent in all other techniques for generating electric power. Although I understand from the technical people involved in MHD development that completely cleaning the stack emissions poses more difficult development problems, there is real reason to hope that they can be solved and air pollution problems eliminated.

As a nation, we must supply the ever-increasing quantities of electric power required to keep our economy growing and to permit our citizens to enjoy the comforts and conveniences electricity provides. Simultaneously, we must stop and we must reverse the degradation of the environment that has been inherent in so many of our past accomplishments.

The development of the MHD technology to the point where it is commercially available in the shortest possible period of time is urgently required to meet both our conservation and our energy goals.

We are proceeding with the additional refinement of our reconnaissance study. We are developing the relationships and institutions that will make construction possible. We expect the first large station to be placed in service in 1978 or 1979.

We recognize that MHD technology cannot be developed to the point where it is commercially available in time for this first station. However, we are convinced that an accelerated R. & D. effort could well make this station the logical site for the final large demonstration unit. An accelerated R. & D. effort might well produce commercial MHD for the second unit.

Although we commend the administration for recognizing the potential of MHD and for proposing a beginning Federal investment in the development of the technology, we urge the Congress to accelerate that effort by providing more funds. Spokesmen for the administration, appearing before committees of Congress, have made it obvious that they have proposed a "stretched-out" program where an accelerated effort is required. A research and development program that promises a solution to our problems of power supply, more efficient use of resources and a solution to critical environmental problems should rate a high priority in our national scale of objectives.

Although final advice must of necessity come from technical people and individuals who will administer the R. & D. effort. I should like to suggest that the committee consider increasing the proposed $400,000 appropriation to the Office of Coal Research to a minimum of $2,500,000. An accelerated program will make an urgently needed technology available sooner—and it may well reduce the total cost of achieving the objective.

The committee will hear witnesses for the AVCO Corp., also interested in this new process, at its public hearings tomorrow.

The need is to increase Federal funds available for research and development of MHD in fiscal year 1971 from $400,000 to $2.5 million. I urge the committee to consider it favorably: it can mean billions to this Nation in meeting both energy and air pollution problems.

BIG HORN CANYON HIGHWAY

A few months ago, a large delegation from my State, and from Wyoming, including a number of members of the Crow Indian Tribe, visited many of us to urge speedy construction of the highway in the Big Horn Canyon National Recreation Area. This great new recreation facility, when developed, is expected to draw hundreds of thousands of visitors to the West. The Indians have contracted to operate the concessions, but their investments in the necessary concessions won't begin to be self-supporting until the highway is built.

It is financial folly to stretch out the construction schedule on an investment like this. It is a great attraction—with every sort of scenic grandeur and recreational opportunity. It could be paying dividends next year, instead of building up a deficit of interest during construction, if we moved ahead on the highways in a businesslike way. I urge the committee to provide funds to do so.

A small group from the area involved, headed by Mr. Henry Reugamer, of Hardin, Mont., will discuss this project with you tomorrow, and I take this opportunity to urge you to provide the highway funds they will be seeking. We don't save, we lose, by delaying the road's construction.

Finally, Madam Chairman, I want to mention that we are requesting the addition of $15,000 to Bureau of Reclamation funds for an inventory and study of eastern Montana water resources.

Development of coal and recreational resources, as well as potential irrigation, has made the exploration of a number of proposals and alternatives for water use essential to State economic development, including transfers of water between tributaries to be accessible for potential industrial use.

This matter will be presented to the Public Works Subcommittee, which handles Bureau of Reclamation's budget, I am advised. But since water use involves your programs, I hope members of this subcommittee will support it when it comes before the full committee.

Mr. MELCHER. Among other things, I want to encourage the funding of the Forest Service and the Bureau of Land Management recreation programs. I well understand the frustration of all of us when funds are appropriated, and then frozen, but if we can get beyond this no new starts policy perhaps we could do something for a couple of our projects in Montana.

One involves the Charles M. Russell game range on Fort Peck Reservoir. We have a State park inside its boundaries—Hells Creek—and we need a road which crosses BLM land. The park is inaccessible right now because of lack of an all-weather road there.

The other is Camp Needmore in the southeast corner of Montana, which serves as a youth recreation summer center for many of the children not only in my State but also in adjoining areas of North Dakota and a few in South Dakota also, Congressman Reifel.

A very significant procedure for the utilization of coal in the West will be the new magnetohydrodynamics process. The President's budget recommends $400,000 to develop the process. I would urge the subcommittee to go up to at least $2½ million. This process can ultimately save billions on energy supply while reducing air pollution. We need to speed up its development.

Two of the documents I have submitted for the subcommittee, testifies to the value of the new process, and people from the AVCO Corp. will be here tomorrow to testify in regard to it.

I can't encourage you too much to give consideration to this. If we can get this process started it is possible that much new electrical generation will swing to it in a few years, reducing generation costs, air pollution, and very possibly even more dangerous pollution as well. Other countries are ahead of us in their development of pilot plants on this process. Russia will probably complete one which the next year or two and we are yet to get one started.

The second from last point I have to bring up is the Big Horn Canyon Highway. A few months ago a delegation from my State and from Wyoming were here to testify on behalf of this to the congressional delegation. We need to have construction of a highway in the Big Horn Canyon National Recreation Area speeded up. It has been started. It is recommended by the Park Service. It will create a tremendous attraction for visitors from any part of the country when it is completed and access to the Big Horn National Recreational Area. is possible. It is a very scenic area. It is expected to have hundreds of thousands of visitors annually—to be a major national attraction—but it is of little use until the access highway has been built.

Finally, I want to ask your support for the addition of $150,000 to Bureau of Reclamation funds for an inventory study of eastern Montana water resources. It involves 19 counties in central and eastern Montana bounded by the Yellowstone and Missouri rivers and would provide us and the Nation with a good inventory of just what our potential is.

Mrs. HANSEN. This latter item should be presented to the Public Works Committee.

Mr. MELCHER. Thank you, Madam Chairman, that is right I want you to know of the request.

Mrs. HANSEN. Thank you very much, Congressman Melcher. We deeply appreciate having you here.

VARIOUS INTERIOR BUDGET ITEMS

WITNESS

HON. HAROLD T. (BIZZ) JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mrs. HANSEN. It is a pleasure to welcome Representative Johnson from California, a member of the Authorizing Committee on Public Works.

Mr. JOHNSON. Madam Chairman and members of the committee, I wouldn't take too much of your time here this afternoon but I do have one or two matters I would like to discuss briefly with you sort of off the cuff. I have a prepared statement covering my interest in your appropriations bill that deals with the Forest Service, the Park Service, the Fish and Wildlife Service and the Bureau of Indian Affairs, and also the Bureau of Land Management.

Madam Chairman, it is, as always, a great pleasure to appear before you and this fine committee to discuss the future of the Second Congressional District of California. As you well know, the district which I am proud to represent here in Congress consists of 20 counties, much

of which is owned by the Federal Government. These Federal lands are managed and developed with the funds provided each year by this committee, and I must say that your outstanding committee has been good to us over the years.

Under previous funding programs approved by this committee, we have solved many of our problems, and we anticipate that this continue.

I come before you today recognizing that we face an extremely tight budget situation. In the face of this, I support generally the appropriations recommended. However, I believe that in some specific areas we have some shortcomings, which I believe constitute extremely serious false economies.

We are hearing a lot about our environment these days, and you and I know that the Congress has been conscious of our environment for many years and has been actively working for the development of our natural resources which play such an important role in the preservation of our environment. To reduce this effort at this time would be wasteful.

Turning first to the National Forests, the Second Congressional District of California includes more than 13 million acres of National Forest Land and all or portions of 13 National Forests. Forest Service programs are extremely important to the economy of the 20 counties in this district. The residents of these counties are vitally concerned with how the recreation, timber, range, water and wildlife resources of their national forests are managed.

Timber harvestnig and manufacturing are major industries in my district. Some operators are wholly dependent on national forest timber for raw material. Continuous supplies of national forest timber at competitive prices are essential for their survival as employers and contributors to the local economy.

Therefore, I am pleased to see an increase of $5,260,000 in the budget request for timber sales administration and management, and an increase of $2,877,000 for reforestation and timber stand improvement. I strongly support these requests because of the necessity to both increase current timber harvest and to accelerate total net timber growth, which will permit the Forest Service to increase long- as well as short-term harvest from the National Forests. Considering the importance of satisfying national timber supply requirements, these are modest increases, and I urge your committee and the Congress to give them favorable consideration.

Maintenance and enhancement of environmental quality is becoming increasingly important. This, together with the need to maintain good watershed conditions, is nowhere more evident than on timber harvesting and associated road building operations. More careful logging requires more careful sale layout and preparation, and closer supervision of timber purchasers' work. Advice is needed from soil scientists, landscape architects, ecologists, wildlife biologists, and other specialists to adequately protect esthetic values, wildlife, and soil and water resources, while still meeting timber production goals.

These higher costs of doing timber business are reflected in the increase requested for timber sale administration and management. I hope it is large enough to permit the Forest Service to adequately protect other resources and values, and still offer more timber for sale.

President Nixon's Executive Order No. 11514 on Protection and Enhancement of Environmental Quality, issued March 5, 1970, in furtherance of the purpose of the National Environmental Policy Act of 1939, provides further emphasis in this regard. It directs Federal agencies to monitor, evaluate, and control, on a continuing basis, their activities so as to protect and enhance the quality of the environment. I strongly support the proposed increase of $3,132,000 for recreation-public use. This is the minimum required to meet essential needs for operation, clean up, and maintenance, and to upgrade sanitation standards at recreation areas.

In this area, we do have a couple of problems. One is an item of $1,008,000 required to finance sewer hookups at Lake Tahoe. These are connections which must be made according to law. I believe it was the intent of the Forest Service to request the funds, but somewhere along the way this request slipped between the cracks. I would hope that it would be provided.

Second is an item of $123,000 for sewer development at June Lake on the Inyo National Forest. There we have a campground right in the middle of the community, an isolated parcel of Federal land surrounded by private property. The campground contributes substantially to the pollution of Gull Lake. A new campground is planned, but it is of no value unless we get some money to sewer it. That is what the $123,000 is for. If we can proceed with that project, we could exchange the old campground into private ownership and allow the community of June Lake to proceed with solving its own sanitation problems. Hopefully, this can be arranged. We are all ready to go, except for a small amount of money.

I am pleased to see some increase for the forest roads and trails program and would like to see more. Well-engineered and constructed roads are essential for efficient management of commercial forest lands and to provide safe public access for recreation and other uses. Roads built well in advance of regular old-growth timber harvesting permit salvage cuts of dead and dying timber before it deteriorates to no economic value. Regular timber sales also bring greater returns to the Treasury through higher stumpage prices if main roads are in place, and smaller timber operators who cannot afford major road construction costs can enter the competition for sales.

I would like to call to your special attention one particular access road into the High Sierra country. While I ask no immediate appropriation for it, I would appreciate any direction and guidance you might be able to give the Forest Service on it. This road would continue the road between Lake Tahoe and Blackwood Creek on about 5½ miles to Diamond Crossing. The road would be funded through regular forest road and trail appropriations.

If we could get the Forest Service to move on this we would be developing a fine multiple-purpose road for timber management, recreation, tourism, and open one of the finest campground areas in the Sierra. I do hope you could encourage the Forest Service to move ahead.

Proposed forest research increases have a direct relationship to demands for timber and timber products. The requested increase of $435,000 for forest survey is especially important to enable the Forest Service to accelerate and intensify national and regional inventories

of forest resources. This information provides the base for recurrent appraisals of the timber situation and outlook in the United States and revision of public and private timber-growing programs. On a regional basis, it provides important information to forest industries to help them make plant location and expansion decisions.

The $172,000 increase requested for forest economics research is for work that will be important to both private forest landowners and public forest managers. It will be used to develop guides and criteria for evaluating the benefits of alternate uses of forest lands in different ownerships, and how to achieve optimum benefits from forest investment opportunities to stimulate increased timber growth and harvest, and other benefits from forest lands.

Finally, under State and private forestry cooperation, for the reasons I gave to this committee last year, I was disappointed to see the request for cooperation in forest fire control reduced by $2 million below fiscal year 1970 level. I fully support the increases in cooperation in forest management and processing, and general forestry assistance. With cooperation from the State foresters, these programs provide a most useful service to industry and forest landowners, and the increases are directed toward the important objective of improving softwood timber supplies.

Turning now to the National Park Service, I would support the appropriations as advanced in the budget which has been submitted to Congress. I have reviewed in depth the amounts allocated to the National Park facilities located in the Second Congressional District—Death Valley, Devil's Postpile, Yosemite, Lassen Volcanic, Whiskeytown, and Lava Beds. They are not excessive certainly, but are adequate for continuing a basic program of serving the recreation needs of the people of the West and the Nation who are attracted to these historic facilities.

The third agency controlling substantial amounts of Federal land in the Second Congressional District is the Bureau of Land Management. Probably the biggest problem we face in this agency is surveying. This problem is the product of old, and sometimes fraudulent, surveys made in the late 1800's. Monuments often were not set or since have been destroyed. Now no one knows where the Federal land ends and the private land begins. The problem involves some 1,600 townships, many of which are in the 55,000 square miles of California which I represent here in Congress.

The scope of the problem can be shown from detailed studies which have been made in 40 of these 1,600 townships. In these few townships surveyed, more than 4,000 private owners share mutual boundaries with the Federal Government and the lack of well-defined boundaries has resulted in trespass, litigation, poor public relations, inability to manage the public resources properly, and increased cost of management. Most important, public access has been denied to some 75,000 acres of Federal land—28 percent of the total public domain involved—because access problems cannot be resolved without on-the-ground boundary identification.

Correcting all the problems in the 1,600 townships is, of course, not feasible, but we should get to work on the 40 key townships involved. To accomplish this during the next 5 years would require 300 man-years of work. I strongly urge that adequate funds to the budget to begin this monumental task.

There are other major problems in the management of the public domain. Recreation, for example. Visitor days on the public lands of California have increased from 3 million in 1965 to 10 million in 1969, but recreation funds for the Bureau of Land Management have remained at a miserably low level. It is estimated that with existing funding, the agency will be able to handle only 2 percent of the visitors adequately by 1972. With a 300-percent increase in visitor use, with a 100-percent increase in motorcycles and dune buggies which are using public lands for much of their off-highway activities, with the pressures for family camping units and other facilities, including roads, you can see the problems that we are facing in the proper management of these lands with limited funds.

Whether we like it or not, the Bureau of Land Management is in the recreation business, and we must provide the funds for this use of the public domain.

In this connection, I would like to sound one note of warning. People are going to visit the public lands. Most of them are going to come from urban areas, and for the most part ignorant of some of the dangers of the outdoors. Our public lands are pockmarked with abandoned mine shafts, adits, excavations. These need to be closed or fenced, or we are going to lose some people down them. Water hazards must be eliminated, hazardous roads and trails must be improved. We face a serious problems of hazard removal, and I would anticipate that during the next 5 years some $2 million must be spent on this.

One of the people-oriented problems relates to our Indians. As you well know, the Indian Health Service pretty much abandoned the providing of services to the Indians of California during the 1950's when the trend for termination of rancherias, reservations, and other Indian communities in Califronia sought to leave all types of services such as health, education, et cetera, up to local and State agencies. I am sure you know that this policy has not worked very effectively, and there has been an increasing need for providing adequately for the health of these people. This was recognized earlier this year by the Secretary of Health, Education, and Welfare who announced that his Department would resume its health responsibility for the Indian people of California. This decision places the Indians of California on the same footing and extends to them the same type of attention and care which has been offered other Indians of the country. This to my mind is only fair.

Unfortunately, the decision of the Department came too late to be included in the fiscal 1971 budget. Therefore, I hope that some $750,000 can be made available to the Indian Health Service to meet these obligations commencing next July.

One additional comment relating to Indians. Last year the Bureau of Indian Affairs embarked upon a scholarship program to assist qualified Indians to attend college. The Bureau donated about $1,000 per student for a school year, to be matched by educational opportunity grants. This year 54 qualified young Indians began college under this program. Another 180 have applied to enter freshman classes next year, with an additional 50 recruited through a special program at the University of California at Los Angeles. Counting the original 54, we now have 284 qualified applicants who desire to participate in the program. This would mean about $284,000 for the coming school year, but the budget only provides $78,000.

Under present plans, the Bureau of Indian Affairs plans to abandon the 54 now in the program and start in with 78 new freshmen next year. For the 54 this is a breach of faith which will leave them adrift, headed I know not where. For the 78 who succeed as freshmen, they face only a future abandonment after 1 year. For the others there is only hopelessness.

If we ever needed a few extra dollars to keep a program going, this is it.

Finally, Madam Chairman, we have the Fish and Wildlife Service. This Federal agency has many operations in the second district and my review of the situation is that they all need a little extra money—a visitor facility here, a boat launch ramp there, better nesting facilities for waterfowl at another refuge, but I believe the greatest need today is at the Coleman Fish Hatchery in northern California where we have been trying to get underway a two-stage construction program to improve fish production which would benefit the salmon and steelhead fishery of the Sacramento River. The first stage would require some $223,000 which is not budgeted. This is a project for which I have testified in the past and is one for which the need has been recognized for some time. I hope we can get started.

Madam Chairman, this has been a lengthy discussion, I recognize, but you, best of all, know the importance of the agencies over which your committee has jurisdiction to the people and the economy of the Second Congressional District.

As I said in the beginning, it is difficult to meet the needs of the people in a tight budget year; however, I know from the fine record established by this committee over the years that it will do an outstanding job, and I want you to know I have the utmost confidence in your wisdom and your judgment.

There are two matters that have to deal with sanitation and pollution. At Lake Tahoe we had a little item that was forgotten I believe, by the Forest Service. It amounts to a little over a million dollars and provided for a number of hookups but they did not place it in their budget request for some unknown reason. In San Francisco it did not get in.

At June Lake we have a problem in developing a campground that would allow the community of June Lake, a little township, to consolidate its sewer facilities in this area. It is about $123,000. It is on the Inyo National Forest.

The other is at Tahoe on the national forests around there, the first 1 million.

There is another of matter concern to us out there. We were successful in the Public Works Committee in increasing the authorizations for Forest Roads and Trails. In the Blackwood Creek area of Lake Tahoe we have pushed for development of a timber access road using stumpage fees and funds from the general appropriation. But there is a dire need here to go into this area as far as Diamond crossing because there is a substantial amount of timber in there, and it is one of the very finest recreation areas. Eventually this road will go through and hook up with the roads from U.S. Highway 50 and out to Interstate 80. This will open up a very large timber area. There is a good volume of timber in there yet to come out and manage and at the same time it will open up one of the finest recreation areas and camp-

ground opportunities we have in the high Sierra country and this will relieve the pressure on the overtaxed Lake Tahoe at the present time. We are not asking any money. There is sufficient funds in your appropriation bill dealing with forest roads and trails but somehow the people in Washington did not testify in the light we would like to see them to get this road underway.

Mrs. HANSEN. You will be interested to know that these matters were discussed at some length in our Forest Service hearings.

Mr. JOHNSON. That is one very important road that we are working on, we think, with the use of Forest Roads and Trails money, because it is a multiple use road that will be used for all purpose.

The Bureau of Land Management in my particular district owns quite a piece of real estate but their survey moneys have been curtailed over the years and we have some very bad situations dealing with a number of parcels of property in townships and what have you. If you ever do anything to give them an extra dollar to get the working we would be thankful.

We have one other matter dealing with the Indian problems in the State. We have about 160,000 Indians in California. About 35 percent of them live on reservations which are small or rancherias which are small or live in and around them. And they had started a health program out there and set up a board there under the jurisdiction of the State public health department and the Indian Health Service people from HEW. We understand that there is a request for a $113 million that relates to this type of activity in 26 or 28 other States but California in 1950 said they would go it alone out there and sort of got the Indian population in trouble. There is a dire need for this and there is a lot of cooperative effort on the part of the professional people as well as the Indian people, the State health department and the board that was set up there. They have been operating on about $300,000 a year so far. And they are in dire need according to all that we can understand for an appropriation of $750,000 or somewhere near that amount. It is somewhat near a doubling or better of the amount. I presume the Bureau of Indian Health Service has made this known to the committee. Naturally, we in California, all of us, Senators and all of us who are interested in the Indian problems there want to see this continued.

The other has to do with the educational program in the way of scholarships. There are more Indians than we have money for and in taking advantage of this they could use some more money.

With that, Madam Chairman and members, I would conclude my remarks. I appreciate your taking my statement and I would certainly like to see you give the forest roads and trails a little money for the Diamond Crossing Road if possible. That doesn't ask for an increase but does have something to do with maybe your committee informing the Forest Service we might have a priority established.

Mrs. HANSEN. Last year this committee appropriated funds for an Indian health project in California. The funds were not spent, but the Indian Health Service recognizes the needs of California, and additional funds will be requested. The committee is deeply interested in this project.

Mr. JOHNSON. This applies to the Indians that are found on or near the reservations or on the rancherias or near. This doesn't have too much to do with those found in our metropolitan areas. They are a little better off than these people on the outside but there is a dire need for some attention here.

Mr. REIFEL. Madam Chairman, I agree with everything that our distinguished colleague, Congressman Johnson, has brought to the committee's attention. The things that he has brought to our attention, of course, are limited to his district, but I want the record to show that his interest is not limited to his district and the State of California, because he has traveled out our way and helped us in South Dakota to start one of the greatest projects we think we have ever had in South Dakota in the Oahe irrigation project, and you have been responsible for getting that off the ground, and we in South Dakota deeply appreciate it.

Mr. JOHNSON. I want to say just one thing, I hate to see you leave. I have always admired you and respected your ability and service to the Nation and the Congress of the United States.

Mr. REIFEL. Thank you.

Mr. WYATT. Madam Chairman, I would like to welcome our colleague, Mr. Johnson. I served under him on the Subcommittee on Irrigation and found Mr. Johnson to be cooperative and very helpful to me and others outside of his own district.

Mrs. HANSEN. Thank you very much.

Mr. JOHNSON. Thank you.

FOREST GENETICS LABORATORY, RHINELANDER, WISC.

WITNESS

HON. ALVIN E. O'KONSKI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mrs. HANSEN. We have the pleasure of welcoming Congressman O'Konski, from Wisconsin. We will insert his statement in the record at this point.

(The statement follows:)

STATEMENT OF HON. A. E. O'KONSKI

Madam Chairman, it is a privilege for me to appear before you today to request funds for the laboratory addition to the Institute of Forest Genetics, located in my hometown, Rhinelander, Wisc.

In 1967 Congress recognized the need to construct additional research facilities at Rhinelander, Wisc., for the Institute of Forest Genetics of the Forest Service, USDA, and appropriated fiscal year 1968 funds to develop architectural and engineering plans for an addition to the present laboratory. The plans are completed. Funds now are needed to construct the laboratory addition and supporting facilities which will cost $690,000.

The present laboratory is overcrowded. To conduct research now underway, men are doubled up in offices designed for single use, and the conference room is used for office space, and men are officed in the headhouse/greenhouse building. Laboratory equipment has been set up in offices to provide for needs of individual scientists. There is no way of making additional laboratory or office space available in present facilities.

The Institute of Forest Genetics at Rhinelander has primary responsibility for Federal research in fundamental genetics of northern forest tree species. This

major genetics institute of the Forest Service has gathered and planted more than 2,000 different strains or collections of selected seeds, clones, and vegetation materials of important northern timber species throughout their ranges in North America.

Genetic improvement of forest trees is one of the most promising ways to increase the efficiency of timber production, to improve timber quality, and to reduce losses from unfavorable weather, insects, and diseases. Trees bred for rapid growth, good form, desirable quality, and pest resistance are urgently needed for reforestation programs to meet future timber demands of our Nation.

In addition to basic genetics and tree breeding research on northern forest tree species, this Institute has national responsibility for basic research in vegetation propagation of forest trees and for pioneering research on the physiology of wood formation. With cooperation and support from the U.S. Atomic Energy Commission, the Institute also established a radiation field and conducts research on low-dosage gamma ray effects on forest trees. Because of the skills developed and success in past radiation research, the institute was recently selected by AEC to conduct cooperative research on a new, larger long-term project involving irradiation of northern forest plant and animal communities. This new project of international importance is well underway, but has further increased needs for additional laboratory facilities at the Forest Service's Institute of Forest Genetics in Rhinelander, Wisc.

Mr. O'KONSKI. Madam Chairman and honorable members of the committee, I come before you pleading that the subcommittee recommend in the appropriation bill $690,000 for the construction of an additional building for the forest genetics lab that we have in Rhinelander, Wis., that serves the Great Lakes. We have only two other such labs in the Southwest and one in the South. This takes care of the genetics and physiology of trees for all of the northern tiers of States in the United States of America and recently they have been asked by the Atomic Energy Commission to undertake additional responsibility to study the effect of radiation on trees. They are moving in 20 more personnel to carry out this project and they just don't have anyplace for them to work. Buildings that were meant to be greenhouses are offices by day and greenhouses by night. It is a very crucial situation that they have there.

I know of the budgetary limitations and the pressures that are put on Members of Congress, and the Appropriation Committee particularly, to undertake new projects. There is sort of a standard formula out that no new starts should be taken and I come before the committee with mixed emotion and I don't want to break the pattern, and I wouldn't be here unless the need were absolutely critical. When I tell some people that my district is 15 miles longer than the distance from here to New York City they don't believe it. And in the budget as proposed the only construction of a Federal project in that huge district which comprises one-third of the area of the State of Wisconsin will be this one project. The architectural designs are completed. In excess of a $100,000 was spent. The blueprints are ready; they are ready to go on construction. And to help the committee I make the suggestion this building couldn't possibly be built in 1 year and it will probably be Labor Day before this bill is cleared by the Senate. So, they will get a very late start this fall. It is only $690,000, and I believe it is not going to be a matter of a cost overrun. My experience with projects in the past has been that usually they are under the appropriation rather than over the appropriation and my suggestion would be that because of the budgetary stresses that we have that this committee recommend half of the construction fund this year in this appropriation bill and

spread it out over a 2-year period, because they couldn't possibly use the money in this fiscal year with the late start they would have in the construction of the facility there.

I have a prepared statement which I have submitted for the record.

It is very urgent that we get the building, otherwise we are going to have chaos over there and the employees just can't work as efficiently from the standpoint of earning the taxpayers' dollars as they could if they had working space. It is just a matter of waste or they are going to have to go out and going to have to rent facilities and the only place they could rent facilities would be about 8 miles, the nearest town from where their lab is, and that would be wasteful from the standpoint of transportation. It is a very critical need we have in the area. It is the only Government construction in any district in the entire proposed budget. I hope the members of the subcommittee will recommend to the full committee that this project be included in this year's budget.

Mr. REIFEL. Madam Chairman, if I may, I would tell our distinguished colleague from Wisconsin he does not need to apologize for any mixed feelings with respect to the budget request that it might be over the budget. We don't have any mixed feelings here. We got pretty well stirred up that they don't get the money spent that we add to the budget. So, you don't need to apologize.

Mrs. HANSEN. Not at all.

Mr. O'KONSKI. I appreciate your statement very much.

Mrs. HANSEN. Off the record.

(Discussion off the record.)

Mrs. HANSEN. Thank you very much, Congressman.

Mr. O'KONSKI. I hope the committee will go along and my suggestion would be as said because of the tightness of the budget, to spread it out over a 2-year period and it will not be as much of a stress on the budget.

Thank you, Madam Chairman.

McINTIRE—STENNIS COOPERATIVE FEDERAL-STATE FORESTRY RESEARCH PROGRAM

WITNESS

HON. SPEEDY O. LONG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Mrs. HANSEN. It is a pleasure to welcome Congressman Speedy Long, from the State of Louisiana.

Mr. LONG. Madam Chairman and members of the committee, allow me to express my appreciation for this opportunity to appear before you today in support of the administration's budget allocation of $4,412,000 for the McIntire-Stennis Cooperative Federal-State forestry research program, as contained in Public Law 87–788.

This allocation represents an increase of $627,000 above the previous fiscal year's budget for forestry research, an increase which, in my estimation, is fully justified. I believe this proposal is in the best interest of the Nation as well as the forest industry, and I urge the committee's favorable consideration.

In the last half century, my home State of Louisiana has gone from an almost completely devastated forest economy to a model of reforestation, and we learned a hard lesson. The forests upon which depends much of our prosperity, not to mention much of our esthetic values must be supported by basic research to survive. The McIntire-Stennis program goes a long way in providing this research in forestry.

This program is in its 5th year, in which forest scientists and students participate in nearly 500 projects across the Nation. Two of Louisiana's universities are participants, and I am told that the sustaining nature of the Federal funds permit a "program approach" to forestry problems, thus contributing materially to larger research programs.

Mrs. Hansen, my district in Louisiana contains most of the Kisatchie National Forest, the Federal forestry research center near Pineville and a large share of my State's forest industry. We we vitally interested in the future of forestry, because our people depend upon the forests, both public and private, for their livelihoods. We want to see forestry, as a science and as an occupation, continue to grow, and we want to see our natural resources in wildlife conserved. We have a personal and vested interest in this program and we support it from sound and reasonable motives.

Permit me to request that the committee retain the budgetary increase for forestry research funds in Public Law 87–788.

Thank you, Madam Chairman.

Mrs. HANSEN. Thank you.

VARIOUS INTERIOR BUDGET ITEMS

WITNESS

HON. AL ULLMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mrs. HANSEN. It is a pleasure to welcome the very distinguished gentleman from Oregon, Congressman Ullman.

Mr. ULLMAN. Madam Chairman, I am very pleased to appear before you today to express my deep appreciation for your work in providing adequate funds for the many Department of Interior and Forest Service programs which are so important to the citizens of Oregon and the Second Congressional District. In addition to the budget requests for these agencies, I would like to take this opportunity to explain why some of the items should be increased.

BUREAU OF INDIAN AFFAIRS

I am very pleased that $45,000 had been included in the Bureau of Indian Affair's budget to rehabilitate and improve the Chemawa Indian Boarding School in Oregon. This school serves Indian children from Alaska and throughout the country, and I would like to commend the subcommittee for its efforts to ensure progress in furnishing more adequate facilities at Chemawa.

FISH AND WILDLIFE SERVICE

Once again I am asking the subcommittee to include $295,000 to begin construction of the fish hatchery on the Warm Springs Indian Reservation. A road has already been constructed, the site thoroughly surveyed, and plans are complete. However, the last time money was provided for this project was in 1967, and the 1971 budget contains no request for the additional funds. The total cost of the project is estimated at $1,413,000. If it is impossible for the subcommittee to include the full $295,000 to get the construction underway, I would hope that a portion could be allocated.

BUREAU OF LAND MANAGEMENT

The Vale grazing project in Oregon is a model of a range rehabilitation program sponsored by the Bureau of Labor Management. The Bureau's Burns District in Harney County, Oreg., is another area which could greatly benefit from this sort of management program. It is estimated that $11,200,000 would be necessary over the next 10 years to establish a program in Harney County patterned after the Vale project. I urge the subcommittee to consider allotting the $900,000 needed for the first year to begin developing this program in the Burns District.

FOREST SERVICE

Oregon has the largest commercial timber stand in the Nation, and lumber manufacturing is the State's No. 1 industry. Moreover, the value of our national forests as recreational facilities is only beginning to be realized. For these reasons, the appropriation for the Forest Service is of particular importance to my State and my congressional district, and I strongly support the $1,817,000 increase for timber sales and management and the increase for road and trail funds of $14,430,000.

In Oregon last year the national forests supplied recreation for over 17 million visitor days. These facilities are used by visitors from all over the country, and it is certainly a Federal responsibility to properly provide for this valuable use of the national forests.

I was amazed, however, when I noted the budget request of the administration which calls for over $39,000 less in 1971 than in 1970 for construction of new recreation facilities in Oregon. This cut will mean that on all of the 13 national forests in the State, there will be only two small new site developments and improvements on only two existing sites. The total financing for all of Oregon for these items is only $77,000—pitifully lacking to meet the total needs. I can name two campgrounds, as example, that were urgently needed but were not provided for in this budget. They are the Union Creek on Phillips Lake on the Wallowa-Whitman National Forest (cost $80,000) and the Benham Falls on the Deschutes National Forest (cost $200,000). I urge the subcommittee to consider the need for these particular sites, and to reevaluate this budget item to allow adequate recreational facilities in our national forests. I also regret that the budget does not provide any funds for access roads and trails for recreation facilities.

Although these roads may not be as economically beneficial as those into timber areas, they certainly are needed to open up campgrounds and recreation areas to the growing number of tourists each year.

The Forest Service has also studied and prepared a construction schedule on the Cascade Lava Lands, which would be a recreational area in central Oregon. It is estimated that $430,000 would be needed in 1971 to begin building the facilities for this area. Unfortunately, the administration's budget contains no request for these funds, and I certainly hope that the subcommittee will seriously consider adding adequate funds to begin this project.

The Service is also responsible for many of the valuable resource studies which improve management of the national forests. The silviculture study at Bend, Oreg., has provided information for managing the millions of acres of high value timber land in eastern Oregon. Plans for timber management research at Bend call for two additional scientists and an adequate supporting staff. An additional $111,000 per year would be needed to fully implement the long-range research here. The plans for the wildlife habitat research at La Grande, Oreg., also require two additional scientists with supporting staffs. In order to fully carry out this research, I urge the subcommittee to approve the $228,000 requested in this year's budget.

I regret that no funds have been requested for the Forest Service to do a timber supply study of the pine regions of the Northwest. This would be a sequel to the very well-done and beneficial study of the Douglas-fir regions which was finished this year.

Finally, I would like to bring the subcommittee's attention to the need for additional funding for section 2 of the Clarke-McNary Act, which provides for forest and watershed fire protection programs. I understand that Mr. A. R. Shirley of the National Association of State Foresters will speak to you in more detail on the need to bring this program up to the authorized funding level of $20 million. I would just like to take this opportunity to lend my full support to his position on this important Forest Service program.

Thank you very much.

Mrs. HANSEN. Thank you.

BUREAU OF INDIAN AFFAIRS

WITNESS

HON. ED FOREMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW MEXICO

Mrs. HANSEN. We now have the very distinguished gentleman from New Mexico, Congressman Foreman.

Mr. FOREMAN. Thank you, Mrs. Hansen and members of this committee. I would like to submit a formal statement for the record and then following that statement I will elaborate very briefly because I know of your tight schedule.

Mrs. HANSEN. Without objection, the statement will be included in the record.

(The statement follows:)

STATEMENT OF HON. ED FOREMAN

Mrs. Hansen, the appropriations bill pending before this subcommittee will provide funding for the Department of the Interior and related agencies and includes the budget request submitted for the Bureau of Indian Affairs.

I am respectfully requesting approval of the full amount presented to the committee. I am further requesting serious consideration be given to increasing the total appropriation for the Bureau of Indian Affairs above the total figure in the budget request.

I fully understand and support the efforts of the administration and the Congress to curb unnecessary spending by the Federal Government. We must eliminate waste and extravagance in Federal expenditures. There is no other way to halt the soaring inflation which threatens our economic stability as a nation and depreciates the value of our dollar.

However, we also recognize the responsibility of the Federal Government to continue certain vital services to all citizens. We cannot in our efforts to trim the budget—cut off funding of projects and programs—providing essentials such as housing, education, medical facilities, water, and roads—to citizens who have no other place to turn but to the Federal Government, and where the responsibility for such projects rests with the Federal Government—as in certain projects for American Indians.

The American Indians live on reservations under conditions established through legal treaties and mutual agreements with the U.S. Government. While a number of Federal agencies can contribute to projects and services for Indian citizens on reservations, a major responsibility for the obligated Federal support to these citizens remains with the Bureau of Indian Affairs.

Approximately 20 percent of the American Indians in the United States live in the Second District of New Mexico which I represent. I know from my personal knowledge the conditions under which too many of the Indians in my district must exist—substandard housing—inadequate water development which could increase the land potential for agriculture products and livestock—inadequate schools—lack of opportunity to achieve economic improvement.

Because of the lack of school facilities, the dropout rate of Indian children is high. There is dangerous overcrowding in the schools and the need for increased facilities places a heavy burden on local school districts which are providing education to the extent possible to Indian children on and off the reservation. Indian children in some cases have been bused more than 160 miles daily, a 4-hour bus ride, to attend school. In many cases, Indian children are forced to attend schools far from their homes and live in BIA dormitories or in foster homes in order to attend school—in some instances attending school in other States.

The incident of tuberculosis is six times as great among Indians as among all other races in the United States; 3.5 percent of Navajo children get a positive TB reaction at the age of six; 9.1 percent at the age of 14. The most recent study available reported 192 active cases of TB among the Navajos not receiving therapy—106 cases of TB were under treatment in a hospital as of June 30, 1968.

Federal funds are being spent for projects to benefit American Indians—in New Mexico as well as in other parts of the country—and the BIA budget as submitted will provide for many of the projects vital to American Indians. The point I am making is that with budget trimming, many really essential projects were left out for fiscal 1971.

As an example I submit the following list of unfounded projects not included in the BIA budget request in the State of New Mexico with amounts listed which reflect total cost or expenditure which could be used in construction or development in fiscal 1971.

DEPARTMENT OF THE INTERIOR, BUREAU OF INDIAN AFFAIRS

UNFUNDED PROJECTS—STATE OF NEW MEXICO

Educational assistance, facilities and services:	
Assistance to pupils in non-Federal schools:	
Higher education	$120,000
Johnson O'Malley	500,000
Federal facilities: Library centers in the Pueblos	100,000
Summer programs	25,400
Welfare and guidance:	
Housing improvement: Housing improvement at Ramah (Zuni Reservation)	140,000

Forest and range:	
To intensify forest management on the Indian forests of Mescalero, Navaho, Jicarilla, Zuni Reservations and the Pueblos of New Mexico	200,000
Range seeding, brush control and water development projects through the soil and moisture conservation program on the Jicarilla and Navaho Reservations and the Pueblos	250,000
Range water (Zuni Reservation)	43,100
Soil and moisture conservation: Soil and moisture control (flood control) (Zuni Reservation)	13,000
Repair and maintenance of buildings and utilities: Youth development program (for various Northern Pueblos)	50,000
Construction of buildings and utilities:	
Albuquerque Voc-Tech School completion	5,215,000
Acoma Elementary School	1,228,453
El Morro Navaho Elementary School	1,200,000
Laguna Acoma Junior-Senior High School	1,000,773
New sewerage lagoon—Sanostee School	200,000
Rehabilitation centers (jails) Jicarilla and Zuni	100,000
All-purpose building—Ramah	85,000
Kindergarten (1)—San Juan	35,000
Kindergarten (2)—San Felipe	70,000
Water system improvement—Mescalero	212,000
Relocatable classroom (3)—Isleta	45,000
Relocatable classroom (1)—San Juan	15,000
Relocatable classroom (1)—Zia	15,000
Relocatable classroom (5)—El Morro (Ramah)	[1] 127,000
Houses (3)—El Morro (Ramah)	63,000
Office (1)—El Morro (Ramah)	21,000
Houses (13)—Dulce	273,000
Houses (6)—Mescalero	126,000
Kitchen/dining facilities—Albuquerque Indian School	600,000
Kindergarten, 2 additional classrooms—Taos	75,000
Adult education classroom (1)—Laguna	30,000
Adult education classroom (1)—San Juan	30,000
Adult education classroom (1)—Taos	30,000
Kitchen/dining fac. and classroom—Jemez	80,000
Kitchen/dining facilities—Zia	40,000
Acomita School	1,225,000
San Felipe School	1,200,000
Alamo School	800,000
Kitchen/dining facilities—San Juan	40,000
Major alternations and improvements:	
Renovate Gamerco warehouse	88,000
Wingate High School parking road surfacing	20,000
Renovate Wingate High School auditorium	20,000
Improve sewerage lagoon—Dzith-Na-O-Dith-Hle	15,000
Improve sewerage lagoon—Huerfano School	15,000
Improve sewerage lagoon—Standing Rock School	15,000
Dulce water systems improvements	160,000
Azetc Dormitory Road	8,000
Enlarge quarters—Crownpoint	5,000
Rewire school—Taos	14,000
Student center—Albuquerque Indian School	75,000
Reroof dormitory—Magdalena	80,000
Irrigation:	
Middle Rio Grande Pueblos irrigation systems extension, rehabilitation and betterment	100,000
Miscellaneous Pueblo irrigation unit improvement	100,000
Navaho Hogback irrigation project extension (continuation of construction)	1,100,000
Navaho Indian irrigation project (continuation of construction)	12,000,000

[1] Includes $52,000 for water and sewerage system.

Road Construction:	
Washington Pass to Sheep Springs	2,002,000
U.S. 666 to Crownpoint	645,000
Tularosa Canyon	518,000
Tesuque Entrance Road	15,000
Santa Clara Canyon Road	130,000
Sandia Village streets	95,000
Red Rock Bridge	70,000
Torreon Bridge	200,000
Crownpoint East Road	2,300,000
Streets for housing projects in the Pueblos	50,000

These are not requests for excessive, wasteful spending—these are requests for funds to educate children—to build homes for families to irrigate lands for cultivation to support families—to build roads needed to open the way for economic and industrial growth. Projects are included which would eliminate existing health hazards to adults and children—and projects to make repairs on existing facilities where original expenditure can be lost if the needed work is too long delayed.

The members of the subcommittee have a very difficult task in determining the extent to which appropriations should be approved in relation to our difficult economic situation. I appreciate the opportunity to present these facts to the committee, and want to thank the members for extending this courtesy to me.

I respectfully request that serious consideration be given to increasing the appropriation for the Bureau of Indian Affairs so that some of the most critically needed projects—now unfunded—in the State of New Mexico as well as in other parts of the country—may be funded during fiscal year 1971.

Mr. FOREMAN. Madam Chairman, my main purpose in appearing before you today, of course, is to support projects of vital importance, particularly to the Indian people located in New Mexico. I represent about 20 percent of the Indians of the United States. We appreciate your friendship and your concern for the plight of these people, and I know that you have this sincere concern, because I have heard them individually speak to me of your interest and your concern in their problems when I have been there. You had a very good visit out there, I understand.

Mrs. HANSEN. It was one of the best weeks that Mr. Reifel and I have ever spent. We visited the tribal council of the Navajos, the clinics, hospitals, schools, and the farmers who desperately need irrigation.

Mr. FOREMAN. My main purpose in visiting with you, I am sure you are familiar with most of these projects, is to put particular emphasis on the Navajo Indian irrigation project.

Mrs. HANSEN. Tell the Bureau of the Budget, they placed the irrigation funds in reserve.

Mr. FOREMAN. I have had regular visits with the Bureau of the Budget. You folks were considerate and farsighted enough last year to appreciate $5.5 million for this project. As you know, of which $2 million were released, and $3.5 million, roughly speaking, were withheld.

They, the White House and the Bureau of the Budget, have been very receptive to me, and I feel reasonably confident, with your backing, they will allow us additional money to be utilized here if you folks will appropriate it this year. As you know, we have about $3½ million. They tell me at the Department of the Interior that we can

utilize a new appropriation comparable to what you gave them last year of $5.5 million.

As you know, this was planned to build on up, and to get over the hill, up to about $15 to $20 million a year. If I didn't feel like there was economic justification for this, that we would get more in return than we are spending, I wouldn't be here taking your time. This will put 8,000 unemployed Navajos to work.

Mrs. HANSEN. Do you have a statement from the Bureau of the Budget indicating that they will release these funds? We are very anxious to have these 1970 funds released.

Mr. FOREMAN. I will get the statement for you.

Mrs. HANSEN. We will appreciate it.

Mr. FOREMAN. In my discussions with them, they have indicated the frozen funds will be released very shortly.

Mrs. HANSEN. They haven't notified this committee.

Mr. FOREMAN. With your cooperation, we can move along.

You are the folks who hold the key.

Mrs. HANSEN. The thing we don't want to happen, Congressman, is to appropriate funds and then have the Bureau of the Budget place them in reserve.

Mr. FOREMAN. So, your advice to me is to go to them and say I need these frozen funds and will you use the $5.5 million.

Mrs. HANSEN. That is right. We would appreciate it.

Mr. REIFEL. I think it would do a great deal in this regard. As far as the committee's support, Mrs. Hansen's record was made on this last year but this one should be convincing. The committee is deeply concerned about it and your vigorous attention to it is certainly appreciated.

Mr. FOREMAN. You are very thoughtful to allow so many folks to come in to visit on this. We will have our State Engineer in to testify, and also, I understand that our friend Mr. Aspinall was in to support this project.

Mrs. HANSEN. Mr. Foreman you have made an excellent presentation.

Off the record.

(Discussion off the record.)

Mrs. HANSEN. Thank you, Congressman.

Mr. FOREMAN. Thank you very much.

(The following telegram was received subsequent to the hearing:)

ANADARKO, OKLA., *April 15, 1970.*

HON. ED EDMONDSON,
House of Representatives,
Washington, D.C.

DEAR ED: Indian health service is far below par I'm administering to the Indian needs, not only in Oklahoma but throughout the Nation. We need additional money above the proposed 1971 Indian health service budget which will only allow us to stay even with our present program, leaving no room for advancement. (Please help us.)

ART THOMAS,
President, Oklahoma City Area Advisory Board, USIHIS.

WITNESS

HON. LOUIS FREY, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mrs. HANSEN. It is a pleasure to welcome Congressman Frey. We will insert the Congressman's statement in the record at this point.

(The information follows:)

STATEMENT OF HON. LOU FREY, JR.

Madam Chairman, thank you for the opportunity to appear before this distinguished subcommittee. I appear before you today to request the addition of a $160,000 line item to the Department of Interior fiscal year 1971 appropriation measure, for a fishery services field project for the State of Florida.

This fishery services project is important and necessary at this time not only to my State, but to the millions of Americans who make Florida their vacation residence each year.

As you well know, Florida is known for the excellent quality and diversity of its sport fishing. Accordingly, it is an important asset to the State's tourist industry, as well as to her home State sportsmen. The number of visitors to Florida increases rapidly each year as does the number of fishermen using our waters. It is estimated that over 18 million tourists will come to Florida this year and by the year 2000 a projected 30 million out-of-state visitors will be arriving annually. According to recent figures from the Florida Department of Commerce, 30 percent of all visitors fish during their stay and 75 percent of all fishing done in the State of Florida is being enjoyed by out-of-State visitors.

The Florida Game and Fresh Water Fish Commission does an excellent job of providing quality fishing to the increasing number of anglers. However, funds available for this work are limited to license revenues and it is simply impossible for this agency to give proper attention to all of the waters within the State. Further, along the coastal estuarine and salt water areas fishing licenses are not required, and thus provide no direct source of revenue (other than direct appropriations and limited grants) to do the type of job that is needed.

The Bureau of Sport Fisheries and Wildlife carries on studies and management programs throughout the country. All of these programs and services are designed to improve and protect our fishery resources on Federal lands and to permit the development of cooperative work with State agencies upon request. Waters are surveyed and cataloged, a long range sport fishery management plan is developed for each area of study, information on fishing is made available to the public and regulation proposals based on field investigations are made to the appropriate Federal and State agencies. These are but a few of the major activities. In Florida this program will cost $160,000 annually and will provide for a total of six fishery biologists and six support personnel headquartered in the central portion of the State. A minor field station along the coast to be moved periodically could be established. The program will equally provide for study and management to both the estuarine and coastal areas and to the Federal fresh water areas.

The program would aid in Florida's providing quality fishing and enjoyment today for approximately 18 million tourists and 7 million residents whose numbers will rapidy increase.

The estuarine habitat (according to the Bureau of Sport Fisheries and Wildlife) has vast potential for providing additional recreational fishing as numerous varieties of sportfish exist in these areas. Little is known about much of the basic management of the common estuarine game fishes, however, and a great deal of data needs to be collected. Movement of fish such as the sea trout are eagerly followed by anglers as they move from the oceans into the estuaries. Such information as the seasonal movements of these marine species, their numbers and availability and the best way for them to be caught will be provided. This information needs to be collected and proper management programs initiated.

Moreover, large areas of Federal fresh water lands are both unstudied and unmanaged. The project will open up whole new fishing areas on such areas as national forests, national parks, military installations, national wildlife refuges

and Indian reservations. On five of these prime target areas alone, over 300,000 new man-days of fishing will be provided annually.

The excellent effects a management program can have are illustrated by the program established at Eglin Air Force Base, Fla., some years ago. According to the Bureau of Sport Fisheries and Wildlife, "In 1949 when the program was initiated fishing was confined to natural lakes and streams which supported less than one thousand man-days of fishing. There are now 35 artificial lakes which average seven acres in size and furnish over 100,000 man-days of fishing per year."

Rapid growth in out-of-State visitors who view Florida as their vacation headquarters and an increasing resident population will put more strain on our fishing resources. While a significant 71 million man-days of fishing was recorded in Florida in 1965, it will be dwarfed by the projected 140 million man-days of fishing projected annually by 1980.

Besides providing needed information and increasing the number of good fishing areas, we must protect against having fishing areas destroyed and ruined from contamination and alteration.

In this age, when we have learned that industrial progress is not always synonymous with good conservation and protection of our natural surroundings, and that carelessness can have tragic consequences for both ourselves and our children, we must give new weight to programs that protect and improve nature's own. Among Florida's greatest resources are its lakes, rivers, and hundreds of miles of coastline. Unfortunately, many of these resources are being destroyed at an unprecedented rate. Urbanization and rapid population growth, for instance, have resulted in dredging and filling operations effectively reducing and destroying large sections of estuarine areas. It was once assumed that the ocean provided an inexhaustible supply of fish regardless of what changes took place along the coastline. We now know that the nursery and feeding grounds for many of our most important marine species lie in these estuarine areas. Municipal, industrial, and agricultural pollutants are damaging our fishing resources from Tampa Bay to the St. Johns River.

Other problems include weed infestation on as much as 10 percent of our inland waters making sport fishing difficult if not impossible. On a personal note, the changes in the lakes where I live in Winter Park have almost—in the past few years—made the lakes unusable. Further, the introduction of undesirable fish in many waters has made sport fishing less pleasant.

The studies resulting from this program will provide documentation of the physical and chemical characteristics of both our fresh water and coastal estuarine areas, providing data necessary to "detect and evaluate various man-induced environmental manipulation projects" as well as natural changes in the environment. This is essential in detecting and preventing the further destruction to our surroundings.

Studies are only a basis for intelligent action, however, and act we must. The management programs established as a result of this project will help improve and expand the fishing resources in both the fresh water and coastal estuarine areas, and solve the problems already discussed.

Gentlemen, many of you know of the rapid changes that have occurred in Florida in recent years both along the coast and in the interior. More rapid change lies ahead. The time is now to make a start in protecting and improving these areas that have been largely neglected.

I have pointed out that 30 percent of all out-of-State visitors fish during their Florida stay. It has been estimated that salt water fishing alone is worth between $450 and $550 million annually to Florida's economy, and in 1965 it was estimated that fresh water anglers spent over $200 million in Florida. Coated in the substantiating data, you will note just four examples of areas to be managed by this program which will provide an additional 300,000 days of angling and a conservative addition to the economy of $3 million. This is based on an average expenditure for an angling day of approximately $10. This does not consider the vast potential for increased man-days of fishing resulting from management of other fresh water and coastal estuarine areas included in this program.

Within my own district the Merritt Island National Wildlife Refuge, properly managed, could provide 70,000 man-days of fishing, providing stimulus to a local economy suffering greatly from space employment cutbacks at Cape Kennedy. And on the Seminole Indian Reservation completion of the fishery management program will bring new income to the tribe. Whether we analyze this program

from the standpoint of the need to protect and improve our existing fishing environment or the need to provide increased fishing areas for current and future demand, or simply from the continual benefits it will provide to Florida's economy, we see a small amount of money producing large dividends.

One final word. Twenty-five percent, I repeat, 25 percent of all the fishing that takes place in this entire country each year occurs in my State. Despite that fact, and despite the fact that there are over 36 full-time biologists and 20 fishery management field stations in the United States working on fishery management programs, Florida has been able to receive an average of only one-fourth man-year of aid over the last 5 years, and no field stations. If we were to get just our average based on fishing, we would have nine full-time biologists and five fish management field stations. There is no question that Florida and fishermen from every State in the country have been grossly shortchanged in this allocation of resources. It is time this is rectified.

I sincerely request this subcommittee's support and firmly believe that the cost of the program is small by comparison to the benefits which will accrue from it, and its need is immediate.

I thank the chairman and the members of this subcommittee for allowing me the opportunity to speak on this important matter.

SUPPORTING DATA

1. Are further fishing resources going to be used in the future?

(*a*) 1965—8.4 million fishermen fished in Florida; 30 million fishermen fished in the United States; better than 25 percent of all fishermen thus fished in Florida in 1965.

(*b*) 1965—71 million man-days of fishing in Florida; 1980—140 million projected man-days of fishing in Florida; 2000—228 million projected man-days of fishing in Florida.

Source: National survey for needs for hatchery fish—Bureau of Sports Fisheries and Wildlife.

2. Florida fishing is a national resource and used by the Nation

(*a*) 1970—approximately 18 million tourists will come to Florida (low); 2000—projected 30 million tourists will come to Florida.

(*b*) 30 percent of all tourists who came to Florida fished.

(*c*) If (b) is true then over 75 percent of all fishing in Florida is done by tourists. Example: 1961—13 million tourists; 5.1 million fishermen.

Source: Florida Outdoor Recreation report 1961.

3. Is Florida getting its fair share of Federal support for fish management?

(*a*) Past 5 years Florida Federal fish management activity has averaged less than one-fourth man-year of work. Year—225 days.

(*b*) Nation—36 fishery biologists in the Bureau of Sport Fisheries and Wildlife throughout the country. Florida has averaged one-fourth even though approximately 25 percent of all fishermen fished in Florida in 1965 and one-half of all salt water fishing takes place in Florida.

(*c*) Twenty-six field stations—none in Florida.

Source: Bureau of Sport Fisheries and Wildlife.

STATEMENT CONCERNING THE NEED FOR A FISHERY MANAGEMENT PROJECT IN FLORIDA

The Bureau of Sport Fisheries and Wildlife has for several years recognized the need for establishing a fishery management project in Florida. Florida has long been known for the excellent quality and variety of its sport fishing. It leads the other States of the Nation in numbers of fishermen and in man-days of fishing. About 100 million fisherman-days are expected to occur in Florida in 1970. This represents an increase of about 30 million man-days during the past 5 years.

Many of man's activities are taking a significant toll on amounts and quality of the waters in Florida which form the base for the production and welfare of the valuable fishery resources. The Bureau would welcome the opportunity to render technical assistance to a much greater extent than it does at present.

Establishment of a project would provide increased fishing opportunities to the public on Federal, Indian, and various public and private waters. Personnel assigned to the project would work closely with State, Federal, and local governmental agencies in helping preserve and improve the quality of Florida's extensive aquatic environment, including inland and coastal waters.

The program would supplement and complement the work of the State conservation agencies. For a number of years the Bureau of Sport Fisheries and Wildlife has provided about one-fourth to one-half man-year annually in Florida assisting sport fishery programs on Federal installations and the Seminole Indian lands. This effort has been grossly inadequate in developing the potential on these areas which include 11 Department of Defense areas, two Indian reservations, nine national wildlife refuges, three national forests, one national park, and one Veterans' Administration hospital. Under more intensive effort, increased fishing on these areas could easily generate several million dollars to the economy of the area. Work on other areas would add greatly to the economic well-being of Florida.

Attention would be given about equally to fresh and salt waters by the Bureau's fishery management biologists. They would study physical and chemical characteristics of these habitats; determine and record the value and seasonal utilization of waters as important nursery and feeding areas for marine and anadromous sport fishes; and correlate seasonal fish distribution with existing physical and chemical conditions. Such data would be used in detecting and evaluating detrimental effects of man's activities upon fishery habitats and in preventing their further destruction. In addition, the Bureau's fishery management biologists would formulate and initiate methods of improving fishery resources where possible and recommend and promote measures for improving the utilization of available resources.

The program would require eight full-time employees including six professional fishery management biologists, a statistician, and a clerk-typist. Fishery aids would be employed seasonally. A total annual budget of $160,000 would be needed to meet costs of salaries, necessary equipment, travel, and other expenses.

FLORIDA FISHERY MANAGEMENT PROGRAM

	Grade	Salary plus benefits	Subtotals	Grand totals
1. Salaries & Wages				
(a) Permanent Positions				
(1) Fishery Biologist (Mgt.) Fresh Water	GS-12	$14,527		
(2) Fishery Biologist (Mgt.) Salt Water	GS-12	14,527		
(3) Fishery Biologist (Mgt.) Limnologist	GS-12	14,527		
(4) Fishery Management Biologist	GS-11	12,188		
(5) Fishery Management Biologist	GS-11	12,188		
(6) Fishery Management Biologist	GS-11	12,188		
(7) Fisheries Technician	GS-9	10,112		
(8) Clerk-Steno	GS-4	5,991		
Total permanent salaries			$96,248	
(b) Temporary Positions				
(1) Fishery Aid		$2,400		
(2) Fishery Aid		2,400		
(3) Fishery Aid		2,400		
(4) Fishery Aid		2,400		
(5) Clerk-Typist		2,400		
Total Temporary Salaries			$12,000	
Total Permanent & Temporary Salaries				$108,248
2. Expenses				
(a) Equipment		$38,000		
(b) Travel		12,500		
(c) Miscellaneous		1,252		
Total Expenses			$51,752	$51,752
Total project costs				$160,000

AREAS TO BE SERVED BY FLORIDA FISHERY SERVICES PROJECT

(Numbers Keyed to Attached Map)

Military Areas

1. Jacksonville Naval Air Station.
2. Jacksonville Naval Fuel Depot.
3. U.S. Naval Air Station, Cecil Field.
4. Mayport Naval Station.
5. Patrick Air Force Base.
6. Orlando Air Force Base.
7. McCoy Air Force Base.
8. MacDill Air Force Base.
9. Homestead Air Force Base.
10. Tyndall Air Force Base.
11. Eglin Air Force Base.

National Forests

12. Appalachicola.
13. Osceola.
14. Ocala.

National Wildlife Refuges

15. J. N. Ding Darling.
16. South Florida.
17. Hobe Sound.
18. Merritt Island.
19. Lake Woodruff.
20. Chassahowitzka.
21. St. Marks.
22. St. Vincents.
23. National Key Deer.

Indian Reservations

24. Seminole Indian Reservation.

Veterans Administration

25. Bay Pines Hospital.

National Fish Hatchery

26. Welaka NFH.

National Parks

27. Everglades National Park.

Other areas of cooperation with the State of Florida

Coastal, estuarine areas (some of the important areas shown in blue).
Reclamation of public fishing waters.
Federal water control projects.
Mosquito control districts.
Interstate waters.

Mr. FREY. I am here to request a $160,000 line item addition to the budget to establish a fish management field station in the State of Florida. This will allow us to hire six professional fishery management biologists, a statistician, and a clerk-typist, and seasonal employees. This would meet basic salaries, necessary equipment, travel, and other expenses. There is a breakdown attached to my statement.

A question you could ask is, Why Florida? I could ask conversely, Why not Florida?

When I got into this thing, I was amazed to find that 25 percent of all fishing in this country is done in Florida, and in 1965 the statistics are that 8.4 million people fished in Florida, 30 million fished in the country. This is not just a Florida project since 75 percent of the people that fish in Florida are from out of the State, and we welcome them

with open arms and we are not complaining about it. But we do have a great many people from outside the State. For instance, the 5.1 million people from out of State that fished in Florida in 1965 represents 71 million man-days of fishing. A man-day of fishing is a person going out and spending some part of the day fishing. This will go up and in 1980 there will be 140 million man-days of fishing. Disneyworld is coming into my area and will bring 8 million people the first year.

We have 36 full-time biologists and 20 fishery management field stations in the United States. Figuring out some percentage that would apply to this, we have 25 percent of the fishing in the country and we find Florida has no fishery management stations whatsoever. None. In trying to figure out how many biologists we should statistically have five management field stations and nine biologists.

I think the need is so great there is no need to go into what we could do with these things. I have attached in the statement what we could do with them, the various places and the estimate of man-days.

In five areas alone they estimate we could increase the man-days of fishing by 300,000 annually.

We have so many great estuarian areas and Federal fresh water places that we don't have any information about. We have the management problem, we have the environmental problem. This is a big problem in Florida.

I could go on.

I could go on at length about the need but you are probably more familiar with that.

My plea is just this: Our resources are being destroyed. Despite the fact that 25 percent of the fishing in this country is done in Florida, we don't have any way really to take the steps we need today. I do not think it is a provincial resource, a Florida resource. It is really a national resource and we need your help, and I just hope you can see fit to put a $160,000 in the budget to at least let us get started on this project.

Mrs. HANSEN. Thank you very much, Congressman. The committee has been deeply concerned with this for many years.

Mr. REIFEL. Thank you for a good statement.

Mr. FREY. Thank you. I have enjoyed my time spent with you in Congress and I am sorry it is not going to be a much longer time.

Mr. WYATT. I thank you, and I would say you have been very diligent in pushing the matter. I know you spoke to several of us about it and we hope we can help.

Mr. FREY. I hope we can keep some fish down there for when you come. Thank you very much.

FORT SCOTT NATIONAL HISTORIC SITE

WITNESS

HON. JOE SKUBITZ, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KANSAS

Mrs. HANSEN. We now have the very distinguished gentleman from Kansas, Congressman Skubitz.

Mr. SKUBITZ. Thank you, Madam Chairman and members of the committee.

First, Madam Chairman, I want to thank you for giving me this opportunity to appear here today.

Mrs. HANSEN. We are delighted to have you.

Mr. SKUBITZ. I am here in behalf of the Fort Scott project. Serving with you on this committee, Madam Chairman, are two colleagues who are well acquainted with the Fort Scott project. They both served on the Interior Committee and if you give me enough money to get this project on the road, they will quit hearing from me.

Mr. REIFEL. I haven't served on the distinguished Interior Committee but I have heard about it every day also.

Mr. SKUBITZ. Five years ago, Madam Chairman, the Congress enacted Public Law 89–155 which established Fort Scott as a National Historic Site. At that time the committee authorized $857,000 for acquisition and development. I wish some of my colleagues weren't here today, because I hear them talk in terms of $5 and $10 million. I get ashamed asking for thousands. Of this amount $255,000 was for land acquisition. In spite of skyrocketing prices, we were able to purchase the land for $208,000. And this was because of the interest that our people at Fort Scott took in asking folks to keep the prices down. We actually had a survey made before anyone knew about the project and found out what the people would take and thus avoid speculators getting into the act.

Since 1965 the Interior Department has spent $50,000 for research and development and $32,000 for markers and demolition of buildings. that work has been completed. In 1969 there were no requests by the Department for any funds. So—for 1 year we sat by and nothing happened. This year the committee has asked for $67,000 to restore officers' quarters Nos. 1 and 2. I called the Department and asked them just what their plans were for restoring the quarters. I have been advised that the Department is asking for $125,000 for 1972; $60,000 in 1973 to restore officers' quarters; $63,000 to restore the infantry barracks in 1974. In 1975, $88,000 to restore the magazine and the Blair location and then an additional $62,000 in 1976.

Madam Chairman, I introduced this bill 5 years ago and God willing and a little luck and a few votes, I think I will get reelected this time. Time is running out on me and I would sort of like to see this thing completed while I am on earth. I don't like to view it from above or below, which ever it might be. What I am asking the committee to do is increase the appropriation from $67,000 to $252,000 which would permit us to construct three of the buildings in place of one. I will be back next year to talk about Fort Scott again so that we can complete the project before I get out of Congress.

Thank you very much.

Mrs. HANSEN. Thank you very much, Congressman.

Mr. SKUBITZ. Thank you so much.

Mr. REIFEL. We are glad to have you before the committee, Mr. Skubitz. You have been pursuing this project over the years as you have pointed out, and I hope you will have your wishes met in an early completion of the project.

Mr. SKUBITZ. Thanks a lot, Ben. I still insist that the Civil War started in Kansas. Thanks ever so much.

Mrs. HANSEN. Thank you so much.

WITNESS

HON. E. Y. BERRY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF SOUTH DAKOTA

Mrs. HANSEN. It is a pleasure to welcome the very distinguished gentleman from South Dakota, a colleague of our ranking member, Congressman E. Y. Berry.

Mr. BERRY. Madam Chairman, members of the House Appropriations Subcommittee for Interior and Related Agencies, I appreciate the opportunity to testify before you today.

It is my pleasure to strongly support the request of the East Charles Mix Independent School District No. 102, Wagner, S. Dak., that planning funds for an integrated school facility be included in the approved budget requests of the Bureau of Indian Affairs.

This proposal, which is also endorsed by my colleague, Ben Reifel, is a coordinated effort by the Yankton Sioux Tribe, the city of Wagner, and the East Charles Mix Independent School District to construct a school facility that will provide a better education program and a real opportunity for all the children of the district to become productive members of our society.

In order to better present the need for planning funds, I submit the following background information. The East Charles Mix School District has a kindergarten through 12th grade enrollment of 879 students, including 142 Yankton Sioux Indian children, or 16 percent of total enrollment. The school district presently includes 20,179 nontaxable acres that are Federal trust lands located on the Yankton Sioux Reservation. On July 1, 1970, due to mandatory reorganization under State law, this district will receive an additional 32,715 acres of taxable lands and an additional 3,554 acres of nontaxable lands that are held in trust for the Yankton Sioux Tribe.

It should further be pointed out that the total number of Yankton Sioux Indian children eligible to attend school in this district is 367, many of whom now attend school outside the district.

There is considerable reason to believe that most of these students will now be coming back to the district to attend school, due to the fact that the Yankton Sioux Tribe is building 120 homes at Wagner. This housing project is scheduled to be started this summer.

Another factor is the plan of Marty Mission, a Catholic boarding school, to phase out its educational system. Marty Mission is approximately 12 miles from Wagner and presently is attended by 171 Yankton Sioux Indian children. Since it is located within the boundaries of the school district, it is assumed most of these children will attend school in Wagner.

I should point out the present school facilities are both inadequate and outdated. They include five separate buildings located at three different sites, constructed at various stages throughout the past 60 years.

The local people have not turned to Congress before exhausting all other possible avenues of assistance. They first contacted the Bureau of Indian Affairs in 1968 and were advised to apply for Public Law 815 construction funds. While their application was approved, its

chances for funding at any time in the foreseeable future are extremely unlikely.

The district has presented three bond proposals to the electors of the district within the period of 1 year, all of which were soundly defeated, primarily because the taxpayers felt it was the obligation of the Federal Government to give greater assistance toward the education of the Indian children.

Consequently, an appeal for planning funds to permit the Bureau of Indian Affairs to complete a study of the district's needs is the last resort open to these people.

The exact amount of planning funds necessary for this undertaking can best be supplied by the Bureau of Indian Affairs. The amount, I am confident, will be small in comparison to the benefits which I visualize will be derived from providing the opportunity and the facilities to reach new education horizons.

Last, but not least, the cooperation which has existed in working for this school has been truly magnificent. The community of Wagner and the Indian people of the Yankton Sioux Tribe are making every possible effort to provide quality education for their children. I am confident they can accomplish this goal with your help in proving the planning funds they are seeking.

Thank you.

Mrs. HANSEN. Thank you.

SPORT FISHERY CENTER AT SAN MARCOS, TEX.

WITNESS

HON. J. J. PICKLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mrs. HANSEN. We now have our very distinguished and able colleague from the State of Texas, Congressman Pickle.

Mr. PICKLE. Madam Chairman, members of the subcommittee, I deeply appreciate the opportunity to meet with you again and to present my views on the sports fishery center in San Marcos, Tex.

First, I want to thank this commitee for the kind consideration you gave me last year. I am most grateful.

As you will recall, this is a repeat performance. In a previous administration, this project was budgeted and recommended as a new construction project for $1.2 million. Last year, the committee earmarked, and Congress appropriated $100,000 in planning funds for this important project. Today, I am here to ask your assistance in keeping our progress alive and moving in smooth fashion. Ours is one of the most important programs within the Bureau of Sports Fisheries and Wildlife, and I am most grateful that the shortage of sport fish is being given the attention it deserves. The San Marcos proposal not only calls for the construction of one of the most modern facilities in the country, but it also provides the focal point for an outstanding marine biological study complex, available at Southwest Texas State University.

After the committee action last year, it looked for a while like our program along with others, was jinxed. There was considerable dialog as to whether the construction freeze had snagged us even before

we could get underway. However, the syntax was straightened out and we fell into that blessed group known as a "planning" project, rather than a construction start.

I can give you an up-to-the-minute report on how that $100,000 planning money is being used. Dr. B. M. Jones, president of Southwest Texas State University tells me that a contract has been awarded and the construction company moved drilling rigs on the property last Friday. Drilling began Saturday in an effort to locate good, clean water for this project. The engineers are confident, based on findings in adjacent areas, that we will find the proper soil and water conditions to support this sports fishery center.

As you can see, we are moving ahead as fast as is possible. To freshen your memory, this project represents a textbook study in cooperation between school, State, and Federal governments. The university has agreed to the land use, the State legislature has passed special legislation giving this land for the stated purpose and the Federal Government has provided the necessary planning funds.

The university has well established its serious intent in carrying this program through to completion. A portion of the proposed site was already owned by the university, but in order to have full use of the necessary land, the university purchased an additional 75 acres at $410 per acre. The total purchase price was $30,750. Then, this 75 acres was combined with the existing property to provide the needed 126 acres.

However, it's at this point that our progress stops.

There is no money in the budget we are considering today for the sports fish hatchery.

Hopefully, this is an oversight. As you know, the number of Federal fish centers in the United States is not increasing at a dramatic rate. In Texas, the number has actually declined. There are approximately 90 to 100 Federal fish hatcheries in the United States. At one time, Texas had four, but with the closing of the Federal fish hatchery in Austin recently, we now have only three in a State that is blessed with all the natural needs to support such a project. Texas is still brimming with fresh water and clear lakes. We are a State of fishermen and conservationists and our need for such a center is self-evident.

As further evidence, the 1965 National Survey of Needs for Hatchery Fish indicates that 5 years ago, Texas suffered a fish production deficit of about 170 million fish.

With the demise of the Austin fish hatchery, our problem is more critical. Prior to the closing of the Austin site, in 1965, the Department of Interior closed the existing fish center at San Marcos to allow the university to provide orderly expansion. The administration and library buildings now straddle part of the site of the old fish hatchery and the university has an enrollment of nearly 9,000 students. As an incidental point of interest, the university completed this building project while retaining the beauty of the natural setting. Only three or four trees were removed to make way for progress.

As you can see—Texas once was a leader in sports fishery centers, but we are losing ground fast.

To correct this imbalance, in mid-1968, the Bureau of Sports Fisheries and Wildlife resolved that the best site for construction of replacement facilities would be at a location just outside the city of San

Marcos. And this brings us full circle, as I direct your attention to the earlier statement regarding the partnership involving the city, State and Federal governments.

That circle also brings us to the present impasse—no money in the proposed budget.

I submit to you that our need is clear. Our Government should not leave this project dangling. It would be oddly inconsistent that we would begin with $100,000 one year and program nothing for the next. We have the contractor on the ground doing his preliminary work. The money-saving move would be to go ahead with stage one action * * * that is, the development of the water supply systems, which includes the pumping stations and the connecting pipelines from the water wells at the source of the water, to the ponds for the ultimate use of the water. I urge the committee to move ahead as was scheduled. I ask you to consider reinstating the San Marcos project to its proper priority by including the normal $250,000 water development construction in the budget being considered today. The Bureau of Sports Fisheries and Wildlife supports this request.

There are three other Federal fish hatcheries in Texas—at Inks Lake, at Forth Worth, and at Uvalde. In fairness, they are excellent facilities, but none can hold a candle to what we have on the drawing board for San Marcos. Here, we are planning more than merely a fish hatchery. Here we plan to incorporate the latest developments into a sports fishery center. Here, we will run an efficient hatchery in addition to developing proper fish farming techniques for raising sports fish throughout the Southwest.

I am most hopeful that the committee can offer its assistance today in moving us this significant step forward. This project offers a real opportunity that we cannot allow to lie fallow.

I want to thank you, Madam Chairman and members of the committee, for allowing me to present my views. I want to start off by thanking you for the consideration you have given me this past year.

Mrs. HANSEN. Do you have a statement from the Bureau of the Budget on when these funds will be released?

Mr. PICKLE. I do not have a statement from the Bureau of the Budget. We have talked to the Interior Department, to the Bureau of the Reclamation, and they have said that this project was a planning project and that they are spending the money. Last week a contract was let. The company is on the grounds now drilling for the location and the supply of water. They are probably finished by now. So the funds are being spent. I can only assume from that that it is definitely in the planning stage.

What they intended to do for next year I am not sure. It is not a budgeted item.

Mrs. HANSEN. As you well know, the Bureau of the Budget placed many congressional add-ons for the Bureau of Sport Fisheries and Wildlife in reserve.

Mr. PICKLE. In our contact with the Bureau of Sport Fisheries, they said that the funds were not frozen for this project, that it was a planning fund and was being used for such. So it is not frozen.

(Discussion off the record.)

Mr. PICKLE. I have to assume from that that it is not frozen and we are therefore asking for stage one consideration.

Let me review for you in a general sense some of the facts about this project.

The project was recommended in one administration for a new construction start. Last year the committee did give $100,000 for the planning money, which is being spent now.

The university bought some 75 acres at about $410 an acre. The legislature of Texas passed a special law making the grant of the land possible. The university has agreed to the land use. The wells are being dug now. So we are ready to proceed on schedule with stage one production.

We had a fish hatchery in Austin which was closed down, which is 30 miles away. We had another fish hatchery in San Marcos, one of the oldest in the State. It was closed down about 4 years ago when land was transferred to the university for research purposes. It was on the campus.

Our district then, in central Texas, has lost two fish hatcheries within the last very few years. The general understanding by the Bureau of Sport Fisheries was that they would put another one back, and they wanted to put one back. We decided originally to put it back in Austin but the Bureau of Sport Fisheries said no, they wanted it in San Marcos. The reason is they say that the water there is perhaps more ideal than any water of the United States. After several conferences they had an agreement that we would do it in San Marcos. So the Bureau of Sport Fisheries recommended this project. They want it there. They think this water is perhaps the best of its kind for this type of project in the United States. We are on schedule except that we just don't have the money budgeted for this stage one production. This is what we are asking before the committee now.

Since it has already been designated for its planning money and is being spent, then we are asking that we proceed smoothly to the next stage, which is the stage one. But we are asking for $250 thousand. We want to dig the ponds, connect the pipes, and get the pumps and that kind of operation going.

Mr. REIFEL. Madam Chairman, as I recall, Congressman Pickle, this whole package was in the budget last year. Then we asked Mr. Pickle to be willing to go back and get the $100,000 for the planning and then we would consider it later.

Mrs. HANSEN. I would say Congressman Pickle was most scrupulous in keeping his word to the committee. We have appreciated his cooperation.

Mr. PICKLE. I thank you.

Mrs. HANSEN. Thank you very much.

Mr. PICKLE. Thank you very much.

BIG HORN CANYON HIGHWAY

WITNESS

HON. JOHN WOLD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WYOMING

Mrs. HANSEN. The next witness is Congressman Wold of Wyoming. It is a pleasure to welcome another western neighbor.

Mr. WOLD. Madam Chairman, I want to express my appreciation for being able to testify at these hearings on such short notice. I would also like to thank the chairwoman and the members of the subcommittee for their positive action on our request that the $160,000 in fiscal year 1970 planning funds be released for the first 6 miles of the proposed Big Horn Canyon Highway through Big Horn National Recreation Area.

After many years, the Nation is beginning to realize the correlation between the problems of our cities and the plight of our rural areas. The migration of peoples from rural areas has further depressed them. At the other end—the city—the influx of people has compounded their problems. In short, before any definitive solutions are forthcoming, the Nation will have to make a commitment to revitalize our rural areas.

There is also abundant evidence that the Nation's existing recreation and park areas are being overtaxed. Already we have heard proposals to cut the numbers of visitors to our national parks by some form of preregistration.

Therefore, it is imperative that the Congress give greater impetus than it has to adding additional acres to our parkland and recreation system and to making better use of our existing acreage.

These are two of the reasons I am so pleased today to be able to testify in support of fiscal year 1971 funding for construction of the proposed Big Horn Canyon Highway through Big Horn National Recreation Area.

As you are aware, the Park Service has used the $160,000 to plan the first 6 miles of the road—from Horseshoe Bend, Wyo., to Devil's Overlook, Mont. Because of the administration's desire to hold down Federal spending—the proposed highway has not been given the priority I think it deserves. The Park Service has indicated they could well use $2,030,000 in funds during fiscal year 1971 for construction of this first segment of the highway.

An early beginning to construction is necessary to hold down the final and ultimate cost of the highway. Cost estimates for early 1969 show the total cost of the highway to be $12.155 million. The new estimate is $19.2 million and I would venture the prediction that any further delays will only escalate further the cost of the highway.

Second, the Park Service indicates that planning for the first 6 miles will be completed by June 30, 1970. To invoke a delay between planning and construction is only to invite obsolescence of the original plans and the need for new ones which would require additional expenditure of funds.

The estimated cost of $19.2 million is a significant sum. I do not, however, believe it to be exorbitant in light of the total benefits the highway will bring the area. This would be of immense economic aid to communities in northern Wyoming, eastern Montana, and to the Crow Indian Nation.

I would just note that 57 percent of the Indian families have median incomes under the $3,000 level. In an effort to improve their economic position they have indicated a willingness to invest substantial funds on developments in the recreation area. The success of the developments is predicated on construction of the highway.

As I indicated, construction of the highway and the attendant increase in tourist travel would have a very significant economic impact on the area. It would lead to the type of development that would provide the job opportunities needed in the area to help stem migration out of this area to the Nation's already crowded cities.

It is estimated that when the road is complete, one-half to 1 million tourists will visit the area within 3 to 5 years. Using a projected spending figure of $12 per visitor per year, the area's economy would be boosted by $6 to $12 million per year within the next 5 years.

Summer visitors to Grand Teton National Park exceeded the 3 million figure this past summer. Those to Yellowstone exceeded the 2 million mark. These parks are reaching the saturation point and already there are indications the Park Service may have to admit visitors on a reservation basis.

Construction of the highway would alleviate the overcrowding in these areas as it opens up hundreds of miles of new recreation area.

I am aware of the need for fiscal restraint during the present period. I think, however, this project should be given a higher priority than it has been given in terms of funding for fiscal year 1971.

It would be far less expensive to try and improve the economic situation of the people in this area by building the highway than to solve their problems by welfare methods.

In conclusion, I would trust that this committee give serious consideration to providing funds for construction of the first segment of the highway during fiscal 1971. It is my recommendation that the level of funding be at least the $2,030,000 recommended by the Park Service.

Mr. WOLD. I would suggest I might go off the record.

(Discussion off the record.)

Mr. WOLD. In addition to my statement I have also two statements that I would like to insert in the record from two Wyoming representatives of the Big Horn Canyon Association.

Mrs. HANSEN. Without objection, they will be inserted in the record.

(The statements follow:)

WYOMING VIEWPOINT—CAL S. TAGGART, VICE PRESIDENT, BIG HORN CANYON HIGHWAY ASSOCIATION, FORMER MAYOR OF LOVELL, WYO., AND PAST PRESIDENT OF WYOMING ASSOCIATION OF MUNICIPALITIES

"When we start projecting future needs we must take into consideration some harrowing misguesses of the recent past. The U.S. Bureau of the Census in 1947 predicted that this Nation would have 'a population of 145 million in 1950, of 153 million in 1960, and possibly 163 million by 1990.' In actuality, by 1960 the U.S. census takers counted 179,323,000 noses. Today, with the population past the 192 million mark, projectors are putting our country's tenancy at 288 million by 1990, or 123 million more than the 1947 projection for 1990. For the year 2010, the estimate now ranges from 322 million to 438 million." This quote appeared in the Department of the Interior Year Book in 1966, book No. II, and as it states we, indeed, have problems that confront people that are to make major decisions as to the right road to follow planning our environment.

Randy Wagner of the State recreation commission planning division says "Wyoming's potential in recreation sites and areas are just being developed, all it takes is just grabbing the bull by the horns," and, according to Wagner, "nonresident visitors, vacationers, and travelers spend somewhere in the neighborhood of $117 million a year, and hunters and fishermen from other States spend about $64 million yearly."

Wagner is ready to dispel the common belief that tourists visit only Yellowstone and Grand Teton National Parks. "Yellowstone, although still overflowing with tourists, dropped 2 percent in its attendance while the rest of the State increased this past season, which means that people are heading for other attractions in the State.

"But the fact remains," continues Wagner, "that there just aren't any more campgrounds and places to accommodate tourists in Yellowstone. We have to develop surrounding areas to lighten the load of the parks."

According to Frank Norris, of the Wyoming Travel Commission, "If the 8 million visitors to Wyoming each year would stay but a half day longer, the travel tab to Wyoming would be $30 million more for the year."

Since the State has 300,000-odd people scattered over some 97,914 square miles, it adds up to a lot of space between people. "All that Wyoming has to offer are millions of acres of scenic mountains, glacier-fed streams, intriguing badlands, and mile upon mile of sagebrush-antelope range. That's all we have!"

The grandeur is spectacular, the dimensions are tectonic, and we are virtually unchanged physically by the movements of progress and industry that have engulfed the rest of the country. This is Wyoming today.

We, the Wyoming people, would like to see the Big Horn Canyon Road become a reality in 1970; that this area might be enjoyed by vacationers, travelers, and sightseers; that the camping, boating, and water skiing facilities might be utilized to their utmost. Until the Big Horn Canyon Road is completed, this will not be possible, and the Big Horn Canyon National Recreation Area will not be utilized to its fullest.

The year 1972 will be the centennial year for Yellowstone National Park, at which time, it is predicted that an overflow crowd will descend on Wyoming and its facilities. We would like to be a part of this centennial and provide to the tourist the most scenic national recreation area in America.

Besides the beauty and the recreation mentioned, needless to say, it would cause a tremendous impact on the economy of Wyoming and Montana to have this road completed. Think of the benefits derived by people that will have jobs during construction period and additional jobs provided due to new hotels, motels, and facilities.

It is our hope that your committees will vote and recommend that $19.2 million be included as a line item for immediate construction and completion of this new highway.

I want you all to know that we appreciate the opportunity to present our case to your committee and we, of course, hope for favorable action.

STATEMENT OF JACK PEARSON

My name is Jack Pearson. I'm from Lovell, Wyo., and I'm testifying on behalf of the Lovell, Wyo. Chamber of Commerce.

The construction of the Big Horn Canyon Highway would be of considerable economic importance, not only to my community, but to several other communities in northern Wyoming and southeastern Montana, and the Crow Indians.

I'm aware of the migration of people from the rural areas to the metropolitan centers. I share the alarm, voiced by so many people, caused by this dislocation of people and the social problems that result. Economic pressure is the important reason for this migration. We simply do not have the economic opportunities in most rural areas to hold our young people. I know. I have a daughter who recently married a fine young man from Montana. They would prefer to make their home in Wyoming or Montana. They live in New York City because that is where the economic action is. I have a son who is a sophomore in college who already fears that after his education is completed and his military obligation is discharged there may be no opportunity for him in Wyoming.

There is a disinclination for us rural westerners to come hat in hand to the Federal Government for help. We would prefer to solve our own problems. But we cannot build this road—we have to ask you to do that for us.

There is another very compelling reason for the early construction of the Big Horn Canyon Highway—the overcrowded condition of the existing national parks in Wyoming and Montana. I speak from personal observation of this condition as it exists in Yellowstone National Park. During most of the tourist season, Yellowstone does not have the facilities to adequately care for the visiting tourist. And yet each year more people wish to visit our western vacation land. I doubt that there is much opportunity to expand Yellowstone without

damaging it. Some time ago, I saw a TV presentation about Yosemite. Cars were bumper to bumper and there were traffic jams. Tents and campers were placed with bare walking room between.

A solution is to prepare other recreation facilities, such as the Big Horn Canyon National Recreation Area, to accommodate this increasing tourist traffic. In case of Big Horn Canyon National Recreation Area, all that is lacking is the Big Horn Canyon Highway.

Mr. WOLD. Madam Chairman, I want to thank you and your subcommittee for giving me this opportunity to testify on the fiscal year 1971 appropriations bill for the epartment of the Interior as it affects Wyoming.

I am extremely interested in the recommendations that will come out of these hearings from my roles as a member of the Committee on Interior and Insular Affairs and as Representative for the State of Wyoming.

The Department of the Interior has requested a total of $59,435,508 in fiscal year 1971 appropriations for my district.

We have experienced many long delays in funding for numerous projects long authorized.

In some cases there may be merit to appropriation of additional sums if we truly are to have viable programs and if we are to continue forward movement on projects already begun. This momentum is necessary to avoid adding to the leadtime which already has been lost due to the fiscal restraints of the past several years.

As you know I have asked the subcommittee to add a total of $2,030,000 to the National Park Service fiscal year 1971 budget for construction of the first 6 miles of the proposed Big Horn Canyon Highway through Big Horn Canyon National Recreation Area.

I am also requesting that funds be appropriated for the National Park Centennial Commission. This is a somewhat unusual request since Congress has not yet authorized the Commission.

In view of the importance of its task, however, I believe it incumbent to have the funds available for the workings of the Commission as soon as it is authorized—action I see forthcoming in the near future. There seems to be ample precedent for such action—the House passed the fiscal year 1971 appropriations for the Office of Education even though the funds were not authorized.

The joint resolution to establish the Centennial Commission, House Joint Resolution 546, would authorize $850,000. The Federal share would be $250,000. The remainder would come from public donations.

This action is necessary now if we are to provide for the full range of activities to properly celebrate the centennial of the founding of Yellowstone National Park in 1872. Unless prompt action is taken, it will not be possible to give the celebration the national and international recognition it deserves. Considerable leadtime is needed to place this event on the world calendar of events and the anniversary is only 2 years hence—in 1972.

The international significance of the centennial is indicated by the request of the Second World Congress of National Parks to participate. In my judgement it is eminently appropriate that this centennial be celebrated on an international scale as Yellowstone set the world a precedent in the establishment of National Parks.

Therefore I am requesting that your subcommittee include $250,000 in fiscal year appropriations for the establishment of operation of the Commission.

The Interior Department has requested $2,412,000 to continue oil shale research during the next fiscal year—an amount equal to that spent during the current fiscal year.

I believe these funds to be inadequate to meet the Nation's needs for research and development in our future energy and petroleum needs.

It is my understanding that your subcommittee has already heard testimony that projected increases in petroleum demand in the decade ahead will require, despite the promise of recent Alaskan oil discoveries, "an unprecedented effort in developing domestic sources of oil, including supplemental sources such as oil shale."

Present domestic demand for crude oil and natural gas liquids is approximately 4.7 billion barrels per year. By 1980, it is estimated that 6.7 billion barrels will be the annual national demand. At present levels of exploration and production the United States will be unable to meet these requirements in 1980.

Total potential shale reserves are estimated at 2.6 trillion barrels—an amount that could supply the Nation's petroleum demands for an indefinite period. Therefore, I would urge the subcommittee to give serious consideration to increasing the appropriations for oil shale research.

The largest reserves of coal in the United States lie in Wyoming. There are several technical developments on the horizon including the conversion of coal to gasoline and the use of magnetohydrodynamics that promise breakthroughs in the energy field. Again, I believe consideration should be given to increased funding for coal research—not in the interest of a single State, but as a spur to the fulfillment of our national energy requirements in the decades ahead.

There are two reclamation projects in my district—the China Meadows Dam of the Lyman Project and the Seedskadee project that merit attention.

Construction of the China Meadows Dam has been delayed 3 years now by finances. In the meantime a legal situation is developing which could jeopardize the water rights of the dam if construction is not begun by May 23, 1971. At that time the 14-year limitation Utah water law prescribes for pending water applications (without actual commencement of construction) expires.

I feel it imperative that enough funds be appropriated to initiate construction during fiscal year 1971.

A not dissimilar situation exists with respect to the Seedskadee project.

The project was authorized in 1956. Fontenell Dam and Reservoir, the first portion of the Seedskadee project, were completed in 1964. Settlement had been scheduled to begin in April 1964. However, in 1962 funds for the settlement were withheld for 5 years pending a study designed to produce the best possible guidlines for rapid settler success.

That 5 year period of development is complete and numerous studies are available.

It is, in my judgment, time to begin settlement of the project. Therefore I ask that this committee give serious consideration to appro-

priations of funds for such purposes when the Interior Department is in a position to recommend the amount of such an appropriation.

Madam Chairman, once again I thank you for the opportunity to testify.

Mr. REIFEL. Madam Chairman, if I may would like to commend Congressman Wold for coming before us and especially emphasizing the Big Horn Canyon Road. As I remember, Congressman Melcher, and you and I met with the Crow Indian representatives as well as others and I think representatives from Mrs. Hansen's office, because this would be a very important item in developing the recreation resources and finding jobs for many of the people on the reservation. I believe there is a marina and other recreational installations that will be open to the public, managed by the Crow Indians.

Mr. WOLD. That is right. In fact the Crow Indian Tribe has committed itself to a sizable investment at their end of this highway to try create some new industry for the members of the tribe.

Mr. REIFEL. I think the Congressman will be interested to know that Mr. Hartzog of the Park Service is very much interested in the moving of this project along to its completion as rapidly as possible.

Mr. WOLD. I would like to say that we were very grateful, both Congressman Melcher and the members of the Montana and Wyoming delegations, for your interest in this.

Mrs. HANSEN. Thank you very much. The committee is always interested in the Park programs, and we are deeply sympathetic to advancing programs that will assist the Indian people.

Mr. WOLD. Thank you very much.

Mrs. HANSEN. Thank you so much.

FLAMING GORGE NATIONAL RECREATION AREA

WITNESS

HON. LAURENCE J. BURTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF UTAH

Mrs. HANSEN. We now have the distinguished gentleman from Utah, Congressman Burton.

Mr. BURTON. I appreciate the opportunity to submit this brief statement for the record with regard to funds for the Flaming Gorge National Recreation Area.

I am well aware of the need for restraint in Federal budgetary expenditures in this time of inflationary pressures. But I am also concerned about the development of badly needed recreational facilities which benefit all of the citizens of our country. And I am hopeful that this development can be carried out in an efficient and orderly manner to the benefit of the public which uses these facilities.

The Flaming Gorge National Recreation Area lies athwart the Utah-Wyoming border, adjacent to the scenic High Uinta Mountains in Utah. This beautiful body of water provides some of the finest fishing to be found in the United States and also offers great opportunity for boating, water skiing, camping, and other outdoor recreational opportunities. It is a valuable recreational asset, not only to the immediate area of Utah and Wyoming, but to the Nation as a whole.

Last year, visitor use of Ashley National Forest, and its "showpiece," Flaming Gorge National Recreation Area, reached record proportions. A report issued early this year disclosed that the area had 1,161,300 "visitor days" in 1969—a "visitor day" being defined as one visitor spending 12 hours in the Ashley Forest-Flaming Gorge area.

Facilities already developed at Flaming Gorge have a theoretical capacity of 9,000 people at a time in the 63 camp and picnic grounds, two visitor centers, 11 boat ramps, six observation points and two swimming beaches. Last summer, over the Fourth of July weekend, there were estimates that close to 100,000 persons were attempting to use facilities in the Flaming Gorge area. Obviously, as citizens interest grows in this area, and as visitor use from over the Nation increases, accommodations and facilities must be expanded.

The present budget allocates $933,000 for operation and maintenance, $96,000 for water resource development and $55,000 for forest road and trail maintenance.

According to the Forest Service, more money can be efficiently used to great advantage in the Flaming Gorge area to make this region more available and more usable.

These additional funds, which in view of the greatly accelerated use of facilities, I feel would be entirely justified, could be used for new construction of tourist facilities, additional water resources development and provided added revenue for operation and maintenance.

The greatly increased emphasis currently being placed by our citizens on outdoor recreation creates a greater demand for suitable recreational facilities. By any criteria, the Flaming Gorge National Recreation Area meets the needs of most of our citizens who love scenic, water-oriented and camping-oriented recreation.

I would urge your most careful consideration of the possibility of additional funds in the fiscal 1971 budget.

Mrs. HANSEN. Thank you.

HELIUM PLANT IN TEXAS

WITNESS

HON. ROBERT PRICE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mrs. HANSEN. We now have another distinguished Texan, our colleague, Congressman Price.

Mr. PRICE. Thank you, Madam Chairman. I have with me here the folder which you might have seen before of the commitment regarding the subject. I will speak about the helium plant in Texas. I have some photographs coming also of West Texas State University.

I appreciate the opportunity to appear before this subcommittee in regard to the helium Research Center of the Bureau of Mines located in Amarillo, Tex., in my congressional district.

On February 17, 1970, the Department of the Interior advised me that the research center would be closed at the end of the 1970 fiscal year. While I fully realize the extent of the present budgetary constraints under which the President is operating, I firmly believe that a precipitous closing of the Helium Research Center in Amarillo

would not be wise economy. For this reason I am requesting this subcommittee to help provide the mechanisms for an orderly transfer of the responsibility for funding this valuable program to the Killgore Research Center, the research arm of West Texas State University.

In the process of transfer, Dr. James P. Cornette, president of West Texas State University, has suggested that the following objectives be observed:

1. To continue selected on-going research projects vital to the helium conservation program, and thus contribute to the wise, and economical safeguard of this multibillion dollar Government investment.

2. To keep intact a highly competent research group which has proven its ability to contribute to the continued search for new uses of helium.

3. To keep intact the helium research group with proven expertise in the knowledge and skills necessary in the national attack on forces which threaten the environmental quality of our country.

Parenthetically, the helium research group is comprised of 62 citizens. At this juncture, I should point out that there is no other group of similar quality expertise in the United States. This group has already done a good deal of research for NASA in the use of helium in our space program, as well as current naval programs involving the experimentation of various mixtures of helium and other gases for underwater operations and underwater life support systems. As you will remember, had underwater life support systems been more refined at the time, we could have avoided the unfortunate death of one of our key aquanauts.

Madam Chairman, my primary purpose for appearing before you today is to request that the sum of $840,000 be appropriated to the Department of the Interior for the 1971 fiscal year and that this subcommittee and the appropriations committee go on record in favor of appropriations of $480,000 for fiscal year 1972, and $250,000 in fiscal year 1973. I submit such appropriations would allow the orderly transfer of this program to Killgore Research Center, in a manner that would not dislocate Federal budget priorities.

Armed with these funds the Department of the Interior could enter into a contractual arrangement with West Texas University to (a): provide personnel and necessary supplies for a continuing program which would hold the research group together; (b) provide continuing research in areas pertinent to helium conservation; (c) provide time to complete the Killgore Research Center expansion program which is a $1 million program to be funded by private sources in the area; and (d) provide time to seek appropriate funding sources for continuing research in new uses of helium and in the general area of environmental and earth science studies.

I think it important to note that as the program developed on the new site, the State of Texas would be expected to increase its support of the maintenance and operation of the facility. This, in my judgment would constitute a productive coupling of Federal and State resources.

It is also of prime importance to note that all research projects underway at the Helium Research Center are related to helium production, utilization, and conservation. The sudden cutoff of some of these projects could jeopardize the total conservation effort. This could well prove most damaging to our national effort to effectively manage our national resources.

The Amarillo Helium Research Center has served both government and industry in the wise and effective use of helium. Helium usage in the world continues at a reasonably constant level and there is every reason to believe that there will be large increase in the demand for helium in the future.

In addition, we are all well aware of the problems of environment. It has been estimated that the Nation will need to develop in the 1970's literally hundreds of additional laboratories dedicated to environmental studies if we expect to successfully attack the many forces which threaten environmental quality.

It so happens that the research group at the Amarillo Helium Research Center has developed a higher level of expertise in the general area of gas measurement and gas sampling techniques than probably can be found anywhere else in the Nation. Significantly, most known problems related to air and water pollution are gas problems requiring expertise in measurement and sampling techniques. Some members of the research group have also had experience which will be highly valuable in the study of pollution problems caused by the vast expansion of the cattle feeding and meat processing industry in the Southwest.

It is generally agreed that the ingredients necessary to produce excellence in research include adequate space, equipment, time, supplies and especially highly competent people. The Killgore Research Center was built by regional investment—an indication of the faith of the people of the region in West Texas State University. The 3-year transfer period we are requesting would be fitting tribute to the individual citizens who have made the Killgore Research Center a possibility.

The merger of the Amarillo Helium Research Center with the Killgore Research Center is not a new idea. This possibility involving cooperative long-range planning has been under discusion for over 2 years. An on-going formalized inter-agency working agreement between the Department of the Interior and West Texas State University has been in effect since 1961. The merger of these two research centers has promise of creating a unique graduate level physical science program at West Texas State University with great potential for contribution to knowledge as well as development of the Southwest.

For the information of the subcommittee, negotiations are presently underway between West Texas State University and the Department of the Interior for transfer of the Helium Research Center measuring and sampling equipment to Killgore Research Center. However, unless the 3-year funding we are requesting today is approved this effort will be futile because there will be no funds available to employ staff to use the equipment.

You might well ask, what does West Texas State University plan to do?

1. The university has already obtained a preliminary commitment from the Amarillo Area Foundation for $1 million to expand Killgore Research Center to the size necessary to accommodate the selected ongoing helium research programs.

2. Key personnel in the Helium Research Center will be consulted in the planning of the expanded Killgore Center.

3. Those personnel now employed in the Helium Research Center necessary to conduct the research projects contracted with Government and industry by the Killgore Research Center will be employed by the University.

4. The university will encourage the exploration and solicitation of new funding sources both in helium and related research.

5. The Killgore Center for environmental studies utilizing members of the Helium Research group and university faculty will be organized.

6. Additional maintenance and operation funding from the State will be provided as the research plant is expanded.

7. Appropriate research areas will be integrated into the instructional program by making joint instructional-research appointments.

8. West Texas State University will take final responsibility for future development of research efforts in helium and environmental study after June 30, 1973.

I am very proud of the way the civic and educational leaders of my district have reacted to the projected closing of the Amarillo Helium Research Center. The administration of West Texas State University, the mayor and city commissioners of Amarillo, the Amarillo Chamber of Commerce, the Amarillo area foundation, and the Panhandle Regional Planning Commission have all been instrumental in devising the plan I have presented here today. Interior Department officials have stated that the research being carried on at the Helium Research Center should logically be carried on in an academic atmosphere. Those of us who live in the 18th District of Texas agree, and we sincerely hope that this subcommittee will grant our request for funding in 1971, 1972, and 1973, in order that we may have time to expand the Killgore Research Center to accommodate this staff and equipment.

In perspective, the research team at the Helium Research Center in Amarillo is a finely honed instrument uniquely qualified to conduct pure and applied research and development activities in the physical and natural sciences.

Unfortunately, due to budget constraints, an executive department decision has been made to cut off operating funds for research activities as of the end of this fiscal year.

In my opinion, this vital facility should not be eliminated. My judgment is concurred with by several qualified experts in the field, as well as many interested parties in Texas.

In an effort to retain this facility for the benefit of the Texas Panhandle, the State of Texas, and the Nation, the West Texas State University has requested an opportunity to realistically and swiftly transfer the entire research team and operations from public to university hands.

The university has worked quite closely on this issue with appropriate officials in the research center and with interested parties in the general area. They have determined that the function of the research center could be transferred from the public to the private sector over a 3-year period, and that the Federal role could be entirely phased out on a 3-year sliding scale. In money terms, Federal funding would drop from $840,000 in fiscal year 1971, to $480,000 in fiscal year 1972, and finally to $250,000 in fiscal year 1973. At that time, the entire financial burden for research center activities would be borne by West Texas State University, and certain private individuals.

Madam Chairman, I submit that this financial arrangement has certain features to highly recommend it. First, it provides a minimal strain on the Federal budget. Second, it provides the means by which the very valuable work of this research group can be perpetuated for the public benefit.

Third, it opens new educational opportunities for the Nation's Midwest, as students from Texas and neighboring States can pursue specialized study at the Killgore Research Center at West Texas State University.

Fourth, it cushions what would otherwise be an adverse economic impact on the City of Amarillo and surrounding areas, that would be occasioned by the envisioned abrupt closing of the research facility. And, fifth, it graphically demonstrates to the people of Texas and concerned individuals throughout the nations, that the Federal Government is indeed responsive to the needs and equities of a particular situation, and that concerned individuals and institutions, and State and local governments can join together in a creative partnership with the Federal Government and solve common problems.

Mr. REIFEL. Madam Chairman, if I might comment at this point.

Mrs. HANSEN. Mr. Reifel.

Mr. REIFEL. Congressman Price has been very diligent in bringing this matter particularly to my attention as a member of this committee. I think the record should show that he has made every effort to do whatever is necessary in support of this program. I think that his people back home should know of this kind of attention that he has been paying to this particular aspect of his responsibilities.

Mrs. HANSEN. I agree with my distinguished ranking Member because the Congressman has brought this to my attention several times and has discussed it at length. We have had a great deal of correspondence on the subject.

Congressman, my brother started his college teaching career at West Texas State University.

Mr. PRICE. It is certainly a fine institution, one whose vision and excellence is nowhere better illustrated than in this very instance.

Madam Chairman, at this point in the hearings I request permission to submit for the record, the outstanding accomplishments of the research center, accomplishments which directly benefit the national helium conservation program.

Mrs. HANSEN. It is so ordered.

(The information follows:)

1. The Helium Research Center is responsible for preparing the primary standard mixtures of helium and nitrogen used to calibrate analytical equipment used to analyze conservation helium.

2. The center made extensive studies of the compressibility of helium-nitrogen mixtures. This work provides volume-correction factors (supercompressibility factors) to insure that suitable payment is made for conservation helium (about 25 billion cubic feet costing $300 million to date.)

3. An apparatus and method for rapid and accurate analysis of helium-containing gases was developed. This is significant because of its applicability in the analysis of the helium content of the conservation gas purchased by the Bureau from private companies.

4. An equation of state for helium-nitrogen mixtures was developed and used to calculate thermodynamic properties needed for engineering design of helium production processes.

5. New methods for the laboratory-scale production of super-pure helium containing less than one part per billion of impurity were developed concurrently, a capability for the accurate determination of this extremely low level of impurity was developed.

6. Outstanding contributions were made by a team of center scientists to the National Bureau of Standards Burnett Conference held in Washington in February 1969.

PROJECTS—HELIUM RESEARCH CENTER, AMARILLO, TEX.

1. Critical evaluation of published thermodynamic data for helium.

Purpose.—To evaluate all published thermodynamic data for helium and attempt to develop mathematical methods for describing the behavior of helium over wide ranges of temperature and pressure.

2. Experimental determination of the heat capacity of liquid helium.

Purpose.—To make measurements aimed at improving the accuracy of known thermodynamic functions for liquid helium.

3. Experimental determination of enthalpy for the helium-nitrogen system.

Purpose.—To determine the heat content of helium nitrogen mixtures over a limited range of temperature and pressure.

4. Experimental pressure-volume-temperature data for helium and selected mixtures.

Purpose.—To obtain thermodynamic data for comparison with thermodynamic data obtained by other means.

5. Solubility of helium in liquefied gases.

Purpose.—To determine the solubility of helium in liquefied gases at low temperatures and evaluate the results in the light of known theories of solution behavior.

6. Determination of the viscosities of gases.

Purpose.—To determine the viscosities of gases and provide more insight into the fundamental behavior of gases.

7. Experimental determination of the temperature and pressure coefficients for the dielectric constants of helium, nitrogen, and selected gases.

Purpose.—To determine various electrical phenomena which are characteristic of the molecules studied and attempt to check the results with various theoretical relationships.

8. Phase equilibria at temperature to 5 degrees kelvin.

Purpose.—To determine basic thermodynamic relationships for helium containing systems.

9. Helium bibliography.

Purpose.—Compile a comprehensive reference source on literature pertaining to helium.

10. Adsorption and desportion of gases on solids.

Purpose.—To develop a new understanding of the fundamental nature of the means by which gases are adsorbed on solid materials.

11. Concentration, separation, and analysis of helium-3.

Purpose.—To develop laboratory scale methods for the concentration, separation, and analysis of helium-3. Helium-3 is a lightweight form of helium which is present to the extent of about one-tenth part per million parts of ordinary helium.

12. Cryogenic chromatography.

Purpose.—Obtain data on adsorption agents at low temperatures and determine thermodynamic data for argon, helium, and neon.

13. Determine heat transfer regimes, cryogenic fluids.

Purpose.—Determine transfer of heat between gaseous and liquid helium gas mixtures.

14. Theoretical determination of second and third virial coefficients for helium from semiempirical interatomic potentials.
Purpose.—To obtain a better theoretical understanding of the behavior of helium molecules.

Mrs. HANSEN. Thank you so much, Congressman. We deeply appreciate your coming today.

Mr. PRICE. Thank you.

Mrs. HANSEN. We are glad that the Department of Interior has funded a study on the uses of helium. The committee has been disturbed for some time about the lack of ability of the Department to sell more helium and to bring about more usage.

As you are well aware, the Federal helium program has had some difficulties. I was delighted that the Department of Interior has embarked on a study of the entire program. It is my understanding the Department will send up a supplemental request later in the year based upon the findings of its review.

Mr. PRICE. It is my understanding that a report has gone to the White House. I also understand that the people responsible for reviewing this for the President have concurred in Interior's conclusions on this. It is for this reason that I have petitioned the committee. It is my earnest hope that the committee can facilitate the establishment of the transitional funding structure I outlined today. The need is clear, the cause just, and the means reasonable.

Mrs. HANSEN. Thank you so much, Congressman.

Mr. PRICE. Thank you.

NORTHERN PLAINS FISHERY STATION NEAR VALENTINE, NEBR.

WITNESS

HON. DAVE MARTIN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEBRASKA

Mrs. HANSEN. We now have the very distinguished gentleman from Nebraska, a member of that very select Rules Committee, Congressman Martin.

Mr. MARTIN. Thank you, Madam Chairman and members of the committee. I have given you a copy of my statement.

Madam Chairman, the Bureau of Sport Fisheries and Wildlife has developed a preliminary plan for a fishery management station near Valentine, Nebr., seat of Cherry County. This proposal was developed in recognition of present and long-range needs for technical fishery assistance to Federal land-managing agencies in Nebraska, South Dakota, Iowa, and Missouri; to study fishery problems and improve fishery management techniques in the area; to provide recreational fishing to the public; and to aid the economy of nine Indian tribes at their reservations.

The present one-man station of the Bureau of Sport Fisheries and Wildlife at Valentine provides some technical assistance on 28 Federal installations and Indian reservations. Demands for these services are growing rapidly, and it has been impossible for one biologist to meet them adequately. Project areas to be served by the expanded project include Indian reservations, Veterans' Administration hospitals, national wildlife refuges, national forests, Department of Defense in-

stallations, and reservoirs of the Corps of Engineers and Bureau of Reclamation. Soil conservation extension programs also will be included.

Plans for the proposed Valentine station are patterned generally after the Bureau's Central States Fishery Station located at Princeton, Ind., authorized by the Congress for construction in fiscal year 1967.

The proposed physical plant at Valentine would require construction of:

1. Office building, including a laboratory (phase 1).
2. Building for field equipment and vehicle storage (phase 1).
3. Several ponds for special studies, demonstration of management methods, and for public fishing (phase 2).

Six permanent positions would be required to carry out the program starting the year following construction. These would include three professional biologists, two full-time fishery aids, and a clerical employee.

The total construction cost would be $387,800. Construction of phase 1 would require $236,500 for the office-laboratory, service building, roads, parking area, and related physical facilities. Phase 2 would require $151,300 for the construction of ponds and related physical features.

The most suitable of several sites examined for the proposed Northern Plains Fishery Station is within the boundary of the Fort Niobrara National Wildlife Refuge on lands owned by the Bureau of Sport Fisheries and Wildlife. It is 2 miles east of the city of Valentine and one-half mile south of State Highway 12 and would be easily accessible to the visiting public. The site contains ample space and suitable topography for construction of the buildings and ponds.

I am interested, members of the committee, in an appropriation for a Fishery Research Center at Valentine, Nebr. This is very close to the home territory of your distinguished colleague on the committee, Mr. Reifel, from South Dakota, as Valentine, Nebr., is about 12 or 15 miles away.

Mr. REIFEL. Madam Chairman, I remember as a boy the first U.S. fish hatchery I ever saw in my life was one where this research center is to be located. It is near our reservation, across the line.

Mrs. HANSEN. Have the preliminary construction plans been developed?

Mr. MARTIN. I understand that the Bureau has developed preliminary plans for this project. This would serve a large area in the Midwest and many other Federal projects around the country.

In regard to the management of fisheries providing recreational facilities, it would aid the economy of nine Indian tribes. It would be extremely beneficial. It isn't a fish hatchery in itself. It's a research center—that is what it amounts to. Here is my file on it. It goes back 2 or 3 years. The people in the Valentine area in Cherry County are greatly interested and I have some letters from South Dakota also on the matter who have been urging the construction of this project, which is minimal in cost.

According to the Bureau the cost would amount to $236,500 for phase 1, which would consist of the office building, including a laboratory and the building for field equipment and vehicle storage.

Phase 2, which would cost $150,300 according to their estimate, would consist of several ponds for special studies, demonstration or management methods, and for public fishing. So it doesn't involve a lot of money. Of course, all the money would not be needed in fiscal year 1971 to get this underway. But it is of real importance to northern Nebraska and South Dakota.

Mr. REIFEL. Madam Chairman, it would be a significant concern to the reservation north of there and also north and west of the Pineridge Reservation, where they have a lot of reservoirs that aren't being stocked with fish from the Valentine Fish Hatchery. Any research that would be needed in connection with embodying new kinds of fish or whatever is necessary to keep these reservoirs stocked would be very important.

Mr. MARTIN. This would be located, Madam Chairman, on the Fort Niobrara National Wildlife Refuge which already belongs to the Bureau, so there would be no cost in acquisition of land. It has been determined by the Bureau that the location is excellent.

(Discussion off the record.)

Mrs. HANSEN. Thank you so much, Congressman. It is a pleasure to have you here.

Mr. MARTIN. If you can get us a minimal amount to get this thing started in fiscal year 1971, it would help.

Thank you very much.

URBAN FORESTRY RESEARCH AT AMHERST, MASS.

WITNESS

HON. SILVIO O. CONTE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Mrs. HANSEN. We now have our very distinguished colleague on the Appropriations Committee, Congressman Conte from Massachusetts.

Mr. CONTE. Thank you, Julia.

Madam Chairman, I appreciate this opportunity to appear before you today to speak in behalf of an appropriation for a proposed Forest Service research program in urban forestry to be undertaken jointly by the Forest Service and the University of Massachusetts at Amherst.

As you know from our previous correspondence, Madam Chairman, I have been concerned about this project for over a year. And I am grateful that you have also expressed your deep interest in this concept.

This idea was first brought to my attention by Prof. Arnold D. Rhodes, head of the forestry department at the University of Massachusetts, who has been a driving force in its development. I understand that your subcommittee has already received extensive detail about the proposal from Professor Rhodes, so I will not burden you with lengthy restatement of that information.

Rather I would like briefly to indicate the need for the project, its potential benefits, and, finally, to report on the prospects for its success.

The basic idea behind this proposal is to develop a program to study and enhance the role played by trees, parks, and forested open space

in creating a quality environment for people living and working in urban complexes.

Specifically, the project's headquarters would be located at the University of Massachusetts in Amherst as a branch of the Northeastern forest experiment station. It would service the entire Northeastern region.

It is well known that the eastern seaboard is the largest single expanse of heavily populated area in the Nation. Less well known is that, while 45 million people live here—making up a population density of 700 people per square mile—over 50 percent of the land area is still covered by trees and forests.

Certainly, one of our great challenges as we enter the seventies—a decade dedicated to restoring and preserving our environment—is to see that such forested areas are properly managed.

There are three broad categories of benefits to flow from a proper study of the best way to manage our urban woodlands. In addition to the less important preservation of those areas relying on wood products for commercial purposes, proper urban forestry development has both esthetic value and a very real role to play in making urban life livable.

Forests and tree belts, in addition to providing scenic and recreational benefits, also serve to screen highways, factories, airports, dumps, and other unsightly scenes.

Less appreciated, however, is our real need for trees to assure urban man's survival. Aside from their shade value, trees limit solar radiation and serve as natural air conditioners. This is especially important as we learn more and more about the dangers of thermal air pollution.

Trees also serve to purify our polluted air, to screen out dust and pollen, and to dampen noise.

There are undoubtedly many more benefits not yet fully appreciated. One of the purposes of the research project would be to further explore these benefits.

At the same time, more study is needed to determine how best to protect our trees from encroaching suburbia. What kinds of land use are most suitable for this protection?

These are questions important to all of us, but especially for the inner-city resident who must be assured some access to tree belts and recreational areas near the city.

Madam Chairman, I think I have sufficiently highlighted the benefits to be gained from this project, and shown why this sort of study cannot be ignored.

Before closing, I just want to point out the growing support for this project. There is, I believe, every indication that this project will succeed.

I have already mentioned the University of Massachusetts' interest in this proposal. It is prepared to provide some space for laboratories and offices, some funds and personnel, as well as to assist in the formulation of a joint program.

Our Forest Service is no less excited about this proposal. While the Service has told me it regrettably had to delete it as a request for the fiscal 1971 budget, it considers this project at the University of Massachusetts a high-priority item. They fully intend to seek funds for it in fiscal 1972, and view it as an integral part of the President's overall environmental program.

Moreover, plans are already underway to initiate its development. The Gifford Pinchot Institute for Environmental Forestry, named for one of America's great conservationists, is due to be set up soon. High on the list of the projects the institute hopes to promote is this joint project in Amherst.

In short, all the experts I have talked with are most enthusiastic. There is every indication we will have such a project by fiscal 1972.

Given this support and the obvious urgency, I would hope that this subcommittee would agree with me that we should not wait. There is no good reason not to begin this year, at least on a modest scale.

Madam Chairman, as you know, $325,000 has been requested to help set up a basic team of six or seven scientists, plus a supporting technical and clerical staff. While I consider the entire amount to be modest in comparison to the benefits of this project, even some smaller amount could assure its beginning.

I hope that this subcommittee agrees, and will provide some funds for this worthwhile project.

Thank you again, Madam Chairman, for your time and your consideration.

We are asking for $325,000, which is not in the budget, to study the problems of environmental forestry in densely populated urbanized areas at the University of Massachusetts.

Dr. Arnold Rhodes, head of the university's department, has already written to you, on April 7, 1970. The Forest Service strongly endorses this. I know the monetary problems you have. We have them in all the subcommittees.

Mrs. HANSEN. Mr. Conte, almost every congressional add-on was placed in reserve by the Bureau of the Budget.

Mr. CONTE. Madam Chairman, I want to say that I agree with you. I gave them a little tickle when they came before us. My Post Office and Treasury Subcommittee handles the Bureau of the Budget. I wish you were on that committee with me because the reporter knows I give them a very rough time.

I am being realistic. I know that maybe you can't go for the whole amount, but if you can give us something to get started, it will be a great help.

Mrs. HANSEN. Congressman, isn't it true that the urban planners are deeply aware of the need to have the kind of ecology and environmental control that only forestry will bring, and that it's necessary to have some answers on this as we embark on the planning. Planning is mandatory right now.

Mr. CONTE. Absolutely. You couldn't be closer to dead center. With the President coming out and saying the 1970's are going to be the decade of the environment, this is it.

Madam Chairman, if you and the members of this committee, in your wisdom, can give us a little money to get this thing started, I guarantee I will see that the Bureau of the Budget spends it.

Mrs. HANSEN. I am extremely interested in this program.

Mr. REIFEL. You talk about the decade of environment. If proper attention isn't given to some of these aspects, this is going to be a decade of decadence.

Mr. CONTE. You are absolutely right, Congressman. Unfortunately we have sat on our hands in this particular area too long. In some areas it's too late.

Mr. REIFEL. These forest areas are private forests and State forests and near urban centers easily accessible to the public. They ought to be developed, particularly because of this growing demand for recreational opportunities.

Mr. CONTE. Let me give you a little example. During the Easter recess I took my family down to Daytona. This is a family tradition. We drive down and have 7 or 8 days together and the kids come in from college. My boy and I do a lot of fishing and hunting down there. We went up around the Gainesville area, and did a large amount of bass fishing and some turkey hunting. It really tore your heart out to see what carbon monoxide is doing to the Spanish moss. It is destroying it completely. It never really hit me until I saw this. This is really tough on the farmers out there because the cattle in northern Florida eat a lot of this Spanish moss in the winter time. This helps them survive.

I came home, and Saturday I pruned my two crab apple trees in the front of my house. Both were planted when I came to Washington 12 years ago. The crab apple tree next to the house and away from the roadway is a mammoth tree about twice the size of the other crab apple tree that is right next to the roadway where my neighbor parks his car every night and starts it every morning. I told him, "You see the difference. It's the carbon monoxide of that automobile that has done that to that tree."

There are many examples. Take the effects of salt, especially in our part of the country where we have a lot of snowfall and a lot of ice. The effect of snow and the melting that runs off and what this does to the streams and ecology is just absolutely fastastic. You could go on and on for hours on this subject matter. It's very important.

Mrs. HANSEN. You only have to look at our cities today to see the effects of pollution.

This committee is deeply interested in this problem.

Mr. CONTE. These are some of the things they will study, and they will decide what types of trees will survive some of this pollution we have and that will be rugged enough to survive.

Mr. REIFEL. Madam Chairman, with our distinguished colleague coming before us and a member of our full committee dealing directly with the Bureau of the Budget with his vigorous pursuance of many things in which he is interested, maybe we have a ray of hope here in one who will help us get them to move.

Mr. CONTE. Thank you. I don't want to take up any more of your time, but I plan to say something on the floor of the House at a future date, Madam Chairman. I know you agree with me and all of us agree how deeply we are going to miss the ranking Republican on this committee and in the Congress.

Mrs. HANSEN. Congressman, I wish we could persuade him to change his mind.

Mr. CONTE. I wish you could. All Americans are going to miss Congressman Reifel. He has been a right arm to me and a great source of satifaction and consolation when I had problems and I was down and out, and I would sit down next to Ben on the floor of the House and talk to him. He always had a cheerful word of advice and a pat on the back. I might say too that it's going to be sad to lose the only real full-blooded American we have in the House of Representatives.

We are going to miss you greatly, Ben. But we will be in touch with you frequently.

Mrs. HANSEN. Thank you so much for coming today.

Mr. CONTE. Thank you, Julia.

CAVE RUN RESERVOIR, FOREST SERVICE

WITNESSES

HON. JOHN C. WATTS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KENTUCKY

HON. CARL D. PERKINS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KENTUCKY

WILLIAM H. LAYNE, MAYOR OF MOREHEAD, KY.

CALVIN SCHNEIDER, MANAGING DIRECTOR, GATEWAY DEVELOPMENT CORP., OWINGSVILLE, KY.

CASWELL P. LANE, COUNTY JUDGE, MONTGOMERY COUNTY, KY., PRESIDENT, GATEWAY DEVELOPMENT CORP.

Mrs. HANSEN. We now have two very distinguished gentlemen from Kentucky, Congressman John Watts and Congressman Carl Perkins. We are delighted to welcome both of you to the committee.

Mr. WATTS. Madam Chairman and members of the committee, I have a short prepared statement on behalf of Congressman Perkins and myself.

Madam Chairman, we are extremely pleased at the opportunity afforded us to present to you that which we believe to be a serious deficiency in the budget estimates for the Forest Service in the fiscal year 1971. Presently the budget recommends the expenditure of $100,000 by the U.S. Forest Service to develop recreational facilities in connection with the Cave Run Reservoir project which is located on the Licking River in Bath, Rowan, Morgan, and Menifee counties in Kentucky.

We have been advised by the U.S. Forest Service that approximately $1,236,000 will be required for the construction of facilities to be built below the recreation pool elevation. This must be done before December 1972 when the reservoir will be filled. This estimate is shown in charts which were supplied to Mr. Calvin Schneider, director of the Gateway Area Development Council, by Mr. Robert F. Collins, Forest Supervisor, U.S. Forest Service and are attached to our statement.

We are also attaching a copy of a wire that we have received from the U.S. Department of Agriculture Forest Service indicating that an additional $700,000 could be utilized during fiscal year 1971 in addition to the $100,000 in the budget to assure the installation of these facilities before filling of the reservoir precludes this developmental work.

We should stress to the gentlelady from Washington, a State like Kentucky also rich in its natural resources, that the dam and reservoir located in a four-county area of Appalachia Kentucky will add tremendously to the recreational and economic resources of the region. By the appropriate and complete development of the recreational, fish and wildlife resources of this new reservoir a meaningful boost can be given to this portion of the Appalachian region.

For this reason we respectfully request an additional $700,000 which when added to the $100,000 in the budget will enable this important work to be completed in the time necessary.

The basic reason for our request is the reservoir being built is to be filled in 1972. The Forest Service has laid out a recreation plan of both ramps, roads, and one thing and another into the area. If the water gets up there before this is done there is no way in the world to do it under the water. So, we are really in a dilemma. If it isn't done before the reservoir is filled it can't be done at all. The ramps have to be built and the things have to be put in there.

The Forest Service says if we can get an additional $750,000 this year they can keep ahead of water covering up what they have to do. For that reason we would certainly appreciate very much any consideration this committee can give to getting us out of this condition where we are going to get water before we get the recreation things developed and certainly after the water gets up there I don't want to go down under the water and try to construct the necessary facilities and I don't suppose anybody else does either.

I have with me Congressman Perkins and Judge Lane, county judge of Montgomery County, Ky., and Mayor Layne, Moorehead, Ky., and Mr. Schneider of Owingsville, Ky. That is all I have to say.

It seems to me that rather than dilly-dally around and let the water flood the area and then say, "Well we are sorry we didn't get it built, we will try to do something," it would be better to go ahead and do it ahead of the water inundating the land.

Mr. REIFEL. Congressman Watts, this looks like something that won't keep and you have to move ahead on it.

Mr. WATTS. If you don't, you never will get the recreation area developed according to what the Forest Service wants. We are not asking for the full amount they need this year, but we are asking for enough to keep ahead of the water so we won't have to ask for too much next year.

Mrs. HANSEN. I have deep sympathy because I completely understand your problem.

Mr. WATTS. That is a case of getting the cart before the horse. I don't want to get the cart before the horse in this case. Do you have anything you want to add, Carl?

JOINT STATEMENT OF REPRESENTATIVES JOHN C. WATTS AND CARL D. PERKINS, FILL CAVE RUN RESERVOIR

Mr. PERKINS. Madam Chairman, we are grateful to you for this opportunity to discuss with you and the subcommittee a matter involving Forest Service programs in the districts we are privileged to represent. Specifically, it involves what we believe to be a serious deficiency in the budget estimates for the Forest Service in fiscal year 1971.

As submitted, the budget recommends the expenditure of $100,000 by the Forest Service to develop recreational facilities in connection with the Cave Run Reservoir project which is located on the Licking River in Bath, Rowan, Morgan, and Menifee Counties in Kentucky.

This project lies within the Daniel Boone National Forest, and the Departments of the Army and of Agriculture have entered into a joint agreement for development of the public-use facilities around it.

We are advised by the Forest Service that approximately $1,236,000 will be required for the construction of facilities to be built below the recreation pool elevation.

This must be done before December 1972, when the reservoir will be filled. The estimate is shown in charts supplied to Mr. Calvin Schneider, director of the Gateway Area Development Council, by Mr. Robert F. Collins, forest supervisor, U.S. Forest Service. They are attached to our statement.

Also attached is a wire that we have received from the Forest Service indicating that an additional $700,000 could be utilized during fiscal year 1971, in addition to the $100,00 recommended in the budget.

Ordinarily, Madam Chairman, we could go along with this, and recommend that the committee allow $800,000 for the Forest Service project at Cave Run. But we believe that the present circumstances call for action substantially bolder.

We cannot emphasize too strongly the importance of the Cave Run project to our area. The developmental potential is enormous, and the challenge to build a thriving economy in what is presently an underdeveloped area is one that must be taken. We know what can be done with courageous action.

We feel, frankly, that we should warn both the subcommittee and the Forest Service against the consequences of a piecemeal, timid approach to development that is content with only a few boat ramps one-year, a few miles of forest trails the next, and so on.

Under the joint agreement, the Forest Servcie has produced a complete developmental plan calling for construction of some $22 million worth of recreational facilities.

The $100,000 budget recommendation, and the $800,000 capability stated by the Forest Service does not give us or the people of the area much confidence that the Federal Government intends to pursue the plan with all the vigor that is required.

The Corps of Engineers is proceeding with plans for the road relocation and access roads, and has asked for $3.2 million for that purpose for the coming fiscal year. These funds will permit a substantial start on the highway work that has to be done.

It is most important, Madam Chairman, that the Forest Service not lag behind with its developmental work at Cave Run.

There is some danger that the economic impact of the project on the area might be frittered away if it is strung out over a prolonged period. We need this project completed, and we need it as soon as possible.

For this reason, Madam Chairman, we ask that the committee allow $978,000 in addition to the $800,000 mentioned previously. That, briefly, telescopes Forest Service plans for both fiscal 1971 and fiscal 1972 into the first year, with a total appropriation of $1,778,000. There is no question about the Forest Service's capacity to effectively utilize the $1,778,000 in the fiscal year beginning July 1. The resulting activity would give a tremendous economic boost to that entire area of Kentucky.

Judge LANE. Madam Chairman, I want to thank you for the opportunity to appear before your subcommittee. I have come regarding

the request by the U.S. Forest Service for an additional appropriation of $700,000 for fiscal year 1971, to construct recreation and related facilities at Cave Run Reservoir, Ky.

Under the 1964 inter-agency agreement between the Departments of Army and Agriculture, the U.S. Forest Service agreed to assume responsibility for developing recreation facilities around new Corps of Engineer reservoir projects when these projects were located substantially within Forest Service areas. Such is the situation with Cave Run Reservoir in Bath, Rowan, Morgan, and Menifee Counties, Ky.

Cave Run Reservoir is currently under construction by the Louisville District of the Corps of Engineers, and the timing is such that the reservoir pool is expected to be up in the summer of 1973. While planning for recreation and related facilities has progressed on schedule, the U.S. Forest Service has let their construction program get badly out of phase with the construction schedule being met by the Corps of Engineers on this project.

The U.S. Forest Service has approved a 30-year development plan for Cave Run which will require a potential public expenditure of $40,000,000. The local Forest Service office in charge of the planning and the development of recreation facilities on Cave Run is located in Winchester, Ky.

The local office developed a first phase, 5-year program which would provide for a reasonable short-term use of the reservoir and a solid base for expanding future recreation facilities. The first construction phase is estimated to cost $25,000,000. Of this amount, $4,000,000 is required to provide those facilities directly affected by the reservoir pool. These funds will do little more than provide beaches, boat ramps, and related improvements, most of which, will be isolated from use unless adequate access is otherwise provided. Without these facilities, however, the reservoir has little or no potential for achieving future recreation benefits.

During the current fiscal year, substantial recreation and road construction funds for Cave Run Reservoir were withheld from the local Forest Service office as part of the President's order to curb inflation. Less than 6 weeks ago, we learned that the budget amounts allocated to Cave Run for the next 5 years were cut so drastically that they rendered the project virtually unusable for recreation use in the future. This 5-year total amounted to $827,000, with $67,000 allotted to the local Forest Service office for fiscal year 1971. This phasing dilemma was brought to the attention of the Washington offices of the Forest Service by Kentucky's senatorial and congressional representatives. The Washington offices of the Forest Service have subsequently asked for an additional appropriation of $700,000 for fiscal year 1971. If approved by Congress, representatives of the Forest Service have promised they would carry through and budget the remainder of the $4 million to provide the critical facilities package directly affected by the reservoir pool.

Gentlemen, this will not get the job done. The Washington offices of the Forest Service has not lived up to their commitments to the Corps of Engineers, and more importantly, they have not lived up to their commitments to us. In our opinion, the Forest Service needs to commit a minimum of $5 million annually to Cave Run Reservoir during the next 5 fiscal years.

Thus far, Cave Run Reservoir has been a frustrating experience

to our public officials and to our people, especially those living in the project area. Our congressional and senatorial representatives can attest to the literal battles that have been waged, pro and con, regarding this reservoir. We have lost valuable farm land; we have lost valued tax dollars; we have lost friends and relatives who were forced to move from our area because escalating land prices caused by reservoir land acquisition would not permit them to purchase comparable land locally.

To offset these losses, we were promised one of the finest reservoirs and one of the finest complement of public recreation facilities in the multi-State region. For this reason, most of us favored the reservoir. It would provide us with a unique opportunity to recoup our losses many times over by bringing in tourism dollars and stimulating new economic development which we so desperately need. We now find ourselves in a situation which places even these benefits in jeopardy.

Gateway is an economically depressed area. We are not proud of the fact that the average per capita income in our counties is about one-half of the national average. Nor are we proud that we are providing jobs for only one-third of our labor force entrants. We understand why we lost 17 percent of our people through outmigration during the 1950's and heaven knows how many this past decade. If national parity is a desirable goal in measuring a viable economy, we know we will never attain viability because the gulf between us and national parity is widening year by year in virtually every socioeconomic category you may care to consider.

The 1960's proved to be only a decade of hope. We cannot afford to sit around and hope any longer. We are determined to change the situation and have established the 1970's as a decade of action. The five counties joined together to sponsor and implement a set of development programs which will permit us to literally span the gap between continued poverty and economic viability. Our bridge is in the form of a "rural new community" which we call Midland. Midland, while situated in a rural setting, offers a combined set of location advantages second to none in Kentucky. Development efforts at Midland will focus on the provision of a regional employment and services complex serving the counties surrounding Midland. Within 10 years, we intend that Midland will attract 5,000 new jobs which our five counties could not otherwise hope to attract. This will generate a minimum of $24 million in new wages annually and new private investments totalling nearly $40 million.

The public recreation facilities scheduled for Cave Run Reservoir will have a direct and proportional bearing on the success of Midland. One of Midland's objectives is to stop outmigration and promote inmigration. To do so requires substantial exposure of Midland to the public. A reasonable level of recreation facilities development on the reservoir will provide the necessary boost in this exposure in that Cave Run will draw in excess of 1 million visitors during the first year of operation. That is, if recreation facilities are provded.

Plans also call for the development of a concessionaire-operated-tourism complex on the reservoir which will include lodge, food service, and marina facilities. A local five-county corporation intends to bid and win the concessionaire rights to this complex by offering a multi-million-dollar year-round facilities package with comparable high quality services. This complex will provide not only jobs but

it will become the nucleus of Midland's promotion program to stimulate land development. It is unfortunate that we need an attraction of this nature to show people the attributes, the beauty, and the potential of Rural America. But such is our society.

Gentlemen we are dealing with an important linkage between economic cause and effect processes. The public recreation facilities around Cave Run Reservoir are vitally necessary to establish basic feasibility for the year-round-tourism complex. The tourism complex is a vital ingredient and a necessary nerve center for the development of Midland. Midland is one of our few hopes to economic progress.

Unfortunately time also plays a critical role in this linkage process. First, the reservoir pool will be up in the summer of 1973. At the very least it will be necessary to construct those recreation facilities which are affected by the pool prior to filling the reservoir. These facilities will cost a minimum of $4 million and there is less than 2½ years remaining in which to construct them. I reiterate, however, that these funds are insufficient to accomplish the job.

There is a second time element which is of importance to us and we suspect to you. The Gateway counties must get on with our business at hand of economic development before we loose all of our people capability to respond. Migration is taking our people at a rate of between 500 and 1,000 persons a year. The longer we postpone our thrust programs, the less chance they have of succeeding.

Gentlemen, the additional $700,000 appropriation for Cave Run Reservoir being requested by the Forest Service is vitally important to our future. We hope that you will give favorable consideration to this request. We strongly recommend, however, that any and all funds be provided as a line item appropriation to Cave Run Reservoir and that any and all funds so appropriated be used exclusively for construction purposes.

In addition, we urge you to increase this appropriation request even more to get the job done. We desperately need the recreation impact as one of our economic development tools. In your wisdom, and with your understanding of development programing, we hope that you will assist us in this tool-making process.

Thank you,

(Additional information follows:)

FOREST SERVICE,
U.S. DEPARTMENT OF AGRICULTURE,
Washington, D.C., April 7, 1970.

Hon. CARL D. PERKINS,
House of Representatives,
Washington, D.C.

Regarding your April 6 request for Cave Run project information. Breakdown follows on fiscal 1971 money the Forest Service can utilize for facilities that need to be installed before the water rises:

1 6-lane launching ramp	$160,000
3 Fishing piers	41,000
2,600 Lineal feet beach	265,000
Water lines underwater between sites	27,000
Sewer lines underwater between sites	17,000
Protect natural fish habitat protection zones during reservoir cleaning	10,000
Design at 10 access sites—2-lane ramps and related facilities plus major development at site 1	280,000
Total	800,000

The administration's fiscal year 1971 budget includes $100,000 for Cave Run which would reduce the above total to $700,000.

VAUGHN HOFELDT.

Supplied by Mr. Calvin Schneider, Director, Gateway Area Development Council:

TABLE 1.—*Facilities that must be built below the recreation pool elevation by December 1972 before the reservoir is filled*

Waterlines:	
From site 2–site 4	$24,684
Across Scotts Creek	8,290
Boat ramps (less parking and roadway and utilities): Sites 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 13	384,000
Beach (less parking, bathhouse, and utilities):	
Site 1	320,000
Site 2	219,000
Site 4	175,000
Fishing piers:	
Reservoir fish attractors	10,000
Sites 2 and 4	98,000
Total	1,236,000

Another partial interchange of lands between the Corps and Forest Service is necessary before most of these funds could be spent.

TABLE 2.—*Minimum recreation facilities required by March 1973. (Does not include moneys on chart No. 1.)*

Site 2 (100% construction of all facilities):	
WRDA	$3,331,000
FR&T	1,058,000
Total	4,389,000
Water transmission line to sites 1 and 2	108,900
Site 3:	
Access and parking (4,500 vault toilet)	110,000
Utilities (1,000 well, 2,500 electric)	8,000
Site 4:	
Access and parking (4,500 vault toilet)	900,000
Utilities (1,000 well, 8,500 electric)	14,000
Site 5:	
Access and parking	60,000
Utilities	8,000
Site 6:	
Access and parking	150,000
Utilities	5,500
Site 7:	
Access and parking	60,000
Utilities	10,000
Site 8:	
Access and parking	200,000
Utilities	8,000
Site 9:	
Access and parking	40,000
Utilities	8,000
Site 10:	
Access and parking	70,000
Utilities	8,000
Site 11:	
Access and parking	175,000
Utilities	8,000
Site 13:	
Access and parking (Road 129)	600,000
Utilities	5,500
Site 1:	
Access and parking	150,000
Utilities	14,000
VIS Center:	
WRDA	490,000
FR&T	15,000
Total, WRDA	4,026,000
Total, FR&T	3,588,000

TABLE 3.—*Complete development of all recreation facilities on the reservoir. (Does not include moneys on Table 1 and 2.)*

Site 1:	
WRDA	$5,144,000
FR&T	3,683,000
Site 2:	
WRDA	0
FR&T	0
Site 3:	
WRDA	0
FR&T	0
Site 4:	
WRDA	1,500,000
FR&T	950,000
Site 5:	
WRDA	0
FR&T	40,000
Site 6:	
WRDA	0
FR&T	0
Site 7:	
WRDA	65,000
FR&T	80,000
Site 8:	
WRDA	0
FR&T	0
Site 9:	
WRDA	0
FR&T	30,000
Site 10:	
WRDA	1,460,000
FR&T	680,000
Site 11:	
WRDA	0
FR&T	40,000
Site 13:	
WRDA	0
FR&T	50,000
Total, WRDA	8,169,000
Total, FR&T	5,553,000

TABLE 4.—COMPLETE DEVELOPMENT OF ALL FACILITIES ON THE RESERVOIR

Sites and funds	Table 1	Table 2	Table 3	Total
1. WRDA	402,000	22,900	5,144,000	5,568,900
F.R. & T.	0	150,000	3,683,000	3,833,000
2. WRDA	397,000	3,431,000	0	3,828,000
F.R. & T.	0	1,058,000	0	1,058,000
3. WRDA	24,000	8,000	0	32,000
F.R. & T.	0	110,000	0	110,000
4. WRDA	223,684	14,000	1,500,000	1,737,684
F.R. & T.	0	900,000	950,000	1,850,000
5. WRDA	24,000	8,000	0	32,000
F.R. & T.	0	60,000	40,000	100,000
6. WRDA	24,000	5,500	0	29,500
F.R. & T.	0	150,000	0	150,000
7. WRDA	24,000	10,000	65,000	99,000
F.R. & T.	0	60,000	80,000	140,000
8. WRDA	24,000	8,000	0	32,000
F.R. & T.	0	200,000	0	200,000
9. WRDA	24,000	8,000	0	32,000
F.R. & T.	0	40,000	30,000	70,000
10. WRDA	24,000	8,000	1,460,000	1,492,000
F.R. & T.	0	70,000	680,000	750,000
11. WRDA	24,000	8,000	0	32,000
F.R. & T.	0	175,000	40,000	215,000
13. WRDA	24,000	5,500	0	29,500
F.R. & T.	0	600,000	50,000	650,000
VIS WRDA	0	490,000	0	490,000
F.R. & T.	0	15,000	0	15,000
Total				22,575,584

Tables 1 through 4 indicate construction costs only. Operating overhead of 33 percent for Washington Office, Regional Office, and Supervisor's Office should be added for total appropriation.

WRDA	$13,434,584
F.R. & T.	9,141,000
	22,575,584
33 percent overhead	7,450,000
Total appropriation	$30,025,584

TABLE 5.—SUMMARY OF CAVE RUN RESERVOIR, KY., REQUIRED CONSTRUCTION FUNDS

Fiscal year	WRDRA funds	F.R. & T. funds	Total F.R. & T. and WRDRA funds	Budgeted WRDRA funds
1970	600,000	1,503,000	2,103,000	317,000
1971	3,232,000	1,548,000	4,780,000	67,000
1972	2,857,000	2,687,000	5,544,000	160,000
1973	2,611,000	2,396,000	5,007,000	200,000
1974	1,761,000	585,000	2,346,000	200,000
1975	1,648,584	422,000	2,070,584	200,000
1976	725,000		725,000	
Total	13,434,584	9,141,000	22,575,584	1,144,00

Judge LANE. I want to add this to it and it is included possibly in our statement. We have an area development district in the five counties which were referred to and as the Congressman mentioned we are in Applachia and are poor mouthing like most Appalachian counties do. We are not even in the coal mining section.

Mrs. HANSEN. Where is the industry located?

Judge LANE. The coal mining industry is in southeast Kentucky. We are in east central Kentucky. This lake would be on the Lincoln River, which flows from south to north, across from Cincinnati, flows into the Ohio River there but this is about midway.

We have no industry in three of the five counties, absolutely no industries, not an industrial employee in three of these five counties. One of the counties is building up. The county that I represent has built up some industry on the western edge.

So, we have been looking in our area development district for ways of building jobs for our people. We ceased on the land just below the dam which is approximately 22,000 acres of flatland in this valley, which is now flooded but which would be flood free hopefully, with the dam in.

We have developed an idea of a large industrial park there with a new town to go in it. Of course, the new town idea, planners grab ahold of that and we have had a lot of help when we proposed the new town idea. We have been carrying it along very well. It had its ups and downs. Of course, it depends primarily on the damming in buffer essentially on the recreational advantages that would be offered with the lake. The Forest Service people—this is fairly unique that the Forest Service puts in recreational facilities, as you know. This is only maybe the third or fourth time they have planned the facilities and their plans are tremendous. It will be entirely surrounded by forest. There won't be any cottages overlooking the lake. But the plans over a period of time are over $22 million in improvement by the Forest Service. So, we have keyed a lot of our plans for the indus-

trial and commercial development to the recreational facilities and if they don't go in we are hung on this other development also.

So, we are very, very concerned about it. Our counties are poor counties and in these counties directly involved most of the farmland is in the river valley and they have lost it already, they have lost the taxable income from this farmland and they have been promised and its hopes of the people there is something else is going to come in to replace it, the recreation income. And hopefully, the industrial area. So, this has been the hope for our people and they were really sold on this lake. They fought it for several years, a good many of them, but were given the idea something else, maybe better, was going to replace it and they went for it.

Congressman Perkins has been with this for many years and some of his letters indicate this was sold to the people this was what we are going to have, too. If these recreational facilities don't go in we are not going to have it. These are the recreational facilities and roads that are necessary. Unless this money goes in this year we believe it is killed. We appreciate the opportunity of appearing before you.

Mrs. HANSEN. Thank you very much.

Mr. PERKINS. Mayor Layne, do you want to say something?

Mayor LAYNE. I feel Judge Lane said enough there. I could go on but we won't take the time.

Mrs. HANSEN. We are very pleased to have the very distinguished Chairman of the Education and Labor Committee. I had the privilege of serving on that committee with our distinguished congressman for 2 years.

Mr. PERKINS. We regretted to see you leave the committee just like we regret to see our other friend, Congressman Reifel, leave this Congress. Let me say it was a great loss when you left our committee.

This reservoir, in the estimate of the Corps of Engineers, is a $30-million-plus project and the construction of recreational facilities by the Forest Service is $22 million. Last year we got off to a bad start. There was $6 million put in the Corps of Engineers budget and it was cut back to $3.8 million or something like that. This year we have $6,800,000 in the budget, but $3.2 million of that amount will be for construction of roads that fit into this recreational plan.

The Forest Service and the Corps of Engineers negotiated from 1964 up to 1968 before they arrived at the responsibilities under an interdepartmental agreement. Notwithstanding the delay it had last year, the Corps of Engineers is way ahead of the Forest Service. The corps will tell you if you want to call them in here, that if the Forest Service does not get moving on these facilities, it is going to hold up the whole project down there.

There was $100,000 in the President's budget for this project. The Forest Service realized its mistake and came out and advocated the addition of $700,000. But in truth and fact it could not only efficiently utilize the $800,000 but it could use an additional $900,000 the amount presently scheduled for fiscal 1972, as well. We are not asking you for that amount. But it could efficiently use $1,700,000 which would be a saving of funds in the long run.

Last year, the Forest Service had for roads down there an expenditure of some $320,000. That sum was frozen for the Forest Service. Not one dime was spent. So, we are getting behind here on the development of the recreational facilities.

It is just as John Watts and Judge Lane stated, we have these low-income counties. I have driven down this valley on several occasions. If we don't develop the recreational aspects, since we have taken the best land from Menifee County, the only real good land in the county, we would be derelict as representing the people down there. The Forest Service first advocated a primitive hunting ground for the area, and we jumped on them about not developing the whole reservoir area. Highway I–64 going in front of it and the Mountain Parkway in the back of it. There are five or six of these low-income counties in the area. And after we argued with the Forest Service in 1968 they came up with this recreational plan.

It is an unusual situation here because this is an area where the Forest Service owns about 85 percent of the land known as the Daniel Boone National Forest. It is an unusual situation and we will be mighty thankful for you to make this money available so that the thing proceeds in a moderate way. This will only let it proceed in a modest way, but it will get some lines laid that must be laid at this time.

Mrs. HANSEN. Thank you so much, Congressman Perkins and Congressman Watts.

Mr. REIFEL. Madam Chairman, I want to commend Congressman Perkins and Congressman Watts for bringing Judge Lane and Mr. Layne and Mr. Schneider. I know you have come up at considerable expense to yourselves. I was interested in the Judge's comment about land being inundated, the good farmland and people promised they were going to get something in lieu of it but it is slow in coming. I hope we can find our way clear to accomplish the purpose for which you gave your time to come before this committee.

Mr. PERKINS. We have the breakdown of the figures from the Forest Service here for you.

Mrs. HANSEN. Thank you very much.

Mr. WATTS. I want to conclude by saying it has been much more enjoyable being in here than listening to the debate on the family assistance welfare bill.

Mrs. HANSEN. Thank you again. It has been a pleasure to have you here.

INDIANA DUNES NATIONAL LAKESHORE PARK

WITNESS

HON. RAY J. MADDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

Mrs. HANSEN. It is a great pleasure to welcome our very distinguished member of the Rules Committee. We are happy to have you here, Congressman Madden.

Mr. MADDEN. Madam Chairman, I appreciate this opportunity to testify before your committee in behalf of thousands of Hoosiers for the dire need of necessary funds to develop a great national park in northern Indiana—the Dunes National Lakeshore Park.

I commend the gentlelady from the State of Washington, Mrs. Hansen, and all our colleagues on the subcommittee and the full committee, for the outstanding work done on this bill. The appro-

priation for the Dunes National Park permanently guarantees the eventual construction of this great recreation area on the south shore of Lake Michigan. Approximately 10 million people in the Calumet region, Chicagoland, northern Indiana, and southern Michigan are within an hour's drive by automobile and, in the very near future, I hope can enjoy a park facility the finest in our Nation.

For over 50 years, we have fought to preserve this remarkable area. Nowhere on this continent is there a greater variety of plant life—over 1,300 varieties of plants—20 varieties of orchids. We urge your assistance in preserving this great recreational, scenic, and scientific resource by appropriating and making available the funds as set out in the budget, and even more. The recreational needs are obvious in this section of the country which is so close to the largest industrial complex in the Nation. It will be but a few years, with the scientific progress we are making on methods to eliminate pollution—both water and air—until this lakeshore and natural park will become a haven for millions both now and future generations. The quality of life in this smog-filled region will be improved immeasurably by the easy availability of this recreational resource.

For many years, I have appeared before the committee urging the passage of the Dunes National Lakeshore bill, and appropriating the necessary money to complete the park, in order that the folks may enjoy a great national park in northern Indiana.

I do hope this committee will uphold the actions of the Congress and appropriate the necessary funds to develop a great conservation and recreation park which will be utilized by millions in years to come. I urge you to keep faith with the people and approve the entire appropriation.

I commend the committee for holding hearings and making time available for the folks to testify who, over the years, have spent untold hours in an effort to see a dream come true—the Dunes National Lakeshore Park in the Calumet region of northern Indiana.

Mrs. HANSEN. Thank you.

BUREAU OF COMMERCIAL FISHERIES

WITNESS

HON. PATSY T. MINK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF HAWAII

Mrs. HANSEN. We now have our very distinguished colleague, Congresswoman Mink.

Mrs. MINK. Madam Chairman and distinguished members of the subcommittee, I am happy to have this opportunity to present my views on behalf of increased funding for the U.S. fisheries program.

As a Representative from Hawaii I am thoroughly convinced of the importance of fishing not only to my State, but to the national economy as well, and to the future growth of the food needs of the world.

As a member of the House Committee on the Interior which has jurisdiction over our Nation's fisheries program, I have urged the enactment of programs to meet our State, National, and international responsibilities for increased fishing research and assistance.

Now, however, it appears that these efforts are endangered by a short-sighted and potentially disastrous administration fisheries program that proposes a drastic cut in valuable programs long underway. This seems especially foolish at a time when our whole emphasis should be on expanded and increased activity.

Mrs. Hansen, who as a Representative of the State of Washington and as chairman of this prestigious subcommittee is well aware of the vital need for increased emphasis on fisheries, has listed these proposed cuts:

(1) Construction of facilities, down $2.325 million.

(2) Construction of fishing vessels, down $2.8 million.

(3) Federal aid for commercial fisheries research and development, down $440,000.

(4) Anadromous and Great Lakes fisheries conservation is minus $139,000.

The total is at least $5.7 million in retrenchment in the administration budget for fiscal year 1971. Moreover, we are informed that the administration has moved to lock up $1.190 million of the funds appropriated by Congress for fiscal year 1970.

This consignment of desperately needed 1970 funds to the "budgetary reserve" and the further cuts for 1971 means that our administration wishes to spend less in 1970 than in 1969, and then lower the total further still in 1971.

I strongly protest this type of approach which will save a minuscule fraction of our Federal budget but will have a devastating impact on the lives and livelihood of those who depend on and draw their income from fisheries. The ultimate losers will be the consumers who will face declining supply and rising prices as a result of the administration's self-defeating attitude.

The effect is already being felt in Hawaii, where the Bureau of Commercial Fisheries has announced it will eliminiate one of the two research vessels based in my State.

I would like to include at the end of my remarks letters from the Bureau explaining that this action is necessitated by a slash of $7.5 million in the fiscal year 1971 budget, which will leave only $45.1 million available. Apparently the Bureau is doing this deactivation regardless of whether Congress increases funds over the request. I also ask permission to include a letter and materials provided by the Tuna Boat Owners Association of Hawaii.

Under the Bureau plan, the vessels will be operated alternately with most of the crew of one dismissed from their jobs. The remaining crew will operate one ship while the other is docked, then return and take out the docked ship. This hardly sounds like a full-fledged effort to expand and improve our Nation's fisheries. It is more like a half-hearted holding operation marking time until an administration more attuned to our national interests take office. Hawaii has been trying for years to get a few million dollars in "seed money" for fisheries research that could open many millions in jobs and income in tuna fishing.

The results of the administration retrenchment in our fisheries program will be counterproductive and entirely adverse. It is up to the Congress to prevent such a mistake from happening, and I urge the

subcommittee to do all in its power to appropriate funds at least at previous levels.

Your wisdom in rejecting the administration cutback is urgently needed by the people of Hawaii, and every other State. All of the people of our Nation have an interest in this important matter.

Thank you again for this opportunity to present my views.

Mrs. HANSEN. Thank you.

(Additional information follows:)

U.S. DEPARTMENT OF THE INTERIOR,
Washington, D.C., February 12, 1970.

Hon. PATSY T. MINK,
U.S. House of Representatives,
Washington, D.C.

DEAR MRS. MINK: The substantial reduction in the budget of the Bureau of Commercial Fisheries for fiscal year 1971 requires certain program changes and in some cases a reduction in force. The effect will be broadly scattered in our activities around the country.

In Hawaii the Bureau operates two research vessels, the RV *Cromwell* and the RV *Gilbert*. The normal crew on the *Cromwell* totals 15 and the normal crew on the *Gilbert* totals 11. We will operate these vessels alternately, using one crew for both and maintenance personnel on the vessel that will be tied up.

The two crews total 21 permanent employees and five temporary employees. The maintenance of the tied-up vessel will require two permanent employees and the operating crew of the operating vessel will require 15 permanent employees. It now appears that the result will be a reduction in force involving separation of the five temporary employees and four of the permanent employees.

Sincerely yours,

PHILIP M. ROEDEL, *Director.*

U.S. DEPARTMENT OF THE INTERIOR,
Honolulu, Hawaii, March 31, 1970.

Hon. PATSY T. MINK,
House of Representatives, 228 Cannon Building,
Washington, D.C.

DEAR MRS. MINK: This is in reply to your letter of March 23, 1970, requesting information on the cutback of seagoing activities in the Hawaii area. In view of budgetary constraints, we do plan to reduce our field activities.

In fiscal year 1971 the Bureau of Commercial Fisheries is faced with an operating budget which is $7.5 million less than is available for fiscal year 1970. The budget for fiscal year 1971 will be $45.1 million. Earlier this year I met with the Bureau Director and other Bureau officials to review priorities and to discuss how the Bureau can adjust its operations and activities to conform to the reduced budget level. As a result of this meeting, I recommended to the Bureau Director that we reduce our field activities in the Hawaii area by operating our two vessels alternately as our research plans and vessel capabilities dictate. Thus, we will need only a single crew which will be shifted from vessel to vessel as required. Therefore, we are not deactivating one of our vessels; we are just not going to operate both vessels simultaneously in order to reduce our operational costs. This move will minimize the impact on our research programs since we will maintain the availability of the unique capabilities of each of our vessels to serve the needs of our seagoing programs.

The effect of the tieup of one vessel will require a reduction in force (RIF) at our present vessel personnel. The present *Gilbert's* complement is 11 men while that of the *Cromwell* is 15 men. A total of six temporaries and possibly three permanent employees will be released. We plan to retain two men to provide proper maintenance and care of the tied-up vessel.

Please be assured that we will continue to look after the commercial fishing interests and marine research of the Hawaii area and the Nation.

If you have additional questions, I shall be happy to receive them.

Sincerely,

RICHARD S. SHOMURA,
Acting Area Director.

TUNA BOAT OWNERS ASSOCIATION,
Honolulu, Hawaii, April 9, 1970.

Hon. JULIA BUTLER HANSEN,
Member of Congress, U.S. House of Representatives,
Washington, D.C.

Re 1. Budgetary reserve of appropriation for the commercial fisheries for fiscal 1970, and 2. proposed cut in the commercial fisheries budget for fiscal 1971.

DEAR MRS. HANSEN: The Tuna Boat Owners Association of Hawaii urgently requests (1) that of the money Congress appropriated for the Bureau of Commercial Fisheries for fiscal 1970, totaling $1,190,000 be expended as originally intended and not held up as a budgetary reserve at this time; and (2) that no budget cuts be made in the commercial fisheries budget now before Congress for fiscal 1971.

President Richard M. Nixon in the 1968 campaign, declared: "The maritime policy of the new administration will be to accelerate the technological improvements which we know can be achieved today in our fishing industry to make it competitive worldwide."

From a communication to the Tuna Boat Owners Association of Hawaii, dated December 17, 1969, Commissioner Charles H. Meacham, of the Fish and Wildlife Service, Department of Interior, in announcing the selection of Director of the Bureau of Commercial Fisheries, stated: "We are confident that Phil (Philip M. Roedel) will do an outstanding job and we appreciate your continuing interest and support of the work of the Bureau of Commercial Fisheries. Both Phil and I are looking forward to working with you in making our fisheries the most progressive industry possible."

In the midst of the announced policy of the administration to accelerate and the Department of the Interior in making our fisheries the most progressive industry possible comes the punchline of your announcement that "Of the money Congress appropriated for the commercial fisheries for fiscal 1970, $1,190,000 has been placed in budgetary reserve."

"This means that at a time when we should be increasing our fisheries, the 1970 spending actually is dropping below the 1969 investments."

Further, that "a proposal to further cut at least $5.7 million in the commercial fisheries budget. Construction of facilities is minus $2,325; construction of fishing vessels is down $2,800,000; Federal aid for commercial fisheries research and development is cut $440,000 and anadromous and Great Lakes fisheries conservation is minus $139,000."

What, then, are we of the industry to expect from such pronouncements?

The utter frustration and feeling that the utterances were not meant for an active, live, and progressive program to assist the commercial fishing industry of the United States to its proper place as a leader in world food production from its fisheries program.

Hawaii is well aware of the tremendous progress being made by other nations in the Pacific Basin. These foreign fleets are now fishing throughout the Pacific, utilizing information gathered by their agencies as well as from reports gathered and reported by the United States.

In a conference sponsored by the Honorable John A. Burns, Governor of Hawaii, to develop a coordinated approach to the harvesting of skipjack tuna resources of the Central and Western Pacific by Hawaii, the trust territory, American Samoa, and Guam held February 19 and 20, 1970, in Honolulu, Hawaii, it was decided to form a commission which would function as a corporate body with the three Governors and the High Commissioner or their designated representatives as its board of directors.

In the discussions of the problems of the commercial fisheries in the Pacific area it was apparent that much of the work ahead depended heavily on the financial assistance that Congress will be called upon to furnish the commission and industry to be able to accomplish the work now planned for the future in the Pacific Basin.

At the meeting, when the matter of approaching Congress for financial assistance in oceanographic development in the Pacific area, it was hinted that the matter of securing funds at this time may meet with some difficulty in certain quarters of the Bureau of the Budget, due partly to the overall policy of holding the line and cutting back spending in general.

Those in attendance elected to proceed with the program.

This is when we should be increasing our fisheries. We need to put "muscles and thrust" into our program and one certain way of doing it is by utilizing every dollar that has been appropriated for fiscal 1970 in this field and actively utilize the opportunity that the United States has in the Pacific areas.

We of the Tuna Boat Owners Association of Hawaii urgently request that there be no cuts in the commercial fisheries budget now before Congress.

We have requested the Honorable Patsy T. Mink, Congresswoman from Hawaii, to appear at this hearing for and on behalf of the Tuna Boat Owners Association of Hawaii.

Respectfully submitted.

OLIVER KINNEY, *President.*

EXHIBIT A

ATLAS OF SKIPJACK TUNA FISHING GROUNDS IN SOUTHERN WATERS, 1964 AND 1965 [1]

INTRODUCTION

There has been a great increase in skipjack fishing in southern waters [2] since the end of World War II. This development stems from the consideration that the skipjack tuna resource in Japanese coastal waters is now near the limit of exploitation, and also from the fact that the large available resource in the southern waters can be exploited during off season in Japanese waters. These advantages hold great appeal to the Japanese skipjack fishermen.

Presently, this laboratory's studies of the skipjack resource are limited to the skipjack in Japanese coastal waters. However, as the operating areas of the fishing vessels expand to waters which are generally considered to be the very center of skipjack distribution, it seems necessary that we eventually turn our attention to a study of the skipjack on a broader scale, and to determine the level of fishing pressure on the exploited resource.

First of all, it seems necessary to get a good understanding of the actual situation with respect to the fishery in this area. As a part of our study of the skipjack resource, our branch office in the port of Yaizu [3] is obtaining information on the fishery through interviews with operators of vessels returning to the port.

From the data obtained, we have extracted and summarized the monthly fishing areas and the catches of those vessels which fished in waters south of latitude 24° N. (a part of the data is summarized by 10-day periods) and the results are presented here. In this paper we present the data for the 1964 and 1965 fishing seasons, but we plan to continue publishing data for the subsequent years.

The compilation of the charts in this volume and the preparation of the descriptive material were supervised by Technician Tanaka of our Yaizu branch office. The proofreading and editing of the material were done by the second section of the laboratory's resources division.

And finally, we would like to express our deepest appreciation to the various people in the skipjack fishery for rendering us great assistance in this study.

DEVELOPMENT OF THE FISHERY

From among the data of vessels entering the port of Yaizu, we have extracted those data from vessels which had fished in the southern waters and have shown in the adjacent table the number of vessels (equivalent to number of fishing trips), the amount landed, as well as the amount landed per fishing trip. If we examine the number of vessels returning to port, we note that in the 1964 season (June 1964–April 1965) there were 40–50 vessels returning each month between August and December, but that this number decreased abruptly to about 10 vessels in January and February. There was a substantial increase in March to 84 vessels, again followed by a decrease in April to 24 vessels. In the 1965 season (June 1965–April 1966) there was a parallel fluctuation in the number of vessels returning to port each month. That is, from only three in June, there was a sizable increase to 63 in July, followed by a steady 40–60 vessels each month until December. Again, the number decreased in January to only 19, followed by an increase to 136 in March then by another decrease to 66 in April.

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[1] Translated from the Japanese by Tamio Otsu, Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, June 1968.

[2] Translator's note: refers to waters south of Japan to the south of latitude 24° N.

[3] Translator's note: Yaizu is located in Shizuoka Prefecture and is a leading port of tuna landings.

There were fewer vessels in January because of an extended celebration of the New Year's holiday. The decrease in April resulted from the shifting of many of the vessels to albacore fishing during this period. Furthermore, the total number of vessels in 1965 was about 60 percent[4] more than in 1964.

Next, turning to the data on landings, we note that the 1,800 tons in August 1964 gradually decreased to 1,000 tons in October, increased to 3,400 tons in March, then decreased rapidly to a low of 700 tons in April. The data on the landings per vessel show a gradual decrease from 48 tons in August to a low of 28 tons in October, followed by increases of up to 51 tons in February. Decreases then followed, resulting in 31 tons in April.

In the 1965 season, albacore fishing ended early, and by June, many vessels were seen fishing for skipjack in waters extending from the Ogasawara Islands to the Marianas. Skipjack fishing became quite active in July–September and landings reached 2,000 tons; the catch per vessel was 35 tons in July and August, and 48 tons in September. In the latter half of October, some skipjack vessels left the Sanriku fishing grounds[5] and joined the southern fleet. But fishing conditions had by that time deteriorated. The landings amounted to only about 1,400 tons and the catch per vessel to 25–30 tons. From the latter half of February through March, the situation was similar to the previous year in that good fishing grounds were located, and landings reached 6,500 tons, the record landing since the start of the skipjack fishery in southern waters. For this reason, the total landings in the 1965 season show an increase of about 60 percent over the previous year. There was, however, very little change in the catch per vessel.

NUMBER AND ESTIMATED LANDINGS OF VESSELS FISHING IN WATERS SOUTH OF LAT. 24° N. (YAIZU PORT)

Year and month	Number of vessels	Tons landed	Tons per vessel
1964 season:			
1964:			
June	9	328	36.5
July	26	1,051	40.4
August	37	1,771	47.8
September	40	1,559	39.0
October	38	1,044	27.5
November	38	1,215	32.0
December	52	1,852	35.6
1965:			
January	7	305	43.6
February	13	667	51.3
March	86	3,443	40.1
April	24	735	30.6
1965 season:			
1965:			
June	3	58	19.3
July	63	2,225	35.3
August	49	1,724	35.2
September	43	2,084	48.4
October	44	1,312	29.8
November	52	1,528	29.4
December	60	1,445	24.1
1966:			
January	19	702	36.9
February	63	2,547	40.4
March	136	6,484	47.5
April	66	2,212	33.5

THE MOVEMENT OF THE FISHING GROUNDS

In the 1964 season, the fishing grounds from June to October were located primarily along the Mariana Archipelago. However, beginning in November, the fish appeared to have gradually departed from the Marianas toward the west. In February-March, fishing was scattered over a wide area from latitude 9° to 18° N., longitude 135° to 145° E. The bulk of the vessels, however, concentrated their efforts within the area latitude 10°–12° N., longitude 140°–145° E., which resulted in large catches of 10 to 30 tons of skipjack per day's fishing.

Through September in the 1965 season, as in the previous year, the fishing grounds were concentrated along the Mariana Archipelago. However, beginning

[4] Translator's note: The original text gives value here of 80 percent.
[5] Translator's note: In Japanese coastal waters.

in October, the fish seemed to have moved southward as well as to the west. The vessels fished between latitude 14° and 16° N., and longitude 137° and 142° E. in November, then in December moved farther west and south to latitude 9°–10° N. and 14°–16° N., longitude 130°–135° E.

Beginning in January, the grounds expanded greatly to take in waters east of the Philippines and extended to waters west of Grimes Island. [Translator's note: This island is also known as Gaferut Island, and is located at approximately latitude 9°15′ N., longitude 145°20′ E.] In March the fishing ground tended to shift eastward and centered around latitude 11°–13° N., longitude 135°–145° E. In April the fish appeared to have moved northward as the fishing concentrated around latitude 16° N., longitude 140° E.

THE CHANGE IN SIZE COMPOSITION

Length measurements (standard length: from snout to caudal peduncle) were made of samples obtained from the skipjack landings of vessels which fished in the southern grounds. The length data are summarized on a monthly basis in the following figures.

In the June 1964 length distribution, three modal groups (43, 52, and 67 cm.) are seen. Although the dominant group is the 43-centimeter group, in July the mode is centered at 44 centimeters; in August at 45 centimeters; in September at 46 centimeters; and in October at 49 centimeters, thus showing a gradual shift. This increase in the modal size is in general agreement with the rate of growth of what is believed to be the 2-year-old fish in the Izu area. [Translator's note: area in the Japanese coastal fishery generally extending due south of Tokyo Bay.] Thus, it may be reasonable to consider that until about October it is the 2-year-old skipjack that also forms the major component in the catch in southern waters.

The 52- and 67-centimeter modal groups are relatively small and it has not been possible to trace their growth. In December the 2-year-olds which had previously dominated are seen in greatly reduced quantities, and there are more older fish of the 59- and 70-centimeter groups.

In March the 2-year-olds have completely disappeared and have been replaced by the older fish. The change seen in the length distribution in December probably reflects the shift in fishing grounds away from the Marianas and, thus, the landings of a different group of fish.

In June 1965 the distribution shows the 43-centimeter and 51-centimeter modes along with an admixture of older fish (60–75 cm.) This differs from the previous year in that the 51-centimeter group is now the major group. It is possible that the previous year's 2-year-olds had remained in the area and had grown into the now dominant 3-year-olds. The modal size of this group was 52 centimeters in July, 55 centimeters in August, and 56 centimeters in September, thus shifting gradually at a rate that seems to parallel growth. On the other hand, the 2-year-olds comprise only about 25 to 30 percent of the total distribution, and this is considerably less than the previous year. In this particular year, catches from such grounds as the Izu area or the Tohoku area, where the season turned out to be poor, also showed relatively fewer 2-year-olds, which are supposed to compose the major group. [Translator's note: The Tohoku area is the northeastern Japan Sea area.]

Although the relation between skipjack in Japanese waters and in the southern waters is not clear, this similarity in the size distributions may indicate a very close relationship.

In October there is a sudden appearance of small fish with a dominant mode at 49 centimeters. But this is a momentary phenomenon, and by November the distribution is dominated by larger fish with a mode at 61 centimeters, which continues to dominate through March. It cannot be concluded, however, that this is the same group of fish as the 3-year-olds which had dominated until September and had subsequently grown to this size.

In April, at latitude 12°–17° N., longitude 138°–141° E., the dominant modal size was 60 centimeters, whereas in the Nichiyoshi(?) grounds [Translator's note: approximately latitude 22° N., longitudinal 143°20′ E.], which are in line with the Mariana Archipelago, the dominant modal size was 43 centimeters. Thus, there are large differences in size composition of skipjack in different fishing grounds. Since fishing is generally concentrated along the Marianas between June and September, it seems likely that the 47-centimeter group will for a time continue to appear as a major component in the catches.

EXHIBIT B

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT,
Honolulu, Hawaii, March 17, 1970.

Memorandum
To: Participants, skipjack tuna meeting.
From: Andrew Gerakas, economic development division head.
Subject: Skipjack meeting summary.

Enclosed is a copy of the summary of the skipjack tuna meeting held at the Ilikai Hotel on February 19 and 20.

Also enclosed is a list of participants; a copy of the agreement by the Governors of Hawaii, Guam, American Samoa, and the High Commissioner of the Trust Territory; and an outline of Document 1, "Pacific Islands Economic Development Commission—an American Fisheries Opportunity for U.S. Pacific Islands People." In respect to Document 1, the three Pacific territories agreed to submit within 3 weeks a statement on activities and potential in their respective areas for fisheries development. As of this date, I have received this information from American Samoa and the Trust Territory.

Encs.

SUMMARY OF SKIPJACK TUNA MEETING

On February 19 and 20, 1970, the Pacific Skipjack Tuna Meeting convened in Honolulu, under the sponsorship of the Governor of Hawaii, to develop a coordinated approach to the harvesting of skipjack tuna resources of the Central and Western Pacific by Hawaii, the Trust Territory, American Samoa, and Guam.

Following the call to order by meeting Chairman Dr. Shelley M. Mark, director, Department of Planning and Economic Development; a welcoming address by the Honorable John A. Burns, Governor of Hawaii; and response by Govs. John M. Haydon of American Samoa and Carlos G. Camacho of Guam and High Commissioner of the Trust Territory Edward E. Johnston, a slide talk presentation: "Skipjack Tuna in the Pacific" was given by Mr. Richard Shomura, acting director, Bureau of Commercial Fisheries, Hawaii.

A panel session, with "Skipjack—Search and Harvest" as its topic, comprised Dr. D. L. Alverson, associate regional director for fisheries, Washington State (chairman); and three representatives of the Bureau of Commercial Fisheries: Dr. Robert Edwards, Acting Director for Fishery Programs, Washington, D.C.; Mr. Alan R. Longhurst, director, Fishery-Oceanography Center, La Jolla, Calif.; and Mr. Richard Shomura, acting area director, Hawaii.

A second panel session: "Private Industry's Recommendations on Harvesting of Skipjack Tuna" was conducted with Mr. Scott McLeod, Hawaiian Tuna Packers, Bumble Bee Sea Foods, Inc. (chairman); Mr. Anthony V. Nizetich, director, government and industry relations, Star-Kist Foods, Inc.; Mr. Clifton Day, manager, Sea Food Division, California Packing Corp.; Mr. Peter Buchan, vice president, Van Camp Sea Food Division, Ralston Purina Co.; Mr. August Felando, general manager, American Tunaboat Association; and Mr. F. Robert Insinger, general manager, Western Fishboat Owners Association.

During the general discussion which followed the panel presentations, a committee was appointed to draft an action program to be undertaken by Hawaii, American Samoa, Guam, and the Trust Territory. This committee comprised governors Camacho and Haydon, High Commissioner Johnston, Messrs. Shomura, Day, Edwards, and Felando, Senator John Hulten (Hawaii), and Andrew Gerakas, DPED.

This committee, endorsing the concept of legislation introduced by Senators Fong and Inouye, also recommended establishment of a joint resource development commission, functioning as a corporate body and not limited to development of any single resource. The Bureau of Commercial Fisheries detailed an interal budget reprograming of $1.1 million which would include $365,000 from the La Jolla operation to seek new tuna concentrations west of current operations in the Eastern Pacific; $655,000 from current operations in Hawaii that would include acoustical tagging; and $100,000 that could be freed for ship charter. Each of the chief executives of the Pacific territories agreed to seek funds from their respective legislatures to contribute to the fisheries development program. (Hawaii has a bill for tuna resources development for $100,000 pending before the current session of its legislature.)

These recommendations were endorsed by all participants and in concluding discussion, it was agreed that within 3 weeks each of the territories involved

would forward to Mr. Gerakas (designated executive secretary of what is to be known as the Pacific Islands Development Commission) an account of their current activities in skipjack tuna resources and their plans for its future development. These appraisals would comprise the basis for the development of an integrated proposal, known as Document 1, to be accomplished in Honolulu. In addition, a second document was recommended which would include a more long-range program that would detail the maximized approach that should be taken to exploit the skipjack tuna resources in the Central and Western Pacific.

Appended hereto are:

(*a*) List of participants.
(*b*) Agreement to form Pacific Development Commission.
(*c*) Outline of Document 1.

PARTICIPANTS IN THE SKIPJACK TUNA MEETING

Dr. D. L. Alverson, Associate Regional Director for Fisheries, Bureau of Commercial Fisheries, Seattle, Wash.
Hon. John A. Burns, Governor of Hawaii.
Hon. Carlos G. Camacho, Governor of Guam.
Dr. Salvatore Comitini, associate professor, Economic Research Center, University of Hawaii.
Mr. Alica Cooper, 163 Kaiulani, Hilo, Hawaii.
Mr. Peter Buchan, vice president, Van Camp Sea Food Division, Ralston Purina Co.
Mr. Clifton Day, manager, Sea Food Division, California Packing Corp.
Dr. Robert Edwards, Acting Assistant Director for Fishery Programs, Bureau of Commercial Fisheries, Washington, D.C.
Mr. John Farias, Jr., Director, Office of Research and Development, Hawaii County.
Mr. August Felando, general manager, American Tunaboat Association.
Mr. Andrew Gerakas, Economic Development Division Head, Department of Planning and Economic Development.
Mr. Frank Goto, president, United Fishing Co.
Hon. John M. Haydon, Governor of American Samoa.
Hon. John J. Hulten, chairman, senate way and means committee, State senate.
Mr. Isaac I. Ikehara, chief Fish and Wildlife Division, Department of Agriculture, Government of Guam.
Hon. Edward E. Johnston, High Commissioner, Trust Territory of the Pacific Islands.
Mr. F. Robert Insinger, general manager, Western Fishboat Owners Association.
Dr. George Kanahele, administrator, Hawaii International Services Agency, department of planning and economic development.
Mr. Ora E. Kerns, fishery biologist, Bumble Bee Seafoods.
Mr. Oliver Kinney, Hawaii Tunaboat Owners Association.
Mr. Alan R. Longhurst, director, Fishery-Oceanography Center, Bureau of Commercial Fisheries, La Jolla, Calif. 93027.
Mr. Scott McLeod, Hawaiian tuna packers, Bumble Bee Seafoods, Inc.
Dr. Shelley M. Mark, Director, Department of Planning and Economic Development.
Dr. Garth I. Murphy, chairman, Department of Oceanography, University of Hawaii.
Mr. Anthony V. Nizetich, director, government and industry relations, Star-Kist Foods, Inc.
Dr. Brian J. Rotschild, associate professor, College of Fisheries, University of Washington.
Mr. Richard Shomura, acting area director-Hawaii region, Bureau of Commercial Fisheries.
Dr. Stanley Swerdloff, fisheries supervisor, Government of American Samoa.
Mr. Michio Takata, Director, Division of Fish and Game, Department of Land and Natural Resources.
Mr. Burt Tsuchiya, director, Office of Economic Development, County of Kauai.
Mr. Peter T. Wilson, fisheries management biologist, Trust Territory of the Pacific Islands.
Mr. Ricki Yasui, executive secretary, Economic Research and Development Commission, County of Maui.

Mr. Wyman Zachary, Director of Resources and Development, Trust Territory of the Pacific Islands.
Mr. Gardiner Jones, administrative assistant to David McClung, State senate president.

AMERICAN SAMOA AND HIGH COMMISSIONER OF TRUST TERRITORY TO FORM A PACIFIC ISLANDS DEVELOPMENT COMMISSION

Gov. John A. Burns of Hawaii, Carlos Camacho of Guam, John M. Haydon of American Samoa, and Edward E. Johnston, High Commissioner of the Trust Territory of the Pacific Islands, in consultation with government, industry, and science leaders, agreed today to endorse the concept of legislation introduced by Senators Fong and Inouye concerning a coordinated program for developing latent food resources in the central and western Pacific and proposed establishment of a joint Resource Development Commission to permit greater flexibility of administering and funding the program.

The Commission would function as a corporate body, with the three Governors and the High Commissioner, or their designated representatives, as its Board of Directors.

Andrew Gerakas, executive officer of the Economic Development Division, State Department of Planning and Economic Development, was designated Executive Secretary of the new Commission.

An advisory body to the Commission would comprise expertise in the fields of government, science, and industry.

In discussion leading to the decision to form the Commission, it was noted that—since there are so many development problems common to each of the areas represented—the scope of the Commission's activity need not necessarily be limited to any single resource.

JOHN A. BURNS.
CARLOS G. CAMACHO.
JOHN M. HAYDON.
EDWARD E. JOHNSON.

DOCUMENT 1

PACIFIC ISLANDS ECONOMIC DEVELOPMENT COMMISSION—AN AMERICAN FISHERIES OPPORTUNITY FOR U.S. PACIFIC ISLANDS PEOPLE

I. Introduction
II. Present situation
    A. Need
    B. Opportunities
III. Objectives for each territory and State
IV. Program procedure—3-year project
V. Economic and social benefits to the islands and the United States

SHAWNEE NATIONAL FOREST AND THE CRAB ORCHARD NATIONAL WILDLIFE REFUGE

WITNESS

HON. KENNETH J. GRAY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mrs. HANSEN. Congressman Gray, it is a pleasure to welcome you here this afternoon.

Mr. GRAY. Madam Chairwoman and members of this important subcommittee on Interior, let me thank you for the opportunity to appear before your committee this morning. I want to thank you for all the consideration you have given over the past 16 years to southern Illinois programs in the 21st District of Illinois which I have the honor of representing. Your particularly strong support of appropriations for the Shawnee National Forest and the Crab Orchard National Wildlife Refuge is appreciated.

Madam Chairwoman, I am here today supporting the budget items as submitted by the administration and to strongly urge your committee to allow funds to continue engineering work on the proposed George Rogers Clark Recreation Way which will run from the Ohio River to the Mississippi in southern Illinois. This recreation way will tie together over half a million acres of scenic and recreational areas for the people of our Nation. There are three interstate highways running through the general area which will make it easy for all Americans to reach; however, we must have a road to get into these inacessible recreational attractions. As you will recall, the Senate wrote a proviso that no forest highway funds could be utilized for the actual construction; however, they went along with $50,000 that your committee approved for engineering. We would like very much to finish the engineering work this year. Forest service officials can give you the exact amount required to complete engineering, but I would respectfully request a minimum of $500,000 for fiscal 1971. As you know, President Nixon has just this week submitted a special request to Congress for over $100 million to provide more recreational areas in this country. We already have these recreational areas, but need access to them. Therefore, I am indeed hopeful that your committee can provide us with funds to finish engineering on this historic road which will be located in the exact geographic center of population in our Nation. Thank you for your interest.

Mrs. HANSEN. Thank you.

NATIONAL FOUNDATION ON THE ARTS AND HUMANITIES

WITNESS

HON. FRANK THOMPSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mrs. HANSEN. I would like to welcome to the committee Congressman Frank Thompson.

Mr. THOMPSON. Madam Chairman, I appreciate the opportunity to contribute to this distinguished subcommittee's deliberations on the appropriations for the National Foundation on the Arts and the Humanities. I earnestly urge you to approve the appropriations at the level requested.

The record of both the endowments that comprise the Foundation has been exemplary, particularly in conducting truly national programs. President Nixon emphasized in his message to the Congress on the arts and the humanities that "the full richness of this Nation's cultural life need not be the province of a relatively few citizens centered in a few cities." Those of us who were deeply involved with the legislation creating the endowments in 1965 saw the extension of cultural opportunities as a major goal of that legislation, and we have been encouraged by the advances in that direction since.

The fellowships of the National Endowment for the Humanities, along with grants for research, humanistic education, and public programs, have gone to every State in the Union. The endowment has created a National Humanities Faculty, a service organization for schools, sending university scholars to work with teachers who request help in doing a better job in the classroom. That faculty, now in

its second year, is working with 15 school systems in 13 States and the District of Columbia. Just this spring, the endowment-supported national humanities series was initiated. Through this program professionals in the humanities are traveling to present special programs to schools, civic groups, and public audiences in some 30 small communities in 20 States. With adequate funds it can be extended significantly in the coming year.

The arts endowment expanded its poetry in the schools program from six metropolitan areas to eight Midwestern States. Its coordinated dance residency program reaches communities in 22 States. Other touring, professional arts companies will reach, with the endowment's assistance, thousands of people in the Rocky Mountain region.

State arts councils, fostered in many cases by the arts endowment, now exist in all 50 States and five territories. And in more than half of those States the arts council now receives more funds from the State legislatures than the amount each receives in Federal assistance.

The fact is that far from supplanting private support for the arts the arts endowment has generated more than $3 in private giving for every Federal dollar expended through it. The humanities endowment also has been successful in using the gifts-and-matching provision to stimulate private support, receiving some 200 gifts totaling nearly $1.7 million from fiscal 1967 through fiscal 1969 with the number rising every year. The potential for growth in private giving through the two endowments is enormous.

One of the principal arguments we have heard over the years in carrying on the fight for recognition of the arts and the humanities in the Congress is the argument of censorship—Government control. Not the least of the achievements of the two endowments has been the clear demonstration that Federal support for cultural endeavor need not come accompanied by bureaucratic interference.

Each endowment operates, by law, with the guidance of a national council of independent, private citizens, appointed by the President. Each endowment utilizes the services of outside panels or reviewers, whose judgments are major factors in final decisions. And both endowments have put particular emphasis on providing funds for projects administered outside the corridors of the Capital, using already existing institutions, or creating new ones brought into being for the purpose. In addition, of course, there is section 4(c) of the act, which specifically forbids bureaucratic interference with policy in the schools, colleges, and cultural institutions.

Probably the best evidence that the endowments have succeeded in obeying that injunction and avoiding Federal control lies in the criticism we hear every year of this or that particular grant. It is always a grant for a certain kind of study, or one resulting in a certain kind of thought or expression, that is disagreeable to a few Members of the Congress. The administrators at the Foundation, if the Congress allowed it, could readily eliminate those projects that are likely to arouse controversy in the Congress. But the Congress clearly intended in creating the endowments that artists and writers and thinkers be helped without the hinderance of political considerations. Inevitably, that policy will result in something that you or I or even the administrators of the endowments themselves may find disagreeable. The alternative is censorship, which is most disagreeable of all.

It is a small amount we are asking for the continuation of programs and organizations that have solidly demonstrated their worth. The endowments are ready now to be funded at a level that will make more genuine impact on the Nation's cultural well-being.

Mrs. HANSEN. Thank you.

NATIONAL FOUNDATION ON THE ARTS AND HUMANITIES

WITNESS

HON. OGDEN REID, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mrs. HANSEN. It is a pleasure to welcome Congressman Ogden Reid of New York.

Mr. REID. Madam Chairman, during the past 4 years, the work of the National Foundation on the Arts and the Humanities has had a profound and beneficial effect upon the cultural lives of the citizens of our country.

Although neither of the two endowments which make up the Foundation has been funded at a level to enable maximum effectiveness, it seems clear to us from a study of the record that the funds they have had available have been used wisely and in such ways that their effect has been felt by the greatest number of Americans possible.

The fellowship programs of the National Endowment for the Humanities have provided unique experience for 80 scholars during this past fiscal year. Similar fellowships have gone to dozens of young writers, painters, sculptors, and other students in the arts from the National Endowment for the Arts.

Both Endowments have worked diligently to find ways to provide assistance to colleges and schools serving culturally disadvantaged young people: the Arts Endowment through putting artists-in-residence in developing colleges, through its poetry-in-the-schools program which has this year been expanded to 10 States (including eight in the Midwest) and two major cities; the Humanities Endowment through its series of institutional grants to Negro colleges and a significant effort to encourage cooperative studies for those enrolled at Emory College and Atlanta University which will lead to a better program equipping students to understand the circumstances of modern urban living.

The excellence of the programs thus far undertaken by the two Endowments is a persuasive argument in favor of substantive increase in funding. In addition to this there is ample evidence that the needs of our arts institutions, nationwide, are growing more critical with each passing year.

As Nancy Hanks, Chairman of the National Endowment for the Arts, has pointed out, the situation relating to arts organizations is totally different than it is for profitmaking institutions. When an orchestra provides public service concerts in response to increased demand for a museum increases its hours to allow more students to make use of its resources, the revenue it must use to provide such service has to come from sources other than the traditional private giver who has been, and will remain, the backbone of the institution's support.

It is necessary that the Arts Endowment be allowed to provide some assistance to the symphony orchestras of our Nation and to our museums. Today the majority of the orchestras devote 70 percent of their performance time to public service concerts in schools, parks, and public assemblies and only 30 percent to their own subscribers—a ratio almost exactly the reverse of what they were doing a decade ago. Museums have vastly increased their education programs and their cooperative efforts with community public and private schools and colleges.

Additional support for such arts institutions must come, of course, from many sources—from the private philanthropic foundations and trusts, from corporate business and from local and State governments. At least a share of that new support must come, also, from the Federal Government.

In this regard, we believe that the National Foundation on the Arts and the Humanities, through use of matching funds appropriated by the Congress and held in reserve by the U.S. Treasury, has done a remarkable job of finding and encouraging new areas of support for the arts and humanities in our Nation.

The Arts Endowment, for example, finds that its grants through the national (5c) program have generated $3.35 for each dollar in Federal funds over the 2-year fiscal year 1968-69 period. Funds provided directly to the State arts councils through section 5(h) have stimulated approximately $3.75 for each Federal dollar, according to the Endowment.

Testimony before the House Select Subcommittee on Education and the Senate Special Subcommittee on the Arts and Humanities earlier this year dramatically dramatized both the effectiveness of the two Endowments and the desperate need for new funds to assist these two areas of our national life.

We respectfully urge the appropriation of funds at the level sought by the President in his budget request for fiscal 1971. The increases are modest in nature, but they will enable both the National Endowment for the Arts and the National Endowment for the Humanities to continue valuable existing programs and to embark upon new projects of immense value to our society.

Mrs. HANSEN. Thank you.

NATIONAL FOUNDATION ON THE ARTS AND HUMANITIES

WITNESS

HON. JOHN BRADEMAS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

Mrs. HANSEN. It is a pleasure to welcome Congressman John Brademas of Indiana.

Mr. BRADEMAS. Madame Chairman, I thank you for the opportunity to appear before this distinguished subcommittee in support of request for increased appropriations for the National Foundation on the Arts and Humanities.

As chairman of the House Select Subcommittee on Education, which handles the authorization of the Arts and Humanities program, I strongly urge that the subcommittee approve appropriation in the

full amount authorized in the bill H.R. 16065. The House Select Subcommittee on Education recently held 8 full days of hearings on legislation which would authorize the arts and humanities program for 3 additional years. As a result of these hearings, we come to three broad conclusions:

First, Federal assistance for the arts and humanities is clearly not a partisan matter;

Second, the testimony documents abundantly the importance of supporting a wide variety of activities in the arts and humanities;

Third, the evidence plainly showed that the arts and humanities in this country are facing stark financial crises.

On the matter first of bipartisanship, it is a pleasure for me to acknowledge that of the 36 Members of the House who, in addition to myself, have joined as sponsors of H.R. 16065 or similar legislation in support of the arts and humanities, fully a third are on the other side of the aisle. They include the distinguished minority leader, Mr. Ford.

Federal concern for the arts and humanities has been strongly bipartisan from the first. In his state of the Union message in 1955 President Eisenhower declared that "the Federal Government should do more to give official recognition to the importance of the arts and other cultural activities." In 1963 President Kennedy said in a letter to his special consultant on the arts: "Government surely has a significant part to play in helping establish the conditions under which art can flourish . . . ." In 1965, President Johnson, who had supported the proposal for a National Foundation on the Arts and the Humanities, signed the bill creating it. And last December 10, President Nixon urged in a special message to the Congress that the Foundation be reauthorized with a significant increase in funding. He made clear the standing of this proposal as a significant part of one of the major concerns of his administration when he said:

"Americans have long given their first concerns to the protection and enhancement of Life and Liberty; we have reached the point in our history when we should give equal concern to 'the Pursuit of Happiness.' This phrase of Jefferson's, enshrined in our Declaration of Independence, is defined today as 'the quality of life'."

The response has demonstrated that culture is not the special preserve of an exclusive few. Miss Nancy Hanks, the new Chairman of the Arts Endowment, reported in her testimony that "letters and telegrams have come to the President from all corners of the Nation," from "presidents of corporations and trade unions officials, school superintendents and deans of universities, mayors of great cities and music lovers in the smallest communities . . . ." Editorial support came from papers ranging from the Washington Evening Star to the Wichita, Kans., Eagle to the Kennebec Journal in Maine.

The breadth of support was evident to us at the hearings. Charles C. Tillinghast, Jr., chairman of Trans-World Airlines, testified from a businessman's viewpoint, as did Frank Stanton, president of C.B.S., who said: "What is good for society is, in fact, good for business, and we know that a healthy society is one where artistic expression flourishes."

David P. Billington of Princeton University, a civil engineer testified to the need for "close collaboration between engineers and humanists and a fresh context for teaching of technology."

And Glenn T. Seaborg, Chairman of the Atomic Energy Commission, testified that "our scientific and technological age was forcing us into a new philosophical age . . . a vast number of the scientists in this country are strongly in favor of increasing Federal aid to the arts and humanities."

Other witnesses in a wide variety of cultural fields documented what President Nixon called "a growing need for Federal stimulus and assistance":

The annual cash loss of our symphony orchestras has risen from $169,000 in 1963 to $8.5 million this year, and by 1972 will rise to more than $13 million, jeopardizing the existence of many orchestras in the country. Between 1966 and 1968 average gross expenditures among resident professional theaters rose 17 percent, while gross ticket income increased only 8 percent, despite rising attendance figures. For America's major nonprofit institutions of the traditional arts, the difference during 1968–69 between total costs and earned income was $100 million. The Belmont report on museums, prepared for the Federal Council on the Arts and Humanities in 1968, cited minimum needs in those institutions alone of $15,250,000, minus capital outlay and research.

Witnesses reported that national support for research in the humanities is in a 2-percent ratio to support for other fields and that at least twice as many postdoctoral fellowships could be given a year from outside the universities without any diminution in the quality of the recipients. In fiscal 1969 the humanities accounted for only a small fraction of the $2.4 billion that the Federal Government spent on research, while over 90 percent went to the natural sciences. Museum fellowships and internships from the Humanities Endowment have assisted some 332 students and professionals, which has been "of inestimable aid," in the words of the director of one State historical society. But such aid barely begins to meet nationally the need for trained museum personnel that he called "our No. 1 priority."

Inevitably it is asked, why must these needs be met with the aid of Federal funds? One answer was given by President Nixon: "The need for a new impetus to the understanding and expression of the American idea and expression of the American idea has a compelling claim on our resources." Another answer is pure economics.

First of all, public demands for cultural resources are burgeoning. Museum visits have risen to more than 560 million a year. In 1969 more than 30 million tickets were sold for nonprofit professional arts performances in contrast to 13 million 5 years ago. Community arts councils have grown from 75, 10 years ago to more than 600 in every State in the Union today.

But costs have risen faster than receipts from the new demand for the arts. Public-service activities have increased; symphony orchestras for example gave 3,500 concerts last year for children and students. Costs of labor and materials have risen sharply, leaving a gap between expenditures and earned income that private philanthropy has been unable to fill. It must be recognized, as more than one witness noted, that more production to meet increased public demand in the arts almost invariably results in greater losses because labor-saving methods have little application. There is no way to decrease the human effort in a work of art short of truncating the work itself. And as the violinist

Isaac Stern testified, "The higher the standards in the arts, the greater will be the deficits in production."

If these cultural programs, whether in the universities or on the stage, close the income gap by raising charges, the arts and humanities will be beyond the reach of all but the well-to-do. The actual costs of each visit to a museum, for example, range from $1 to $8; one can easily imagine the results if museums charged such fees for admission.

President Nixon declared pointedly in his message on the arts and humanities that "the full richness of this Nation's cultural life need not be the province of relatively few citizens centered in a few cities." The National Foundation on the Arts and Humanities has already demonstrated its ability to reach the American public broadly.

The Endowment for the Humanities has initiated a National Humanities Faculty, which sends university scholars to work with teachers in the schools who request help in improving humanistic education. The Faculty is currently working in 15 school systems in 13 States and the District of Columbia. The Endowment-supported National Humanities Series of touring programs in the humanities has just been launched. It will reach more than 30 small communities in 22 States this year. Endowment fellowships and grants for research, for humanistic education, and for public programs have gone to every State in the Union.

The Endowment for the Arts has successfully fostered the creation of State arts councils, which now exist in all 50 States and five territories. In more than half of those States the arts councils now receive more funds from State legislatures than the amount each receives in Federal assistance.

A coordinated dance residency program assisted by the Arts Endowment spread this year to 68 communities in 22 States. Other touring professional arts companies will reach nearly a quarter of a million people in the Rocky Mountain States. The Arts Endowment's "Poetry in the schools" program has expanded from six metropolitan areas to eight States of the Midwest.

The Endowments stimulated rather than supplant private support for the arts and humanities, through their authority to match private gifts. In this way, President Nixon noted, "Federal funds are used properly to generate other funds from State, local, and private sources." From fiscal 1967 through fiscal 1969, the Humanities Endowment received 200 gifts totaling nearly $1.7 million from foundations, civic organizations, corporations, and individuals. The Arts Endowment has generated approximately $3 in private giving for every Federal dollar expended.

The two Endowments thus have demonstrated both their worth and their workability. It is well recognized that the amount being sought is small. Individual cities in Europe, such as Hamburg, Germany, and Stockholm, Sweden, spend more on their city operas than our Federal Government does on all the performing arts.

Let me summarize, Madam Chairman, the importance of cultural vitality to the Nation by quoting the eloquent words of President Nixon:

"At a time of severe budget stringency, a doubling of the appropriation for the arts and humanities might seem extravagant. However, I believe that the need for a new impetus to the understanding

and expression of the American idea has a compelling claim on our resources * * * few investments we could make would give us so great a return in terms of human understanding, human satisfaction and the intangible but essential qualities of grace, beauty, and spiritual fulfillment."

I fully agree. Thank you.

Mrs. HANSEN. Thank you.

FOREST PRODUCTS LABORATORY

WITNESS

HON. ROBERT W. KASTENMEIER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mrs. HANSEN. Congressman Kastenmeier, it is a pleasure to have you here.

Mr. KASTENMEIER. Madame Chairman, three of the most urgent problems confronting our country are pollution of the environment, conservation of resources and housing. The research program of the Forest Products Laboratory promises direct relief in all three areas. Needless delay in obtaining, disseminating and utilizing the fruits of this research would constitute an extreme waste of money and resources.

Expenditures for solid waste disposal sites and facilities strain the inadequate resources of all our cities while continued dumping and burning of refuse pollutes our environment to an ever-increasing extent. In many cities, acceptable sites for disposal are almost impossible to find. Reclamation of these waste materials for commercial use could substantially eliminate these problems. Research to develop a process for recovery of waste cellulose fiber for commercial uses promises to convert an offensive liability into a productive asset.

Wasteful use of natural resources can no longer be tolerated not only because demand threatens the supply but also because the indiscriminate exploitation of our land irreparably disrupts the ecology of our environment. Efforts to make full use of our resources must be be vigorously encouraged. One such effort is the Forest Products Laboratory's research programs directed at automated quality control of timber products, complete utilization of logging residues and wood-derived wastes and the aforementioned recovery of cellulose waste for commercial use.

With respect to housing, the poor quality of low-cost homes has been the subject of widespread criticism (e.g., the Hoopa Valley Indian Reservation flood relief housing constructed under the jurisdiction of the Bureau of Indian Affairs). Fundamental to achieving maximum quality for a minimum monetary allowance are the formulation of tested uniform standards and specifications, development of new low-cost construction materials and techniques and trustworthy quality control grading systems. Important research in these areas would be seriously impaired if the proposed rebuilding and modernization of the Forest Products Laboratory's main building is delayed for lack of funds.

Three years ago Congress appropriated $190,000 for the planning of research facilities in the Old Main Building of the Forest Products Laboratory at Madison. It is my understanding that these plans are

now completed and include a structural laboratory for testing new housing designs and new materials under simulated actual-use conditions. To my knowledge, there is no such laboratory for conducting urgently needed research in housing specifications now available anywhere in the country.

In addition to the structural laboratory, the plans also provide for facilities for efficient filing and retrieval of research data and for the dissemination of information to those involved in related research and the industrial utilization of these techniques.

The total cost for the implementation of these plans, if contracted in 1970, would be $4,680,000. To divide the total project into four phases and four successive contracts would cost a minimum of $700,000 more than the total cost of the entire project if contracted now. It has been proposed that $1,625,000 be appropriated for the first phase of this project for the purpose of modernizing the utility systems and achieving pollution control. Since there has been considerable public agitation over the air pollution caused by the coal-fired boilers at the Laboratory, I regard the appropriation of these funds as very important.

However, I must point out that the appropriation of this sum would provide no funds for the establishment of the structural laboratory.

Madam Chairman, I know that the task of this committee is a difficult one. Requests for funds for many worthy causes must be denied. However, I am making this request for an additional appropriation of $4,680,000 for the Forest Products Laboratory because I feel that an investment in the research of this agency will ultimately be rewarded many times over. The work of this laboratory promises not only to solve the problems of pollution, conservation and housing, but also will result in the savings of billions of dollars through the more efficient utilization of our natural resources, recycling of our solid wastes, and the development of quality low-cost housing. In the interests of ultimate economy, I therefore respectfully request that an additional appropriation of $4,680,000 be approved by this committee for the implementation of the plans drawn up pursuant to the 1967 authorization.

Mrs. HANSEN. We will insert in the record at this point various questions propounded to the Forest Service in this connection.

(The material follows:)

Question. Is there a comparable facility to the structural laboratory proposed by the Forest Products Laboratory?

Answer. There is no such facility that can effectively evaluate wood constructions at the present time. Structural laboratories are available to the steel and concrete industries, but not to the woodworking industry. The National Bureau of Standards has a somewhat similar laboratory which is used to capacity for tests of nonwood materials.

Question. Can the Laboratory do an effective job without having a structural laboratory available?

Answer. The Forest Products Laboratory has done and can continue to do an effective job of evaluating the potential of wood materials and small housing components with its present facilities. This, however, does not supply the information for builders, designers, and code authorities now urgently needed for the more efficient use of wood materials in housing. The proposed laboratory is designed for obtaining information on the properties of constructions under actual use conditions. The proposed laboratory will make possible tests of new designs and new materials for entire walls, roof and floor systems, and even an entire house under loads such as experienced in actual service.

Question. Who would be the principle beneficiaries of the research done in the structural laboratory?

Answer. The research planned for the structural laboratory would benefit the entire Nation since, without question, it would help solve problems related to the critical housing shortage. More efficient use of the Nation's wood resource can significantly lower the cost of housing, and the better utilization of the forest resource would make possible more housing with the resource available.

Question. What would be the total cost if the entire project for the development of the structural laboratory, seminar and library facilities, and the conversion of the utility systems to remedy the pollution problem were to be contracted this year?

Answer. If we were to do the entire construction job including some renovation of the 38-year-old structure and correction of the pollution problem, it would cost $4,840,000.

Question. Is there an estimate as to how much more the project would cost if constructed in stages over a period of, let's say, 4 years?

Answer. Yes, Madam Chairman. If the construction were done in stages over a 4-year period, it would cost an estimated $5,370,000, an increase of $530,000 over the cost of single-stage construction.

Question. Would the phased construction of these facilities over a period of 4 years significantly impair the efficiency of the Forest Products Laboratory research staff?

Answer. There would be some disruption, of course. Construction, in say four stages, would keep activity going in and around the large Central Laboratory for a prolonged period of time. The proposed program would be slowed to some extent. Stage construction if carried on systematically over a 4-year period would undoubtedly reduce efficiency somewhat, but not significantly.

ADDITIONAL STATEMENTS OF MEMBERS OF CONGRESS

Mrs. HANSEN. The committee has received the following statements from members of Congress regarding items in the bill and we will insert them at this point in the record.

(The material follows:)

TESTIMONY OF HON. EDWARD A. GARMATZ, CHAIRMAN, COMMITTEE ON MERCHANT MARINE AND FISHERIES

VARIOUS INTERIOR BUDGET ITEMS

Madam Chairman, I appreciate the opportunity to request this distinguished subcommittee's support of a number of programs I consider extremely important to the American fisheries and related industries. My testimony is, of course, related to those programs contained in the President's budget for fiscal year 1971 for various activities of the Department of the Interior.

I think every American should be concerned about the plight of our American fishery industry, and I hope this subcommittee will reflect that concern by approving the proposed programs now being considered, together with my recommendations.

In 1956, America's fishing fleet ranked second in the world, behind Japan; but, after that period, it began a dismal and alarming decline, reaching sixth place last year. On April 6 of this year, the Interior Department announced the United States had regained fifth place among the fishing nations of the world.

This announcement seems to indicate an improvement in this Nation's fishery harvest; actually, it is misleading, although I want to emphasize this certainly was not the objective of the Interior Department report. We only regained fifth place because Norway—which had occupied fifth place—had a very bad year. Norway's 1969 catch of 4.9 billion pounds was down 800 million pounds from a year earlier.

Japan tops the list of the leading fishing nations of the world. The rest of the lineup is: Peru, U.S.S.R., Red China, United States and Norway. These statistics were supplied by the Bureau of Commercial Fisheries of the Department of Interior. I might add that, although Red China is believed to rank fourth, reliable statistics on the catch by Communist China have not been available since 1960.

It is true that the United States caught about 5.5 billion pounds of fish in 1969, which represented an increase of about 1 million pounds over 1968. But these figures are also misleading; in addition to the fact that we regained fifth place only through default of Norway, the total picture of our Nation's fishing fleet is one of continued and dangerous deterioration. Obsolete vessels, equipment and techniques are taking a steady and devastating toll.

Madam Chairman, I want to emphasize that 60 percent of all fisheries products sold in the United States, for human consumption alone, now comes from foreign producers. This statistic should certainly be an effective argument—at least from a standpoint of economics—as to why we should take definite and concrete steps to revitalize our American fisheries industry.

If we are going to do anything positive in this direction, it is essential that we stimulate an adequate fishing vessel replacement program. As I said earlier, many of our existing fishing vessels are obsolete, inefficient, and unable to compete economically. The first big step to correct this situation came in June 1960, when the United States Fishing Fleet Improvement Act became law. This legislation called for a 3-year program, and authorized an appropriation of $2.5 million annually; the money was used to provide construction differential subsidy for the construction of fishing vessels, and the subsidy was not to exceed one-third of total vessel cost. In 1964, the program was extended for a 5-year period (to June 30, 1969) and the appropriation authority was increased to $10 million annually. The maximum subsidy allowed was also increased from one-third to one-half the cost of the vessel construction.

Since the act expired June 30, 1969, the need for an extension was obvious. I introduced a bill to provide this extension; my Committee on Merchant Marine and Fisheries held hearings on the bill last year, and reported it out in July 1969. However, that legislation incorporated some major new concepts designed to provide more incentive to increase both the quality and the quantity of America's total fishing effort. That bill, Madam Chairman, has passed the House and is now pending before the Senate Commerce Committee. Hopefully, that body will act soon on this important measure.

My bill proposes to amend the Fishing Fleet Improvement Act by extending it an additional 2 years, until June 30, 1971. It also proposes to double the amount of annual authorization for vessel construction from $10 million to $20 million per year. But, in addition to this increased authorization, it would also provide several major benefits to the fishing industry never before made available.

Although there are many interesting aspects to this much broader program, I will restrict this statement—in the interest of brevity—to two of the more important proposals. Probably the most important of these is a provision which would—for the first time—allow a subsidy for remodeling or reconditioning of existing fishing vessels, or for the purchase and conversion of an existing vessel into a more efficient fishing vessel. In the past, all subsidy had to be used to construct a completely new fishing boat. But during our hearings, many operators complained they could not afford to build a new boat, even with the aid of construction subsidy; they said they would be able to afford, however, the purchase of an existing hull, which they could convert into an efficient, modern vessel at one-fourth the cost of a new vessel. It would also enable them to convert vessels they already owned into more efficient, productive fishing ships.

The other aspect of this bill I consider extremely important is the proposal to authorize a total of $125,000 to initiate a 2-year study designed to offer solutions to the many problems now confronting the American fishing industry. This legislation proposes to limit the extension of the act to 2 years—instead of another 5 years—so that the changes incorporated into this new bill can be evaluated for effectiveness, and so that new ideas derived from the proposed study might be incorporated in an even broader and more effective program in the future.

Madam Chairman, the fact that this bill did not become law last year has created a hardship on the already burdened fishery industry. The legislation passed the House August 12, 1969, but, unfortunately, no action was taken in the Senate. Since the Fishing Fleet Improvement Act expired June 30, 1969, practically no funds have been available to the industry since that date. As a result of this expiration, there has accumulated a backlog of applications for fishing vessel construction. These applications, which were submitted to the Department of the Interior for new vessel construction, called for approximately $12.5 million in Federal subsidy. Because the act was allowed to lapse, some vessel operators became discouraged and withdrew their applications. It is also known that others were waiting to file—and will still file if the act is extended and funds are made available.

In view of the loss of a year, and in view of the broadened program, which is expected to stimulate reconditioning, remodelling and conversions—in addition to new vessel construction—it is extremely important that the $20 million authorized by my bill, H.R. 4813, be made available to the industry. I, therefore, strongly urge, Madam Chairman, that this program be fully funded for the total of $20 million.

Another program very vital to the fisheries industry and which will expire June 30, 1970, is now pending before my Committee. This is the fisheries loan program. I have introduced a bill to extend that program for an additional 10 years, and Congressman Dingell's Subcommittee on Fisheries and Wildlife Conservation has already held hearings on this legislation. My committee will report this bill out as soon as our busy schedule permits, and I understand the Senate Commerce Committee has also held hearings on similar legislation and is also planning to expedite action on the bill.

American commercial fishermen have found it almost impossible to obtain—under reasonable terms and conditions—loans to improve or replace their old fishing vessels and equipment. Under this program, the Secretary of the Interior is authorized to provide these fishermen with loans at a reasonable rate. When the fisheries loan was established, in 1956, a revolving fund was set up and $10 million was authorized for this fund. In 1958, this authorization was increased to $20 million. When the program was extended for another 5 years, the same level of funding was maintained; but, as I indicated earlier, this program will expire June 30 of this year.

Actually, only $13 million of the $20 million which was authorized has been appropriated, leaving a balance of $7 million still authorized but not appropriated. I respectfully request this subcommittee to appropriate $1 million of the remaining $7 million. This additional $1 million is badly needed for the revolving fund. In November of last year, the Secretary of the Interior ruled that no loans in excess of $40,000 could be made. This limitation—imposed to prevent the fund from being exhausted—has had a severely adverse impact upon the loan program. The funding of the additional $1 million would help make it possible to remove the $40,000 limitation and encourage more of our commerical fishermen to take advantage of this program and update their vessels and equipment. I repeat, Madam Chairman, it is my hope this distinguished subcommittee will appropriate the $1 million to keep this loan program moving.

The next item has, I think, probably made a more significant contribution to the fisheries industry than almost any other single act. I am referring to Public Law 88-309, as amended. Known as the Commercial Fisheries Research and Development Act, it provides funds for broad and continuing research programs. Basically, it authorized the Secretary of the Interior to cooperate with the various States in carrying out projects for research and development of the Nation's commercial fisheries resources. The act has been acclaimed by the States as the most important piece of fisheries legislation since passage of the Fish and Wildlife Act of 1956.

Section 4(a) of the act authorizes an appropriation of $5 million annually to be appropriated among the 50 States. The formula contained in the act provides a minimum apportionment to any State of one-half of 1 percent and a maximum apportionment of 6 percent of the funds appropriated in any fiscal year. These apportionments are based on the value of the fishing industry in the several States. Under the maximum appropriation of $5 million authorized by the act, 29 States would receive a minimum apportionment of $25,000 and seven States would receive a maximum of $300,000. The act has never been funded at its authorized level. Section 4(a) was not funded during fiscal year 1965, the first year that funds were authorized, and in each of fiscal years 1966, 1967, 1968, and 1969, an amount of only $4.1 million was appropriated, and for fiscal year 1970, $4.04 million.

State response to the program has been excellent and about 338 projects have been funded in all 50 States and the Virgin Islands, Puerto Rico, Guam, and American Samoa. Those States receiving a minimum apportionment have been able to initiate and fund one project. The States are having little difficulty in obtaining matching funds, and to date more than $5 million of new money has been appropriated by State legislatures to match the Federal dollars available.

It is unfortunate, especially in view of the popularity of this program, that the President's budget proposal only requests $3.8 million—plus $240,000 for administrative expenses—for this program for fiscal year 1971. The impact of this proposed reduction in level of funding—following a reduction last year—would,

naturally, see a corresponding reduction in the overall research and development effort. In view of this drastic effect on our already faltering fisheries industry, it is obvious the $4.04 million called for in the current budget is completely inadequate. I, therefore, urge this subcommittee to fully fund the $5 million authorization so this valuable program can do precisely what it was designed to do—stimulate and strengthen our ailing American fisheries.

I would like now to call this subcommittee's attention to that portion of the budget which deals with our menhaden fishery resource. Menhaden are made into fishmeal, primarily for poultry feed, protein additives, and oils and solubles for paints, lubricants, and other industrial purposes.

Although menhaden are not used for human consumption in the United States, the menhaden industry comprises this Nation's largest fishery industry. This industry needs help, primarily because there is a danger that the sustainable yield of this important stock may have been reached or surpassed. Unless more knowledge about this species of fish is developed, and an alternate species of fish is found that can be utilized—so the pressure can be taken off the menhaden stock—then the menhaden resource is definitely threatened.

The scarcity of menhaden and the subsequent reduction in catch which has been experienced emphasizes the urgent need for research programs which will help us learn more about the total ecology of the menhaden. The President's budget calls for $732,000 to carry out biological research projects on the menhaden fisheries in both the Gulf and Atlantic coasts; the budget also includes an additional $100,000 for an exploratory program. This program is aimed at finding an alternate species that might substitute for the menhaden.

Madam Chairman, I fully support the President's proposals in the areas just mentioned. Unfortunately, the funds proposed are not sufficient for a fishery resource as important to our Nation as the menhaden fisheries. In addition to the above projects, this industry critically needs a proper inventory of all fish resources that could be used by our fisheries industry for such things as fishmeal, fish oil, fish protein concentrate, etc. In conjunction with this thought, I might mention that my distinguished colleague—Congressman Thomas Downing, of Virginia—has introduced a bill to accomplish this objective; this bill has been cosponsored by Congressman Alton Lennon, of North Carolina, and Congressman John Dingell, of Michigan, as well as myself.

The bill would authorize a total of $1 million per year—for a 3-year period—to fund an intensive study and inventory such as I have mentioned. I hope to expedite House action on this bill, but, in the meantime, there is a necessity to make some provisions for research in the area I have just mentioned. I, therefore, respectfully urge this subcommittee to add $250,000 to the amount suggested by the President's budget. This would provide a total appropriation of $1.082 million for this most important fishing resource.

Madam Chairman, I now want to address myself to an issue which, I must admit, is extremely important to me personally, since it concerns my home State of Maryland and the Chesapeake Bay. I am referring to Public Law 89–720, which provides Federal aid for research in the control or elimination of jellyfish—sometimes known as sea nettles. I introduced the original legislation in the 89th Congress; following hearings by my committee, it passed the House and Senate, and became law November 2, 1966.

Basically, the law provided authorization of a total of $2¼ million for a 3-year research program, with the funds being made available to the States on the normal matching-fund basis, 50–50. The act authorized an appropriation of $500,000 for fiscal year 1968; $750,000 for fiscal year 1969; and $1 million for fiscal year 1970. In addition to making funds available for research into ways of eliminating or controlling the stinging jellyfish and other similar pests from our coastal waters, the law also would aid research programs on the control of floating seaweed in the same waters.

The original act expires June 30, 1970. I have introduced a bill to extend this program for an additional 3 years; my committee has already completed hearings on the proposed extension, and will report this bill out in the next few weeks. I would like to emphasize that no additional funds are being requested—my legislation would simply utilize the remainder of the funds already authorized to be appropriated for fiscal year 1970. There remains, in this authorization, a total of $733,000 which would be carried forward for the new 3-year period of the extended program.

I would like to emphasize that this program has become an extremely popular one with many States. Both Maryland and Virginia are working on a joint venture to offer relief to the Chesapeake Bay, which is invaded every year by these stinging water pests. But, in addition to those two States, this program is also being used by Florida, Mississippi, New York, New Jersey, and the Commonwealth of Puerto Rico.

The Department of the Interior has also recommended enactment of my bill to extend the jellyfish program, but the President's budget only calls for $190,000 for fiscal year 1971. Madam Chairman, important scientific work on the jellyfish has already been initiated, and it is extremely important that this research continue. In order to maintain this continuity, it is important that at least $295,000 of the remaining $733,000 be appropriated for fiscal year 1971.

I might mention that the scientists engaged in this jellyfish project are probing into an area of marine research about which very little is known. Definite progress is being made, and the knowledge developed and recorded in this research may very well prove beneficial in helping man's overall understanding of the ecological relationship of many marine organisms—to each other and to the total marine environment. Madam Chairman, in view of the popularity and importance of this project to many States, I strongly urge that this subcommittee appropriate a minimum of $295,000 for fiscal year 1971 for the jellyfish program.

The next topic is an extremely important one, since it involves the ugly and threatening problem of pollution. The fiscal year 1971 budget contains an item of $200,000, which is proposed for the creation of an Institute of Environmental Studies; the Institute would be located at the Patuxtent Wildlife Research Center, in Laurel, Md.

This new Institute, Madam Chairman, will conduct vital research on so-called environmental pollutants. In addition to the better known forms of pollution, a multitude of difficult problems are now threatening our fish and wildlife—and these are caused by contamination from the effects of heavy metals, polychlorinated biphenyls—known as PCB's; oils, acid wastes and numerous compounds are also causing environmental pollutants. Very little is known about this type of serious pollution—including the level of distribution and effects on the organisms involved.

Obviously, a program must be initiated to deal with these pollution problems in a systematic way. Sound, basic information is needed to cope with this threat to the productivity and stability of our environment. Present work with only compounds classed as pesticides do not cover this broad spectrum of pollutants affecting the environment. While we must, obviously, continue the very productive studies already being conducted on pesticides, there is a very urgent need to fund and staff an enlarged research program on pollutants as rapidly as possible. It is essential that we move quickly to identify specific harmful elements in order to lend guidance to a coordinated environmental cleanup campaign.

In view of the complexity and importance of the need for research in this area, Madam Chairman, the $200,000 suggested in the President's budget for fiscal year 1971 simply is not sufficient. The budget should be increased to a minimum of $400,000 for this new research project so as to permit launching initial studies on a greater number of suspect compounds. A portion of the increase could be used effectively in conducting specific studies at universities or qualified private laboratories through a contractual arrangement.

I feel confident this distinguished subcommittee will agree on the importance of the research project I have outlined, and appropriate the figure of $400,000.

Madam Chairman, on the last item of importance, it is a pleasure to find it not essential to ask for more money than is already proposed in the President's budget. I am referring here to the figure of $300,000, which would be utilized for purchasing land adjacent to the Patuxent Wildlife Research Center, in Maryland. The land would be added to the existing wildlife refuge, which is the only one of its kind in the world. Fifteen endangered species of birds and mammals are cared for at Patuxent, and considerable progress is being made in perpetuating valuable species once threatened with extinction. This is a worthwhile venture, and I am happy to support the President's budget proposal of $300,000.

Thank you, Madam Chairman, for giving me the opportunity to discuss some very comlex and lengthy proposals which I feel to be vitally important. I hope you will consider them favorably.

Remarks of Hon. John A. Blatnik

BWCA SUMMER STUDENT WORK PROGRAM APPROPRIATION

Madam Chairman, today I am introducing a proposal that will benefit both the college students in Minnesota, and the U.S. Forest Service.

Every summer, more and more campers and day visitors pour into the Boundary Waters Canoe Area. In 1968, according to Forest Service records, there were 800,000 visitor days of use, and each year the use increases by 8 percent. This places a heavy demand on available campsites, and yet, in 1968, only 387 of the 1,630 sites met the minimum BWCA requirements. By 1974, the Forest Service estimates that 3,175 will be needed to handle the projected increase in visitors.

To be very frank, we are well aware that the Forest Service alone could not possibly improve all the available campsites by 1974 to established BWCA standards. Nor do they have men available to create the 1,545 new ones that will be needed. They must have help.

I am proposing an experimental, 1-year program under which funds would be made available for a cooperative program between the U.S. Forest Service and the Minnesota State college system, the State junior college systems, and the University of Minnesota at Duluth to provide workers and funds to improve BWCA; and, simultaneously, to give Minnesota college students a valuable work experience in the outdoors.

Under this proposal, the school systems in Minnesota would pay 80 percent of the salaries, and the Forest Service would pay 20 percent of the salaries, and provide materials and supervisory personnel.

The school systems may, it is hoped, get some of their funds from HEW grants, but the Forest Service, for this year, will need a special line appropriation to implement this project.

Sixty-eight students would be hired for an average of 13 weeks' work, at a salary of about $1,250. They would be expected to share the costs of food with the other crewmembers. Their hourly wage would be about $2.36.

The annual cost of the project will be about $142,700, of which 60 percent, or about $85,600, will represent salaries. The Forest Service will be asked to pay 20 percent of that amount, or $17,120, plus ordinary overhead—personnel and materials.

I cannot overestimate the many advantages offered by this plan. First, it will provide meaningful, temporary employment for college students, especially for minority students, who may find similar work difficult or impossible to get. Second, it would provide a wonderful experience for the students to work together with Forest Service personnel in one of the most beautiful and unique national forests in this country. Third, it will begin to provide adequate camping facilities for the increasing numbers of visitors to BWCA. This project, if continued over a 5-year period, would create 1,545 new campsites, and improve 1,630 presently used campsites, for a total of 3,175 campsites projected as neecssary by the Forest Service.

Attached separately is a more detailed explanation of how the program would work, which the Forest Service has prepared at my request.

I am very enthusiastic about this idea, Madam Chairman, and I hope the committee will share this enthusiasm and approve the requested funds, so that the Forest Service, college students, and the thousands of visitors to the BWCA every year may benefit, at a truly small cost to the Federal Government, for so promising an investment.

SUPERIOR NATIONAL FOREST

Background

The Boundary Waters Canoe Area occupies the northern third of the Superior National Forest, extending nearly 200 miles along the Minnesota-Ontario border. Set aside in 1926 as a roadless area to preserve its primitive character, the BWCA provides a wilderness-type experience for more than 100,000 people of all ages and from all walks of life each year. More than one million acres of land and water are here, available to the modern-day voyageur. Twelve hundred miles of canoe routes in the BWCA combine with 800 miles of routes in Ontario's Quetico Park to form the famed Quetico-Superior Area.

Essentially, the BWCA canoe routes are as the voyageurs of the 17th, 18th, and 19th centuries knew them. Management is designed to keep them that way. At the close of 1968, only 387 BWCA campsites met minimum requirements. There was in excess of 800,000 visitor days of use in the area, and 1630 campsites were utilized. By 1974, projections show a need for 3,175 campsites. Under present programs, the Forest Service will not be able to catch up with the ever-increasing need.

To keep the BWCA in its primitive condition, this proposed project will do much to fill the gap. At the same time, it will allow the student participants to be introduced to the world of work, plus the gainful experience of spending a summer in one of the nation's most beautiful and historic wilderness areas. At the same time they can benefit financially to further their education.

Project

The students participating in the project would work under Forest Service supervision in small two- to three-man crews, doing maintenance and rehabilitation of existing campgrounds and constructing new ones.

The goal would be to have 68 college students under the college work-study program working up to 12 weeks during the summer. Work would start in June and end in early September.

Because of the roadless nature of the area, most of the work would be on the basis of 10 days' work and 4 days off. Transportation into the BWCA would be by aircraft or canoe. During the 10 days in the field they would be provided with canoes for transportation between worksites. The base station will be at Ely, Minn., where the crews will be dispatched.

The Forest Service would provide all nonpersonal equipment such as handtools, canoes, tents, sleeping bags, etc. The students would have to provide their own personal gear. They would need work clothes, heavy jackets, tennis shoes, and 8-inch lace boots. They would be time for swimming and fishing after the normal workday.

During the 10 days in the field, the crews would be camping out. Food cost should be shared by the crewmembers. This arrangement will enable the student to save more of his income during the summer. Hourly rates are proposed for $2.36.

There would be a lot of physically exerting work such as bending, lifting, carrying, chopping, etc. For this reason the students will need to be in good physical condition. As they will be doing a lot of canoeing, all should be good swimmers.

The Forest Service would like to have a good percentage of minority candidates. If there are more applicants than 68, we would like to be able to interview the students for final selection.

Statement of Hon. Tom Bevill, Member of Congress

Land and Water Conservation Fund

Madam Chairman and members of the subcommittee, I appreciate the opportunity you have given me to express my strong support for full funding of the land and water conservation fund.

That fund, which was established in 1965, has accomplished much since it began. But it needs all the money that is available to it to accomplish the purposes for which it was designed.

As you are aware, the fund is supported by fees collected at Federal recreation areas, the Federal motorboat fuels tax, and proceeds from the sale of Federal surplus real property. In the first five full fiscal years, the fund received an average of $110 million annually for State and Federal purposes.

In 1968, Congress amended the Land and Water Conservation Fund Act to provide that the fund in the fiscal years 1969 to 1973 would receive a level of appropriations of $200 million a year with the difference between its normal source of revenues and that amount to be made up either from general Treasury receipts or through a portion of Outer Continental Shelf mineral leasing receipts.

In his state of the Union message and his message on the environment, President Nixon called for full funding of the land and water conservation fund in fiscal year 1971. To achieve the objective, the fund should receive appropriations totaling $357.4 million in the fiscal year that starts July 1.

As I understand the detailed request submitted by the Department of the Interior, in fiscal year 1971 States would receive $185,400,000 in matching grants from the fund to acquire and develop outdoor recreation areas and facilities and Federal agencies would receive approximately $166 million for acquiring needed national recreation lands and waters.

There is no doubt that the States and their cities and counties need the money that would be made available to them from the fund. Virtually all the States now have a backlog of projects which they intend to submit for land and water conservation fund assistance. On the Federal side, a Bureau of Outdoor Recreation study 2 years ago showed that there was a gap of about $300 million between authorizations and appropriations for new national park and recreation areas.

Since 1965, States have been apportioned $318 million from the fund to provide matching assistance to States and their political subdivisions.

Through December 1969, the fund had assisted 4,311 State and local projects. By category, States were provided matching assistance for 95 State outdoor recreation planning projects, 1,612 acquisition projects, and 2,851 development projects.

President Nixon said in his environment message on February 10:

"The task of cleaning up our environment calls for total mobilization by all of us. It involves governments at every level; it requires the help of every citizen. It cannot be a matter of simply sitting back and blaming someone else. Rather, it presents us with one of those rare situations in which each individual everywhere has an opportunity to make a special contribution to his country as well as his community."

Mr. Chairman, in my view, full funding of the land and water conservation fund is vital for total mobilization in our fight to improve our environment. I urge you to approve the full amount requested for the fund.

Statement By the Hon. Don Fuqua

BUREAU OF COMMERCIAL FISHERIES

Madam Chairman, as you consider the fiscal year 1971 appropriations for the commercial fisheries research and development program, I respectfully request that you give favorable consideration to the proposal for Federal participation in the amount of $60,000 for the establishment of a cooperative wildlife research unit at the school of forestry, University of Florida, Gainesville, Fla.

The proposal is well beyond being an innovative one since the planners for the national program in 1935 selected Florida as one of the original nine locations for a cooperative wildlife research unit. Regretfully, Florida leadership failed to be foresighted enough to recognize its need, value, and significance. A general lack of interest resulted in the unit not being created and established.

The years have gone by since then with the State of Florida retaining the combination of the unique natural beauties and human-use factors that led the planners to determine that one of the original nine units should be located in the State. Of more significance is the outstanding face that not only are these conditions and factors still there but that their uniqueness have been intensified and increased.

Climatic conditions range from the northern portion of the State having that which is characteristic of the southeastern United States to that of subtropical and tropical in peninsular Florida. This brings about significant differences and variations in the flora and fauna. The State is privileged to have many endangered wildlife species, including rare ones such as the Key deer which full grown has the stature of no more than that of a dog. The Everglades kite, the great white heron and even the illustrious bald eagle. The survival of these depends in part on the acquisition of new knowledge as a basis for management.

The terrain of the State compliments the above with 166 rivers and more than 30,000 lakes comprising 4,298 square miles of the total area of the State's 58,560 square miles. The tidal shoreline is 2,276 miles long and about 60 percent of the land is forested with approximately 5 million acres of marshlands. Such lands afford an abundance of wildlife desirable habitats, and with the range in climate the animals and fowls are as comparably diverse.

Our State is the eighth most populous State in the United States, with a rate of growth second only to Arizona. Therefore, the wildlife and wildlands have the combined uniqueness of a close association with high human populations and the resultant characteristics of urbanization upon them. The agricultural economy of Florida is one of the Nation's largest, and its rapid growth having im-

pact upon the environments of wildlife need the study and research of a cooperative wildlife research unit. Of like concern in this area are the wildlife pest problems demanding research. Foremost among these are crop depredations by a variety of pest birds. Gopher activity encroaches seriously on our livestock interests. Arising out of the abundance of wildlife and the woodlands is the serious problem of rabies of an endemic nature being among the almost primeval animals.

Further justification for a Florida CWRU rests in the need to investigate the relationships between: (1) wildlife resources and tourism (Florida has the Nation's largest tourist industry), (2) urban development and the use and management of urban wildlife populations to enrich the quality of the urban environment and the lives of the urban inhabitants, particularly youth, (3) the occupants of retirement communities and their use of wildlife as a recreational resource, (4) natural beauty and wildlife as part of the landscape, particularly that of the roadside and homesite.

With these conditions the State finds itself in great need of more trained men in the wildlife field. To meet these needs the Florida Game and Fresh Water Fish Commission has been recruiting biologists from the cooperative wildlife research units in Missouri, Louisiana, Alabama, and elsewhere. However, there is not existing a unit having an educational program effectively embracing the unique environments and wildlife of Florida.

It has been reported to me that the Bureau of Sport Fisheries and Wildlife of the Department of the Interior favors this proposal. This agency advises it will support it because they believe Florida has unique conditions and problems and that there is a need to expand graduate training in wildlife in the southeast.

Your support and favorable action in behalf of the cooperative wildlife research unit is respectfully requested and urged. The proposal undoubtedly has much to offer and outstanding services to be made available to our Nation's efforts in preserving and conserving our natural resources. This unit at the University of Florida will realistically meet the objectives, adequately accommodate its purpose and functions, and effectively operate under the most excellent supervision and direction of qualified and dedicated individuals.

STATEMENT OF REPRESENTATIVE CHARLES H. GRIFFIN

Madam Chairman, I appreciate the opportunity to present my views on the need for construction funds for the Natchez Trace Parkway.

This parkway was authorized over 35 years ago. Yet, it is only three-fourths completed. Three hundred and eleven miles of parkway roads have been completed, 6 miels are under construction, 59 miles of right-of-way have been accepted by the National Park Service and are now ready for construction, 33 miles of the right-of-way are yet to be transferred to the Park Service by the States.

In view of the need for outlays for the Vietnam war, those of us interested in the Natchez Trace Parkway have not pressed for a large amount of construction funds. Only $711,000 were appropriated for construction in the current fiscal year. However, the administration has deferred expenditure of these funds. They were intended for construction in the Claiborne Jefferson County section of the Trace. This is a low-income area and construction jobs are important to the economy of that area.

For example, I quote from a telegram I received yesterday from the Claiborne County Chamber of Commerce. It reads as follows:

"Our Natchez Trace engineering office that employs a number of persons will possibly be closed unless the President releases some of the appropriations for construction. Please contact President and seek release of funds set aside for project 3-U-2 Claiborne Jefferson line and Mississippi State 552. This is not a large project but will keep work going."

Madam Chairman, all of us are familiar with the fierce competition of every Federal dollar. There are many needs and many demands for Federal funds. Inasmuch as the Natchez Trace Parkway has been a low-priority item, it has taken a third of a century to construct three-fourths of it. I would hope that funds could be found to step up the pace.

Ten million persons are expected to visit the Natchez Trace Parkway this year. The Parkway commemorates the Natchez Trace, a frontier road prominent in the development of the old Southwest, and makes available to the leisurely traveler many points of interest relating to the history of the old Trace, nearby Indian sites, and nature areas. It is an asset to the United States and a real credit to the National Park Service.

Madam Chairman, I trust that a modest construction appropriation can be recommended for fiscal 1971.

Thank you.

STATEMENT OF REPRESENTATIVE HOWARD W. POLLOCK

Madam Chairman and distinguished members of the committee, it is indeed a pleasure to appear before you today to discuss certain budgetary allocations which will have a profound effect on the social and economic development of the State of Alaska. For the sake of clarity, I have organized my remarks into sections dealing with specific Federal budget matters that are of importance to the State.

I. THE FEDERAL FIELD COMMITTEE FOR DEVELOPMENT PLANNING IN ALASKA

Section 512 of Public Law 91–123, which passed the Congress on November 25, 1969, extended the life of the Federal field committee to June 30, 1971, and authorized $500,000 for the 2-fiscal-year period ending June 30, 1971. To satisfy this authorization, the administration has requested a congressional appropriation of $263,000 for fiscal year 1971. I strongly endorse the administration's request and believe that full funding is necessary if the Federal field committee is to continue its important work.

The planning and coordinating efforts of the Federal field committee are described in detail in the excellent statement which Hon. George O. Sharrock, Chairman of the Federal field committee, recently delivered to this subcommittee. However, I think it would be helpful for me to outline briefly the reasons for my strong support of the Federal field committee and its work.

I have no doubt that in the not-too-distant future, the State of Alaska will assume most of the planning and coordinating functions which are presently the responsibility of the Federal field committee. In the meantime, the field committee, which is composed of the regional heads of 11 Federal agencies, can provide valuable planning and coordinating assistance to both the State of Alaska and the Federal Government. In past years, such assistance has resulted in a significant acceleration of Alaska's economic and social development. Continued Federal funding of the field committee will have a further beneficial impact on the State. During fiscal year 1971, the committee plans to provide coordinating leadership for the development of an integrated transportation system in Alaska. In addition, the committee hopes to initiate a study of the regional inflationary pressures generated by construction booms and the resulting effects on Federal cost in Alaska. This study should lead to recommendations for altering certain Federal Government fiscal policies in the State. Summarizing the contemplated activities of the Federal field committee in Alaska during fiscal year 1971, Chairman Sharrock stated that the committee will do its best to assist the State in formulating long-range development plans and in coordinating these plans with the activities of the appropriate Federal agencies.

My distinguished colleagues, it will be several years before Alaska can fully utilize the $900 million which the State received last fall from the sale of North Slope oil leases. In the meantime, the Federal field committee can perform an invaluable dual role. First, it can assist the State in developing plans which will maximize the benefits to be derived from Alaska's resources. Second, the field committee can help the State to formulate solutions to the complex problems which still confront the Alaskan people. These difficulties include massive unemployment, inadequate transportation and communications facilities, widespread poverty and sickness, et cetera. In order that the Federal field committee may operate at maximum efficiency in helping to eliminate the problems that I have just mentioned, I respectfully request this subcommittee to recommend the full allocation of $263,000 that was requested in the administration's request for fiscal year 1971 budget.

II. THE FOREST SERVICE BUDGET FOR ALASKA

Because the Federal Government still owns 97 percent of Alaska—approximately 375 million acres—the Forest Service necessarily performs many vital functions in this State. One of the most important of these activities is the prevention and control of forest fires. Each summer, forest fires ravage large portions of Alaska's land mass. The remoteness of many of the forest regions, the absence of access roads, and the intensity of tundra fires make firefighting in Alaska very costly and difficult. As a consequence, in the last 2 years, an area larger than the State of Massachusetts has been destroyed by forest fires and firefighting costs have soared to over $25 million.

If we knew more about the peculiar behavior of forest fires in Alaska's unique environment, the staggering statistics which I have just mentioned could be sharply diminished. Studies in the areas of fire prevention and control could be of much valuable knowledge concerning the suppression of forest fires in Alaska. Thus, for example, we have much to learn about which fire prevention techniques work best in particular areas of the State. Moreover, there is strong evidence to indicate that regions that have been ravaged by fire can still support certain kinds of Alaskan wildlife. Yet, we presently know very little about this important area of forest fire research. Although the need for fire protection and suppression research in Alaska is great, only $110,000 has been allocated to the Forest Service in the fiscal year 1971 budget for this type of research and evaluation. This figure amounts to 3 percent of the Service's fire research funding; yet, Alaska contains half the land owned by the Federal Government, and this land has unique properties of its own, properties not found anywhere else in the United States.

The present $110,000 allocation is sufficient to finance the work of only two scientists, their clerical staffs, transportation, and limited project funding. Because this personnel is constantly required to make on-the-scene evaluations during the fire season, research activities are often severely impeded. Thus, I recommend that the fiscal year 1971 budget allocation for forest protection research in Alaska be increased by $100,000. Such an increase would permit the hiring of several additional staff professionals. The benefits which can be expected to accrue from an accelerated forest fire research program should bring about a significant reduction in Federal spending for Alaskan forest fire suppression during the coming years.

Another matter which is of great concern to many Alaskans is the absence of any request for Alaska recreational road funds in the fiscal year 1971 Forest Service budget. The failure of the Forest Service to request any recreational road moneys for Alaska is especially regrettable in view of the existence of a very worthy project—the Fish Creek development road on Douglas Island, Alaska. In 1970, this project was ready to go to contract. However, just before bids were to be solicited, the Forest Service shifted $11 million out of its nationwide recreational road program. None of the $14 million which remained in the program was earmarked for Alaska. As a result, several private development projects which were dependent on the completion of the road had to be terminated. The $950,000 which congress appropriated for the Fish Creek development road has not yet been restored.

In my opinion, the suspension of all recreational road funds earmarked for Alaska is very inequitable. Alaskan timber developers annually pay $2 million in stumpage fees to the Federal Government. Yet, the State does not receive any recreational development road funds, which, in a certain sense, are the quid pro quo for the stumpage fees.

In order to bring about the construction of the Fish Creek road, I respectfully request this subcommittee to recommend the appropriation of $950,000 for this worthy project.

I would like briefly to speak in strong support of two other matters relating to the Forest Service budget for fiscal year 1971. First, I want to speak in strong support of the increase of $35,000 for visitor information services in Alaska. A significant portion of the funds allocated for visitor information services are used in connection with the Forest Service's land use orientation program conducted aboard the State ferries. This program annually educates thousands of visitors concerning the proper use of Alaska's recreational lands. I am pleased to see that this program will be expanded to include more of the State's marine highway system.

Briefly, I want to mention one other Forest Service budget allocation for Alaska. Last year, a great forest fire swept the Kenai National Moose Range. This fire damaged over 90,000 acres and cost $15 million to suppress. The budget now before you contains funds to restore the Kenai National Moose Range. I strongly support this funding request. However, in order to avoid a repetition of last year's forest fire, I would suggest that a qualified recreational director be appointed for the Kenai Range. This director would be responsible for alerting campers to the dangers posed by sub-Arctic forest fires. The expense incurred in hiring an individual with suitable qualifications is minimal when compared to the benefits which would result from having a recreational director on the job. Senator Stevens has made a similar proposal to the Senate Committee on Appropriations, and I am hopeful that our joint efforts will result in the appropriation of approximately $18,000, which is a figure we believe will be necessary to attract individuals with suitable qualifications.

III. THE INDIAN HEALTH SERVICE BUDGET FOR ALASKA

As many of you know, the frightening ear disease known as otitis media affects a great number of infants and young children among Alaska's native population. The true dimensions of this lamentable situation can be ascertained by looking at the relevant statistics. Approximately 35 percent of the native infant population suffer an average of two episodes of otitis media before the age of 1 year. About 10 percent of the children under 15 have chronic otitis media, which results in deafness for about one-quarter of those afflicted. Because these children cannot adapt to the normal school environment, special education must be provided. The cost of such education is high, approximately $1,875,000 per year. However, this figure is small compared to the amount of money that would have to be spent for welfare assistance if special education programs were not provided.

In view of the high incidence of otitis media among Alaska's native population and in view of the disease's ravaging effects and social cost, I believe that the Congress should appropriate funds specifically earmarked for the control of otitis media in my State. In a recent report, the Indian Health Service estimated that it would cost $1,847,850 spread over a 5-year period to provide a comprehensive program for the control and elimination of middle ear disease in Alaska. The cost for the first year of the program was estimated at approximately $438,000. The enclosed summary of the Alaskan segment of the IHS report is included in my statement. As you will notice, the $438,000 figure is broken down into specific allocations for various facets of the treatment program. In order that comprehensive treatment of those ravaged by otitis media may commence as soon as possible, I respectfully request the subcommittee to recommend the appropriation of the full $438,000 referred to in the IHS study.

The second IHS project which I would briefly like to discuss is the vocational training center at Seward, Alaska. Although this center has been in operation for only a year, its beneficial effects are already being felt among the State's native population. Once full operational capacity is achieved, it is expected that the vocational training center will reach over 250 trainees and their families per year. Of course, the primary purpose of the center is vocational training. However, another major goal of the center is physical rehabilitation. On a nationwide basis, comprehensive rehabilitation will cost about $850,000 a year. Alaska's share of the total figure will be about $100,000, and I strongly support this budgetary allocation.

As you know, the Indian Health Service is intimately involved in many projects in Alaska which have had and will continue to have a profound impact on the native population. One of the most promising of these projects is the water and sewer project at Kotzebue. Using funds appropriated under Public Law 86–121, the IHS has already allocated $1.5 million for the construction of a sewer and water system at Kotzebue.

Because of the acquisition of additional excavation equipment, construction of this project is ahead of schedule. As a result, available funds have been depleted, and it is very likely that construction work will have to be halted for a considerable period of time. Such a suspension of work would indeed be unfortunate, for Kotzebue's harsh arctic environment will very likely destroy much of what has already been accomplished. Since the IHS has already obligated all its Public Law 86–121 funds for fiscal year 1971, an additional congressional appropriation seems necessary if the Kotzebue sewer-water system is to be completed before Alaska's arctic environment exacts its heavy toll. To supplement these funds, I believe that the Bureau of Indian Affairs and the Federal Aviation Administra-

tion, both of which have been assessed a share of the cost as major users of the system, should be required to transfer their fair share to the IHS as soon as possible. This sum, coupled with a congressional appropriation of $500,000, would greatly accelerate the construction of the Kotzebue system, and it is very likely that building could be completed by fiscal year 1973.

The Sitka Indian village is also in dire need of a congressional appropriation under Public Law 86–121, for the community's present water and sewer system is completely inadequate to satisfy either present or future requirements. Recognizing this situation, the Indian Health Service has determined that Sitka is eligible to receive Federal funds under the IHS's sanitation facilities program. The IHS has estimated that it would cost approximately $100,000 to replace the present system. However, as in the case of Kotzebue, no funds are available in the fiscal year 1971 budget for the Sitka project. Accordingly, I ask this subcommittee to recommend the appropriation of $100,000 to the IHS under Public Law 86–121 so that the replacement of Sitka's present water and sewer system can begin.

The present Sitka situation is difficult to imagine for those who have not been there. In the winter months, large breaks in the system occur on the average of twice a week. If replacement is not begun before next winter, the village community could be exposed to large-scale pollution resulting from another break in the system. Although its attempts have been limited by lack of money, Sikta has done its best to upgrade its own utilities system. However, if further significant improvements are to take place, the Federal Government must give financial assistance. The city of Sitka has promised to cooperate in any way that it can in bringing about the prompt construction of the much needed utility facilities.

IV. THE BUREAU OF LAND MANAGEMENT BUDGET

As you know, the Eskimos, Indians, and Aleuts of Alaska have claimed aboriginal title to large portions of the land mass of the State. To protect these claims and to generate pressure militating toward a resolution of the land claims question, a "land freeze" was imposed on all Federal lands in Alaska. As a result, neither the State nor private individuals have been able to obtain title to lands now held by the Federal Government. Yesterday, the Senate Committee on Interior and Insular Affairs reported legislation that would permanently resolve the land claims issue. Hopefully, the House Interior Committee will soon meet in executive session to formulate its own legislative proposals.

Because of the land freeze, the BLM has not been adjudicating cases relating to Federal land in Alaska. As a result, a tremendous backlog of land use applications now exists. The BLM estimates that there are approximately 1,200 applications now pending in its Alaska offices. These applications are a consequence of the fact that the whole spectrum of Federal land laws has been inoperative in my State for the last 3 years. When the "land freeze" is lifted, a great burden will immediately be imposed on the land offices in Anchorage and Fairbanks. It has been estimated that it will take at least five adjudicators in each of these places to catch up on the current backlog within a reasonable period of time. Presently, as I understand it, there are seven adjudicators in Anchorage, and only one in Fairbanks. Accordingly, I propose that an amount in excess of $100,000 be appropriated to the Bureau of Land Management now, before the land claims are settled. Hopefully, the land claims question will be settled during the present Congress, and I believe that it would we wise for us to meet the problems that will be created by the present backlog before these problems reach critical proportions.

V. BUREAU OF INDIAN AFFAIRS FUNDS FOR A CONVERSION STUDY OF SURPLUS AIR FORCE PROPERTY

The U.S. Air Force has declared the Unalakleet radar station as surplus property. The citizens of the communities of Unalakleet, Stebbins, Shaktoolik, St. Michael, and Koyuk believe that these discarded facilities can be utilized for the benefit of their villages. Community leaders have considered the possibility of converting the present radar station into a health care center, a school, or a hospital. The present facility contains 16 buildings, including a 90-man dormitory, a multipurpose recreation building, a warehouse, storage buildings, a water sup-

ply and sewer system, et cetera. Thus, it would seem that these facilities could be readily converted for any of the purposes that I have outlined above. The General Services Administration and the Bureau of Indian Affairs have endorsed this view and feel that a changeover can be accomplished. Accordingly, I request that $40,000 be appropriated to the Bureau of Indian Affairs for its use in the evaluation of the conversion proposals. The Alaskan Air Command has already granted a 1-year use permit, thus, allowing consideration of all the possible alternatives. Since the present radar installation at Unalakleet is only temporarily winterized, the station must be converted for a new use in the near future, or else it is very likely that disintegration caused by the harsh environment will soon begin.

VI. THE GEOLOGICAL SURVEY'S PRIMARY MINERAL SUPPLY PROGRAM

This program, sometimes known as the heavy metals program, has been shortly curtailed in the fiscal year 1971 budget. On a nationwide basis, $1 million in budget cuts have been recommended. If the present cutback formula is not altered, Alaska will lose $391,000, an amount completely out of proportion to the cuts levied on the other States.

Such a reduction in heavy metals funds earmarked for Alaska would be most unfortunate, for the program has been very successful in my State. During the 3 years of the program's operation in Alaska, investment in heavy metals has increased tenfold, from one-half million to $10 million per year. Much of this increase can be attributed to the Geological Survey's preparation of maps depicting potentially productive strata. If a $391,000 cutback is levied against Alaska, the preparation of these maps will be sharply curtailed. Such a reduction means the suspension of mapping programs in five of the most lucrative gold mining areas of Alaska—Copper River, Livengood, Juneau, Fairbanks, and the Talkeetna Mountain. In addition, marine mapping in Alaska will have to be halted.

I feel very strongly that the disproportionate cutback in Alaska's heavy metal funds, which I just referred to, should not be permitted to take place. For one thing, the heavy metals program represents the only assistance which the Federal Government provides to gold and platinum mining operations. Funds under the program are used to provide preliminary geologic studies without which gold and platinum mining would be virtually impossible. Another important consideration is the amount of private capital which has been attracted to heavy metals mining as a result of the Geological Survey's expenditures under the heavy metals program. Since the inception of the program, the survey has spent an average of $2½ million per year in Alaska. Private developers have spent $2½ of their own capital for every dollar spent by the Government. The discovery of large reserves of oil on Alaska's north slope has heightened the interest in my State's mineral resources. If the Geological Survey continues to prepare land and marine maps, it is very likely that the amount of private capital invested in Alaskan mineral development will significantly increase in the coming years.

For these reasons, I respectfully request this subcommittee to restore a significant amount of the $1 million which has been deleted on a nationwide basis from the Geological Survey's primary mineral supply program.

VII. OFFICE OF COAL RESEARCH FUNDS FOR A FEASIBILITY STUDY OF THE BELUGA FIELD

Last July, the University of Alaska proposed to the Office of Coal Research that a study be conducted to determine the feasibility of mining sub-bituminous coal from the Beluga Field west of Anchorage. This application is fully compatible with the responsibility of the Coal Research Office to fully develop our Nation's coal reserves. The coal reserve in Beluga Field has been reliably estimated at close to 1 billion tons. Once mined, this coal would be competitive with other coal deposits in the Pacific Rim Area and would offer a coke supply with which to develop Alaska's large low-grade iron ore deposits.

The projected 4-year cost of a study to determine the feasibility of mining Beluga Field coal would be about $422,000. First-year expenses would approximate $62,000. This sum is not extremely large in view of the benefits which would accrue to Alaska. and to the Nation from coal development in Alaska. Moreover, the Office of Coal Research has yet to fund a study of this type in my State. Accordingly, I respectfully respect that this subcommittee recommend the appropriation of $62,000 for the Beluga Field feasibility study.

VIII. THE BUREAU OF COMMERCIAL FISHERIES

Because of certain budget restrictions, the Bureau of Commercial Fisheries has been forced to curtail sharply its research activities throughout the United States. As a consequence of the reductions in the BCF's fiscal year 1971 budget, the Bureau has announced that it will terminate the research activities of the motor vessel *Miller Freeman*, which presently operates the Northwest Pacific. It is my belief that Alaska cannot afford to lose the services of the *Miller Freeman*. This vessel is a very large, all-weather ship. As such, she can be used during the winter months in the Bering Sea and Aleutian Islands areas, where it would be exceedingly dangerous for smaller ships to sail. Moreover, because of her size, the *Miller Freeman* is capable of duplicating the salmon- and halibut-fishing efforts of certain Russian trawlers in the North Pacific. The information to be derived from this type of research activity will be very helpful in determining the effects of Russian fishing on the American salmon and halibut industries. At present, four American research vessels operate in the North Pacific area. These ships perform in an efficient manner, but even now they are overworked. To diminish this force by one-fourth would seriously impair our research efforts in the North Pacific region. Accordingly, I recommend that sufficient funds be appropriated to insure that the extremely worthwhile research efforts of the *Miller Freeman* are not terminated.

In this connection, I also ask this subcommittee to give careful consideration to restoring the $66,850 which has been deleted from the Anadromous and Great Lakes Fishery conservation program. This money would primarily be used to study the migration cycle of salmon and the effect of foreign fishing incursions on America's fish population. Both of these matters are of great concern to all Alaskans, for the continuing growth and prosperity of the fishing industry is very important to the economic well-being of my State.

IX. FISH AND WILDLIFE SERVICE FISHERY MANAGEMENT PROGRAM FUNDS

The fiscal year 1971 budget contains a request of $2,209,000 for the fishery management program; $75,000 of this sum has been earmarked for Alaska and will be used to finance a biological field station on Annette Island in southeastern Alaska. I strongly support this worthwhile budget allocation. In addition, I believe that a similar field station should be constructed on the Tyonek Indian Reservation, which is across Cook Inlet from the city of Anchorage. It is estimated that the construction of such a station would cost approximately $150,000. The Tyonek biological field station would be used to develop a nonresident fishing industry on tribal lands. The Tyonek plan is very similar to one which has been implemented on the White Mountain Apache Reservation in Arizona. The Arizona program now brings the Apache people about $1 million per year in tourist fishing revenues. Like the White Mountain plan, the Tyonek field station plan is well conceived. The Tyonek's are prepared to offer an optimal landsite and to provide sufficient manpower.

Moreover, the tribe is also willing to build the campgrounds, motels, restaurants, and the other facilities which are needed to attract tourist fishermen.

As I mentioned, the biological field station is an essential ingredient of the Tyonek development plan. The station's facilities would be used to conduct a field biological study of the waters in and around the Tyonek Reservation. Such a study is necessary before large amounts of capital can be committed to the development of a nonresident fishing industry.

However, the station's facilities could also be used in several other important ways. For one thing, the services of the station could be extended to military installations, to state cooperative programs, and to the nearby national moose refuge. Moreover, the station could be used to study the salmon fishery in Cook Inlet, where the salmon catch has significantly declined in recent years. Since the streams on the Tyonek reservation support populations of pink, coho, Chinook, and sockye salmon, the biological field station on the reservation could contribute a great deal to our understanding of the reasons for the decline in the Cook Inlet salmon population.

For the reasons that I have just mentioned, I respectfully request that $150,000 be appropriated for the establishment of a field station on the Tyonek Reservation. The Division of Fisheries Studies has studied this project and has recommended such a station. In addition, Secretary of the Interior Walter J. Hickel, who visited the Tyonek Reservation not long ago, encouraged the tribe to pursue the establishment of a field station. It now remains for the Congress to consider an appropriation for this worthy project.

CONCLUSION

Madam chairman and distinguished members, I deeply appreciate your affording me the opportunity to speak with you today about some of the budget allocations contained in the administration's budget for fiscal year 1971. Each of the appropriations requests that I have made is of vital importance to large numbers of people in the State of Alaska. My State is at a relatively embryonic stage in its economic and social development. Thus, Federal funds mean more to Alaska than they do to almost any other State.

The $900 million which Alaska received last fall from the sale of North Slope oil leases offers great promise for the future. But, it has caused many problems also. Most unfortunately, many of our colleagues feel that suddenly all of Alaska's problems have become solved. However, it will be many years before this money can be fully utilized. In the meantime, my State continues to be confronted with massive unemployment, inadequate transportation and communications systems, and facilities, the most despicable housing and living conditions in remote Alaska that can be found anywhere under the American flag, a great need to improve and expand our educational system, et cetera. Because almost all of the land in Alaska is owned by the Federal Government, the State has a very small tax base from which to derive much needed revenues.

The economic situation which I have just described has an especially detrimental impact on Alaska's native people, who would receive much of the Federal assistance that I have requested today. Thus, for example, it has been estimated that, of some 7,500 native dwellings in Alaska, 7,100 are substandard and urgently need to be replaced. The situation is equally bleak with respect to native education. The average Alaska native receives less than 8 years of formal schooling. The 1960 census revealed that 21 percent of Alaska's Indians, Eskimos, and Aleuts had no formal schooling, and only 9 percent had completed high school. As a consequence of substandard housing, poor nutrition, contaminated water and sewer facilities, and a host of other problems, the average Alaskan native has a life expectancy of less than 35 years.

I believe that the budget requests that I have made today will go a long way toward alleviating the situation which I have just described. The projects which could be commenced or supplemented with the budget allocations that I have requested would be of substantial benefit to natives and nonnatives alike. As a result, the economic and social progress of my entire State would be greatly accelerated. Therefore, I respectfully ask your careful consideration of each of the funding requests that I have made.

STATEMENT OF HON. JOHN BRADEMAS

INDIANA DUNES

Madam Chairman, the citizens of Indiana's Third Congressional District and conservationists throughout the State of Indiana and the entire Midwest, have a vital interest in the preservation and development of the Indiana Dunes National Lakeshore.

For the last several years we have sought to preserve the natural beauty of Lake Michigan and its shoreline.

Today, I am here to urge you to appropriate the funds needed to make the Indiana Dunes National Lakeshore—a unique natural resource—available for public enjoyment.

Specifically, I wish to discuss the development of the West Beach area of the Indiana Dunes National Lakeshore. West Beach is a 445-acre shoreline area adjacent to Gary, Ind. The West Beach area is only 1 hour from Chicago. Ten million people live within a 100-mile radius of the lakeshore. West Beach is unique in the national park system because of its proximity to a crowded urban area.

The National Park Service has proposed a 5-year development program for West Beach at a total cost of approximately $8.1 million.

$1.3 million is needed to commence the first stage of this development program. Today I urge the members of this subcommittee to appropriate the $1.3 million needed to begin development of the West Beach area.

This $1.3 million is required to provide roads, parking, trails, two bathhouses, picnic sites, utilities, sewage systems, and interpretive facilities. In addition, the money will provide lifeguard stations adequate for patrolling two 100-acre beaches. The facilities provided by this first-year development will make the West Beach area capable of accommodating approximately 1,500 persons per day.

The National Park Service has not requested for fiscal year 1971 the $1.3 million necessary to initiate the first-year development of the West Beach area. Rather, the National Park Service has indicated that it will not budget these funds until fiscal year 1972.

But, Madam Chairman, appropriation of this $1.3 million is needed now so that development, public use, and enjoyment of the West Beach area may begin as soon as possible.

Northern Indiana seriously needs a new breach facility. The resources of the Indiana Dunes State Park, which is the only other public beach in the vicinity, are already stretched beyond their capacity. Unless the West Beach area of the national lakeshore is developed immediately, natural areas of the Dunes State Park may have to be sacrificed to parking and beach facilities in order to accommodate the public desiring to use the Dunes State Park.

Madam Chairman, the Federal Government has purchased several hundred acres of beach shoreline for the specific purpose of conserving for public enjoyment the natural resources of Lake Michigan and its shoreline. By failing to develop the shoreline land which has been secured, the Federal Government delays public enjoyment of these resources and ignores the public purpose for which the land was acquired.

Accordingly, I urge the members of this subcommittee to appropriate $1.3 million so that the development of the West Beach area may proceed as soon as possible.

In addition, the Department of the Interior has requested $4.9 million for land acquisition for the Indiana Dunes National Lakeshore. This sum represents the balance of $27.9 million which was authorized for land acquisition in the legislation creating the lakeshore. I urge that this sum of $4.9 million also be appropriated so that the land acquisition program for the lakeshore may be continued.

Testimony by Senator Walter F. Mondale

INDIAN HEALTH

Madam Chairman, during the course of its existence the Senate Indian Education Subcommittee heard considerable testimony on the serious emotional problems suffered by the American Indian today. The high incidence of suicides and alcoholism is tragic evidence of the seriousness of these problems. The suicide rate among Indian teenagers between 15 and 19 years of age is three times the national average. In some areas the figure is 10 times. In the small northern Minnesota community of Ponsford, there were two teenage suicides and seven attempted suicides in a 10-month period last year.

Data on excessive alcohol usage is just as serious. We have had a report from at least one tribe that almost every male member between 18 and 30 has a serious drinking problem. The subcommittee found that the vast majority of arrests, fines, and prison sentences in the Indian population are alcohol related.

I had the opportunity in October of 1968 to chair an Indian Education Subcommittee hearing at which some of our Nation's leading mental health authorities, including Dr. Karl Menninger, testified in regard to the reasons behind the high statistics I have mentioned.

Dr. Menninger made a point at that hearing which I believe bears repeating. He agreed that suicides were dreadfully tragic incidents. But suicides, he said, were only an alarm signal—"A call for help for the whole tribe." As he stated it in his testimony that day:

"I think what disturbs us most is the recognition that the suicides are an expression of great misery and great disorganization of spirit and of life which comes to our public attention here and there via the suicides. But where one commits suicide, scores are in despair or their talents are being wasted, their lives are oppressed * * *. Suicides are the dramatic aspect of it. The chronic, slow death of a people's spirit is worse."

Dr. Menninger's recognition of the reasons for the suicides, the alcoholism, the school dropouts, have been documented in numerous studies. Working on the Oglala Sioux Reservation, Dr. John Bryde found marked differences in the results of psychological testing of eighth grade Indian and non-Indian students. On 26 of 28 variables studied, Indian students showed greater personality disruption than did the non-Indian control group. The Indian students revealed strong feelings of rejection, depression, and anxiety. They showed strong withdrawal tendencies, as well as tendencies for social-, self-, and emotion-isolation.

Dr. Bryde mentioned as especially significant the widespread feelings of powerlessness and discouragement.

I visited the Navaho Reservation last year and saw for myself some of the conditions which bring on these problems.

I visited Bureau of Indian Affairs boarding schools, for example, where students as young as 5 years of age live in lonely, depressing, impersonal dormitories, separated from their parents. I was told there is usually one staff member caring for over 60 children, and that at times the ratio rises to one staff person for 120 children. What can you expect of such a system than to produce feelings of isolation, loneliness, depression, identity, diffusion, and self-doubt?

Just last week several Indians from Ramah, N. Mex., stopped by my office. They want their own community school because they don't like seeing what is happening to their children when they are sent away to boarding school. One mother told me her son pleads with her to visit him on weekends, but that the distance and cost of staying at a motel make it prohibitive for the family to maintain weekly visits. You can guess how a child will perform in school when he wants to see his parents but is denied the opportunity, and must instead settle for custodial care.

Dr. Daniel J. O'Connell, a Harvard psychiatrist who has served as executive secretary of the National Committee on Indian Health of the Association of American Indian Affairs, told the subcommittee that when a child is taken out of a family in which the parents have a drinking problem, both the child and the parents suffer. According to Dr. O'Connell: "We have, then, taken a family on the verge of disintegration, and pushed it over the brink. The removal of the children removes the motivation to overcome the problem. The impact of the loss of the children only aggravates the emotional problems of which the excess drinking was symptomatic, and we may well have set into motion a downward spiral from which this family may not recover."

One of the bright spots in this field of so much gloom and dispair is the work of the mental health staff of the Indian Health Service. When I visited the Navaho Reservation I was accompanied by several mental health workers, and I saw how they worked with teachers, dormitory workers, and children. I was told they have conducted child-care training programs for the staffs of more than 20 boarding schools, and that their work has resulted in an increased sensitivity of the staff to the needs of the children. Many children who had been thought to be mentally retarded, for example, or who were on the verge of being dropped from school because of behavior are now succeeding academically.

Two key elements to any successful mental health program are a continuing effort to understand Indian life, ideas, and culture, and the participation of Indian people in the programs. I am happy to report I have seen these elements at work in the Indian Health Service's program.

I have met Navaho mental health workers who have been trained to work with Navaho psychiatric patients and their families, as well as to help non-Indians work mor effectively with Navaho children and adults. In the past, Indians in need of psychiatric care were referred to psychiatrists who didn't know a hogan from a hayseed. The psychiatrists were located in off-reservation hospitals, they didn't speak Navaho or understand Navaho customs and were generally frustrated in their attempts to deal with the Indian's problems. The Indians felt equally confused. But now fellow Navahos are working with Navaho patients in State mental hospitals. They can communicate with the patient and his family. As a result they have made it possible for patients who have spent years in institutions to return home and live more independent lives.

This help is the only resource in dealing with the mental health needs of Indians on the reservation. Yet there are so few mental health personnel, they can barely make a dent in the problem. On the entire Navaho reservation—an area the size of the State of West Virginia and the home of some 115,000 Indian people—there are only three mental health workers. Despite conditions just as serious in other areas of the country, including reservations in my own State of Minnesota, there are no such positions on any other reservation.

Starting from scratch 5 years ago, the Indian mental health program has shown tremendous progress. Dr. Emery Johnson, the Director of Indian Health, reported to your committee earlier this month that since 1968 the number of mental-hospital-days on the Navaho Reservation has been reduced 20 percent—this despite the fact many more patients are being treated. The Fort Hall, Idaho, Reservation, which was the scene of an epidemic of suicides 2 years ago, went 18 months without a suicide after the mental health people joined the Fort Hall Tribal Council in establishing a halfway house.

But it has taken those 5 years to determine the kind of help needed and how to give it. What is done is important, but how it is done is more important. Judging from the mental health personnel I have met, I believe they know what to do and how to do it. They are sensitized to Indian culture and traditions, and I think they should be allowed to proceed with the kinds of services they now know how to design. These people are highly trained and competent people, and I fear that if they are not given the resources which they feel are essential to accomplish their task, they will leave the service for jobs where they believe they can be more effective. If that should happen they would not be replaceable. This is a new field, and experience in it is rare. If they are lost, the program will have to start all over.

Recently I asked the Indian Health Service to tell me their plans for increasing the scope of the mental health program. They informed me that an increase of $165,000 was appropriated last year, but that it was lost to them due to administrative action. I understand that this year the proposed budget includes an increase of $218,000 for the overall program and an appropriation of $187,000 for the establishment of a psychiatric ward in the Gallup Hospital.

I have no question about the Gallup Hospital request. The need for psychiatric care as close to the reservation as possible, where Navaho people can assist in identifying patients and seeing that those patients get early treatment, is evident.

But, I believe that, in light of the job which remains to be done, an increase of only $218,000 over last year's budget, hardly allows any significant expansion of the current program. Dr. Johnson testified that an increase of $218,000 would mean an additional 20 positions. Those 20 positions would undoubtedly contribute to solving the problem, but they still wouldn't bring about the significant gains needed to really get at this problem.

Dr. Johnson testified that in order to "make real inroads," an additional million dollars over the present budget request would be needed. I have seen the lonely depressed children of the boarding schools. I have talked to the teachers and friends of teenagers who have committed suicide because they are convinced an Indian has nothing to live for. I have seen what happens to a man's life when he feels alcohol is his only means of maintaining sanity.

I personally believe Dr. Johnson's million-dollar figure is too modest. It may be that under existing limitations, such as the specially qualified personnel needed in this area, no amount of money will purchase both the medical qualifications and cultural sensitivity required in this most delicate situation. But I think it is imperative that those who have been working in Indian mental health continue to do so, and that the Indian Health Service continue to employ Indian personnel to assist the mental health specialists in facilitating communication and understanding between Indians suffering from poor mental health and those health specialists who can help them.

In his remarks several weeks ago, Dr. Johnson indicated that was how additional funds would be used. I don't think we can, with good conscience, do less than provide an increase of $1 million. I urge you, Mr. Chairman, to adopt this change. In the long run it will save dollars which would otherwise be needed for lifelong institutional care. In the short run it will save lives.

APRIL 10, 1970.

HON. WALTER F. MONDALE,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MONDALE: Thank you so much for your letter of April 10.

As you are well aware I have been deeply interested and have provided funds repeatedly for the Indian health program. Unfortunately, budgets are never large enough to take care of them. But, I am sure we can work out an agreement between the House and Senate so that we end up with that amount.

With my warmest personal regards, I am,

Yours most sincerely,

JULIA BUTLER HANSEN.

Testimony of Hon. Alton Lennon, Chairman, Subcommittee on Oceanography of the House Committee on Merchant Marine and Fisheries

various items in the budgets

Madam Chairman, I appreciate the opportunity to express my views before your subcommittee concerning the programs of the Department of the Interior for fiscal year 1971.

In my capacity as chairman of the Subcommittee on Oceanography of the Committee on Merchant Marine and Fisheries, and as ranking member of the Subcommittee on Wildlife and Fisheries Conservation, I am vitally concerned with the development and improvement of the fisheries programs of the United States. As you know, the report of the President's Commission on Marine Science, Engineering, and Resources placed great emphasis on the rehabilitation of U.S. commercial fisheries. I support and stress that goal as a major priority in marine affairs programs.

While a recent announcement by the Department of the Interior indicated that the United States has risen from sixth to fifth place among the world's commercial fisheries, there are few who would deny that the fishing industry of this Nation is still in need of a lot of help.

As pointed out by the Marine Science Commission, the world production of fish rose dramatically in the last 30 years; yet U.S. production during the same period remained essentially level. In addition, it is well-known that U.S. vessels now land only about one-third of the total fish consumed in the United States and harvest less than one-tenth of the production potential available over the U.S. Continental Shelf.

It was, therefore, with some concern that I noted that the budget request for the Bureau of Commercial Fisheries for fiscal year 1971 amounts to $45 million. a reduction of more than $7 million when compared with the budget for fiscal year 1970.

Included in this figure, $1.6 million—or about 20 percent of the cut—had to be applied to the Bureau's research program, causing the laying up of research vessels and closing of facilities throughout the Nation. Savings are to be accomplished from reducing the level of tuna research in California and Miami, and reduction of salmon research in the Northwest. Inland fisheries research will be curtailed for than a quarter of a million dollars, and a critical shellfish genetics program at Milford, Conn., is endangered.

In a moment, I will make some specific recommendations, but I would like, first, to make a generalized plea. I hope that this subcommittee will carefully evaluate the research needs of the Bureau of Commercial Fisheries, not only on the light of Bureau priorities, but in comparison with other national programs as well. It seems to me that while we spend billions on the space program, there must be room for a continuation of research programs which have the potential for immediate return to the Nation at comparatively minor cost. In view of the relatively small amounts involved, I would urge you not to reduce fisheries research below its present levels.

I note in particular that the figure proposed for Federal aid for commercial fisheries research and development is set at $4.04 million. This represents $563,000 less than the amount appropriated for fiscal year 1970, and almost $1 million less than the amount authorized for annual expenditures by section 4(a) of the Commercial Fisheries Research and Development Act. This program provides vital assistance to the States, Puerto Rico, American Samoa, the Virgin Islands, and Guam for research and development, and funds to the fishing industry in the event of a failure due to a resource disaster. In view of the very nature of the program it is of utmost importance to the Nation's commercial fishing industry. I would request, therefore, Madam Chairman, that the full amount of the authorized funds, $5 million, be appropriated to support this activity.

Next, I would like to direct your attention to the fisheries loan program. Our distinguished committee chairman, Edward A. Garmatz, of Maryland, has introduced H.R. 14124 which extends this program for an additional 10 years. H.R. 14124 is one of several bills pending on the subject before the Subcommittee on Fisheries and Wildlife Conservation. The fisheries loan fund was established in 1956. It created a revolving fund from which fishermen might draw to finance or refinance the cost of purchasing, equipping, and operating commercial fishing vessels. The amount of the fund was originally set at $10 million, but later this authorization was increased to $20 million. To date, only $13 million of this

amount has been appropriated. In order to prevent the imminent exhaustion of this revolving fund, the Secretary of the Interior has issued a regulation specifying that no loan be made in excess of $40,000.

Madam Chairman, I believe that if this fund could be increased by the modest amount of $1 million, this restriction would no longer be necessary. I hardly need call to your attention the fact that very little in the way of a fishing vessel can be obtained for $40,000. Accordingly, I request that this subcommittee appropriate an additional $1 million of the remaining $7 million authorization for the revolving fund.

I would next like to mention the fishing vessel construction subsidy program established by the U.S. Fishing Fleet Improvement Act of 1960. As you know, it has long been necessary for the United States to subsidize the construction of its commercial vessels in the foreign trade so that our shipyards might compete on a parity with those of other nations. The need is as acute for fishing vessels. The Improvement Act of 1960 authorized an appropriation of $2.5 million annually to subsidize up to 33⅓ percent of construction cost. In 1964 this program was extended for 5 years and the subsidy increased to one-half the cost of construction, and an annual appropriation of not more than $10 million was authorized.

The proposed budget for fiscal year 1971 indicates funding at the level of $200,000. This figure covers administrative costs associated with processing applications already received. The budget, therefore, anticipates the phasing out of this activity. However, on August 12, 1969, the House passed H.R. 4813 which would extend construction assistance for an additional 2 years and increase the authorization to $20 million per year. The bill would make several improvements in the program and authorize a study to consider how to improve the effectiveness of the U.S. fishing industry.

The Department of the Interior favors the enactment of H.R. 4813, as amended, but would limit the cost of the program to $10 million per year. Because there were subsidy applications pending when this bill was passed by the House totaling $12.5 million, I urge the subcommittee to provide appropriations of the full $20 million to meet the increased demands and to provide for the reconstruction and reconversion provisions of H.R. 4813. I might point out that the bill, if enacted, will provide authorization only for 1970 and 1971. Since there is no appropriation for fiscal 1970, a full year of progress will already have been sacrificed.

Finally, Madam Chairman, I would like to comment on one aspect of the program of the Bureau of Sport Fisheries and Wildlife, which I believe needs added attention. Public Law 86–359, the Study of Migratory Game Fish Act of 1959, which I sponsored, directed the Secretary of the Interior to conduct a comprehensive and continuing study of migratory marine fish of interest to recreational fishermen of the United States. The study included, but was not limited to, research in migrations, identity of stocks, growth rates, mortality rates, variations in survival, environmental influences, and the like. In fiscal year 1970, the appropriation under this act is $964,000. This means that studies concerning billfish, game fish behavior, disease and parasites, estuarine areas, reef sport fish, and pollution effects will only be partially funded.

Included in the proposed fiscal year 1971 is a modest increase of $200,000 for the marine game fish research program. A portion will be used to increase the billfish research program. Another will assist in the implementation of a cooperative big game fish project with Mexico, and continuation of the International Game Fish Association cooperative tagging program. Still another portion will be used for initial funding of the Eastern Gulf Marine Laboratory research which is expected to begin operation in fiscal year 1971. This program will include reseach on game fishes of the Loop Current between the mouth of the Mississippi and the northwest coast of Florida. The Narragansett Marine Game Fish Laboratory will also benefit modestly from this increase.

Madame Chairman, marine game fishing is becoming big business in the United States. In 1965 more than 8 million U.S. fishermen spent 95 million days and $790 million fishing in salt water. This activity justifies our immediate attention to the need for increasing our knowledge of the life cycles and migrations of marine fish. I feel that the research called for by the 1959 act has lagged seriously, and request the subcommittee to appropriate the full amount of $2.7 million authorized.

I thank you for this opportunity to express my views.

STATEMENT OF REPRESENTATIVE PHILIP E. RUPPE

FOREST SERVICE

Mr. Chairman, I wish to address myself to two projects which I feel merit the further consideration of the House Appropriations Interior Subcommittee as it studies the fiscal 1971 appropriations for the Forest Service. Both projects are located in the 11th Congressional District of Michigan, and are therefore of particular interest to me and to the people of my district. Each project has a much larger significance, however, to all people of our Nation who have become aware of the great need to conserve our forest lands and our natural resources. Both projects are quite different in nature and in immediate aims. Together, however, they will provide major advances in our efforts to maintain our beautiful—and necessary—natural forest lands, while increasing the yield of our existing national timber supply.

I speak first of the McCormick Experimental Forest, 17,000 acres of forest land in Northern Michigan. In accordance with the request of the donor, Gordon McCormick, this U.S. Forest Service tract will be operated for research and other connected purposes.

Because of its isolation, lack of access, and the long, undisturbed condition of its plants and animals, the tract offers special opportunities for ecological research. The lands have had few visitors and no logging at all for many decades; the practically unused status of the tract makes it possible to manage its use, without interfering with prior-use patterns.

The lands, which have an old but useable trail system, will also provide an excellent base for research on the growing problems of visitor use of such areas, without damage to the ecology. A number of close-by developed State parks will provide contrast for research on people's perception of, and attitudes toward special recreational resources.

Funds are urgently needed to protect the excellent research possibilities of the tract. We must protect the area from prematurely established visitor patterns and from vandalism. We must make baseline inventories of plants and animals in their presently undisturbed state. Finally, we must prepare a program of research on people's use of back-country areas, seeking to find methods to protect the natural environment while allowing visitors in the area.

As soon as the budget permits, $230,000 will be needed by the Forest Service to fully develop the McCormick Environmental Forest, and to undertake the research that can only be done under the rare conditions offered here. But for now, $100,000 is urgently needed to protect the area and begin the baseline studies. We cannot afford to let the research possibilities of the area be destroyed.

Even as we research methods to better preserve our natural forest land, we must continue to find methods to better use our timber. We must find ways to increase our timber yield, so that we can meet this Nation's need for wood products, while still maintaining our natural forest preserves.

The Nation's pulp and paper industry, for example, is in urgent need of a solution to a bark-chip separation-segregation problem which would make possible chipping of unpeeled pulpwood in the woods. A breakthrough in this problem would result in increased profitable use of small-size and low-quality timber, and less woods waste. Solution of this problem would save the industry more than $65 million a year, while providing more complete utilization of the Nation's timber resources.

The administration's 1971 fiscal budget includes an increase of $96,000 to strengthen a cooperative Forest Service research program with industry to develop a bark-chip separation-segregation process. These funds are not adequate however, to move ahead rapidly on this project by fully utilizing the Forest Service Engineering Laboratory at Houghton, Mich.

Congress appropriated $90,000 in fiscal 1970 for the research on the solution of this problem. These funds were used to employ scientists, purchase related equipment, and to sponsor cooperative research by university students.

In my view this project would have top priority. The experts tell me that with an annual $300,000 total appropriation the experimentation would hopefully have the engineering and technical support necessary to produce meaningful results within a 4-year time frame. Because the Forest Service places such emphasis on this key project they have been able to attract additional support from other sources. With an added appropriation of $162,000 for one more engineer, one more technician, some part-time help and a series of research grants

to universities, an effective engineering systems package could be developed that would solve the difficult bark-chip separation problem. This would yield an economic return to the Nation that would eventually be counted in the hundreds of millions of dollars.

This Nation has finally become aware of the urgent need to better preserve our environment. We must protect our natural surroundings, for their beauty today, and for the use of our children tomorrow. The two projects which I have mentioned, while radically different in approach and in immediate aims, are both steps toward our national environmental goals. The first, the McCormick Experimental Tract, will research the resources of a natural forest area. The second, the Forest Service Engineering Laboratory at Houghton, will help perfect a method by which we can better utilize our timber—so that our forest land will not be wasted.

Mr. Chairman, I urge your support for the suggested appropriations for these much-needed projects.

Statement of Representative Robert H. Mollohan

PROJECT GASOLINE

Madam Chairman, I thank you for this opportunity to appear before you and your committee in support of the continued appropriations for the Project Gasoline pilot plant at Cresap, W. Va.

This plant, operated by Consolidation Coal Co., under contract from the Office of Coal Research, is designed to extract gasoline and natural gas from coal at economically feasible costs.

Madam Chairman, the experimentation being carried on at the Cresap plant is of vital importance, not only to West Virginia and the coal industry, but to the Nation as well.

Already the plant is able to produce gasoline from coal at competitive prices and they tell me they need only 1 more year in which to refine their techniques and obtain more needed information.

I strongly urge the continued operation of Cresap for several reasons.

First, with the country's concern over pollution, the work at Cresap has welcome results. The quality of the gasoline produced is so high that it is not necessary to add lead which causes so much of the pollution attributed to the combustion engine.

Another extract can be made into a low sulfur fuel for use in electrical power boilers. The lower the sulfur content of a fuel, the lower the amount of pollution produced, as I'm sure you are aware.

Second, when you are able to produce gasoline from coal in a land-based plant you do not run the risk of polluting our waters as is now the case with offshore oil-drilling companies off Florida, California, and Louisiana.

Third, being able to produce the products in this country will go far to reducing our balance-of-payments which has plagued this country in recent years.

As you know, this country imports about 20 percent of its crude oil, and provisions are being made to bring in even greater amounts of residual oil to burn in power station boilers. This will displace coal as the chief source of fuel for many of these stations.

I might also add that this country should rely on itself for needed products as much as possible, rather than depend on other countries to fuel our industries and suddenly find that source of fuel dried up due to some external crisis.

Another boon which we can expect from the successful pilot plant at Cresap is the shot in the arm it will give this country's economy.

As the method is proved practical you will see a new industry grow, an industry which will employ hundreds if not thousands of people and pay many thousands of dollars in tax money.

Plant officials also tell me that it will be possible for them to make gasoline at a cost lower than present methods, thus making it available to the consumer at a savings.

Still another important justification for proceeding with the Cresap project is the huge demand for sources of power today, and the faltering need to provide in the quantities needed.

Gas and oil reserves are very quickly decreasing, but the coal reserves are sufficient to keep producing it at the current rate for the next 1,200 years.

The lack of adequate power has been seen in recent months in the form of blackouts and brownouts, and with the hot summer months still before us this problem will become even more acute as America's demand for more and more power increases.

We have arrived at some very substantial reasons for permitting the Cresap plant to continue operation: pollution control, economics, power demands, balance-of-payments, and employment.

For these reasons, Madam Chairman, I strongly urge the committee to approve the $3 million budget requested for Cresap's fiscal 1971 operating budget by the Office of Coal Research.

ROBERT H. MOLLOHAN,
Member of Congress.

STATEMENT OF REPRESENTATIVE WILLIAM D. HATHAWAY

DEAR JULIA: Maine's forests are its most important active resource. 17,400,000 acres, or 87 percent of Maine's land area is timberland.

Forest products rate No. 1 in my State's economy, accounting for $700 million, or 36 percent, of its total manufacturing output annually.

Protection of this valuable resource is therefore a matter of most urgent importance, and protection from the ravages of fire the most urgent of all.

I have, therefore, much interest in the hearings before your committee relating to appropriations for State and private cooperative forestry for fiscal year 1971, and wish to identify myself with the testimony presented on April 16 by Mr. A. R. Shirley in behalf of the National Association of State Foresters.

I especially urge restoration of the $2 million by which the past fiscal year's appropriation for State and private forest fire control item was reduced in this year's administration budget. I also urge the favorable consideration of committee members to full funding of this budget item to be authorized $20 million.

Thanking you for your kind consideration of this important matter, I am
Sincerely,

WILLIAM D. HATHAWAY,
U.S. Congressman.

STATEMENT OF REPRESENTATIVE DAVID N. HENDERSON

DEAR COLLEAGUE: Last year your subcommittee increased the Forest Service appropriation by $2 million, and I hope you will again give serious consideration to increasing this particular appropriation by an equal amount this year.

With kind regards, I am
Sincerely yours,

DAVID N. HENDERSON.

STATEMENT OF HON. ABNER J. MIKVA OF ILLINOIS

Madam Chairman, I want to thank you for giving me the opportunity today to present my remarks before this subcommittee, on a subject which has long been a personal concern of mine—the development and preservation of the Indiana Dunes National Lakeshore. For years, my family and I have enjoyed many happy vacation days at the dunes, and I would hope my children's children will one day enjoy the same treat—a day at the beach only a short drive from Chicago's and Gary's bustling downtowns.

I think it is clear this was the desire shared by Members of Congress who, in 1966, authorized the establishment of the dunes area as a national park. And I believe that to insure that intent and to protect the gains already made in developing the area for public recreation, this subcommittee must once again act with foresight and generosity in appropriating adequate funds for land acquisition and building of new facilities.

The Indiana Dunes National Lakeshore is a unique emerald in the necklace of our national parks. It is easily accessible to the more than 10 million people crowded near its borders—many of them urban residents who have the sorest need of its peaceful atmosphere and rich beauty, as well as the multitude of recreational benefits they can find there.

I urge this subcommittee to once again fund the land acquisition program of the Indiana Dunes National Lakeshore to its fullest authorization—$4.9 million. Land acquisition is now nearly completed for the original park plans,

so my sense of urgency in this request goes beyond a recognition of spiraling land prices. The sooner the lands within the parks' boundaries are fully purchased and the park officially dedicated, the sooner those of us who love the dunes can rest easier from the environmental and industrial encroachments which have continually threatened this magnificent project.

Beyond the land acquisition funds, however, I urge the subcommittee to reconsider the administration request to postpone the beginning of the 5-year development plan for the public beach areas until fiscal year 1972, and appropriate in the coming fiscal year initial funds to get this part of the dunes project off the ground.

The nationalization of the Indiana Dunes Lakeshore is so important to the health and spiritual and physical freedom of the children (and their parents) of the Chicago-Gary area, I cannot help but feel "the sooner the better" we get it accomplished and established. I hope this subcommittee will agree with me and give its wholehearted support to the immediate funding for development of the Indiana dunes.

STATEMENT OF REPRESENTATIVE EMANUEL CELLER

ANN ARBOR LABORATORY

DEAR MADAM CHAIRMAN: This letter is to urge support, within the constraints of the budget, for optimum funding of the Great Lakes Laboratory of the Bureau of Commercial Fisheries, U.S. Fish and Wildlife Service at Ann Arbor, Mich.

It is understood that the staff of the Great Lakes Laboratory has already been cut by a 20- to 25-percent amount due to fiscal year 1970 funds put in reserve by the Bureau of the Budget. It is also understood that additional cuts are contemplated for fiscal year 1971, with a reduction in permanent staff from 36 to 21.

We are told that, because of shifting emphasis, the Laboratory is to be transferred from the Bureau of Commercial Fisheries to the Bureau of Sport Fisheries and Wildlife. Concern has been registered that, with the transfer, there will not be adequate funding to continue and strengthen programs having a major thrust in environmental quality and natural resource management. Thus, it is urged that all appropriate consideration be given to support the Bureau of Sport Fisheries and Wildlife to cover increased costs of the proposed administrative changeover or, in the alternative, that the equivalent funds be transferred from the Bureau of Commercial Fisheries to sustain and strengthen the Laboratory's programs.

Yours very truly,

EMANUEL CELLER,
Chairman.

TESTIMONY OF CONGRESSMAN FRANK HORTON, ANN ARBOR LABORATORY

Mr. Chairman, I am pleased to have this opportunity to express my views about the fine work of the Bureau of Commercial Fisheries Biological Research Laboratory based at Ann Arbor, Mich.

I would like to persuade the committee not to cut any funds from this valuable program. At this time when the entire country is becoming so aware of the vital importance of abating pollution, the proposed transfer of this laboratory to the Bureau of Sports Fisheries is unthinkable to me.

In the process of transferring responsibility, I feel it is the Department of Interior's intent to reduce appropriations and personnel to such an extent that for all practical purposes, the Laboratory will no longer exist.

This Laboratory has a long and proud history over the 40 years of its existence. It has produced over 400 publications contributing to understanding and wise management of fishery matters in the Great Lakes. In the last 2 years, the Laboratory has published 75 papers—all dealing with the vital aspects of fishery science.

By examining some of the Laboratory's major programs and accomplishments, the significance of the Laboratory's work becomes evident.

1. The Biological Research Laboratory was aware and studying the problem of pollution of the Great Lakes as far back as 1932.

2. In 1956, the Laboratory uncovered the pollution of Lake Erie, when no one else would believe it.

3. The Ann Arbor Laboratory investigated pesticide pollution in the Great Lakes. They predicted and published information 4 years before the Food and Drug Administration that Coho salmon were contaminated by DDT and unfit for human consumption.

4. Perhaps the Laboratory's most publicized feat was the ongoing sea lamprey control program started in 1946. The lamprey had almost devastated lake trout resulting in an annual loss of several million dollars. Lake trout had disappeared from Lakes Huron and Michigan and were on the way out in other lakes. The Laboratory tested over 10,000 chemicals to find one that would specifically kill the lamprey larvae and no other life. This program was so successful that the lake trout population is as high as it was in the days prior to lamprey infestation.

5. The Laboratory evaluates the entire multiagency replanting program of lake trout, especially in Lake Superior. Halting this program could eliminate information so vital for wise management.

6. The laboratory has conducted studies of species succession and fishery exploitation in the Great Lakes. They have performed detailed studies on the alewife, a serious competitor to desirable game and commercial fish and an occasional nuisance. These studies, of course, are fundamental to the efficient management of the Great Lakes Fisheries.

7. Studies on ecology and management of walleye in western Lake Erie has also been conducted. These studies now form the basis for the appropriate portions of the Great Lakes Fishery Commission program.

Mr. Chairman, this brief summary illustrates the valuable economic contributions that this Laboratory has made in the past. The current high productivity rate of the Laboratory argues the fact that the Laboratory's future contributions will be of even greater value and significance.

I urge the Appropriations Committee to fully consider that such a laboratory cannot be found in any other place in the world. With this in mind and the vast contributions of the Laboratory, it is unlikely that justification can be found to cut this program.

STATEMENT OF REPRESENTATIVE ROGER H. ZION

Madam Chairman, I am again writing to express my deep interest in the future of the Middle Fork Watershed Conservancy District, located in the heart of my own congressional district. This unique district contains four lakes which are being developed as recreational lakes under a cooperative arrangement by the Soil Conservation Service, the U.S. Forest Service, and the local conservancy district. A great deal of national attention has been focused on this intergovernmental cooperation which has meant so much to the development of this area.

Much remains to be done and thus my letter to your honorable subcommittee, which I understand will commence fiscal 1971 appropriation hearings on March 24. Sums from the forest roads and trails fund and the recreation and water resource development fund will be needed in the next fiscal year to move this project toward completion.

Although the above four lakes have now been completed, there is still no public access to beautiful Celina Lake, the groundbreaking ceremony for which I was privileged to attend in July of 1968. All that is needed for the development of a public road to this structure would be an appropriation of $129,000 from the forest roads and trails funds, earmarked for this purpose to the Middle Fork Watershed Conservancy District. I would respectfully request your subcommittee to make this sum available for this purpose.

Another of these lakes, Tipsaw Lake, is further along in development, having a completed beach and access roads. However, here there is no bathhouse, concession stand, water or sewage system. These items will have to be supplied before this lake can be opened for public use and its recreational potential utilized. Officials of the conservancy district advise me that this work could be accomplished for an appropriation of $437,000 from the recreation and water resource development fund.

These recreational lakes have been completed these past few years at great expense to the taxpayer. It would seem to me to be a poor investment of the

public's money to deny the means of moving these projects to completion. Only a relatively small amount of money is needed to make these lakes available for public use.

I would sincerely appreciate any consideration of my request for the above two funding items. Please include my letter in the record of hearings for your subcommittee.

STATEMENT OF REPRESENTATIVE WILLIAM H. HARSHA

FOREST SERVICE

Madam Chairman, I am writing in support of increased appropriations for the U.S. Forest Service for State and private cooperative forestry programs.

It has been brought to my attention that the President's budget request for this program is $2 million less than the appropriation approved by the Congress for fiscal year 1970, and $5.6 million below the amount authorized for U.S. Forest Service Cooperative State and Private Forest Fire Control. I feel that there are compelling reasons to fund this program at least to the level of fiscal year 1970, if not above this level. These reasons are outlined very well in a letter which I have received from the Ohio Division of Forestry and Reclamation and, therefore, I am enclosing a copy of this letter for your information.

I would greatly appreciate your assistance in making this increase.

STATE OF OHIO,
DEPARTMENT OF NATURAL RESOURCES,
DIVISION OF FORESTRY AND RECLAMATION,
Columbus, Ohio, April 10, 1970.

Hon. WILLIAM H. HARSHA,
House of Representatives,
Cannon House Office Building, Washington, D.C.

DEAR CONGRESSMAN HARSHA: The Subcommittee on Interior and Related Agencies of the House Appropriations Committee, at its April 16, 1970, meeting will hear testimony concerning appropriations to the U.S. Forest Service for State and Private Cooperative Forestry Programs. The division of forestry and reclamation in the Ohio Department of Natural Resources shares in these appropriations through fund matching programs with the Forest Service in order to carry out a meaningful and beneficial forestry program in Ohio.

We are particularly concerned about the appropriation item in the administration budget request for U.S. Forest Service Cooperative State and Private Forest Fire Control—section 2, Clarke-McNary Act—of $14,396,000. This is $2 million less than the appropriation which Congress approved for fiscal year 1970.

We respectfully request assistance, not only to restore the $2 million reduction, but to increase this item to the maximum $20 million as authorized by Public Law 392 (81st Cong.) under section 2 of the Clarke-McNary Act.

This requested increase of Federal funds is based on existing conditions common to all States, including Ohio. Some are as follows:

1. Personnel, equipment, operational and maintenance costs continue to escalate—increases are needed in maintaining the same level of services, to say nothing of improvements needed.

2. Many States, including Ohio do not have an adequate forest fire protection program. More than two and a half million acres of forest lands in this State are without any organized protection.

3. State and private funds available for forest protection in the United States have increased from $63,778,950 in 1965 to $84,618,871 in 1969, a 33 percent increase. The Federal appropriation in 1965 was $11,848,002 and in 1969, $14,396,000—an increase of only 22 percent. The total 1969 funds for forest protection was $99,014,871; State, county, and private—$84,618,871, and Federal—$14,396,000; or 85 percent State and 15 Federal. The Clarke-McNary CM-2 law was based on a 50–50 sharing arrangement. Ohio annually overqualifies for the limited Federal money available for sharing.

4. Almost daily, ecologists, preservationists, and conservationists are reminding the public of the many local and national environmental problems. They include forested areas in which they state everyone has an interest. Too, they state that most forest areas should be enjoyed by the masses to some degree.

5. Trees and forests play a primary role in the environment. A tree is an almost perfect ecological system. Trees—a producer of oxygen, a purifier of polluted air, trees take in carbon dioxide gas and monoxide gas and give off oxygen; act as a filter for our water supply; and nature's best soil stabilizer and conserver of water, through its network of roots and leaf functions.

Many miles of shelter belt and windbreaks planted in northwest and central Ohio have improved rural esthetics, lowered heating costs, and increased livestock productivity. Bird and wildlife population were increased and major environmental improvements made.

6. Trees are basic to most outdoor recreation.

7. The forest provides cover and food for wildlife and controls water temperature for many species of fish.

8. A burned-over woodland gives a rapid water runoff, causing flooding, silting, mud slides, and other problems.

9. Forest fire protection is basic to the continued flow of forest raw material for housing needs and the more than 5,000 items made from wood.

The Federal Government in its proposed environmental programs has to the best of our knowledge, completely omitted forests, and forest lands as being important. The forests are basic to many phases of environmental quality.

I urge you to assist in this omission and help Ohio and the 49 States in providing a meaningful forest fire prevention and protection program for all forest lands. A positive approach could be increasing forest protection funds to the full $20 million authorized.

Many national and sectional forestry and related organizations are on record supporting this level of funding. Some are: American Forestry Association, American Pulpwood Association, Western Forestry and Conservation Association, Forest Farmers Association, Soil and Water Conservation District Supervisors Association, professional groups, and others.

I urge your support of other items in the U.S. Forest Service budget for State and private cooperative programs for 1971, as they will all directly benefit Ohio programs:

Tree planting, $313,000; forest management and processing, $4,950,000; and general forestry assistance, $2,207,000.

These increases are based on the ever-increasing need for more forest resources for the years ahead, and make it imperative that we accelerate programs to encourage increased forest growth and better land use. The tree genetic program is of prime importance in meeting this goal. Going programs on tree genetics need assistance and encouragemnet to pursue a basic program. Results already obtained from genetics have increased tree growth 20 to 50 percent above average, plus other superior traits in the trees.

Technical forest assistance is needed to advise and assist the owners of small forests in Ohio. Only a small percent of these owners receive assistance from present sources. However, they account for more than 90 percent of the timber harvested annually in Ohio. Forest assistance will encourage owners to adopt production and harvesting methods to meet the present and future wood products for housing, and the many other demands for forest products. We support the programs and plans of the U.S. Forest Service that have been proposed to help meet present and future demands for forest products.

Favorable consideration for the increase in forest research funds to accelerate forest surveys would also be most helpful. A forest survey is basic to planning for future timber and other forest needs and changing land-use patterns. It provides the forest inventory data needed for formulation of a sound forest policy by State agencies and forest industry.

Your assistance in conveying our interest in this budgetary matter to the chairmen and members of the respective legislation appropriation subcommittees, will be most appreciated.

Sincerely,

ERNEST J. GEBHART,
Chief, Division of Forestry & Reclamation.

STATEMENT OF REPRESENTATIVE GUY VANDER JAGT

Madam Chairman, I would appreciate it very much if the record would show my agreement with the statements presented to the Subcommittee on Interior and Related Agencies concerning the Clarke-McNary allotment to the States, and in particular, the need for these funds for fire control work in the State of Michigan.

Thank you so very much.

STATEMENT OF REPRESENTATIVE JOHN C. WATTS

RESEARCH PROJECT BEREA, KENTUCKY

Madam Chairman, I am very pleased to have this opportunity to wholeheartedly recommend that this subcommittee appropriate an additional $250,000 for the reclamation research project of the U.S. Forest Service at Berea, Ky.

This project has been producing excellent research results on surface-mine reclamation since it was established in 1962. However, there is urgent need that it be expanded.

The value of coal to the local and State economy as well as the Nation cannot be overemphasized. Never before in our history has coal been so important in helping meet our Nation's electrical power needs. Nevertheless, more effective methods of reclamation must be found soon, otherwise, surface mining in the mountainous sections of Kentucky and other Appalachian States may cause serious ecological consequences. This situation exists because the currently used contour strip mining method creates critical problems in protecting the forest environment. Overburden from the stripping may slide or erode causing pollution of nearby streams by sediment, acids, and other toxic substances. Such disturbance and pollution not only upsets the natural ecology of the environment, but are aesthetically unattractive.

While the coal industry and the State Reclamation Division are doing an increasingly better job of protecting and maintaining the land resources during and after mining, there still remains a severe need for more advanced research support, especially in the handling of spoil materials and in water control methods.

Concern for this problem was expressed at the 26th Annual Convention of Soil and Water Conservation Districts Association in an approved committee report which stated: "districts solicit Federal funds for reclamation of spoil banks or strip mining areas to control erosion, prevent stream pollution and sedimentation and offsite property damage."

I am personally happy to make my recommendation to this committee on behalf of this association and the 80,000 cooperators of Kentucky's 121 soil and water conservation districts.

The request that $250,000 be added to the Forest Services appropriations to strengthen the surface mine reclamation research at Berea, Ky., is also wholeheartedly backed by the Kentucky Coal Association, the Kentucky Farm Bureau Federation, and the Department of Natural Resources of the Commonwealth of Kentucky.

With such broad-based support, coupled with our Nation's general concern for the total environment, I sincerely hope that the committee will approve an additional $250,000 in order that the research at Berea which has been extremely helpful to Kentucky, other Eastern States and the mining industry, may continue to develop vitally needed knowledge. I have been advised the research program seriously needs strengthening in the fields of hydrology and engineering to effectively solve the difficult problems of mining especially on the steep slopes of eastern Kentucky.

Positive action taken by this committee today can help solve surface mining reclamation problems in Kentucky as well as other Eastern States and reaffirm our Nation's policy to not jeopardize our environment while utilizing our natural resources.

WITNESS

FRED W. SIELING, VICE PRESIDENT OF THE NATIONAL SHELLFISHERIES ASSOCIATION

Mrs. Hansen. Mr. Fred W. Sieling, Chief of the National Resources Management.

Mr. Sieling. Thank you, Congresswoman, ladies, and gentlemen.

Actually, as my statement says, I am not representing the State of Maryland today officially. Mr. Manning, our director, will probably write you a letter to that effect. He happens to be away on vacation at this time. I am vice president of the National Shellfisheries Association and am representing that group.

The National Shellfisheries Association is an organization of scientists primarily interested in the shellfish industry. The organization is comprised of over 300 members almost all of whom are professional biologists vitally interested in the future of the U.S. fishing industry. The directors of this organization have asked me to present our protest against the extreme budgetary cuts made in the Bureau of Commercial Fisheries budget proposed for fiscal 1971.

My personal position is that of chief of Natural Resources Management for the Fish and Wildlife Administration of Maryland. Maryland is particularly concerned about these deletions from the budget request of the BCF because we are the largest producers of oysters and soft clams in the country and many of our management decisions are based directly on research results obtained from the various BCF laboratories in the United States. We have had extremely close cooperation with these laboratories and their personnel and have benefited greatly from their efforts in obtaining basic information needed for proper management of our natural resources. Any limitation of the present service which we receive will be very noticeably felt by Maryland.

The National Shellfisheries Association, which has members from all coastal States in the United States, believes that curtailment of present work being done by the BCF laboratories and research ships is of utmost importance in understanding and implementing proper management of our estuarine and marine natural resources. Commercial mollusk fisheries are located along the U.S. coast from Maine to Florida to Mexico and along the entire west coast. These various commercial fisheries are located in both inshore and offshore waters. Their dockside value to the United States is, according to the latest published returns; that is, 1968, $471.5 million. This, translated into finished products for consumption, would be multiplied many times. Most of this money goes into areas of the country where few other sources of income are available. These areas are isolated and the population is dependent on fisheries landings and the products manufactured from the catch for their livelihood.

The BFC has worked over many years developing new fisheries and species not formerly utilized and in developing new and better methods of catching these species. Not all research done by BFC is in laboratory. Much of it is of a very practical nature which improves the income and, therefore, the lives of many people who otherwise would be in dire financial straits. For example, in Maryland alone 9,000 people are directly engaged in earning most of their income from one or another form of fishery. According to the latest figures, 225,000 people are directly employed in the fishing industry in the United States. This does not include such corollary activities as trucking, manufacture of containers, and other necessary adjuncts to the industry.

The scientific community regrets greatly the cutting back of funds of the BCF because it has been a leader in shellfish research in this country since the turn of the century. Any attempts to list only the more important research projects successfully completed by the BCF would entail much more time than could possibly be allowed in a hearing of this type. Suffice it to say that the major advances, in shellfish research particularly, have come from the BCF. Our organization, NSA, has worked closely with the industry and has met jointly with the Oyster Growers & Dealers of North America and the Oyster Institute for 62 years. This association of scientists, many of them employees of the BCF and its predecessor agencies, have worked together in close harmony to the extreme benefit of the industry. It is believed that any curtailment of these activities will be detrimental to the shellfish industry particularly and to the other fishery interests in general.

The problems which are arising now because of growing population, a shortage of good protein food sources, and the problems caused by many areas being polluted and unusable enhances the urgent need for continued research in methods of better growing and harvesting as wll as processing of seafood products. We must look in the future toward this source of protein as land area become more populated and animal protein produced on land more scarce.

The amount of the reduction in fiscal year 1971, about $12 million, although a very small item in the national budget, is a large item in the comparatively small governmental allotment for fisheries research and development. There must be areas in the budget where if cuts are needed this urgently, the impact on the lives of so many people engaged in earning their livelihood through independent hard work would not be affected. Another matter of concern is the change in direction of some of the BCF policies toward shellfish research.

Many very productive scientists now employed by the BCF will be forced into other areas of research where their influence and knowledge will not be utilized to the fullest in the interest of our national fisheries program. Other nations have huge fleets of fishing vessels working off all our coasts including many research ships. The United States has lost respect among the nations of the world by its small program of research in our vitally important coastal areas. Continued research in this coastal area is essential to national well-being.

Mrs. HANSEN. Thank you so much for an excellent statement.

Mr. SIELING. Thank you. We in Maryland are very concerned.

Mrs. HANSEN. I know of your deep interest in the entire fishing industry.

How many skipjack boats are still in operation?

Mr. SIELING. There are still 52 licensed and we are working them at the present time moving seed oysters as part of our oyster repletion program. We are moving seed oysters this year and we will probably move close to a million bushels of seed oysters. In addition, we plant shells for catching the young produced by the seed oysters. About 6 million bushels of shell a year are placed on the spawning grounds. This is not funded by the Federal budget, this is a State program.

Mrs. HANSEN. How much does the State of Maryland spend on fishery programs per year?

Mr. SIELING. My budget for this division this year is $1,800,000. This is for finfish, shellfish, and the allied activities of management, planting shells, moving seed oysters, the salaries of the personnel and the fieldworkers.

Mrs. HANSEN. Thank you so much.

Mr. SIELING. Thank you.

BUREAU OF COMMERCIAL FISHERIES

WITNESS

ROBERT D. NORDSTROM, DIRECTOR, FISHERY PRODUCTS PROGRAM

Mrs. HANSEN. Mr. Robert Nordstrom of the National Canners Association.

Please insert your statement in the record and summarize it for us.

Mr. NORDSTROM. We have a sort of bureaucracy of our own within industry and I have to check out my statements with our members and am in the process of doing that and hope to have a statement to your committee later to include in the record.

I briefly wanted to say the industry is very concerned. They received your letter and a great deal of talk and discussion has taken place on this budget constraint in meetings throughout the country. We did a breakdown in Washington of the budget for some of the people in the field. This culminated in another meeting last week by people representing various segments of fishing industry around the country. The indication is that the concern is widespread that even though the fiscal 1971 budget is in the process of having action taken on it, they feel they have to do something toward preventing what is happening now from happening in the future.

We have some tentative plans for an industry wide meeting coming up later in the year, possibly in June, of leaders in industry who will take a look at Government in fisheries and industry's involvement with Government in the area of fisheries. Although this meeting won't be able to affect this budget, it will start industry, for once, toward a unified or at least a less fragmented position toward fisheries and fisheries budgeting.

I did want to bring that to your attention today. We do hope to have a statement submitted to you.

Mrs. HANSEN. Thank you.

This committee is deeply concerned because the cuts in the field of commercial fisheries were so extreme.

Mr. NORDSTROM. It is this million and a half dollars for management and investigation of resources that is the most troublesome to the industry. They can understand cutting construction budgets. If you don't have anything to build obviously you do not ask for more money. The other large cut being in the subsidy program, that has not been extended as of yet by the Congress, and as a result we can understand why they would not request $3 million for that. But this one and a half million just to cut it out instead of redirecting it to areas where they have been waiting to start programs—this is what hurts.

Mrs. HANSEN. Thank you so much.

Mr. NORDSTROM. Thank you.

BUREAU OF COMMERCIAL FISHERIES

WITNESS

J. STEELE CULBERTSON, DIRECTOR, NATIONAL FISH MEAL & OIL ASSOCIATION

Mrs. HANSEN. Mr. Culbertson from the National Fish Meal & Oil Association.

Mr. CULBERTSON. Thank you, Madam Chairman. It is always a pleasure to appear before your committee. Most of the funds that have been appropriated for the industry fisheries have come as a result of add-ons before your committee.

Mrs. HANSEN. We have had to use that method because funds were not included in the budget.

Mr. CULBERTSON. That is because we started behind. We are still trying to catch up. I have a letter that I wrote outlining some of our thoughts in connection with some of the thoughts you had expressed.

Mrs. HANSEN. We would be pleased to have it.

Mr. CULBERTSON. Dear Madam Chairman, your recent letter outlining the cuts that have been made in the 1970 budget for the Bureau of Commercial Fisheries is most timely and to the point. Members of our segment of the domestic fishing industry, the largest in terms of production, fully agree with your appraisal about the negative attitude of the Bureau of the Budget concerning the value and needs of the domestic fishing industry.

I have personally been associated with the commercial fishing industry in the Pacific Northwest and in the Atlantic and gulf for almost 40 years, and know of no other time when so many segments of our domestic fishing industry have been in the serious difficulty they are in today, or more in need of Government leadership and assistance. It is only necessary to examine the catch data and employment records of recent years for some of these fisheries that formerly provided significant contribution to our domestic fishing industry to realize what I mean.

What is needed most, not only by those segments that are in serious difficulty, but by our entire fishing industry, is for the President, through the agencies of Government that are charged with the responsibility of maintaining our fishery resources and fishing industry to declare that our Government will provide the leadership, programs, and funds that are needed to move our fishing industry forward and see that it keeps in step with the growth and prosperity of this country.

If this attitude were taken by the administration and proposed programs to accomplish this purpose presented, I feel sure they would receive the support they need for approval by the Congress.

On the other hand, to suggest reducing present programs and expenditures for the study, development, and maintenance of the domestic fishing industry seems equivalent to serving notice to the thousands of people engaged in this industry, and whose livelihood depends upon it, that they do not have the full support and interest of their Government. This is not to suggest that some of the present programs do not need to be realined.

Attached is copy of a graph that I prepared in 1950 and presented before members of the House Committee on Merchant Marine and Fisheries at hearings held in Juneau, Alaska. The purpose of this graph then was for showing a comparison of the funds provided by our Government for the study and management of the fisheries of Alaska, with the funds provided by Canada for the fisheries of British Columbia. For an area and fishery that was approximately one-third in size with Alaska, Canada was providing almost 2½ times as much funds. While this was years ago, our funding level has never equaled theirs.

My main purpose in showing you this graph here today, however, is to call attention to the cut that was made in the Alaska appropriation in 1933. Similar cuts were imposed on Bureau activities in the States. You will see that it was not until 1942, 10 years later, that the funds were back up to the 1932 level. In the meantime, with reduced management and research personnel which had never been adequate, the fishery resources, the fisheries themselves, and the people engaged in them all suffered. In fact, it was due to the inadequacy of these programs and the complaints raised that President Roosevelt, by Executive order, in 1940 took the Bureau of Fisheries from the Department of Commerce and consolidated it with the Bureau of Biological Survey to form the Fish and Wildlife Service, which was then placed in the Department of Interior.

It was not until 16 years later with the passage of the Fish and Wildlife Act of 1956 that the Bureau of Commercial Fisheries again received its identity and the potential for serving the commercial fishing industry in relation to its needs and importance.

The Bureau still has a long way to go if it is to serve all segments of the domestic fishing industry. I cannot emphasize too strongly how much it (the Bureau) and most segments of the domestic fishing industry need your support and that of the members of your committee and your colleagues in Congress in seeing to it that our fishing industry does not suffer any further reverses such as I have described that commenced with a cut in the budget of the Bureau in 1933. If we do, we may never recover.

Specific recommendations of the National Fish Meal & Oil Association are attached.

Thank you.

(Additional information follows:)

RECOMMENDATIONS OF THE NATIONAL FISH MEAL & OIL ASSOCIATION TO THE SUBCOMMITTEE ON INTERIOR APPROPRIATIONS

In the past 20 to 25 years, our segment of the fishing industry, which is engaged in fishing for species for use in the manufacture of fish meal and oil, has depended almost entirely upon menhaden as the source of raw material for this purpose.

The menhaden resource and fishery extends from the southern New England States to Texas and, on a volume basis, has accounted for 35 to 43 percent of the total U.S. catch and landings. It has provided employment for almost 3,000 fishermen aboard the 200 large and 400 small fishing vessels it operates. It has provided direct employment ashore for approximately half this number.

The menhaden resource and fishery in the gulf, which last year produced over 1.1 billion pounds, is in a healthy state, while the Atlantic menhaden fishery is in a serious state of cyclic decline. Prior to 1965 the Atlantic fishery had an annual production of approximately a billion pounds, but in recent years has declined to about one-fourth this amount, and most likely will not improve for the next several years. In the meantime, unless some of the unutilized species can be developed and harvested, this large fishery as we have known it for years will not be able to survive. Under such conditions I am not sure what would happen to the small fishing communities which have been largely dependent upon this fishery.

Preliminary surveys have indicated large populations of other species that could be utilized for this purpose, including sea herring which the Russian fleets have been harvesting in large volume the past 2 years.

Recommendations

In order to assist the menhaden industry in locating these alternate species and in the development of efficient gear and fishing techniques, including the charter and conversion of vessels, we recommend that a minimum of $500,000 be made available for this purpose. We consider this an emergency situation, and we were most anxious that the budget for 1971 would include an increase of funds for this purpose. It did not.

The seriousness of this situation is well known by most members of the Fisheries Subcommittee of the House Merchant Marine and Fisheries Committee. Chairman Garmatz of the full committee, Chairman Dingell of the subcommittee, and Congressmen Downing and Lennon, committee members, have shown their concern by joining together in introducing H.R. 16603 to authorize a $3 million exploratory fishing program for these industrial species, to be carried out over a 3-year period. Copy of the bill is attached.

FISHING VESSEL IMPROVEMENT ACT

The Fishing Vessel Improvement Act has expired, and only a very small amount of funds remains. In the first session of the 91st Congress, the House passed H.R. 4813 to amend and extend this act and to authorize the appropriation of $20 million per year for a period of 2 years.

Also included in the House-passed bill was an amendment to extend the subsidy provision of the act to include the remodeling and conversion of existing vessels, which we suggested. We are still hopeful the Senate will act favorably on this legislation this session.

Recommendation

That your committee appropriate the $20 million called for by this program in the event it becomes law.

Respectfully submitted,

NATIONAL FISH MEAL & OIL ASSOCIATION.

Mrs. HANSEN. Thank you very much.

Bureau of Commercial Fisheries

WITNESS

WALT YOUNKER, EXECUTIVE VICE PRESIDENT

Mrs. Hansen. Mr. Walt Younker, Executive Vice President, Association of Pacific Fisheries, Seattle, Wash.

Mr. Younker. I would like to present a prepared statement later if the record is open. I represent the Association of Pacific Fisheries, which is a trade association of the salmon industry that represents packers that produce about 85 percent of the American canned salmon production.

We are very appreciative of this opportunity to appear before you and your committee this morning and express our concern really in three areas that seem vital to us in assuring a successful American salmon fishery that we are at present very concerned with. The first and most obvious is the approximately 14-percent cut that has been made in the budget of the Bureau of Commercial Fisheries. Our fishery is tremendously vulnerable to any decrease in the moneys available for biological research with the resulting loss of continous and comparative data. We have a product, as you know, which is an inshore protected and a managed fishery by fishermen and processors and now subject to high seas fisheries by foreign nationals. If we do not understand and quantify the effects of this fishery completely, and with this data strive for high seas conservation, the alternative of course is the loss of our entire production. I could point out the economic seriousness of this in terms to the State of Alaska where the fishing industry is the largest employer and taxpayer in Alaska. So anything that affects this fishery affects all of Alaska as well as fishermen of other States.

We had a good demonstration of this last week when the Koreans apparently were going to enter the fishery which would have jeopardized our international agreements with Japan and Canada and would be most destructive to our conservation efforts. We think the full funding of the Bureau is absolutely vital. We have no research organization that will take its place in terms of knowledge that we need to carry out properly managed fisheries. We also feel that a cut in budget such as the Bureau has had is a very demoralizing thing to a very fine professional organization. Dedicated and experienced fishery scientists and their findings are going to be lost to the detriment of the resource.

We also need these research programs of the Federal Government so that the State governments have the proper knowledge to manage the fisheries in the State areas. This I think is absolutely vital.

Another area that bothers us considerably is the difficulty we have in understanding the Bureau of Commercial Fisheries budgets prior to their implementation. We feel that the industry has a very small input into these budgets and programs before they become a matter of fact. We understand the budgeting procedures and that figures cannot be available to the industry prior to the President's announcement

of the budget, but we are concerned about the basic programs. We are having difficulty, we feel, in reaching the Bureau and understanding their programs prior to their implementation. I think the final area that bothers us considerably is the apparent lack of fishery policy on the part of the administration. We have listened to Agnew's five-point marine program in which I did not pick up any particular reference to food from the sea at all. We have oil in the sea and minerals in the sea but no food in the sea. This attitude, I am sure, is reflected in the budget reduction we have seen. This is a very disturbing thing to me and it is something that I hope we can find some mechanism to have the administration take note of this problem and make the commercial fisheries of the United States a continuing and important part of our economy and food program of the country.

That is all I have.

Mrs. HANSEN. Do you have any idea what the total amount of employment in the fishing industry is in Alaska?

Mr. YOUNKER. 18,000 people are employed in the fishing industry in Alaska.

Mrs. HANSEN. What is the average income?

Mr. YOUNKER. I do not know.

The salmon industry product is worth $125 million. That is the canned salmon industry.

Mr. WYATT. Madam Chairman, before Mr. Younker goes, I welcome him as an effective and able spokesman for his industry.

BUREAU OF COMMERCIAL FISHERIES

TUESDAY, APRIL 14, 1970.

WITNESS

TED BUGAS, SECRETARY FOR COLUMBIA RIVER SALMON & TUNA PACKERS ASSOCIATION

Mrs. HANSEN. Mr. Bugas, the Secretary for the Columbia River Salmon & Tuna Packers Association from Astoria, Oreg.

Mr. BUGAS. Madam Chairman, I am very grateful to you and the members of the committee for the opportunity to appear before you and express our segment of the fisheries industry's concern relative to the drastic way in which the commercial industry has not only been ignored but has been maltreated and actually we feel punished by some recent activities, in the cut and impoundment of funds by the Bureau of the Budget.

Also, the point that Mr. Younker alluded to, the failure to talk about food from the sea on behalf of our Vice President. My organization, just by way of explanation and for the record, and I find myself in about the same position as Mr. Younker, I would like to submit a statement for inclusion in the record but I do not have a prepared statement today.

Mrs. HANSEN. Very well.

Mr. BUGAS. I will abbreviate my remarks for the 5 minute period. My organization packs most of the fish processed in the Columbia River area, on the coast of the southern part of your State and Oregon. Many of my members are also members of Mr. Younker's association. Generally as has been stated here already quite adequately this morning, we are very concerned and alarmed over the manner of the cuts that were made in the Bureau of the Budget, almost as much

as the depth of the cuts. We have come under criticism in the industry for coming to this committee and others for specialized treatment, to meet specific problems, and the request for add-ons that this committee has taken such care to have hearings on and to allocate to desperately needed projects. Yet we know of no other way to have input in a responsible fashion with respect to the Bureau's budget. We have, as a matter of fact, in the last few months worked very hard within industry trying to establish some kind of communication channels that will be meaningful and worthwhile with the Bureau. I do not know how successful we are going to be but our problem seems to be one of already griping after the problem has arisen, or after the cut has taken place, or after the need has been clearly demonstrated but not treated in the Bureau's budget. We hope that we are making some headway in trying to tell our concern about this to the Bureau of Commercial Fishery.

The Bureau is in the throes of reorganization, as you well know. We have received a number of promises and remarks that things will improve. Our attitude is they can't get much worse. We do not know how to talk to these people and tell them what we need when it is timely to do so.

Mrs. HANSEN. Mr. Bugas, last year this committee appropriated funds for water quality research.

But the funds were placed in reserve by the Bureau of the Budget. Mr. Bugas didn't the people of the Columbia River area feel that these funds were necessary?

Didn't they feel that the funds were a necessary part of the continuing well-being of the fish?

Mr. BUGAS. Madam Chairman, it is vital. The industry is alarmed at this cut as with others. The need for something like this with the extensive planning of the nuclear plants in the entire Northwest, and not just the Columbia River. I think is another tragic case of not oversight, but just plain neglect. The power people have very responsibly planned ahead for a great number of nuclear sitings on our various watersheds. The plans to site a number of nuclear power generating installations on the Columbia River watershed will result in a large percentage of the low flows passing through the cooling process at the plants. The results will be a general increase in water temperature. The problems involved are fantastic. Even though we have cooling towers guaranteed not too far from the mouth of the river, the very utilization of the vast quantities of water and the reduction of the water flows from the natural river conditions can drastically reduce life in the water itself which are necessary in the food chain that eventually feeds the fish. This is the vegetation and animal material that the small fish eat.

Mrs. HANSEN. This country has increasing needs for new power sources. Therefore, we must have the answers on what corrective steps that need to be taken to evaluate our fishery programs.

Mr. BUGAS. This particular problem is deeply worrying us, Madam Chairman. I do not know where we are going to get the money if we are continually cut in this fashion.

Mrs. HANSEN. What is the value of the Columbia River fish resources?

Mr. BUGAS. The wholesale package of Columbia River fish is valued at about $4 million per year. As you know it is greatly reduced by the number of dams in the river which create a number of problems in themselves. I need not recite those for this committee, I am sure, after all the fights you people have put up. These are continuing problems. It seems like we discover a new complication each year or a series of complications affecting our fish life. The recently observed nitrogen gas problem which has lethal effects on fish below Columbia River dams. This condition is created by the entrapment of excessive quantities of atmospheric nitrogen in water as it slides down the face of the dam. This is one of the latest and most insidious detrimental effects to face adult upstream migrant salmon and steelhead.

Work on this problem has had to be curtailed in recent years. These losses of research programs disturb us. There are a number of areas where we could expand our effort with very favorable benefit-to-cost ratios. The full utilization of the hatcheries has never been achieved. It is almost terrible to say we have a number of millions of dollars of hatcheries on the river and they are not fully utilized. They are not raising all the fish they are capable of raising. The cost-benefit ratio on this has been worked out by the Interior people out there to exceed 6- and 8-to-1 figures depending on which hatcheries you are talking about. It is cuts like these with needs like these that we face which genuinely disturb us.

The aggressive dislike for the commercial industry that the Bureau of the Budget seems to reflect is of even more concern to us. We do not know how to get at this. I do not know what we can do. We have no input at the Bureau of the Budget level. So we do not know what to do. We feel quite helpless and this is the reason we are so grateful to you.

Mr. REIFEL. Madam Chairman, I might add, we have input but no output in the B.O.B.

Mr. BUGAS. This is why we run to a committee such as yours for airing our problems and directing our cries for help and understanding.

Mrs. HANSEN. That is why we have public hearings so that the people of the United States can express themselves on various matters. This is democracy at work.

Mr. BUGAS. One of the other areas that I think is kind of subject to a little confusion within the bureaucratic complex back here is the area served by international fishery commissions for example. We have an International Sockeye Commission directed by Loyd Royal and financed by both the United States and Canada. The funds come through the State Department. Half of the fish are harvested by the Americans. It is a beautifully managed resource. Recent success with spawning channels have indicated that this is a means of increasin fish runs. The resulting food that would come into our economy could be greatly increased. Our dilemma is our failure to match already appropriated Canadian dollars for these various fisheries projects. We cannot seem to work this out. Our frustration is almost new each day at things like this. It seemed so obvious to us that the money ought to be matched. The Canadians are becoming very impatient about this. They are talking about putting up all the money for expanded production and ruling out the American fishermen over a percentage

of the fish caught. This jeopardizes the treaty. The fish are spawned in Canada but harvested jointly between the Canadians and United States. We cannot seem to jar this type of good sound investment loose. We become very frustrated. I certainly appreciate the opportunity to make my statement to you.

Mrs. HANSEN. Mr. Wyatt.

Mr. WYATT. Mr. Bugas, generally has the trend of domestic consumption of fish been going up or down in the United States in the last few years?

Mr. BUGAS. Domestic consumption has been going up, Congressman.

Mr. WYATT. What has been the trend of the domestic production of fish?

Mr. BUGAS. The domestic production as a part of the whole has been diminishing.

Mr. WYATT. Therefore, the percentage of consumption of fish by the consumers in this country has been substantially declining so far as domestic fish versus imports are concerned?

Mr. BUGAS. There is no question about it. These data are clearly available.

Mr. WYATT. Isn't it a fact that the domestic fishery industry is just barely hanging on by the ropes at the present time?

Mr. BUGAS. In many areas this is certainly true.

Mr. WYATT. Also you have been plagued, I know, by the intrusion of foreign fishing off the west coast to enumerate a few Russians, the Japanese, and now recently the South Koreans and there are threats of the Communist Chinese, and the North Koreans have even indicated interest in Eastern Pacific Marine Resources. Most of these fishermen are heavily subsidized by their governments, are they not?

Mr. BUGAS. In a number of cases in most of the countries that you have enumerated this is true; even where they are privately conducted, such as the Japanese, there are tremendously close and intricate and initimate relationships between the industry and the government and the closest type of cooperation prevails.

Mr. WYATT. So our domestic fishermen are faced with competing very frequently with fishermen who are subdidized by foreign governments. Our fishermen are competing with foreign governments in a very real sense.

Mr. BUGAS. This essentially the case; yes, sir.

Mr. WYATT. You were talking about the full utilization of the salmon and steelhead hatcheries in the Northwest. Do you have any figures as to what the level of utilization was this past year? If you do not have the figures, you can furnish them for the record.

Mr. BUGAS. I can furnish them for the record. My recollection is that the gentleman in charge of the Columbia River program relatively recently told a group in the industry that they were used to about 60 percent of their capacity.

Mr. WYATT. Would that have been with the $180,000 that was finally unfrozen at the last second as the dump trucks were poised ready to release fish of insufficient size and age for maximum survival for want of money?

Mr. BUGAS. No; Dr. Cleaver told us that there was some anticipation in the tension of the use of the hatcheries. There was some anticipa-

tion of the $180,000 coming to him. So in preparation for this, as you know, the fish don't always recognize our timetables and hearing dates back here, the spawn was taken, and the fish were in the hatchery and being raised. Had the money not materialized, they would have had to be released prematurely because of frozen funds, feed money would have been greately restricted.

Mr. WYATT. But for the lack of $180,000 we would have had poor survival on 8 to 10 million salmon and steelhead.

Mr. BUGAS. This is my understanding. This figure is modest.

Mr. WYATT. Madam Chairman, I could not let the opportunity pass without welcoming my fellow townsman, Mr. Bugas, to these hearings. He is very knowledgeable, and I am sure he has been in touch with you as he has with me on a relatively frequent basis. I think he has helped to make a very good record as to what is happening to the commercial fishing industry in the United States.

Mrs. HANSEN. How many people are employed in Astoria, Oreg., in the fishing industry?

Mr. BUGAS. In the fish canning industry, one of the best indicators is the size of our union, which represents the actual workers in the cannery, and the union there actually represents about 1,200 to 1,300 people. This excludes, of course, those people who are on salary.

I would estimate with the approximately 10 companies in the area itself, and extending this to Chinook packing, we would guess we probably have 500 salaried people also who are not represented by this union. This would put our total at about 1,700 people in the area.

Mrs. HANSEN. Thank you.

Mr. Reifel.

Mr. REIFEL. Thank you, Madam Chairman. I want to congratulate and commend you for making it possible that the commercial fisheries people have an opportunity to appear before this committee.

Mr. Bugas, what you have so eloquently presented as well as those who have preceded you confirms our feeling of the shortsightedness of what has taken place with respect to cutbacks in the Bureau of Commercial Fisheries, and hopefully this record that Mrs. Hansen, the chairman of our committee is making with your assistance, will give us a foundation to make some restorations that will help the industry to survive.

Mr. BUGAS. Thank you, Congressman.

Mr. REIFEL. You have made an excellent statement. I am sure this capability is true of all of Mr. Wyatt's constituents. I don't know. But he has a good one here today.

Mr. BUGAS. If I might say in conclusion, nearly everybody in the area and across the river in your district, Mrs. Hansen, who knew I was coming back have sent their best regards; also Mr. Bristow of the fishermen's union. They asked me to express their thanks and appreciation for the committee's efforts.

Mrs. HANSEN. Thank you very much.

Thank you all very much for your very interesting statements this morning. You have clearly outlined the serious condition of the American fishing industry and the need for restoration of research funds relative to high seas and to water quality studies.

Mr. BUGAS. Thank you.

WITNESSES

HON. ROBERT E. LEWIS, GOVERNOR OF ZUNI PUEBLO

Mrs. HANSEN. The committee will come to order. We now have Robert E. Lewis, Governor of Zuni Pueblo.

Governor, we are delighted to have you here.

Governor LEWIS. Thank you.

Mrs. HANSEN. Please insert your statement in the record and summarize it for us.

Governor LEWIS. All right.

(Statement follows:)

ZUNI COMPREHENSIVE DEVELOPMENT PLAN

The Zuni Reservation was selected as a pilot project in the development of a comprehensive reservation planning technique. A prototype plan was designed to involve all public and private sources of funds in priority areas identified by the Zuni people.

The Zuni comprehensive development plan is as "people involved" as any plan can be. It is based on what the Zuni people want and need, stated in written comments made during a house-to-house, family-by-family survey taken in 1965.

When Zuni was selected to do the plan, the top priority projects that had been mentioned by the people, were selected by the Zuni Tribal Council, and with the assistance of technical people, the plan evolved. It contains 43 programs set up under the following major goals:

1. Increase individual income.
2. Enhance educational opportunities.
3. Improve living conditions.

It is a multiagency plan, involving a number of Federal, State, and private agencies. These agencies have all been contacted at the local, the regional, and the national levels. All have responded in a manner that has encouraged the Zuni Tribe greatly. This is a flexible plan structured within existing legislation and authority, and no new legislation is required.

The Bureau of Indian Affairs has endorsed the Zuni plan, and other Indian tribes are watching to see the results. Their reaction is dependent upon how successfully implementation is accomplished at Zuni.

The plan can be used as a guideline for planning by other tribes. Not only that, it can be used by non-Indian communities in poverty areas where there is potential for economic development.

Having in the long past experienced the piecemeal type of funding, which never has and never will fully accomplish those things that are vitally necessary on Zuni Reservation, it is felt that this plan will focus the necessary funding and manpower in the major problem areas over a short period of time in order to make significant progress.

The additional investment requirements of the Zuni plan total $55 million spread over a 5-year period to fiscal year 1975. Of this amount, approximately $42 million is for capital investment. In short, it is a high impact "catch up" program designed to overcome the results of this piecemeal type of funding.

It is essential that all programs, Federal, State, and tribal, be properly coordinated so that they complement and supplement each other to achieve the most effective utilization of funding.

Active Indian involvement was the most important aspect in the development of the Zuni plan. It assures that attention is being given to problems which are most important in the minds of the Zuni people. The next step is total involvement of the Zuni people in the implementation of their plan. The Zuni Pueblo, through its tribal council is presently negotiating with the BIA to assume the responsibility of supervision and administration of the programs of the BIA as well as those of the tribe. Accomplishment of this will assure complete Indian in-

volvement and thus make BIA program money most responsive to stated needs of the Zuni people.

The Zuni people through their tribal council and governor, have committed their limited capital totally to the implementation of the Zuni comprehensive development plan. They appreciate this opportunity to make their wants known in this manner and vigorously solicit the support of the U.S. Congress in this undertaking.

Hr. REIFEL. We are particularly fortunate to have the Governor here with us as the leadoff public witness. While you were out of town back home in your district regarding your business with your constituents, Madam Chairman, Governor Lewis came to my office. I was deeply impressed with the knowledge regarding his plans and what his people want to do with respect to the subject he will present to us this morning.

Governor LEWIS. I would like to thank the honorable members of the committee for giving me some time to present our plan and, for the record, you have already inserted my statement.

We have had to restructure our projects due to the fact that we were out of the budget cycle when these were submitted. We had to restructure our project planning to start this year with a setup which we did not have set up originally in the plan. However, everything looks very good.

There is one area I would like to emphasize, and this is in the road construction part of our project. This is a priority project for reservations, successful implementation of the Zuni plan depending upon two basic features of the plan: These are improved living conditions and adequate highways.

The proposed initial funding of the highway portion includes $1,106-000, which includes and involves 4.6 miles of Zuni village street construction.

The balance of the use of the funds is shown in the statement which I have submitted.

I believe that although the money is there it is in budgetary reserve and this is the area where we would like the assistance of this committee through the Bureau of the Budget to see whether it would be possible that this money would be freed for these projects I mention.

We have a really good housing program going on down there but the situation is very bad especially during the rainy seasons and during the winter. We have subdivisions and just to get out there is quite a job. The road improvement involves all these items as well as walkways for the school children, and the drainage problem there is such that we would like to start in construction with the drainage system and the road improvement around the community.

Mrs. HANSEN. The committee understands the road improvement problems. We are utterly opposed to any funds for the Bureau of Indian Affairs and the Indian people being placed in reserve. We always have been. We understand the mandatory ingredients of road construction, particularly in a housing project, and on a reservation where you are trying to update income to provide better schools and a better pattern of living.

We are completely in sympathy with you.

Governor LEWIS. I appreciate your interest.

I would like to turn myself over to any questions the committee might have as far as the Zuni plan is concerned or any other area.

Mr. REIFEL. I have no questions because the Governor, with his associates who are here, presented a very effective explanation. It will be in the record as presented this morning.

I have no questions. I think the record will speak for itself.

Mrs. HANSEN. This committee disapproves of placing in reserve funds for Indian programs which are mandatory to build the economy and the economic level of life for the presently underfunded Indian people.

Thank you for appearing, Governor.

NAVAJO INDIAN IRRIGATION PROJECT

WITNESS

IVAL V. GOSLIN, EXECUTIVE DIRECTOR, UPPER COLORADO RIVER COMMISSION

Mrs. HANSEN. Mr. Goslin, Executive Director of the Upper Colorado River Commission.

Mr. GOSLIN. Madam Chairman, I want to say right off we appreciate your statement about these budgetary reserves. We are faced with a similar problem of having some of these so-called frozen funds which we do not have a chance to use.

My name is Ival Goslin. Our Commission appreciates the opportunity to make this presentation.

Fortunately in recent years the American people and the Congress have been keenly aware of the necessity for improving living conditions for Indians. In this respect the Colorado River Storage project, act of 14 years ago, and the legislation of 1962, are predicated directly on this concept.

The Navajo dam and reservoir, which were completed in 1963 at a cost of almost $47 million, will furnish an adequate and regulated water supply for the Navajo Indian irrigation project.

I would like to emphasize that this reservoir and dam were constructed primarily for this purpose. On the basis of June 1961 prices the Navajo Indian irrigation project was estimated to cost $135 million.

The more recent estimates of 2 or 3 years ago placed the cost now at $175 million. Today there is pending in the House of Representatives a bill to authorize appropriations to increase the ceiling from $135 million to $175 million. Incidentally, this bill has passed the Senate and now is before the House Interior and Insular Affairs Committee.

The sad thing about this is that a considerable portion of the increase has resulted from delays which have been caused by what I would term insufficient funding.

In addition to this $46.6 million, or almost $47 million invested in the dam and reservoir, there has been invested about $30 million in construction of the facilities required to deliver the water to the Indian lands, so we have a situation of about $77 million invested in a very important Indian project, and it does not seem to be good business to have $77 million invested in a project from which you cannot derive benefits, not only to the Indians but to the Nation as a whole. Any time that you improve one segment of our society you are improving the entire economic relationship of the Nation.

The first construction funds were appropriated in 1964 and the project was scheduled for completion somewhere in around 14 to 16 years. The first water was supposed to be delivered in 1970, which is this year.

Under the very limited appropriations we have had for 6 years, which I am sure the Chairman is familiar with, and if this policy is continued, the completion date will be stretched out at least 10 years or more.

I attached a little chart to my statement here which I think is adequate to portray the situation graphically.

The upper line shows the original anticipated completion date, about 1979 to 1980.

The next line, the dotted line, runs to 1988. That means, that line means this—on the basis of previous appropriations and with anticipated appropriations this year of $12 million, and adequate appropriations in the future, it will be finished by 1988. The bottom line portrays the situation as it now is with rather inadequate funding.

I do not wish to take any more time.

Mrs. HANSEN. Please insert your statement in the record.

(The statement follows:)

My name is Ival V. Goslin. I am executive director of the Upper Colorado River Commission, Salt Lake City, Utah.

The Upper Colorado River Commission is an interstate administrative agency created by the Upper Colorado River Basin compact of 1948. The commission represents the States of Colorado, New Mexico, Utah, and Wyoming in matters pertaining to the development, utilization, and conservation of the water resources of the Colorado River Basin.

Mr. Chairman, our commission appreciates the opportunity to support appropriations to continue the construction of the Navajo Indian irrigation project.

This project is located in northwestern New Mexico on the Navajo Indian Reservation. The development of 110,630 acres will provide farms for 1,100 to 1,200 Indian families. Related service facilities will support at least twice this number of additional families. In this manner the standard of living will be raised for approximately 17,000 of our Navajo citizens.

The Colorado River storage project was authorized by the act of April 11, 1956. In section 2 of that act the Navajo Indian irrigation projcet, along with several other participating irrigation projects, was given priority for project planning. Planning of the various features of the project has been underway for several years. It was authorized for construction by the act of June 13, 1962 as outlined in House Document No. 424, 86th Congress. Under section 7 of the act, appropriations by the Congress are to be made to the Bureau of Indian Affairs. Construction is by the Bureau of Reclamation.

The development of the natural rseources of the Navajo Indian Reservation is an integral and vital part of the Nation's program to eliminate poverty for our original native citizens. In reecnt years the American people and the Congress have been keenly aware of the necessity for improving the living conditions for the Indians of the United States. The Colorado River Storage Project Act of 14 years ago and the subsequent Navajo Indian irrigation project legislation of 1962 are predicated upon this concept. Section 4(d) of the Colorado River Storage Project Act says:

* * * as to Indian lands within, under, or serbey by any participating project, payment of construction costs within the capability of the land to repay shall be subject to the act of July 1, 1932 (47 Stat. 564).

Section 6 of the Colorado River Storage Project Act provides that:

In the event that the Navajo participating project is authorized, the costs allocated to irrigation of Indian-owned tribal or restricted lands within, under, or served by such project, and beyond the capability of such lands to repay, shall be determined, and, in recognition of the fact that assistance to the Navajo Indians is the responsibility of the entire Nation, such costs shall be nonreimbursable.

The Navajo Dam and Reservoir, which were completed in 1963 at a cost of $46.6 million, will furnish an adequate and regulated water supply for the Navajo Indian irrigation project. The reservoir was constructed primarily for that purpose.

On the basis of June, 1961 prices, the Navajo Indian irrigation project was estimated to cost $135 million. More recent estimates place this cost at $175 million. A considerable portion of this increase has resulted from delays caused by insufficient funding. The taxpayers have already invested about $30 million in construction of part of the facilities required to deliver water to Indian lands.

Navajo Reservoir is a nice place for boating, fishing, and other water-oriented sports, but it is not serving the major productive purpose for which it was designed—the storing, conservation, and delivery of water to the Indian's irrigated lands. It cannot be good business to have an investment of almost $77 million in project features that cannot be fully and efficiently utilized.

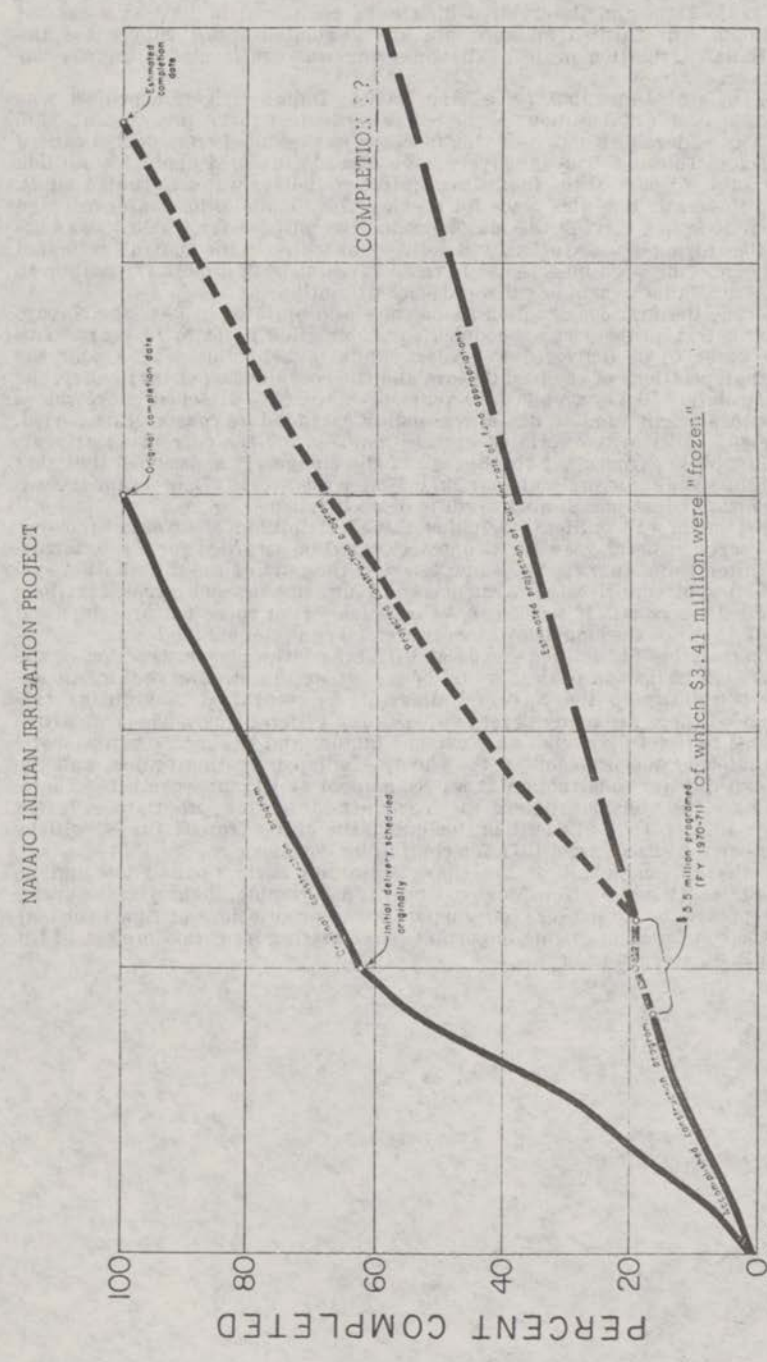
At the time the first construction funds were appropriated in 1964, the Navajo Indian irrigation project was scheduled for completion in 14 to 16 years, with the first water to be delivered to project lands in 1970, this year. Under the limited appropriations of the past 6 years and the continuation of that policy, the completion date will be stretched 10 years or more. The attached chart shows how past insufficient funding has unreasonably extended its construction period.

Of the $5.5 million appropriated by the Congress for the current fiscal year, $3.41 million were "frozen" by the Bureau of the Budget. It is assumed that this money will be available in fiscal year 1971. Under the fiscal 1971 program exceedingly important construction work needs to be accomplished.

With a total of $12 million (including the $3.41 million of "frozen" money) available early in fiscal year 1971, contracts could be awarded for the construction of Cutter Dam, tunnels No. 3 and 3A, and the part of the distribution system consisting of tunnel No. 4, Armenta and Kutz siphons and connecting links of concrete-lined canal. If work can be commenced on these features in fiscal 1971 about a year of the long delay already created can be eliminated.

Making available $12 million for fiscal 1971 for continuing construction of the Navajo Indian irrigation project would be a real step in meeting the urgent national responsibility to the Navajo Indians. It is recognized that during this crucial period there are many urgent requests for Federal funds. This committee is requested to carefully weigh all pertinent factors and to exercise sympathetic understanding of the problems of the Navajo Indian irrigation project and the need to expedite its construction at an economical and progressive rate. Therefore, we urge full consideration of the recommendation to appropriate sufficient money for 1971 so that $12 million, including the 1970 "frozen" funds, will be available early in fiscal year 1971 for continuing construction.

Mr. Chairman, on behalf of the Upper Colorado River Commission and its member States, Colorado, New Mexico, Utah, and Wyoming, thank you for granting this opportunity to express our support for appropriations of funds for continuing the construction of this important participating irrigation project of the Colorado River storage project.


NAVAJO INDIAN IRRIGATION PROJECT
PERCENT COMPLETED
100
80
60
40
20
0
1964
1970
1975
1980
1985
FISCAL YEAR
COMPLETION ? ?
Original completion date
Initial delivery scheduled originally
$5 million programed (FY 1970-71) of which $3.41 million were "frozen"

Mrs. HANSEN. The committee completely agrees with your philosophy.

Mr. GOSLIN. Mr. Bliss, Upper Colorado Commissioner from New Mexico, is with me and he has some statements to submit.

Mrs. HANSEN. Please insert the statements in the record.

(The statements follow:)

STATEMENT OF DAVID F. CARGO, GOVERNOR OF THE STATE OF NEW MEXICO

This statement is submitted in support of appropriations to the Bureau of Indian Affairs to continue construction of the Navajo Indian irrigation project.

The 1868 treaty between the United States of America and the Navajo Tribe of Indians provides that any Navajo being the head of a family and desiring to commence farming shall have the privilege to select 160 acres in the Navajo Reservation to be held in the exclusive possession of the person selecting it and of his family so long as he or they may continue to cultivate it. The treaty also provides that any person over 18 years of age not being the head of a family may in a like manner select and hold 80 acres within the reservation for purposes of cultivation. The treaty further provides that the Navajo head of family is entitled to receive seeds and agricultural implements to help him get started in his farm enterprise. Even a casual examination of precipitation records shows that irrigation is essential if these treaty provisions are to be given effect of much significance.

The law which authorized the Colorado River storage project in 1956, Public Law 84–485, explicitly recognized that assistance to the Navajo Tribe in the form of an Indian irrigation project is the responsibility of the entire nation. The Navajo Indian irrigation project, was authorized in 1962 by Public Law 87–483 to meet the obligation implied in the 1868 treaty and explicitly recognized by the Colorado River Storage Project Act.

The desperate needs of the Navajo Tribe have been the subject of much concern to the people of the United States. Construction of the Navajo Indian irrigation project could do much to alleviate the grinding poverty being suffered by the 120,000 people of the Nation's largest Indian Tribe.

The project would furnish water for the irrigation of 110,630 acres of land. Project construction will generate an estimated 8,750 man-years of work at the project site. Navajo people are qualified and capable of handling approximately 30 percent, or 2,625 man-years, of the construction jobs.

Employment opportunities associated with full development and operation of the irrigation facilities would have a great beneficial impact. The local annual payroll associated with the agricultural phases of the project is estimated at $41,980,000. Of this total, some $33 million would accrue to Navajo people.

Studies show that jobs would be created for about 850 farm operators and 2,500 farm laborers. An additional 70 employees would be needed to operate and maintain project facilities. Jobs associated with full development of the project—including related off-farm employment—are estimated to total 8,841 of which an estimated 6,626 would be filled by Navajo people. Directly and indirectly, the project would provide an adequate standard of living for about 17,000 Navajos. Also, there would be school benefits resulting from the resettlement of Navajos in the project area; these benefits alone have been estimated at about $1 million annually.

The studies of the Four Corners Regional Economic Development Commission, on which I serve as cochairman, have shown that accelerated completion of the Navajo Indian irrigation project would do more than any other measure to alleviate the problem of chronic economic distress that the Commission was created to solve.

The Navajo Indian irrigation project construction schedule was initially framed by the Bureau of Reclamation so that the first delivery of water to the lands would be made in 1970 and construction would be completed in 1980. Appropriations for project construction, which will ultimately total $175 million at January 1966 prices, have been as they are listed here.

	Appropriated	Accumulated total
Fiscal year—		
1963	$300,000	$300,000
1964	1,800,000	2,100,000
1965	4,700,000	6,800,000
1966	6,500,000	13,300,000
1967	6,498,000	19,798,000
1968	5,300,000	25,098,000
1969	3,548,000	28,646,000
1970	5,500,000	34,146,000
1971	0	0

Under the Bureau of Reclamation's original construction program, 62 percent of the project would have been completed by the end of the current fiscal year; to date only 19 percent of the project costs have been appropriated. This rate of appropriation is so low that the goals of the initial construction schedule are now unattainable. If the rate of appropriations is not accelerated, the project will not be completed until about the year 2013. Continuing this slow rate of progress will cause the overhead costs, including interest during construction, to mount out of proportion to what they should be. More importantly, the benefits to the Indians from project operation will be delayed for nearly two generations; and the Navajo people will be convinced that the United States has broken faith with them.

The Bureau of Reclamation, the agency in charge of project construction for the Bureau of Indian Affairs, has advised that the necessary field design data can be made available for plans and specications for contracts for tunnel, siphon, and canal work in fiscal 1971 as follows:

Construction work	*Estimated cost*
Tunnels 3 and 3A	$12,000,000
Armenta and Kutz siphons and tunnel 4	11,000,000
Cutter Dam	1,600,000
West Kutz and Horn siphon	4,600,000
Open Canal	6,600,000
	35,800,000

Total of $12 million could be effectively spent to service the above listed contract items in fiscal 1971. The President's recent budget proposal seeks no appropriation for the Navajo project for next year. Carryover funds resulting from the freezing of $3.4 million of the appropriation for the current fiscal year would allow only limited construction activity.

I submit that it is of transcending importance that the United States restore the faith of the Navajo people in our Government by fulfilling its commitments to the Navajo Tribe.

I strongly urge that appropriations for fiscal year 1971 be increased to provide $12 million for timely construction of the Navajo Indian Irrigation Project.

I appreciate this opportunity to present my views on appropriations for this project.

The Navajo Indian Irrigation Project

A Joint Statement from the Chairman of the San Juan County, New Mexico, Commissioners and the mayor of Farmington, N. Mex.:

Your committee has received a preponderance of facts, information and reasons as to why the Navajo Indian irrigation project should be speeded up and brought back to its original schedule of completion.

As elected representatives responsible for the welfare of our citizens, we want to go on record as being wholeheartedly in favor of this project, because:

I. It will be of much benefit to our Navajo citizens both from an economic and social betterment standpoint.

II. It will enable now unemployed Navajo men to be trained for skilled and semiskilled jobs during the period of construction.

III. It will provide a permanent livelihood for 6,600 Navajos on the land itself and in related service industries, and will provide economic support for an additional 24,000 Navajos.

IV. Moneys spent on this project are an investment in and for the future of the Navajo people far and beyond any other completed or proposed project.

We respectfully urge your serious consideration as to the needs for immediate adequate funding for the Navajo Indian irrigation project.

Frank Lillywhite,
Chairman, San Juan County Commissioners.
Boyd F. Scott,
Mayor, City of Farmington, N. Mex.

Statement of I. J. Coury

My name is I. J. Coury, a resident of Farmington, N. Mex. I am chairman of the Interstate Stream Commission of New Mexico.

My appearance today is in support of sufficient appropriations to continue the construction of the Navajo Indian irrigation project in San Juan County, N. Mex.

Attached hereto, and as a part of my statement, is a reproduction of an article by Mr. Sixten Lundgren relating to this project which reflects my feelings and sentiments.

President Nixon, in his fiscal 1971 budget, submitted to Congress on February 2, 1970, pledged "to provide the American Indians with assistance and opportunity necessary to live in prosperity, dignity and honor".

The treaty of 1868 between the United States of America and the Navajo Tribe of Indians provides that any Navajo being the head of a family and desiring to commence farming shall have the privilege to select 160 acres in the Navajo Reservation to be held in exclusive possession of the person selecting it, and his family, so long as he or they continue to cultivate it. The same privilege, of 80 acres, is granted to one who is not head of a family and over 18 years of age. The only way this can be fulfilled is by irrigation as the precipitation records show that irrigation is essential if these treaty provision are to be effective.

Public Law 84–485 explicitly recognized that assistance to the Navajo Tribe in the form of an Indian irrigation project is the responsibility of the entire Nation. Public Law 87–483 was authorized in 1962 to meet the obligation implied in the 1868 treaty and explicitly recognized by the Colorado River Storage Act in 1956.

The construction agency, Bureau of Reclamation, advises they can use $11.7 million, consisting of the release of $3.4 million of fiscal year 1970 funds, which are frozen by the Bureau of the Budget, and an additional appropriation of $8.3 million, which will permit the award of contracts for the construction of Cutter Dam, tunnels No. 3 and 3A, and the reach of system consisting of tunnel 4, Armenta and Kutz siphons and connecting links of concrete-lined canal. The commencement of work on these reaches of the canal system would assure delivery of water to the initial project lands by 1976—6 years later than the original schedule. It took almost 100 years to recognize the treaty and I hope it will not take another 50 years to fulfill it.

Your consideration to a total appropriation of $11.7 million for fiscal year 1971 will be appreciated.

[From the Daily Sentinel, Grand Junction, Colo., Dec. 21]

"WHITE MAN'S PROMISE AS DRY AS THE DESERT"

(By Sixten Lundren, Copley News Service)

On Nov. 7, 1969, the great Southwest epic, "The White Man's Promise," also known as the Navajo Indian irrigation project, concluded its latest chapter and was put on the shelf again for lack of money.

In this case the latest chapter was the completion of the $6,790,000 contract by Universal Constructions, Inc., of Alburquerque.

Bert Levine, Bureau of Reclamation manager for the irrigation project near here, said the contract involved construction of three siphons and two concrete-lined sections of the main canal that has been making turtle-like progress from the Navajo Reservoir (completed 7 years ago) to the proposed 110,630-acre irrigation area.

This leaves Levine with 75 staff members rattling around in the red brick reclamation headquarters building located down the hill from the municipal airport.

The staff will be "collecting data for proposed future construction specifications" for the time being. It will be 1977 before water can reach the Navajos.

The Navajo Nation is well into its 101st year of waiting for water promised in 1868. In a long, sorrowful century, their people have slide down to the bottom of the totem pole insofar as jobs, housing, education, health, and other standards are concerned.

If their direction is not reversed, the Navajos, their numbers increasing 50 percent faster than the rest of the United States, are considered to be not far from becoming one vast public welfare case.

The Navajo Nation is straining its resources to better its peoples' lot, but it needs a powerful boost from the United States.

As far as the Navajos are concerned, the biggest boost the United States could make would be to grant its promise of 1868 and deliver water to the tribe as soon as humanly possible.

A treaty was signed by the United States and an estimated 12,000 Navajo Indians in 1868. Because the land granted them had only 8 inches of rain per year, the United States promised water along with the land.

In the succeeding century, the Navajo population has increased tenfold, but the water is still at least 7 years away.

It took 68 years after the U.S. Navajo treaty was signed before Public Law 485 took effect on April 11, 1956 authorizing construction of the Navajo Dam as a participating project of the Colorado River storage project.

The dam was begun in the summer of 1958 and completed in the fall of 1962. The earth-and-rockfill structure dams up a deep, curving canyon of the San Juan River 39 miles east of Farmington.

A few months after dam construction began, the Navajo Tribal Council put forth a resolution on Dec. 12, 1958, urging authorization of the Navajo Indian irrigation project as a means of fulfilling that almost forgotten treaty of 1868—as well as bringing the Navajos into the 20th century.

It took only 3½ years more for authorization of the Navajo Indian irrigation project by Congress and it was signed into law by President Kennedy June 13, 1962.

For this step forward, the Navajo Tribe agreed to waive any claim it might have to project waters, including prior rights, in exchange for an average annual diversion of 508,000 acre-feet of water to be used principally for the irrigation of 110,630 acres of land solely for the benefit of the Navajo.

Considering the "fact" that the project was signed into law in 1962, a 7-year delay now predicted for the delivery of the first irrigation water gives the project a unique standing in terms of progress.

Instead of the Navajos getting their water next year, as first planned, delivery of Navajo Lake water to the first 10,000-acre block of land will take place in 1977 at the earliest.

At present, the delivery system of pipes, siphons and canals has traveled 13.4 miles from the dam, almost halfway.

Up to last year, $75.8 million in construction had been programed to meet deadlines. The Budget Bureau cut this to $28.3 million. If this rate is continued, it will take 45 years to complete the project—first planned as a 15-year development.

This bothers the Navajo.

The major irritant is the Navajo Dam and Reservoir completed 7 years ago. Its 1,709,000 acre-feet of water and 150 miles of shoreline have become a magnificent recreation area. This year 350,000 boaters and fishermen will use it.

While the Anglo community is prospering now, the Navajo must wait.

Project engineer Levine expects to resume construction after the first of the year. However, there are many factors—most of them not related to the Navajo problem—that will have much to say about the size of the appropriation and the job to be done.

Since the Navajo wants to develop farms, housing, roads, schools and other associated features on a timetable tied into the actual progress of the irrigation project, the crawling pace of the program creates major frustrations.

Mr. BLISS. I would like to add one sentence to what Mr. Goslin said. I know you have been in Navajo country. I know that you know the situation.

Mrs. HANSEN. That is right.

Mr. BLISS. One hundred and two years ago the United States contracted an obligation with the Navajo Indians. Each Indian was to receive 160 acres of good arable land.

Not until 1962 did the legislation become enacted to implement this. Our first appropriation was made in 1963.

All right. Seven years have passed, and during that 7 years we have fallen 8 years behind construction schedule. This is intolerable. I know you realize that.

If our present inadequate construction policy goes under there will be two generations, a lifetime, for this project to be constructed. The costs will go up, interest costs will go higher, overhead will be intolerable. I think it is time we have to adequately fund this project and get it on the way.

Mrs. HANSEN. Thank you so much.

WITNESS

PRINCE GALUMALEMANA VAIINUPO ALA'ILIMA, SPECIAL REPRESENTATIVE OF THE SAMOAN VILLAGES

Mrs. HANSEN. We now have the very distinguished Prince of the Samoan villages.

Please insert your statement in the record at this point.

(The statement follows:)

Madam Chairman and the Honorable Committee: Five minutes allotted to me is so short a time to make a desirable presentation, as 70 years of the American rule and updating activities in Samoa cannot be properly presented in 5 minutes. Still every second you allow me today we welcome with our deep gratitude. Therefore I thank you for the opportunity of presenting the thoughts and the $5 million budget request of the Village Coordinating Committee of American Samoa. This is the budget we wrote the Secretary last October through the Governor to be added to the Governor's budget. Unfortunately, our request is not included in the Governor's budget. Our chairman, certain of our village chiefs, and ladies of our villages would like to assist in presenting our proposed program to you, but are financially unable to be here, and have therefore designated me as their spokesman.

Our whole program is now before you drafted in a bill form to facilitate introducing it to Congress. We hope all of our friends in this committee will lend the necessary help required not only in introducing it, but in the passage of this precious and essential legislation, which is also in the hands of several members of Congress.

Why are we troubling Congress with this program and reform? We believe the degree of friendliness, liberty, dignity, hospitality and many other democratic and noble characteristics of Samoan society of yesteryear, which have not yet been attained by other democratic and free societies of the world, need strengthening as they are now deteriorating rapidly. These notable characteristics evolved when Samoan village governments were the main pillars of Samoan democracy and the Samoan culture was the unwritten constitution and the law of the land.

Trends of modern events through the impact of Western civilization and leadership not only have shifted the responsibilities of leadership in every day living from family and village governments to the central government, but have also uprooted and broken many vital intangible ties which held the friendly, devoted and happy Samoan society together. Likewise many fine features of Samoan culture have ebbed away and Samoa's status as a true Democratic and enchanting tropical island paradise has been lost.

With the regaining of the independence of western Samoa through peaceful means and friendly persuasion and the reinforcement of American financial aid and leadership in American Samoa, we believe that revitalizing Samoan village government and strengthening village life is the most effective means for Samoa to move from her pathetic status of "Paradise Lost" to that enchanting position of "Paradise Regained."

We consider this committee friends of Samoa because we know without your kindness and sympathy our people would not have the education, hospitals, airport, TV, electricity, paved roads and many other material benefits. Some of your names are on the lips of our people now. I am sure they will speak them in generations to come. I hope you will choose Samoa to retire to. Up to this point, the U.S. Government has made a considerable investment in American Samoa with no promise, and very little prospect of any appreciable return. The program which I present here today, although it may require a certain outlay and reorganization of thinking by those who are governing our islands, is the most sound and desirable thing to do. It not only will reinstate native villages to their

proper place in the scheme of government, but will generate the proper atmosphere for short and long range physical, social and economic development of our islands, benefiting all of our people and all levels of government. I call your attention to diagrams A to D and other documents which illustrate the excellent compatibility of what we propose with the basic principles of the various levels of Government of the United States.

At present, Governors are attempting to rule American Samoa by their knowledge of the U.S. form of Government and concepts as well as their own personal ideas and thoughts, giving no support to village councils, bypassing the traditional authority and responsibilities of native chiefs and village governments. The net effect of this method of governing is very erosive to the very foundation of Samoan culture and her civilization.

With our proposed program, the control and responsibility of the development of American Samoa will start with the individual villages. Reflected in our budgetary request are initial economic projects that will bring revenue into the villages. Fish canneries, which are now polluting and defacing one of the most beautiful harbors of the world and Samoa's valuable tourist attraction, will be moved to Fagasa and Masefau, thus making possible a billion dollar tourist trade in the area. We are firm believers in people-to-people diplomacy and friendly social contacts as our culture and people are very conducive to that percept. Therefore, certain villages will gear their development to accommodate people of specific States, while others are assigned for interstate and international-minded guests. You can spot the host village of your State with this map. With your support all of us can enjoy the sunshine of Samoa in the near future. This sunshine and enchanted atmosphere is wasted if we do not utilize it to its fullest capacity. Samoa's tourist and economic potentialities are no less than that of Hawaii.

In order to implement this program, several villages have retained stateside architectural and engineering firms to furnish the professional service needed to plan their orderly development. This effort on the part of the villages is to no avail without the temporary financial backing of our Federal Government.

The $5 million we request are needed: 1. To provide salaries and expenses to members of the coordinating committee and staff who for 6 years have worked without compensation. 2. To provide engineering, economic study, and financial assistance to the villages who have been chosen to spearhead the village reorganization and development program for our native villages of American Samoa. Those villages are: Aunu'u, Alao, Amouli, Alofau, Lauli'i, Vatia, Afono, Aua, Pago Pago, Fagatogo. Utulei, Fagaalu, Nu'uuli, Fagasa, Faleniu, Iliili, Vaitogi, Futiga, Taputimu, Asu, Malaeloa, Leone, Amaluia, Asili, Nua, Seetaga, Poloa Olosega, Ofu, Tau, Faleaso, and Fitiuta. 3. To establish the office of the general manager who will administer and coordinate the whole village reorganization and development program. 4. To establish the village oversea's office in Washington, D.C. headed by an Ali'i (Lord) and assisted by a Tumua, or Matua, or To'oto'o or Tulafale (island premiers and ministers). 5. The committee further recommended that at least $30,000 to be provided by the Governor's budget to every village of American Samoa for the sole purpose of water, sanitation, air and water pollution control facilities, for it is imperative that the main natural resources of Samoa should be well protected while the economic and tourist trades are developing.

With this initial request (the first in the history of American Samoa) each village will be enabled not only to provide jobs for thousands of their unemployed people in Samoa, and those welfare recipients or unemployed in the United States but also lay out plans and undertake special projects that suit her own and the territory's needs and resources; and the village coordinating committee, the general manager's office and overseas office will become a more effective instrument to reflect the proper adjustment of the Samoan culture and their way of life in achieving the true participation of the native Samoans and their chiefs in administering their own affairs properly and effectively as well as framing their own destiny without destroying their precious culture, heritage and native institutions through the terrific impact of outside pressures. Likewise the U.S. Government will have a better return for her money invested in Samoa as well as fulfilling her obligation of self-determination for America Samoa and preserving "Samoa for Samoans."

In considering all these benefits entailed by our program, as well as our plan for repayment, I believe you agree with me that the moneys we request are a very modest investment on the part of the United States.

Soifua (Long Live)

In closing, please accept my sincere appreciation for the opportunity of presenting our case to you, and my sincerest wishes for God's blessings on you and your actions.

The PRINCE. Thank you very much, Madam Chairman and members of the committee. I see my good friend, Mr. Reifel, is here.

I would like to thank you very much for the courtesy extended to us. It is an honor. This is the first time in history I have appeared.

Mrs. HANSEN. We are glad to have you.

The PRINCE. I feel I should go right into something which will be additional to my statement.

Mrs. HANSEN. Very good.

The PRINCE. This is the graph of the whole government of American Samoa. We have been under the United States for 70 years. The money goes into these portions here. This is our village setup. This is the only form of government which existed when the United States took over the islands of Samoa. These are the people who granted the rights to the United States to use Samoa.

Ever since we got no money at all for village Governors. This is the first time in history we are asking the United States to help us, to add $5 million to start our program.

This is how the village will be developed and updated. There are only three departments in a village. One are the village councils, which is composed of the judicial, executive and legislative powers. All the adult women are here and all the adult males are here.

Mrs. HANSEN. Do the women of Samoa have the right to vote?

The PRINCE. Yes, women have a very strong influence. Only Samoa has Queens. The first Supreme Ruler of Samoa was a Queen. Polynesian people are always for women.

We are retaining this one. As we spend this money we are not eliminating any native institutions but we will build them. Women retain their power of civil service and men retain their power.

Then we have these action departments. This parallels with the the central government. In order to promote this program we have drafted a bill which we hope some of you will introduce. This will cover a 12-year program. In 12 years we will be economically independent and we feel the village will carry its own weight. Then we will begin to pay back the money we are asking now.

This is what we are trying to do with the setup and it is mostly in the diagram I have submitted.

These are two levels of government here. One is family and villages where food participation of all the people are in it. This is why it is important for us to have this village government get back to its rightful place. This is where we handle the welfare and the political party panels.

With this initial request we will be able then to update our system.

Mrs. HANSEN. Is the authorizing legislation before the Interior and Insular Affairs Committee?

The PRINCE. Yes. This will be for the whole program. We are asking now for $5 million to start this part of our program, the controlling factors of the program. We must not undertake a substantial development unless we have controlled institutions to guide the development. That is why we ask you now to start this right away while the legislation is being worked on in the Department of the Interior.

We try to utilize whatever we have. We have sunshine, water and land. Every State of the Union has a place in Samoa. You can find your own State here. There will be villages developed to specific States and villages which have no names in them will be developed for interstate and international minded guests. In this way we are making ourselves useful wherever we are partners of the United States.

In this way instead of idling the villages not participating at all we are developing our villages to the extent that we will shoulder the development of our villages and our people.

In this respect we will be able to help the United States insofar as the economic burden it is now carrying. We feel in 12 years we will be able not only to shoulder the weight of our villages but we will be able then to help other unfortunate societies and other islands of the Pacific which are around us who need help. In this way the United States and Samoa will be partners in helping people rather than our being a weight or a ward of the United States.

Mr. REIFEL. As the Prince concludes his remarks we have South Dakota, Georgia, and Washington up here on the map.

Mrs. HANSEN. A good combination.

The PRINCE. You are friends of Samoa already.

This map shows all races of men. You can see that Samoa has the biggest head. This shows our civilization has something when we were just ourselves. We know we can get back again if you help us. We developed a high civilization with just ourselves. Think what we can do if we were partners of this greatest country.

This is Samoa which you could hardly see in the map. Look at it in respect to other races.

Right now, and I am sorry that I could not greet the astronauts because I had to come here to ask for money, but this is our presentation.

Mrs. HANSEN. I am sure the Samoans will give them a splendid reception.

The PRINCE. Thank you very much. We hope many of you will choose Samoa as a retiring place. We would like good facilities so we will be ready for you any time.

Mrs. HANSEN. Thank you very much for a very interesting presentation.

The PRINCE. I would like to introduce friends of Samoa who have made possible our being here.

Mrs. HANSEN. Off the record.

(Discussion held off the record.)

WITNESS

MRS. KATHERINE DRINKER BOWEN, BIOGRAPHER, HISTORIAN

Mrs. HANSEN. We have the distinct privilege and pleasure this morning in having a very distinguished lady, Mrs. Katherine Drinker Bowen. Mrs. Bowen, we warmly welcome you. I was able to use some of your material from your book "Miracle at Philadelphia" in helping with the first humanities program which was funded by the House of Representatives. I am doubly grateful to you.

Mrs. BOWEN. Thank you. I start by saying I am Katherine Drinker Bowen, of Philadelphia.

I am here today on behalf of three historic buildings in Philadelphia, now under restoration; namely, Independence Hall, the Old City Hall which stands next door, built in 1791, and, thirdly, the Second Bank of the United States, built in 1824. I have narrowed my request to these three buildings because to me they take priority over all other historic restoration projects in the country.

These three buildings stand at the heart of what has been rightfully called this Nation's most historic square mile—Independence National Park. Work on their restoration began years ago but has been held up for lack of money. While writing my books, "Yankee from Olympus," "John Adams and the American Revolution," "Miracle at Philadelphia," I have spent much time in these buildings. The first floor of Independence Hall is now fully restored. The work has been beautifully done. And, as with all history when authentically presented, it communicates. You can walk into that big east room, with the green baize covered tables, and see it just as it was in June of 1776 when the Continental Congress, sitting there, passed the resolution for independence. This is the room where in 1787, delegates from 13 States wrote and signed the U.S. Constitution.

The ghosts that walk that hall are very real. People feel it, falling silent as they enter, even the children. I have watched their faces. But, incredible as it seems, Independence Hall has been left only half restored. Down the front hall just beside the Liberty Bell, a handsome stairway leads upward. It is blocked. The big rooms on the second floor, all of them historically significant, cannot be completed without further funds. We have four carpenters up there, skilled men who love their work. If we lose those craftsmen, I don't know where we can find others. The fact that Independence Hall has been left for so long unfinished is to me a national disgrace. All we need to complete the work is the $300,000 called for in our budget submitted for the fiscal year 1971.

The second building for which I speak, Old City Hall, housed our U.S. Supreme Court from 1791 to 1800. It is part of the Independence Hall complex right next door and surely must not be left empty and neglected. To complete restoration and furnish Old City Hall will cost $104,000, also in the estimate as presented.

The third building, once the Second Bank of the United States, is planned as the climax of the Independence National Historical Park tour. The main floor has a beautiful hall, 80 by 50 feet, with a 50-foot high arched ceiling. Restoration is very far from completed. In this

hall will hang our unequalled collection of historical portraits—418 of them, painted from life. Right now these priceless oil paintings are in the vault, underground. They are seen by no one. I don't believe any other country in the world would permit it. Here we have Benjamin Franklin, painted in Paris in 1779 by Duplessis—the famous portrait from which so many copies have been made—worth probably a cool million dollars. John Adams, done from life by Peale in 1791—another half million dollars. Thomas Jefferson, painted while his hair was still that sandy red. Washington and the redoubtable Martha. Lafayette, painted in 1824 when he came over on his triumphal visit.

Thirty life portraits of Senators and Congressmen from 1790 to 1800. Also the largest collection in America of signers of the Declaration and of the Constitution, painted from life. All of these portraits were stripped and restored in 1954. Unless we very soon place them in the proper air conditioning, they will have to be gone over again—all 418 of them. If our new National Portrait Gallery here in Washington possessed a tenth of this treasure: they would be ecstatic—and I say it, who happens to be on the Commission for that gallery.

To finish this building, the Second Bank, will cost $571,000, also included in the estimate as presented.

I am not here to speak of the year 1976—though I am on the National Commission for the Bicentennial. These buildings should be completed now. I am acquainted with the Park Service experts who are in charge of the work. They are first rate men, crazy about their job, eager to get on with it.

History comes alive within those walls. The best of our history. Americans today need that story, that legend, rightfully illustrated. It is our pride and our strength. Surely we cannot deny its access to the people.

The total sum for the three restorations comes to $975,000. Members of the subcommittee, I trust that you will vote those moneys and let us get on with the work.

Thank you.

Mrs. HANSEN. Mrs. Bowen, this committee is very interested in this program. Our difficulty lies with the Bureau of the Budget, which places necessary funds in reserve. There are three separate bodies of Government, the Executive, the Legislative, and the Judiciary. Unfortunately, the Bureau of the Budget does not consider the Legislative branch.

Mrs. BOWEN. Thank you. I thought I would make my pitch, anyway.

Mrs. HANSEN. We are delighted you did, and we are honored to have you.

NATURAL RESOURCES

WITNESS

VERNON WALKER, DIRECTOR, NATURE CENTER, RESTON, VA.

Mrs. HANSEN. Mr. Vernon Walker, Director of the Nature Center of Reston, Va.

Mr. WALKER. I think you have a copy of my statement.

Mrs. HANSEN. We will insert your statement in the record at this point.

(The statement follows:)

My name is Vernon Walker, and I am director of the Nature Center in the new city of Reston, Va. I am environmental salesman or, some would say, an ecological con man. The majority of my clientele are easy marks. Why? They moved to Reston because they recognized, among other things, the beauty of the natural world—streams, lakes, fields, and wooded slopes in proximity to dwellings. They are ready for my sales pitch, but there are several factors that work against me in this seemingly ideal setting:

1. The many years of environmental illiteracy—this illiteracy has many roots—generations of Americans fighting nature rather than seeking to understand it and live in harmony with it; a failure by and large of the public schools at all levels to educate in and about the environment; and,

2. I think more basic, the lack of definitive answers to so many environmental problems.

Education at all levels will alleviate the first factor. Research is needed to provide answers to our environmental problems. We have spent very little on research which will enable John Q. Citizen to participate significantly in managing his environment (i.e., his one-fourth acre lot, his sylvan vacation home, or in the case of newer communities, commonly owned open space: fields, woods, lakes, and streams near his home).

We are now beginning to recognize the role of each citizen in maintaining environmental quality. Not environmental quality solely for fun or recreation, but environmental quality that will produce a total environment fit for life and fit for living.

An integral part of the total environment is a variety of wildlife. I would like to be able to say to an urban dweller who comes to me with a problem, "John Doe, if you want to enrich your life and the life of your family by managing your environment to produce an interesting, useful variety of wildlife, then you can improve wildlife habitat by planting x species of plants in y numbers in such and such a pattern." Or, before the bulldozers move in to develop new residential areas, we should be able to tell the developer how much vegetation to leave and where it should be left to maintain or improve urban wildlife habitat.

It would appear ultimately that homeowners could manage their land in ways consistent with good conversation practices, producing habitats to support an interesting variety of wildlife for enjoyment and well-being. Therefore, a man wanting to spend the time, money, and effort could follow a specific formula. Commercial implications in this are many, for it may become as fashionable to manage land in this way as it is to grow beautiful lawns now. If we could achieve this, we will be able to develop in an urban area that contact with nature we are finding so essential in our city-based life. Contact with nature is not only of importance aesthetically, it is of importance psychologically.

Urban ecology, while in its infancy, is an important new area of work. I, and other urban ecologists, need answers to basic ecological questions before we can help the urban residents with their environmental problems. There are existing Government programs that can help obtain these answers.

The Southeastern Forest Experiment Station, part of the research branch of the U.S. Forest Service, and located in Blacksburg, Va., is conducting a modest program in habitat research for songbirds in cooperation with the Cooperative Wildlife Research Unit located at V.P.I. We would like to see this program extended to urban-suburban conditions. Additional funding will be needed. I request that $100,000 yearly be added to the budget to strengthen and increase the existing program of wildlife habitat research at the Southeastern Forest Experiment Station so work may be initiated which will benefit the millions of urban dwellers. If this can be done, we at Reston will cooperate in a research program. The Nature Center will coordinate between Reston landowners and the research staff to help provide adequate study sites. I can also help by providing on-the-ground ecological knowledge for research conducted at Reston.

Reston as a location for studies offers many advantages. A large percentage of the 11 square miles is wooded. Some areas are newly developed, while others are 5 years old. We are, in a sense, fortunate that we reside within a horticultural transition zone in which many southern plants can be grown and many northern natives will be found. The Reston plan—like that of several other "new cities"—is unique in that it is consistent with good land planning in respecting and following the natural terrain and natural features.

With the existence of the Nature Center in Reston, and for that matter, the existence of similar organizations throughout the country, we have the capability of putting research information to work as soon as we get it. If we don't have it, we can be compared to a doctor "guessing" that a particular medicine will work. We also are dealing with highly complex systems; systems that are understood by the ecologist possibly at the same level as was the human system by M.D.'s 100 years ago.

Our proximity to the District of Columbia and location in a major urban area for disseminating our successes and failures in environmental management to people throughout the country and indeed the world. I look forward to that day when this is possible.

Mr. WALKER. As the first paragraph states, I am a nature center director. However, I am a nature center director without a nature center in the sense that I have not one nature center but many.

The idea behind the new town, as I see it, is to enable all people to live either in a nature center or in close proximity to one.

In order to do this we need some help.

I might backtrack a moment, saying it is a little unusual for a fellow like me to be doing this. I am an outdoor teacher, a teacher by trade, and an outdoor teacher by choice. The developer, of all people, asked me to come into this community and work with the people to get them involved in open space. That is my job.

Mrs. HANSEN. I am glad to see a developer with this type of approach.

Mr. WALKER. Here is one who has.

The kind of help we need, however, becomes apparent frequently when people ask such a simple question as what kinds of things we should plant, where they should be planted, and in what numbers.

There is almost no detailed information on this, so what we should be able to say is—Mr. Smith, you should go out to your quarter acre, plant in this number of x plants in this arrangement, and with that arrangement you will attract these kinds of birds or you will attract this kind of mammal. This, I think, will make a great difference in the way people live in the United States.

About 2 years ago, I took a trip to the VPI, feeling these people should be helping us. I learned about the forestry experiments station located there. They are right now conducting a modest program in habitat research. We would like to see their program extended so we can get a great deal out of it for the country as a whole and not just for Reston. This would require approximately $100,000 yearly. If this can be done, I am there to help and I am there to dispense the information, work with it, and to refine it. Being in close proximity to Washington helps us.

Mrs. HANSEN. Thank you very much.

COMMERCIAL FISHERIES

WITNESSES

MRS. DAVID H. WALLACE, EXECUTIVE DIRECTOR, OYSTER INSTITUTE OF NORTH AMERICA
RICHARD H. LORING

Mrs. HANSEN. Mrs. Wallace, Executive Director, Oyster Institute of North America.

Please insert your statement in the record and summarize it for us.

Mrs. WALLACE. Mr. Loring will make the presentation.

Mr. LORING. Madam Chairman and members of the committee, my name is Richard H. Loring. Mrs. Elizabeth Wallace and I are here to represent our members, that segment of the domestic fisheries who produce, process, and distribute oysters and clams. I am a director of the Oyster Institute of North America representing Massachussetts and chairman of the legislative committee. Our firms on Cape Cod are Aquacultural Research Corp. and Cultured Clam Corp. of which I am vice president. I am involved daily in the management of our activities.

We are here to encourage you to increase the budget for fiscal year 1971 of the Bureau of Commercial Fisheries by whatever legislative procedure has the greatest chance of success.

Mrs. Hansen has made two statements that puts the dilemma of the domestic fisheries and the Bureau of Commercial Fisheries into focus. They are:

"This (the reduction) is equivalent to telling the world, the United States is no longer interested in our fish resources.

"America's leadership in fields other than armaments can be lost in the Bureau of the Budget."

We are grateful for this opportunity to tell how we view the results of the proposed budget cuts. First, the moral of the personnel of BCF has been crippled—motivation and achievement reduced. Second, there has been a most unfortunate rearrangement of the priorities of the Bureau's activities. Research has been drastically reduced especially in the area of aquaculture. Our company is indebted to the laboratories of Milford and Oxford for developing and refining the techniques for farming the sea.

This is true of many other firms and laborataories along our vast coastline. When the news broke that shellfish research was to be drasticaly reduced, the World Mariculture Society was (ironically) holding its first conference in Louisiana. The 210 persons in attendance are testimony to the interest in aquaculture in the Southern States, especially since one-third of the group (or 70 persons) are directly involved in the commercial aspects of sea farming.

All of us in the shellfisheries are the beneficiaries of the information developed by the Milford team. In our industry we are relying on the team effort to use the knowledge of algae culture and genetics.

Documenting the work at Milford, we enclosed letters from distinguished shellfish scientists and industry members from Canada, Scotland, France, Spain, Yugoslavia, Thailand, Japan, and the Netherlands. Each of these people have been trained at Milford to carry on aquacultural activities in their own countries. Among them were AID and UNESCO sponsored persons. The reaction to the closing of Milford and the word most used was "shocked." They described Milford variously as a "lighthouse, mecca, a unique unit with profound international impact." All of us agree with them that we must continue to have the "permanent" help of the Milford staff and laboratory if mariculture of this country and abroad is to implement food supply of tomorrow.

We are here to support all of those who are also testifying for increasing the budget of the Bureau. Our remarks pertain to the areas where we have the most experience and knowledge.

Research done in the costal zone to protect the resources and develope techniques of increasing food production is a necessity. In our opinion shellfish populations are a measurement of the marine environment.

Thus, we insist that lessening shellfish research, and particularly the Milford Laboratory, is a tragic error which we hope you will rectify.

The priorities set for/or by the Bureau are unbelievable unrealistic. How can the productivity of the ocean be increased? The opportunities lie in the shallow waters where farming techniques and species management are possible. The molluscan research subactivity of the Bureau is most fruitful of all for two basic reasons:

(*a*) It makes possible greater productivity of food, and

(*b*) It monitors marine ecology, the direct indicator of our progress in pollution control.

Our Nation had better be dedicated to both of these endeavors. Indeed, the need is for more laboratories in determining the uses and viability of the marine environment.

Considering the billions of dollars we have expended to enhance our world image, we must be grateful for the scientists at Milford who have succeeded in their field to impress the world/and with the most meager of budgets. We urge you to increase the Bureau's budget and retain among other facilities the incomparable Milford team of extraordinary scientists working for the welfare of our world.

In addition to the letters from abroad, we have included in the documentation, a brochure of the Milford Laboratory which was published December 1969. We hope you will include the titles and authors of the recent and significient publications of the Milford Laboratory in the record of this hearing. There are also two letters addressed to Secretary Hickel asking that Milford be preserved. One is from the World Mariculture Society and the other is from the Northeast Shellfish Society Association representing the States of Maine, Rhode Island, Connecticut, Pennsylvania, Massachusetts, New Hampshire, New York, New Jersey, Delaware and Maryland.

In summary, we urge increased B.C.F. funding because:

1. Milford's work monitors the estuaries of the Atlantic coast. These are under the heaviest of population pressures. Environmental quality is inexorably tied to the Molluscan species.

2. Milford has enhanced the prestige of our country via its excellent information and cooperation with all of the earth's molluscan scientists and industry.

3. Milford has served as a training ground for academic and industrial mariculture for our citizens and those of other countries.

4. The team at Milford could never be duplicated if once disbanded.

5. The persons in molluscan research in the B.C.F. long ago earned our total, unconditional admiration and gratitude.

6. Fundamental research is a Federal responsibility to the citizens of the United States in fisheries for realizing;

(*a*) Food potential of the estuaries, and

(*b*) The preservation of a viable environment.

Thank you for your assistance in helping our domestic fisheries.

(Additional information follows:)

NORTHEAST SHELLFISH SANITATION ASSOCIATION,
N. Kingstown, R.I., April 8, 1970.

Hon. WALTER. J. HICKEL,
Secretary of the Department of Interior,
Department of Interior Building, Washington, D.C.

DEAR MR. SECRETARY: Whereas the biological shellfish program of the Milford, Conn., laboratory operated by the U.S. Bureau of Commercial Fisheries is outstanding and is nationally and internationally recognized for their excellence, and

Whereas the resulting knowledge of shellfish behavior and reaction to their environment is essential to the promulgation of proper regulations insuring the sanitary safety of shellfish consumed by the public, and

Whereas the closing down or at least the severe reduction of the Milford program is threatened and no adequate alternate program exists or is proposed.

Therefore be it resolved that the Northeast Shellfish Sanitation Association representing the States of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, and Maryland, in technical conference assembled, strongly urges the continuation of the Milford program on a full scale basis under the Bureau of Commercial Fisheries.

Resolution made and passed unanimously at the NESSA meeting this 2d day of April 1970, Newport, R.I.

For the President,

JAMES L. VERBER,
Secretary-Treasurer.

LOUISIANA STATE UNIVERSITY,
Baton Rouge, La., February 12, 1970.

Hon. WALTER J. HICKEL,
Secretary of Interior,
Washington, D.C.

DEAR SECRETARY HICKEL: The First Annual Workshop of the World Mariculture Society was held at Louisiana State University on February 9 and 10, 1970. This society was formed to further the interest of mariculture in the United States and other countries. A total of 210 registered, representing 19 States and six countries.

Alarm was expressed that certain federally sponsored fishery laboratories are in danger of being closed, specifically the Biological Laboratory in Milford, Conn. Therefore, the World Mariculture Society wishes you, in your deliberations, to please hold in mind that the Milford, Conn., Laboratory has been one of the most productive in research of any in the Bureau of Commercial Fisheries. It should be noted that Federal employees, who are members of our society, abstained from voting on our resolution.

Thank you for your kind attention to our resolution.

Sincerely,

JAMES W. AVAULT,
Secretary-Treasurer.

NETHERLANDS INSTITUTE FOR FISHERY INVESTIGATIONS,
Ijmuiden, March 10th.

MRS. DAVID H. WALLACE,
Executive Director of the Oyster Institute of North America,
Sayville, N.Y.

DEAR MRS. WALLACE: Your letter dated February 27, 1970, arrived here while I was in Paris for an international meeting. Returned in my Institute I hasten to send you a reply.

The news that the Milford laboratory is about to be abolished was certainly a shock to me. We know this laboratory for so many years and I had the pleasure to visit it twice myself in the time that my good friend Dr. V. Loosanoff was its director. In reviewing literature on the biology of the oyster, we come across many papers produced by the Milford laboratory. In several aspects of modern oyster biology, the contributions from Milford figure on the first rank. We, therefore, can hardly believe that this laboratory is about to be closed.

We know from personal experience that government services require reorganization from time to time to keep pace with modern development. From your information, I derive that it is such a reorganization which leads now to dramatic decisions for the Milford laboratory. As an old timer in oyster biology, I would be inclined to react strongly on such a decision, but as government official I realize very well that it is beyond my competence to interfere with government politics in your country. However much I regret the course of events described by you, I fear that there is little I can do to safeguard the Milford laboratory.

Yours sincerely,

DR. P. KORRINGA,
Director.

FISHERIES RESEARCH BOARD OF CANADA,
Nanaimo, British Columbia, March 6, 1970.

MRS. D. H. WALLACE,
Executive Director, Oyster Institute of North America, Sayville, N.Y.

DEAR LIBBIE: I have had a communication from the Milford laboratory itself regarding its closure and your letter to Neil Bourne arrived yesterday. We certainly deplore the action in view of the lab's service to the scientific community as a whole, its past productivity and future potential.

In the field of larval studies, scientists throughout the world have derived benefit both directly at the laboratory and indirectly through publications. There are several shellfish hatcheries on the Pacific coast of your own country whose operation is based on Milford studies and our own laboratory here uses essentially the same techniques. There are two producing hatcheries on the Canadian Atlantic coast. This is, of course, just one phase of many in the field of shellfish biology where the Milford laboratory has made significant contributions of value not only to your own country's shellfisheries but worldwide.

We have all been looking forward to the contributions of the Milford laboratory in the field of shellfish genetics.

As you realize, it would be presumptuous for us to comment on our concern directly to your governmental authorities but we do hope that reason will prevail and your efforts will be successful.

Yours truly

D. B. QUAYLE.

ROVINJ, *March 16, 1970.*

MRS. ELIZABETH M. WALLACE,
Executive Director, Oyster Institute of North America, Sayville, N.Y.

DEAR MRS. WALLACE: Thank you very much for asking me to write the letter on the utilization of my training as a UNESCO fellow at Milford Laboratory. Besides this letter, I enclosed two of my papers to prove the international collaboration with this laboratory.

I am very sorry about the position of Milford Laboratory and I hope it will not be closed. I'll be happy very much if I can help them by my letter. If you think that the letter is not good enough, please write me and let me know for extend it.

Sincerely yours,

MRS. MIRJANA BRENKO.

ROVINJ, *March 16, 1970.*

As UNESCO fellow a very successful training of 6 months was realized at the U.S. Department of the Interior, Bureau of Commercial Fisheries, Biological Laboratory, Milford, Conn., U.S.A., in 1969. The training was a significant contribution to the raising of the preceding knowledge especially concerning the studies of physiological requirements of mussel larvae under the laboratory conditions (see enclosure). Laboratory equipment and different problems of commercial shellfishes through the discussions with specialized biologists of Milford Laboratory were learned during this training.

Several very useful publications on methods of predator control developed in this laboratory were already applied and also will be used in the destruction of some fouling animals, epibionts of oysters and mussels in Adriatic Sea (see enclosure).

In spite of the differences in shellfish farming between that of Long Island Sound (bottom farming) and ours in the Adriatic Sea (up of bottom) there were in the past and will be in the future also many advantageous information for increasing production of commercial shellfish from this laboratory which will

be useful for both types of farming. The need of such type of laboratory in Long Island Sound is justified as this area is of commercial value for shellfish industry. The experiences and facilities they have now in this laboratory are of great importance for the advancement of shellfish not only for the United States but also for the other countries around the world.

MRS. MIRJANA BRENKO.

MARCH 10, 1970.

MRS. DAVID H. WALLACE,
Executive Director, Oyster Institute of North America,
Sayville, N.Y.

DEAR MRS. WALLACE: I am surprised to learn that the B.C.F. laboratory at Milford might be abolished. I visited the Milford Laboratory several times and I was particularly impressed with their research program. The Milford team has contributed extensively for the advancement of aquaculture in the past and its impact has been international. I think that continuation of the research program at Milford would be certainly valuable for aquaculture development in the coastal zones of the United States. Their experience and knowledge is invaluable for the future of aquaculture.

Sincerely yours,

A. N. SASTRY,
Assistant Professor of Oceanography.

MARCH 17, 1970.

MRS. DAVID H. WALLACE,
Executive Director, Oyster Institute of North America,
Sayville, N.Y.

DEAR MRS. WALLACE: Our mutual friend, Tomorn Langkulsen, has shown me your letter of February 27. I have volunteered to write this letter because I am probably in a better position than anyone else to give testimony on the really outstanding contribution the laboratory at Milford made to the development of Thai oyster culture.

Shortly after my arrival here in 1966 to serve as a member of the AID Mission, Khun Tomorn came to me with the idea that with the right technical guidance he could develop oysters in the Pranburi area and other parts of Thailand as a commercial business. As you know, the whole purpose of our AID Mission here is to help the Thai Government and people develop a strong and well balanced economy. We felt Tomorn's interest fit in perfectly with our objectives and we therefore arranged through AID, Washington, for him to go to the United States and visit people like yourself who could guide him in the development of the industry here. From a small beginning about 4 years ago, he is now selling 5,000 dozen oysters a week to hotels and restaurants in Bangkok. He has prospects for exports to Malaysia, Singapore, and Hong Kong, and I have no doubt that this business will develop in due course.

Khun Tomorn is Kamnan of his area which is roughly equivalent to being mayor of four small towns. All of these towns are heavily engaged in fishing. Tomorn has not only expanded his own business but has worked with the Royal Thai Government Fisheries Department in helping them expand oyster culture in other parts of the country. Tomorn accepts the fact that good competition is good business and he has willingly shared his knowledge with others which he gained from your laboratory in Milford.

If the emphasis is now heavily on projects which contribute to international economic development, I can think of no better one than yours. As a matter of fact, Tomorn is anxious to explore the possibility of processing oysters, clams, and mussels which he has also begun to develop. The Kasetsari University has agreed to can samples of the various oysters and clams he is now raising. We would like to send some of these back to the United States to anyone who might have an interest in working out a marketing arrangement with him.

Frankly, we need guidance on this and I wonder if you could put Tomorn in touch with people who would be interested in receiving some of these canned products and give him an appraisal as to whether they might be sold on the U.S. market.

One other point I should emphasize is that one of the major problems in Thailand is a basic lack of protein in the diet of many Thais. Fishing and mollusc development is imperative to this country if Thailand is going to be able to produce adequate protein to take care of the rapidly expanding population.

Please feel free to use this letter in anyway you see fit. Khun Tomorn has asked me to send you his good wishes and to thank you once again for the great help you have and are giving him.

Sincerely yours,

JACK BAILHE,
Chief, Private Enterprise Division.

MARCH 4, 1970.

Mrs. DAVID H. WALLACE,
Executive Director, Oyster Institute of North America,
Sayville, N.Y.

DEAR MRS. WALLACE: The news in your letter, that the Bureau of Commercial Fisheries' laboratory at Milford is threatened with closure, came to me as a great shock.

In 1959 I spent several weeks of work and discussion at the laboratory, under its inspiring Director Dr. V. L. Loosanoff. During that period I came to realize that the team of scientists at Milford constituted a unique unit in which original discoveries in marine science were being made and rapidly applied to the solution of the practical problems of the shellfish industry. Without any doubt the results which these scientists achieved laid the foundation of sound hatchery and followup techniques for molluscan culture, which subsequently have been taken up also in other countries. Since my experience in Milford I have had no doubt that it is in this field, above all others, that national science-based marine culture has a future and the way in which the Milford pattern is being followed in Britain, Canada, France and elsewhere confirms the wide acceptance of this view.

It seems hardly necessary in these days, to state the importance of research and development of this sort, which is so directly related to the sound exploitation of a local food resource. But the relevance is not merely local; it is international, for the same approach pioneered at Milford is applicable—and has been applied—to commercial species occupying the same ecological niche in other localities and other countries. In consequence great possiiblities have been opened up, particularly in places where natural conditions do not favor reproduction, or repopulation following over-exploitation. Furthermore, the development of hatcheries will lead to selective breeding and advances in stock strains comparable with those which have transformed agriculture. All of the possibilities, now starting to be realized, are the direct result of a line of scientific research in which the Milford laboratory played the leading part.

Despite the progress already made a great deal remains to be done, particularly in genetics and selective breeding, and it is precisely in this field that one looked to the Milford laboratory for further important advances. With its record of success and dedication, and its accumulated expertise surely that is the laboratory where this research should continue, and unless it is continued much of the potential advantage gained during the past 30 years will be lost.

I sincerely hope that, in the interest of marine science and of fisheries, the Milford laboratory will continue to receive the support which it has so well earned in the past.

Yours sincerely,

R. H. MILLAR, *Director.*

Mrs. HANSEN. We shall insert a listing of the titles of the publications in the record.

(Titles are as follows:)

"Influence of Dinoflagellate Trichocysts and Other Factors on the Feeding of Crassostrea Virginica Larvae on Monochrysis Lutheri."

"Bacteriological Study of Laboratory-Reared Juvenile American Oysters (Crassostrea Virginica);" "Removal of Yolk from Oyster Eggs by Soxhlet Extraction for Clear Chromosome Preparations."

"Bacteriological Study of the Natural Flora of the Eastern Oyster, Crassostrea Virginica;" "Bacterial Flora of Some Algal Foods Used for Rearing Bivalve Larvae."

"New Shellfish Farming;" "Feeding Rates of Starfish, Asterias Forbesi (Desor), at Controlled Water Temperatures and During Different Seasons of the Year."

"Fertilization and Completion of Meiosis in Spawned Eggs of the American Oyster, Crassostrea Virginica Gmelin;" "Effects of Synthetic Surfactants on the Larvae of Clams (M. Mercenaria) and Oysters (C. Virginica)."

"Time and Intensity of Setting of the Oyster Crassostrea Virginica, in Long Island Sound;" "The pH tolerance of Embroyos and Larvae of Mercenaria Mercenaria and Crassostrea Virginica;" "Bacillary Necrosis, a Disease of Larval and Juvenile Bivalve Mollusks."

"Infestation of the Hard Clam, Mercenaria Mercenaria, by the Boring Polychaete Worm, Polydora Ciliata."

"Mulinia Lateralis: Molluscan Fruit Fly?"

"The American or Eastern Oyster;" "Effects of Pesticides on Embryonic Development of Clams and Oysters and on Survival and Growth of the Larvae."

"Inhibition of Unicellular Algae by Synthetic Surface Active Agents."

"Spawning of the American Oyster, Crassostrea Virginica, at Extreme pH levels."

"Shellfish Hatcheries and their Future."

"Sufonamide Inhibition in Monochrysis Lutheri."

"Chromosome Complement of the American Oyster (Crassostrea Virginica) as Seen in Meiotic and Cleaving Eggs."

"Maturation of Gonads of Oysters, Crassostrea Virginica, of Different Geographical Areas Subjected to Relatively Low Temperatures."

"Effects of Some Pesticides on Eggs and Larvae of Oysters (Crassostrea Virginica) and Clams (Venus Mercenaria)."

"The Veliger."

"Effects of 'Soft' Detergents on Embryos and Larvae of the American Oyster (Crassostrea Virginica)."

"Reproductive Cycle of the Coot Clam, Mulinia lateralis (SAY), in Long Island Sound."

Forest Service

WITNESS

H. E. RUARK, DIRECTOR, GEORGIA FOREST RESEARCH COUNCIL

Mrs. Hansen. We now have the very distinguished Director of the Georgia Forest Research Council, Mr. Ruark.

Mr. Flynt. I want to welcome Mr. Ruark and introduce him to the members of our committee. We are very proud of the work that Mr. Ruark has done in Georgia. As the director of the Georgia Forest Research Council, he has made valuable contributions.

Mr. Ruark. Thank you, Congressman Flynt and Madam Chairman.

I brought some posters. I can testify a little better in this way.

(Mr. Ruark's statement follows:)

Statement by H. E. Ruark[1]

Mr. Chairman, and members of the committee, my name is H. E. Ruark. I am director of the Georgia Forest Research Council with headquarters in 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 to discuss forest research needs.

I am appearing before you today to request that $140,000 be appropriated to the U.S. Forest Service for use in planning to expand the Southern Forest Fire Laboratory at Macon, Ga. This facility is of vital importance to protecting forest lands in the southern and eastern part of the country from devastating wildfire.

The Southern Forest Fire Laboratory was constructed in 1959 and was the first of its kind in the United States designed to serve as a scientific center for conducting research on the suppression and various uses of fire to better protect and manage the forests of the South and East. Since 1959, the fire research

[1] Director, Georgia Forest Research Council, Macon, Ga.

program has increased steadily and, today, the facility is totally inadequate to house the scientists and accomplish the laboratory-oriented research so necessary in further reducing the losses from fire.

The Southern Forest Fire Laboratory serves a very active fire region in the country. For example, during 1968, a fairly typical fire year in the South, 75,000 fires burned 2.18 million acres of private, State, and Federal land in the southern group of States.[2] These totals represent 60 percent of the fires and 52 percent of the area burned over the country, including Alaska which had a most severe fire season.

Because of land ownership patterns and other factors, large forest fires in the South are not usually given the headlines in newspapers and national television coverage as a similar size fire occurring in the West. Yet, statistics show that year after year, the South leads the Nation in the number of wildfires and the number of acres burned. Maybe it is because of this undesirable record where forest fires are so numerous and millions of acres burn each year the news media does not consider the situation newsworthy.

Nevertheless, it is interesting to note that Southern forestry is most vital to the well-being of our Nation.

Briefly, major activities in forest products production in the region include:

1. Production of Southern pine lumber has increased 25 percent since 1961.
2. The Southern pine plywood industry, born in 1963, produced 16 percent of the Nation's plywood in 1968.
3. Pulpwood production in the South quadrupled between 1946 and 1968. Now it constitutes 63 percent of the Nation's total.
4. The South also produces a large volume of hardwood lumber—some 4 billion board feet, which is well over half of the country's total.
5. It produces nearly three-fourths of the Nation's supply of hardwood veneer logs and bolts.
6. Eighty-five percent of pressure treated poles, principally Southern pine, comes from the South.

As impressive as these figures are, it is indicated by economists and others that the demand for Southern timber by the year 2000 will amount to 2.3 times as great as the region produces today.

While the demand for forest products are mammoth and will continue to grow, we must also take cognizance of the fact that there are other growing demands on Southern forest resources.

Leisure time and a mobile society are also causing a heavy demand on the forest for outdoor recreation. Millions of acres of productive forests have been set aside for recreational purposes. It is safe to assume that the trend of growing numbers of forest visitors will increase each year and more and more forest land will become recreational land.

In most areas of the South there has been little concern over an adequate water supply. However, this is changing. Our citizens are aware that quality water is prized and that good management practices must be exercised if we are to meet the future needs of the region. Of course, one of these practices is protection from wildfire.

Hunting and fishing is very much a part of outdoor recreation. Expanding game management and fishing areas are being designated for public use. In these areas cutting practices are held to a minimum.

Therefore, with a shrinking forest land base it becomes more imperative that new knowledge on fire prevention and fire suppression be made available to firefighters.

Fire control in the South is more important today than ever and if protection is to be intensified—and every indication points to this need—a more significant effort will be needed. In 1968, $36.7 million was expended in the South to achieve the record of burning 0.47 percent of the area protected. This record sounds impressive; but if the South is to meet the demands of the future, this burned area must be reduced, and maintained, at a level not to exceed 0.2 percent.[3] It is predicted that this will cost in the neighborhood of $58.5 million.

Progress in the early stages of fire control came with relative ease because any improvements, no matter how small, resulted in a reduction in number of fires and area burned. As we continue to progress toward the theoretical goal of no

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[2] Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia—Statistics from 1968 Wildfire Statistics, Division of Cooperative Forest Fire Control, USDA Forest Service.

[3] The South's third forest.

wildfires (probably unattainable), the concrete improvements come slower and are more expensive. Today, a successful fire control operation must be supported by an effective, well-balanced fire research program designed to meet the demand for more adequate use and control of fire. Provisions must be made for change because an inflexible fire control or fire research organization will suddenly find themselves operating in a vacuum and not providing the services needed.

The fire research program at the Southern Forest Fire Laboratory has been responsive to change and the current research projects adequately reflect this adjustment. Work underway includes studies of (1) the effects of weather on fires; (2) forest fuels, and how they may be classified and described for purposes of flammability rating, and under what conditions these fuels contribute to fire damage and difficulty of fire control; (3) what changes can be made to develop new equipment, or better utilize available equipment in control of fires; and (4) how can fire be used to reduce hazards, control insects and diseases, prepare planting sites, eliminate undesirable vegetation, and improve wildlife habitat. It is also important to know if there are undesirable side effects of using fire for land management purposes, and work is currently underway to discover more about air quality changes as they relate to both intentional burning and wildfires.

Personnel working on these problems are currently housed in four different make-shift locations away from the Fire Laboratory unit. One group is located in an old frame dwelling that is far from being adequate and separated some 150 yards away from the main laboratory. Because of crowded conditions in this dwelling a mobile home was converted into an office and work space for a second group. It is parked in the back yard of the above described frame dwelling. A third group is 500 yards from the main laboratory, also in a frame building. To gain needed space the fire weather office is located in a fourth building removed from the main fire research laboratory. The present building contains only 16,000 square feet which is an extremely limited size for such a laboratory and results in severe crowding of the existing fire research staff. Only about half of the present Fire Laboratory staff are located in the Laboratory building itself. This creates a hardship on those working in the temporary quarters, and is undesirable from the standpoint of productive research.

Forest Service research plans for the 1970's call for three new research projects to be located at the Southern Forest Fire Laboratory, and specialized additions to the existing staff. One of the new projects will be responsible for developing a fire intelligence system for the South that would integrate fire danger rating, fire detection, and fire mapping into presuppression and suppression planning so that the fire agencies could better evaluate the fire potential for all fires and control the fires more safely and effectively. Another new project will be concerned with tying together the complex aspects of fuel, weather, and terrain so that the fire behavior on individual fires can be better understood and predicted.

Disseminating research results is an important aspect of research and a fire science project is planned that would pull together fire research information in usable form so that fire agencies can apply research results more readily.

In summary, then, the South needs to continue to improve its record in preventing and controlling fires. The projected demands for wood products, for areas devoted to recreation, for clean air and water, and for better utilization and management of the available resources makes it mandatory that we continue to reduce fire incidence and that the fires that do start are controlled quickly with a minimum of damage. The research being conducted at the Southern Forest Fire Laboratory is helping, but unless adequate facilities are provided, unless new studies can be started, and unless the existing work strengthens, fire research—and hence fire control—will be several steps behind in the race to provide the fire protection needed for America's future.

Congress is urged to provide $140,000 in the fiscal year 1971 appropriations to the U.S. Forest Service for planning an expanded forest fire research facility located in the South but serving all Eastern States.

Mr. RUARK. My purpose for being before the committee is to ask you to appropriate $140,000 of planning money to expand the laboratory in Macon, Ga.

The laboratory there at Macon represents the southern part of the country and also it does some research for the Eastern States. There

is no other laboratory east of the Rockies, and this is a small laboratory built by the State of Georgia. We used our funds 11 years ago. We invited the U.S. Forest Service to come in, staff it, and do the research. The Georgia Research Council has maintained the building at no charge to the Federal Government.

This year the General Assembly of the State of Georgia has authorized us to lease this building to the Forest Service so that we might expand the building.

This is the reason this building is needed—there were 75,000 fires in 1968 out of 125,000 which occured in America, and these were in the South. Sixty percent of the fires in the Nation burned in the South This represented 52 percent of the land area which was burned in 1968.

This chart shows the acreage and the relationship between the Southern States and the other States of the Nation and compares them.

Mrs. HANSEN. Please insert in the record the total forest acreage in all these areas.

Mr. RUARK. Yes, Madame. It is not in my statement.

(The information follows:)

Fire statistics, 1968—Includes Federal, State and private lands

Area groups:	*Forest acreage*
Rocky Mountains	386,000,000
Pacific	392,000,000
North Central	90,000,000
South	217,000,000
Eastern	79,000,000
Total	1,164,000,000

FIRE RECORD, 1968

Groups	Number of fires	Acres burned
Rocky Mountain	10,607	368,874
Pacific	8,848	1,247,873
North Central	13,062	347,253
Southern	74,703	2,182,328
Eastern	18,151	85,648

Mr. RUARK. The two graphs indicate the relationship between the fires occurring in the South and the other groups. This is the number of fires and this is the acreage burned.

To justify a good fire protection system and justify research, this past year there was completed an indepth study of the role of forestry in the South and its relationship to the needs of the Nation. They named it the first forest, second forest, and third forest. I am talking about the third forest because the first two forests are behind us. The first forest was the beginning of this Nation and the cutting practices that began then. According to this report it lasted from the very beginning until 1945. In 1945 in the South there was begun reforestation and other programs. This became the time of the second forest in which a great deal of reforestation took place, and the growth of paper mills in the South, the new plywood industry, and a great increase in our activities.

This is a summary of what happened in the South. There has been a 25 percent increase in pine lumber since 1961, and 85 percent of the treated poles in America come from the South. Seventy-five percent of the hardwood veneer and logs come from the South.

In 1963 we had the beginning of the plywood industry in the South. Before that time we had none. By now we are producing 16 percent of the Nation's supply of plywood.

Also we produce pulpwood, 63 percent of the Nation's supply. We also have over 50 percent of the hardwood in the South.

The third forest is a recommendation of this study of 14 key points, of which research is one. I am highlighting research in fires this morning and not the others. It indicates what the situation is in 1968. We have 5.7 billion cubic feet removed from the forests in the South. Indications are that we will need 2.3 times that much, 13 billion cubic feet, to be produced in the South.

Madam Chairman, we are gearing to the day when in Washington and Oregon the old stands will be cut out and the South will have a more important role in forestry.

This will be on 10 million acres less of land because recreation is taking our land away from us. It behooves us to protect this so we may reach this goal. This is the need for the Nation.

This chart actually shows the situation as it is at Macon with this laboratory which we built. We built it back in 1959 with 16,000 square feet. It is really too small. The other two laboratories are around 36,000 square feet. Therefore we have had to take the staff and place them in buildings.

Here is an old frame building. We have the meteorology group there. Here we have the seed laboratory. Up here we have another building. These people just walk back and forth. These are good scientists but if they want to know anything about the weather, they look at the weather maps that come in every day over the machinery from the Weather Bureau, they have to move way over to this other building.

I ask you to budget for us $140,000 to plan this facility which is so badly needed for the southern region.

Mrs. HANSEN. Thank you so much.

FOREST SERVICE

WITNESS

JOHN F. HALL, DIRECTOR, GOVERNMENT AND FORESTRY AFFAIRS, NATIONAL FOREST PRODUCTS ASSOCIATION

Mrs. HANSEN. Mr. John F. Hall, Director, Government and Forestry Affairs, National Forest Products Association.

(Mr. Hall's prepared statement follows:)

Mr. HALL. Madam Chairman and members of the Committee:

I am John F. Hall, Director of Government and Forestry Affairs for National Forest Products Association, which has headquarters in Washington, D.C. It is a federation of 20 regional, species and product associations representing the forest products industry throughout the United States, including Alaska. We

appreciate this opportunity to present a statement on the proposed 1971 Forest Service budget.

The Forest Service has correctly pointed out the great significance of National forest timber in meeting domestic needs for lumber and plywood. It testified as well to the strong dependence of local industry for raw materials from national forest timberlands in some areas. The significance to the Nation of timber produced in the national forests was documented in much greater detail in the hearings on lumber prices by the House and Senate Committees on Banking and Currency held in March, 1969. Subsequent to those hearings housing activity was choked off by the cost and scarcity of mortgage credit. Industry dependency on national forest timber, however, has not and will not be altered.

The response of the House Agriculture Committee to the evidence in these hearings was the development of a bill for more efficient management of national forest commercial forest lands under which timber receipts, other than the portion earmarked for payment to counties or for forest roads, would be placed in a high timber yield fund for appropriation for measures to increase timber yields in the national forests. The final proposal of the committee was embodied in H.R. 12025—The National Timber Conservation and Management Act.

The persuasive urgency for enactment of such a measure has been reduced temporarily by the advent of an artificially induced depression in home construction. This situation, together with the prospect of the June 30 release of the Public Land Law Review Commission report, led the House of Representatives to decline to consider H.R. 12025 in late February. That report will include recommendations on public land timber management policies. Nevertheless, the problem of adequate supplies of forest products for home construction has not been solved. The only way to avoid dramatic emergence of this old problem is to keep home construction at present depressed levels. No responsible nation should suppress one problem at the expense of solution to another. We should rather be using the present lull in demand to get national forest timber production ready to supply its share of lumber and plywood demand levels when home construction agains turns upward.

While legislation to establish firm policies for financing intensive management essential for increasing timber production on the national forests is highly desirable, much can be done without such legislation. The forest products industry is encouraged by the 1971 budget for the Forest Service as evidence that the administration is facing in that direction. The budget increases providing for timber production are steps in the right direction. They are small steps rather than giant strides, but the forest products industry appreciates the intense and essential pressures on the administration to curtail Federal expenditures. It therefore attaches special significance to the recognition of the provisions for increasing timber supplies from the national forests evident in this 1971 budget for the Forest Service.

NFPA especially endorses as essential the following items and assures the committee that substantially greater amounts for all these items are highly desirable.

1. *An increase of $5,260,000 in timber sale administration and management.*—The Forest Service correctly notes that unit costs are unavoidably increasing to perform cutting in a manner to meet higher standards of environmental maintenance. Even with this increase, which is offset by increasing unit costs, the Forest Service indicates a reduction in the volume of timber under both harvest and salvage sales being prepared for fiscal year 1971. The Forest Service proposal to increase expenditures on timber inventories and management plans by $396,000 is desirable and necessary.

2. *An increase of $2,877,000 for reforestation and timber stand improvement.*—Substantial increases in reforestation and timber stand improvement activities are the key to increased national forest productivity. Ultimately some means to make about a tenfold expansion in this work must be found. Contrary to experience in past years of budget stress and strain when this activity was a favorate candidate for deferment, the administration has recognized the special needs to increase national forest productivity and has advocated this $2.8 million expansion in timber cultural programs.

3. *An increase of $1,146,000 for forest research.*—All of the budget increases for forest research, except $75,000 for watershed management research, are timber production connected activities. The industry is gratified by this current recognition and increased support of timber management, forest products utiliza-

tion, forest engineering, forest survey and forest economics research projects. A proposed substantial increase in the research budget for construction of a much needed timber structures laboratory warrants special comment at a later point.

4. *Forestry Science Laboratory at Corvallis, Oreg.*—NFPA is dismayed that not only was construction stopped at the Forestry Science Laboratory at Corvallis, Oreg., as part of the Governmentwide policy to reduce Federal construction in 1969, but also that it is proposed that the funds appropriated for this purpose be applied to financing increased pay cost in research activities. The committee is urged to find some means through which the funds which have been appropriated for this laboratory will be held intact and ready for use whenever the policy which has deferred Federal construction is lifted.

5. *A program increase of $10,980,000 for forest road and trail construction and maintenance.*—This increase is for the purpose of expanding the road construction program in support of national forest management plans and is an essential part of increasing the productivity of the national forests. The industry fully supports this item.

6. *A decrease of $2 million in funds for cooperation in forest fire control.*—Funds for the cooperative forest fire control program with States would be reduced from $16.5 to $14.5 million. The stated motivation for this reduction is the urgent need to reduce Government spending to the lowest possible level. Forest fire protection by the States is absolutely essential for a sound forestry program for the Nation. This proposed reduction of approximately 12 percent in the Federal contribution to this program is an inadvisable risk. There has been no reduction in the need for this fire protection. The values at stake are increasing as are the costs of protecting these values. The National Forest Products Association urges the committee to restore this item to the level at which it was financed in fiscal year 1970.

7. *An increase of $8,200,000 for cooperation in forest management and processing.*—This proposal will increase by approximately 20 percent funds available for working with the States in programs supplying technical assistance to private nonindustry forest owners, loggers, mill operators and other processors of timber products. Funds allocated to the States are matched with State appropriated funds up to 50 percent of the total cost. These programs are designed to increase productivity from private nonindustry forest lands and to improve the efficiency of timber utilization by small operators. The industry endorses this expenditure increase.

STRUCTURAL TESTING FACILITIES AT THE FOREST PRODUCTS LABORATORY

Increasingly those who are most concerned about our Nation's environmental problems are recognizing the major role of adequate housing. Attractive houses of wood frame construction can be provided at an appreciably lower pollution level than that which accompanies the production and use of other construction materials. Wood is a self-replacing natural resource. Its harvesting can be accomplished with minimal and temporary soil disruption.

Historically, the wood products industry has looked to the Forest Products Laboratory at Madison, Wis., for impartial basic research data to permit lumber and wood products to be used most efficiently for housing and other purposes.

Several years ago, in recognition of the important role the Forest Products Laboratory plays in providing these data, NFPA and other wood industry organizations urged an expansion program for construction of certain new facilities at the Madison laboratory. Although this program was initiated, before work on structural testing facilities (upon which housing research depends) could be undertaken, the required budget was reduced. It is urged therefore that $1.5 million be appropriated at the earliest possible date to permit construction of this urgently needed structural testing facility.

Construction of the structural testing laboratory is a major part of the current FPL program. Builders, designers, and code authorities are expressing increasing concern for improved design data which reflects the interaction of structural components. Such information will serve as a basis for necessary and meaningful performance-type specifications. These data, confirmed by adequate full-scale tests, must be obtained and made available to designer and builder groups if wood is to contribute its optimum use potential to the economy. A structural laboratory at FPL will make possible expanded research on floor, roof and walls action as systems rather than assemblies of individual members.

The proposed testing facilities will also be of significant benefit to the Forest Products Laboratory in its cooperative program with the National Bureau of Standards to evaluate new housing construction proposals submitted under HUD's Operation Breakthrough. Research would be conducted on materials, components and systems.

The critical housing shortage, and the fact that 35 percent of the U.S. consumption of lumber and plywood enters the housing market, clearly gives top priority to research on the more efficient use of wood products to meet low and middle income housing needs.

We strongly urge that $1.5 million for an adequately staffed, fully equipped structural laboratory be provided in this year's Forest Service budget.

LITIGATION PROBLEMS IN FOREST MANAGEMENT

The forest products industry is deeply concerned over the trend toward increasing litigation on timber sale and timber policy issues. The standing of individuals, associations and concerns to sue Federal administrators, which has been established by recent Supreme Court decisions, will generate a stream of challenges in the Federal courts to various facets of Federal timber sale policies and to decisions on individual timber sales. Lengthy delays in making timber available for harvest as the result of such litigation can be disastrous to mills dependent for raw materials on timber from public lands as well as to the communities they largely support. (It will be quite possible that the affected mill may not be directly involved in the dispute which results in court-ordered delay of timber sale action.)

It is clear that the Forest Service must be financed to perform its timber selling functions to standards and with documentation suitable for effective court use. The Forest Service will also require greatly expanded legal advice and assistance to meet these many challenges successfully and efficiently so as to avoid disruptive tie ups in the administration of its timber sale business. These considerations are a further justification for the increase of $5,260,000 in timber sale administration and management for the Forest Service. They also support budget estimates for the General Counsel of the Department of Agriculture.

USE OF PAYMENT GUARANTEES IN NATIONAL FOREST TIMBER SALES

The Senate Appropriations Committee in its report on appropriations for the Department of Interior and Related Agencies for fiscal year 1970 directed the Forest Service to continue to accept payment guarantees in timber sales in the same manner as had been in effect in calendar year 1968. The Forest Service in August 1969 had announced a revision in payment bond policy which would eliminate the use of payment bonds for logs in storage which are scaled as they are taken out of storage. (National Forest timber must be paid for before it is cut unless the purchaser furnishes a payment bond in which event payment can be made on the basis of monthly billings after the timber has been scaled.) This policy change would unnecessarily cause difficulties for timber purchasers who process around 2 billion board feet of National Forest timber or roughly 20 percent of Forest Service sales.

In accordance with the suggestion of the Senate Appropriations Committee, the forest industry committee concerned with Forest Service relationships has developed a proposal to resolve this problem. A copy is herewith submitted for the information of this subcommittee. This proposal would dispose of two of the reasons advanced by the Forest Service to justify a need for a discontinuance of the use of payment bonds in deferred scaling situations. The proposal could be put into effect as a departmental regulation without legislation. Legislation would be necessary if the Forest Service should be unwilling to accept the proposal. In event an agreement with the Forest Service cannot be worked out, it is evident that the necessary legislative action cannot be completed by June 30. Hence an extension of the Senate Appropriations Committee's directive into fiscal year 1971 may be necessary.

A BILL To establish methods of payment for National Forest timber, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That payment for National Forest timber shall be made before removal unless the purchaser provides an acceptable surety bond, guaranteeing payment within 30 days of removal. In lieu of a surety bond,

a purchaser may deposit negotiable securities of the United States accompanied by power of attorney and agreement authorizing sale of such securities if payment is not made as above provided.

If purchaser stores logs off the sale area before scaling and has provided an acceptable payment guarantee, payment must be made within 30 days of such storage unless the purchaser executes an instrument consenting to seizure and sale of such stored logs by the United States with guarantee of free access to the United States or its assigns to permit effective possession and removal of such logs from the storage site in event of failure of sureties to meet payment demands within 30 days after notification of default in payment by purchaser. Such instrument consenting to seizure and sale shall provide that such action shall be stayed if there is a bonafide dispute over the volume or value of the timber involved and the timber purchaser is pursuing administrative or judicial means to resolve the dispute. Payment for all logs which are in storage off of the sale area on December 31, must be made by not later than June 30, of the following year.

Mr. HALL. Madam Chairman and members of the committee:

I am John F. Hall, Director of Government and Forestry Affairs for National Forest Products Association. I appreciate this opportunity to present a statement on the 1971 Forest Service budget.

The significance to the Nation of timber produced in the National Forests was documented in detail in the hearings on lumber prices by the House and Senate Committees on Banking and Currency held in March 1969.

The House Agriculture Committee developed a bill for more efficient management of National Forest commercial forest lands under which the bulk of timber receipts would be placed in a high timber yield fund for appropriation for measures to increase timber yields in the National Forests.

The depression in home construction, together with the imminent Public Land Law Review Commission report, led the House of Representatives to decline to consider H.R. 12025 in late February.

Nevertheless, the problem of adequate supplies of forest products for home construction has not been solved.

We should use the present lull to get National Forest timber production ready to supply its share of lumber and plywood demand levels when home construction again turns upward.

While legislation to establish firm policies for financing intensive management is highly desirable, much can be done without such legislation. The forest products industry is encouraged by the 1971 budget for the Forest Service as evidence that the administration is facing in that direction. The budget increases provided for timber production are small steps in the right direction.

We especially endorse as essential the following items and assure the committee that substantially greater amounts for all these items are highly desirable.

1. The increase of $5.2 million in timber sale administration and management recognizes that unit costs are unavoidably increasing to perform cutting in a manner to meet higher standards of environmental maintenance.

Even with this increase, the Forest Service indicates a reduction in the volume of timber under both harvest and salvage sales being prepared for fiscal year 1971.

2. Substantial increases in reforestation and timber stand improvement activities are the key to increased National Forest productivity. The increase of $2.8 million should be increased tenfold.

3. The increase of $1.1 million for forest research for timber management, forest products utilization, forest engineering, forest survey and forest economics is welcomed. A proposed substantial increase in the research budget for construction of a much needed timber structures laboratory warrants special comment at a later point.

4. Forestry Science Laboratory at Corvallis, Oreg. NFPA is dismayed that not only was construction stopped at the Forestry Science Laboratory at Corvallis, Oreg., as part of the policy to reduce Federal construction, but also that it is proposed that the funds appropriated for this purpose be applied to financing increased pay cost in research activities.

Mrs. HANSEN. This committee did not approve the reprograming of the $500,000 for pay costs.

Mr. WYATT. The Bureau of the Budget as of this morning did not have the word that the reprograming has been restricted as far as the $500,000 is concerned but they know now. It did not get to the right place yet.

I can tell you they know about it now and I think there is at least hope that we will get this money obligated before the appropriation expires on June 30, so that we can proceed with the next part of phase 2, of the laboratory. Otherwise we have no choice but to reappropriate $500,000 as an add-on.

Mr. HALL. Additional to this year.

Mr. WYATT. I appreciate your support.

Mr. HALL. Is is very much needed.

We urge you to find some means to keep the funds appropriated for this laboratory intact and ready for use whenever the policy which has deferred Federal construction is lifted.

5. The increase of $10.9 million for forest road and trail construction and maintenance is an essential part of increasing the productivity of the national forests.

STRUCTURAL TESTING FACILITIES AT THE FOREST PRODUCTS LABORATORY

Increasingly those who are most concerned about our Nation's environmental problems are recognizing the major role of adequate housing.

Historically, the wood products industry has looked to the Forest Products Laboratory at Madison, Wis., for impartial basic research data to permit lumber and wood products to be used most efficiently for housing and other purposes.

Several years ago NFPA and other wood industry organizations urged an expansion program for construction of certain new facilities at the Madison laboratory. Before work on structural testing facilities (upon which housing research depends) could be undertaken, the required budget was reduced. It is urged therefore that $1.5 million be appropriated at the earliest possible date to permit construction of this urgently needed structural testing facility.

LITIGATION PROBLEMS IN FOREST MANAGEMENT

Recent Supreme Court decisions will generate a stream of challenges in the Federal courts to various facets of Federal timber sale policies and to decisions on individual timber sales.

Lengthy delays in making timber available for harvest as the result of such litigation can be disastrous to mills dependent for raw materials on timber from public lands as well as to the communities they largely support.

It is clear that the Forest Service must be financed to perform its timber selling functions to standards and with documentation suitable for effective court use. The Forest Service will also require greatly expanded legal advice and assistance to meet these many challenges.

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The Senate Appropriations Committee last year directed the Forest Service to continue to accept payment guarantees in timber sales. The Forest Service in August 1969 had announced a revision in payment bond policy which would eliminate the use of payment bonds for logs in storage which are scaled as they are taken out of storage. This policy change would unnecessarily cause difficulties for timber purchasers who process around 2 billion board feet of National Forest timber or roughly 20 percent of Forest Service sales.

In accordance with the suggestion of the Senate Appropriations Committee, the forest industry committee concerned with Forest Service relationships has developed a proposal to resolve this problem. A copy is herewith submitted for the information of this subcommittee. Legislation would be necessary if the Forest Service should be unwilling to accept the proposal. In event an agreement with the Forest Service cannot be worked out, an extension of the Senate Appropriations Committee's directive into fiscal year 1971 may be necessary.

Mrs. HANSEN. Thank you very much, Mr. Hall.

FOREST SERVICE

WITNESS

J. E. MOORE, FORESTER, AMERICAN PULPWOOD ASSOCIATION

Mrs. HANSEN. Mr. J. E. Moore, Forester, American Pulpwood Association.

Please insert your statement in the record and summarize it for us.

(Mr. Moore's statement follows:)

I am J. E. Moore, forester for the American Pulpwood Association, a national trade association composed of pulpwood producers, dealers, consumers, and others who are directly concerned with the growing and harvesting of pulpwood—the principal raw material used in the manufacture of pulp, paper, paperboard, and other products.

The pulp and paper industry depends on forests for raw material. It is vitally concerned with Federal appropriations that affect the forest resources regardless of whether the forests are owned by Government, industry, or small private landowners.

The total demand for forest products has been increasing in recent years and the demand for pulpwood has increased at a faster rate than the demand for other forest products. For the past 20 years forest growth has exceeded the cut by a comfortable margin. However, a recent study by the Forest Service indicates that the cut may equal the growth around 1980 instead of the late 1990's as predicted just 5 years ago.

This fact alone makes it necessary to do whatever is needed to increase the growth of our forests and at the same time, to find ways to utilize portions of the trees that are now considered worthless. Forest growth can be increased by applying known forest management techniques. This is being done by the forest industries on their own lands, but this alone will not solve the problem because forest industries own only one-eighth of the forest land in the Nation.

All forest lands need protection from fire; we need a closer check on forest growth, drain, and inventory and research is needed to learn how to use a greater portion of the tree. These are three functions of the Forest Service for which money is budgeted and which we wish to discuss today.

FOREST SURVEY

The forest survey is conducted by the Forest Service with assistance by State forestry organizations and industry. The purpose of the survey is to inventory the forest resources—to see how much timber is growing, how much is cut, how much is being lost to fire, insects, disease, et cetera, and how much is left. Current financing of the Forest Service permits a survey of each State about every 10 years. States with little forest acreage and few forest industries may be surveyed less frequently.

We feel that surveys should be made more frequently than every 10 years in most States in the forested regions because of the rapid changes that are taking place. This is particularly true in the South where in the past 10 years the growth of the pulp paper industry has increased consumption of pulpwood by two-thirds and where the newly established softwood plywood industry has grown from no mills to 32 mills. Offsetting this tremendous drain on the forests are strong tree planting programs in most Southern States, increasing amounts of forest land under good forest management, and reduction of losses from forest fires.

With the possibility that our Nation's demand for wood may exceed the growth within 10 or 20 years, it is vital not only to the forest industry but to the economy of the country as a whole to know how much wood we have, where it is, whether we are gaining or losing inventory, and other detailed information. We also need detail as to the economic availability of timber. Each year more forest land is being set aside for uses other than that of timber production.

We strongly support the increase of $435,000 provided in President Nixon's budget, which would raise the appropriation for the forest survey from $2,680,000 to $3,115,000.

COOPERATIVE FOREST FIRE CONTROL

Protection from fire is the first requirement of forest management. Planting, silvicultural practices, provisions for recreation, and other uses are of no avail if the forest is not protected from fire.

In recent years more than 100,000 fires have burned more than 4 million acres annually in our Nation's forests. The danger of fire is always present and in many places is increasing, as more people make use of woods for recreation and as new housing developments spring up in rural areas. In addition to damage to trees, wildfires also destroy soil, watersheds, natural beauty, and wildlife habitat.

Protection from fire is generally considered to be the responsibility of government. While many large landowners do maintain firefighting equipment, small landowners simply can't afford to do so.

Section 2 of the Clark-McNary Act recognized this and was originally intended to provide the States with up to 50 percent of the cost of forest fire control. The full amount authorized by the act has never been appropriated. Although the Federal appropriations has increased through the years, the cost of fire control has increased more rapidly so that the Federal share of the total cost of fire control has decreased from 30 percent in 1950 to 15 percent in 1969.

We were encouraged when the appropriation for the current fiscal year was increased by $2 million over last year. But we feel that the reduction of $2 million for cooperative fire control in President Nixon's budget for 1971 is a step in the wrong direction. Although the entire authorization of $20 million is needed, we are in sympathy with the administration's general policy of restraining Federal spending. We urge that the amount provided in the 1971 budget for "Cooperative fire control" be increased by at least $2 million.

In the interest of maintaining a balanced budget, and not increasing the amount provided for the Forest Service in the President's budget, we suggest that the $2 million increase for "Cooperative forest fire control" could come from the increase of $3,132,000 provided for recreation. Certainly, providing for recreation on the national forests is an important function of the Forest Service, but protecting the Nation's forests from fire is even more important. Both recreation and the economy suffer when wildfire burns our forest lands.

RESEARCH BARK-CHIP SEPARATION-SEGREGATION

For several years the Forest Service has been conducting research on a bark-chip separation-segregation project that is of extreme importance for three reasons. First, it should provide a way to stretch our wood supply by using the entire tree including the tops and small branches and the small crooked trees of inferior species that currently have no commercial value. Second, use of this material would make it possible to remove the slash or residue after a logging operation which would greatly improve the aesthetic quality of the area. Third, removal of this material would aid in establishing natural regeneration or in planting seedlings.

I might point out that industry is making much greater use of residues than ever before. In 1950, only 5 percent of the wood used by the pulp and paper industry came from wood residues—mostly from slabs and edgings from saw mills. Today 25 percent (more than 16 million cords) of the wood used in the industry comes from these mill wastes.

It is estimated that more than 20 million cords of tops and branches are left in the woods each year. Add to this the even greater amount of small crooked trees that cannot currently be used, and you can see that a tremendous amount of wood fiber would be available for pulping, if we could find a way to use it.

The primary reason it isn't being used is that bark cannot be used in the process of manufacturing pulp, paper, and paperboard. At the present time there is no economical way to remove the bark from small crooked stems or for removing bark from chips, if the tops are chipped without first removing the bark. What is needed is an economical method for what we call bark-chip separation-segregation. Let me explain. First, we must chip tops, branches and small trees in the woods—handling them and transporting them for chipping at the mill would be too expensive. After chipping we must separate the bark from the wood in those chips that are made up of bark and wood. Then we must segregate the bark and wood so that wood chips and no bark can be supplied for the pulping process.

An economical method to do this could in effect, increase our available wood supply and postpone for a number of years the day when cut equals growth. It would give us more time to increase the growth of our forests through planting, propagation of genetically superior trees, fertilization, and other forest management practices.

Sporadic attempts to find a way to remove bark from wood in chip form have been made in the past but to date no satisfactory method has been developed. Several years ago, the Forest Service began a systematic search for a solution at its Forest Engineering Labortary in Houghton, Mich. A plan was developed in which some of the work would be done by the Forest Service in their laboratories and some would be done by universities and research organizations under contract. Of course, it is impossible to predict just when a suitable process can be found or how much it will cost. The original program was estimated to cost $300,000 a year for 5 years.

The project got off to a slow start in 1968 with $16,000. The following year $60,000 was budgeted for the program and during the current year expenditures will reach $162,000. We have been advised by the Forest Service that $96,000 out of the $170,000 increase in funds budgeted for 1971 for forest engineering research will be used for bark-chip separation-segregation research at Houghton. We strongly endorse this increase in budgeted funds.

The Forest Products Laboratory at Madison, Wis., is also conducting research on bark-chip separation-segregation. They are not duplicating the work being done at Houghton but are looking into different aspects of the problem. Houghton is working on bark-chip separation-segregation prior to pulping while the Forest Products Laboratory is working on methods of removing the bark in the pulping process. To some extent this is tied in with the Forest Products Laboratory's research on reclaiming usable materials from municipal wastes. No doubt you are familiar with their joint projects with the Department of Interior and the Department of Health, Education, and Welfare, in which they are seeking an economical way to recycle municipal waste from the city dump, reclaim the fiber and use it to make paper.

The problem of bark-chip separation-segregation has been discussed at several annual meetings of the American Pulpwood Association and its board of directors. Our board has endorsed research on this subject by the Forest Service and feels that it should be given a high priority.

SUMMARY

In summary, the American Pulpwood Association strongly supports the increased amounts provided in President Nixon's budget for the Forest Service for the Forest Survey and for research in bark-chip separation-segregation. We also urge that funds for "Cooperative forest fire control" be increased by at least $2 million up to the amount appropriated for the current fiscal year.

Mr. MOORE. Our association is a trade association made up of pulpwood producers, dealers, consumers, and others who are directly concerned with growing and harvesting pulpwood. We are vitally concerned with Federal appropriations for forest resources regardless of whether they are owned by Government, industry, or private landowners. Although the total demand for forest products is increasing, forest growth has exceeded the cut by a comfortable margin for the past 20 years.

However, recent studies by the Forest Service indicates that total cuts may equal total growth by around 1980 instead of around 1990 as predicted a few years ago. Therefore, we must increase the growth and production of our Nation's forests and at the same time keep a close check on our progress or lack of it.

This prompts us to discuss three items for which funds are provided in the administration's budget. One is the Forest Survey. Another is cooperative forest fire control. The last is bark-chip separation research.

The forest survey is conducted by the Forest Service with the assistance of industry to see how much timber is growing, how much is being cut, how much is lost in firings and from insects and disease and how much is left. Current finances permits the survey of each State about every 10 years. More frequent surveys are needed badly in heavily forested regions. This is particularly true in the South where the pulp and paper industry and the soft wood plywood industries have grown so rapidly in the 10 years.

Of course, there are factors offsetting this tremendous drain, such as strong planting programs, better fire control, increasing the amounts of land under good forest management. However, we need to know where we stand and where we are going, so we strongly support the increase of $435,000 provided in the administration's budget for the forest survey.

Protection from fire is the first requirement of forest management. Planting, provision for recreation, and other uses are of no avail without adequate fire control. In spite of all efforts, some 4 million acres of forest land burn annually. Mr. Ruark brought this out in his statement. The danger of fire is even more serious now that more people are going into the woods for recreation.

Section 2 of the Clark-McNary Act was originally written to provide the States with up to 50 percent of the cost of fire control, but the Federal share has decreased from about 30 percent in 1950 to 15 percent in 1969.

We were encouraged last year when the appropriation was increased by $2 million, but we feel that the reduction of $2 million set up in this year's budget is a step in the wrong direction.

Although the $20 million is needed we are in sympathy with the administration's general policy of not letting Federal spending run away, but we urge that the 1971 funds be increased by at least $2 million.

The third item I want to mention is the research in bark chip separation. This is important for three reasons. First it would provide a way to stretch our wood supply by making possible the use of the entire tree, branches and tops, which would increase our supply by about 20 million cords annually, and an even greater amount of wood would be available in small crooked trees of inferior species which currently have no commercial value.

Second, the ability to use this material would make it possible to clean up the slash and the residue left after a logging operation, and this would greatly improve the aesthetic quality of the area.

Thirdly, removal of this material would aid in establishing natural reproduction or make it possible to plant seedlings more readily.

At the present time there is no economical way to separate bark from wood after it is chipped. An increase of $96,000 for this research is included in the administration budget of $120,000 for forest engineering research.

The forest products laboratory at Madison, Wis. also is conducting research on a method of removing bark during the pulping process.

We urge that these increased funds which are budgeted be approved.

In summary, we strongly support the increased amount provided in the administration's budget for the Forest Service for the forest survey and for research in bark chip separation and segregation. We also urge that funds for a cooperative forest fire control be increased by at least $2 million.

Mrs. HANSEN. Thank you very much.

FOREST SERVICE

WITNESSES

HON. JAMES M. HANLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

RUSSELL E. GETTY, CHAIRMAN, DEPARTMENT OF FOREST MANAGEMENT AT SYRACUSE UNIVERSITY

Mrs. HANSEN. We now have our very distinguished colleague, Congressman Hanley, from New York.

Congressman Hanley, will you introduce your guest?

Mr. HANLEY. Thank you, Madam Chairman and members of the committee. I am delighted to accompany my good friend and constituent, a gentleman whom I regard as probably one of the Nation's great experts in his particular field, Dr. Russell Getty, who has been with Syracuse University for the past 4 years in the capacity of chairman of the department of forest management. Previous to that he spent many years, as some of you know, with the Department of the Interior as regional director of land management for the great State of Oregon.

Mr. REIFEL. If I may be permitted to get into the act here and interrupt our delightful colleague, Congressman Hanley. The witness is a dear friend of mine. Back in the 1930's we worked together with the Bureau of Indian Affairs. I have an extremely high regard for his ability and good judgment.

Mr. HANLEY. I get the message. I will quit while I am ahead.

I would be remiss if I did not mention that he also covered the great State of Washington.

Mrs. HANSEN. Thank you.

Mr. WYATT. May I thank our colleague from New York for the splendid introduction of his constituent who not very long ago was my constituent? We in Oregon regard him as highly as you in New York do as one of the foremost foresters, real professional foresters, objective scientists in this area in the United States, indeed in the world.

Mrs. HANSEN. Mr. Getty.

Mr. GETTY. Thank you, Madam Chairman.

I am shifting from timber orientation here in New York State to a people orientation. I have found that that has been very necessary and am here today in support of the National Forest Service appropriation for recreation research and its relation to the environment and the service to people.

Americans, with more time on their hands and more money to spend than ever before, have boomed leisure into an $83 billion business in the past year alone.

That figure tops the current annual outlays for national defense. The money going into travel, sports equipment, camping, boats, summer houses and a host of related forest recreation items reaches into almost every aspect of the Nation's economy. Today, the leisure time market is the fastest growing business in the United States.

What it all adds up to—the campers, the skiers, the boaters, the travlers, the weekenders—is an astonishing picture of America at play.

Behind the scenes, creating and serving the ever increasing demand for the trappings of leisure. are the muscle and sinew of American industry. But the responsibility of meeting the impact of recreation demand on our Nation's natural resource environments, and at the same time of preserving the quality of those same environments for future generations, rests squarely with natural resource planners and managers—in both the public and private sector.

Studies of recreation demand patterns; the effects of technology and Madison Avenue on such demand; the social psychological factors of recreation participation; the means whereby recreational developments can stimulate the rural economy; the management procedures to cope with demand; the prediction of future demand; and most of all, the means to maintain, preserve, and enhance the quality of the recreation resource environment itself must be thoroughly researched if we are to meet the Federal Government's 10-year goal for solving the important environmental and social problems of this decade. To meet the Government's objectives we must develop a research program to help planners and managers prepare now for recreation development commitments that have to be made rapidly, economically, and with minimum disruption sometime in the future.

The U.S. Forest Service currently has a three-scientist research unit at Syracuse, N.Y. This unit is making good progress on the research problems outlined above, but it is not keeping pace with the rapidly expanding problems and needs associated with recreation in the forest environment. To carry the larger, sophisticated pro-

gram that is needed, the New York State College of Forestry at Syracuse University recommends an additonal $250,000 appropriation for the Forest Service.

INTRODUCTION

The Northeast has 35 percent of the total population, but less than 5 percent of the public recreation land in the country. This means that there is an urgent need for greater development of recreation on public land, and it means that there is an even greater need and opportunity for developing private recreation areas in the Northeast. Such development in the private sector will help to stimulate the economy of rural areas.

Although facilities have not kept up with the needs, there has been considerable expansion of outdoor recreation areas in the Northeast. For example, during the past 5 years, the number of private campgrounds has quadrupled. In New England, there are now 150 public and private ski areas where 10 years ago only 55 were in existence.

New York and other Northeastern States recognize the importance of outdoor recreation. In 1961, New York authorized a bond issue including $50 million for acquiring nonurban land for recreation. And in 1965, New York passed another bond issue for $200 million to develop previously acquired land for outdoor recreation. Similar activities are being carried out in Pennsylvania, New Jersey, and other Northeastern States.

RESEARCH NEEDS

With so much money being spent currently for programs in forest recreation and on the environmental needs of people, and with the prospect for even greater amounts to be spent on recreation and the environment in the future, it is highly appropriate to raise these questions: "How adequate is our research on recreation and the forest environment?" "Will these expenditures be wasted, or will they yield the dividends expected?" "Put another way, is there sufficient research being done to guarantee that we are getting maximum recreation development and service from our investments in forest recreation?"

Where are present outdoor recreation policies leading us? New York's former conservation commissioner summed it up like this:

"We would have been in better shape to undertake this (New York) acquisition program, if we had already had the advantage of some well-conducted research to determine what type of lands are best adapted to the several phases of outdoor recreation. Will our choices prove right 5, 10, or 25 years in the future when we make investment development to meet the recreational demands on these lands?

With so much public and private money being spent for outdoor recreation, we must be concerned with the benefits that can be expected to accrue from such expenditures. The optimum allocation of land and capital resources and the coordination of recreation with other land uses call for intensive research of our recreation needs and demands.

The need for concentrated research in recreation was strongly sounded several years ago by Laurance S. Rockefeller of the National Outdoor Recreation Resource Review Commission. More recently, the

National Academy of Sciences and National Research Council, in a report to the President, emphasized research in the human aspects of the forest environment. And in his recent State of the Union message, President Nixon emphasized the importance of improving the natural environment for the benefit of all human beings.

A RESEARCH PROGRAM

In 1962, the Northeastern Forest Experiment Station of the U.S. Forest Service established a forest recreation research project at the New York State University College of Forestry, at Syracuse, N.Y. It was a 1-man project and conducted research in cooperation with the College of Forestry. Since that time the Forest Service project has been expanded to three scientists and, with the excellent cooperation and assistance of the college, the recreation research program at Syracuse has truly developed into a center of excellence.

But, in spite of the development of this center of excellence, the effort is still far too puny to meet the needs for recreation research in the forest environment. A much larger and sophisticated effort in research is required with a special effort on the social and economic aspects of recreation in the forest environment—for the public and private sectors. The most expedient way of achieving this need is by strengthening the excellent and sound Forest Service program already established at Syracuse.

Major research areas or problems that need special attention are as follows:

(1) Determine the impact of technology on recreation demand patterns.

(2) Investigate the social-psychological factors and values of recreation participation and consumption.

(3) Develop management and planning procedures to cope with recreation demand.

(4) Establish criteria for successful operation of private recreation enterprises, so as to stimulate and enhance the economy of rural areas.

(5) Devise methods of forecasting future recreation demand.

(6) Interpret and suggest improvements in the important elements in decisionmaking processes that affect recreation demand.

(7) Test procedures to maintain, preserve, and enhance the quality of recreation resource environments that are affected by demand.

(8) Produce methods for measuring the qualitative values of recreation experiences and environments.

STAFFING AND FUNDING

The Northeastern Forest Experiment Station's recreation research unit at Syracuse is making good progress, but it is not keeping pace with the rapidly expanding problems associated with the forest environment. In order to speed up the pace and permit the station to carry the larger, more sophisticated program that is needed, an additional appropriation for the station is recommended.

Current funding for the three scientists and their clerical staff at Syracuse is about $80,000. To properly finance and staff the project will require an additional appropriation of $250,000.

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Research by the Syracuse unit applies to recreation problems throughout the Northeast. Yet, the proposed sum for an increased research effort represents only 1/1,000 of 1 percent of New York State funds expended annually for recreation land and facilities—not to mention funds spent by other agencies and private enterprises in all of the States of the Northeast.

The proposed expansion of recreation research would give a sound basis for the investment of funds in recreation enterprises, both public and private, all across the Northeast. The relative cost of this research, compared to the investments in recreation facilities, would be small indeed.

I would now like to give you an opportunity to question me if you have questions about what we are trying to do in this particular environmental recreation program.

Mrs. HANSEN. There are millions of people today interested in the problems of our environment and I am sure they welcome your great contribution.

Mr. WYATT. Madam Chairman, I would like to commend Dr. Getty for his excellent contribution to what I think is the proper use of our great forest lands resource and that is a true multiple use, considering all possible uses and all requirements. The emphasis that you have placed upon recreational research and use in conjunction with the other uses including that of growing wood fiber necessary to meet the growing housing commitments of this country is commendable.

Mr. REIFEL. Madam Chairman, I would like to congratulate my good friend, Mr. Getty, with respect to his approach. It is an innovation in the direction of thinking in terms of our forestry resources as related to people and particularly his reference to what is being done as an established agency concerned with environmental quality. The thing that distresses me with other witnesses before us throughout the Interior Department is that they forget about the old line agencies that are doing a good job and have done over the years, being pirated in some instances by the new agencies that come up because they are popular and offering higher grades, taking away the most able people from the old line agencies. I appreciate your emphasis in this regard.

Madam Chairman, while we are limited in time, I thought I chased our good friend, Congressman Hanley, from the scene when I said I wanted to get into the act too. He may not have been finished with what he wanted to say.

Mr. HANLEY. No, I have concluded my remarks. Washington and Oregon's loss in New York's gain in having the good professor on the faculty at Syracuse and I am grateful for the courtesy extended him this morning.

Mrs. HANSEN. We are delighted to have you and I am sure you will be with us many more times because of your long interest in forestry.

Mr. GETTY. I wish I could say the same for our good friend Ben Reifel on this committee.

Mrs. HANSEN. We have tried to change Mr. Reifel's mind about retiring, but without success.

Forest Service

WITNESS

KENNETH B. POMEROY, CHIEF FORESTER, THE AMERICAN FORESTRY ASSOCIATION

Mrs. Hansen. Kenneth B. Pomeroy, Chief Forester, American Forestry Association.

Mr. Pomeroy, it is a pleasure to welcome you before the committee. Please insert your statement in the record and summarize it for us.

(The statement follows:)

Madam Chairman and members of the committee: I am Kenneth B. Pomeroy of the American Forestry Association. I would like to offer some recommendations regarding appropriations for the Bureau of Land Management and the Forest Service.

BLM

Protecting forests from fire continues to be of critical importance. Fire losses in Alaska last year revealed the extreme vulnerability of the present system. It cost the Federal Government $24 million to fight fires in that region. Much of this expense could have been avoided if money had been appropriated for advance training of key personnel. BLM lacks this capability because one-half its annual appropriation must be used for contractual services such as the hire of airplanes and helicopters. The fire protection budget should be increased by at least $2 million annually.

Sanitation in places of heavy public use is extremely important. For example, thousands upon thousands of people congregate along the Lower Colorado River, but sanitary facilities are almost nonexistant. These people are being exposed to all sorts of contagious diseases. The same situation is occurring elsewhere on public land because funds are inadequate for construction of needed facilities.

Furthermore the Federal Government itself is the biggest polluter in the Nation. It owns the most land. The bulk of its land is in poor condition, eroding and gullying, muddying the rivers and filling the reservoirs with silt. The Government should put its own house in order before pointing at States, municipalities and private industries. Rehabilitation of public land should receive a much higher priority on the list of must activities.

FOREST SERVICE

The recent discussions of the so-called timber supply bill established the fact that national forests alone cannot supply all future needs for wood. Private forests must grow their share also. Four key programs should be strengthened.

Fire protection

Federal-State cooperation in forest fire protection should be strengthened. About 6 percent of the forest land does not receive any protection. More than one-third of the protected area is not covered adequately, i.e., fire fighting forces are spread too thinly to cope with critical situations.

This subject is being presented in detail by State foresters. We support their recommendation to increase CM–2 funds from the $14.4 million budgeted to the full authorization of $20 million.

Control of insects and diseases

Protection of trees from damage by insects and disease always has been difficult. It has become much more difficult under the recent bans on DDT and eight other hard pesticides. New methods of control must be found. Development of nontoxic materials in research laboratories shows promise. These findings now must be translated into practical applications. We recommend an increase of $1 million in funds for insect and disease research.

Resource surveys

Up-to-date information is needed continuously on competition for use of land and forest resources; growth and use of timber; volume, location and availability of supplies. An example of the urgency of such information is a recent

finding in Virginia. Resource managers and forest industries were shocked to learn that the volume of softwood growing stock had declined 15 percent since a previous survey a decade earlier. This finding caused State officials to call for a yield tax of 20 cents per cord on pulpwood and 50 cents per thousand board feet on lumber. The money will be used to reforest idle land.

Other States have similar problems. Therefore it is recommended that appropriations for forest surveys be increased by $435,000 as recommended in the President's budget. The recommended increase of $172,000 for economic research also should be authorized.

Cooperative forest management and assistance

Three-fifths of the nation's commercial forest land is held by some 4,000,000 private, nonindustrial owners. Much of this area is in poor condition. Its productive capacity must be improved if future needs for wood are to be met. These forest owners usually lack the technical know-how required for better management of their land. This knowledge is being supplied, in part by some 800 service foresters in a Federal-State cooperative program. This work could be speeded up by a 10 percent increase in service foresters working with forest owners.

Therefore we recommend that appropriations for cooperation in forest management be increased by $820,000 and that funds for general forestry assistance be increased by $180,000.

Respectfully submitted,

KENNETH B. POMEROY,
Chief Forester.

Mr. POMEROY. I would like to make three key points with respect to the appropriation for the Bureau of Land Management pertaining to fire protection, sanitation, and rehabilitation.

Protecting forests from fire continues to be of critical importance. Fire losses in Alaska last year revealed the extreme vulnerability of the present system. It cost the Federal Government $24 million to fight fires in that region. Much of this expense could have been avoided if money had been appropriated for advance training of key personnel.

I understand the Bureau had only 10 yearlong personnel in fire protection. The Bureau of Land Management lacks this capability because one-half of its annual appropriation must be used for contractual services such as the hire of airplanes and helicopters. The fire protection budget should be increased by at least $2 million annually.

Sanitation in places of heavy public use is extremely important. For example, thousands upon thousands of people congregate along the Lower Colorado River, but sanitary facilities are almost nonexistent. These people are being exposed to all sorts of contagious diseases. A report comes to us of 1,500 people dependent upon two portable johnnies. This raises lots of questions. The same situation is occurring elsewhere on public land because funds are inadequate for construction of needed facilities.

One item we have mentioned to the committee on many occasions in the past decade or so pertains to rehabilitation of the public domain. At one time I estimated it would take 107 years at the current rate of progress to rehabilitate these rangelands and I'd like to bring it up one more time.

Under the Forest Service program there are four key areas I would like to mention. Fire protection, control of insects and disease, resource surveys and cooperative forest management.

I understand the National Association of State Foresters will make a full presentation on this program and we in the American Forestry Association wish to support their presentation. This is for CM–2, control of insects and diseases. This is particularly important at the present time when DDT and eight other hard pesticides have been banned from use in control activities. We need to find new nontoxic methods and this calls for a lot more research than is now being done.

Resource surveys are very important. For example, in the State of Virginia, a recent survey showed that the volume of soft wood growing stock had declined by 15 percent. The information caused the forest industries and the States to levy a yield tax of 20 cents a cord on pulpwood and 50 cents per thousand board feet on saw timber. This tax, plus matching funds from the States, will produce about $1.2 million annually that will be used as 50–50 matching for reforestation.

Other States have similar problems. It merely points up the fact that we need current information on forest surveys. Therefore, we recommend that the funds recommended in the budget be authorized.

Finally, cooperative forest management and assistance.

About three-fifths of the Nation's commercial forest land is held by some 4 million private nonindustrial owners. Much of this area is in poor condition. Its productive capacity must be improved if future needs for wood are to be met. These forest owners usually lack the technical know-how required for better management of their land. This knowledge is being supplied, in part, by some 800 service foresters in a Federal-State cooperative program. This work could be speeded up by a 10-percent increase in service foresters as proposed in the President's budget.

Thank you, Madam Chairman.

Mr. REIFEL. I have one comment that will take half a minute. I wish it were possible to lift your two paragraphs under the Bureau of Land Management out of this context here and that it would be made a national policy by the White House with one change: "Rehabilitation of public lands 'will' receive a much higher priority."

Mr. POMEROY. We would be most grateful if you would do that.

Mrs. HANSEN. Thank you.

FOREST SERVICE

WITNESS

ROBERT F. LEDERER, EXECUTIVE VICE PRESIDENT, AMERICAN ASSOCIATION OF NURSERYMEN, INC.

Mrs. HANSEN. Mr. Lederer, vice president, American Association of Nurserymen.

(The statement follows:)

Madam Chairman, my name is Robert F. Lederer. I am executive vice president of the American Association of Nurserymen, a trade association of over 1,800 member firms engaged in the production, sale, and planting of nursery stock or in providing services to the nursery industry.

We have always considered our testimony before you to be our stand against "Government competition in the nursery business." For a number of years we have appeared before you to urge that Federal grants for tree plantings be discontinued. We continue to urge that the Clark-McNary section IV funds not be used to assist States in the production of tree seedlings which could very well be produced by the private nursery industry.

During the last year and a half, a number of things have happened to alter our attitude.

First of all, two outstanding reasons for the nursery industry's change in attitude are Robert Hitt, of the U.S. Forest Service, and Mr. Don Douglas of the Soil Conservation Service. These two gentlemen, in meeting with the AAN's Government Nursery Production Committee, have opened lines of communication and understanding never before realized in our industry. Both gentlemen gained immediate acceptance and respect from an originally skeptical committee.

Secondly, we were most gratified to learn recently that Clarke-McNary section IV funds, are in part, now being used by the Forest Service for the development of a seedling lifter (harvester) instead of entirely for the production of seedlings The critical labor shortage facing our industry will also be helped by this type of equipment development. We favor this Forest Service "project method" for expenditures of Clarke-McNary section IV funds, since in this way they can serve a greater tree producing and treeplanting public.

Therefore, the American Association of Nurserymen is proud to now be speaking on behalf of research and development programs for the Forest Service. Our membership is interested in the many ways that forests and trees may be used to improve the human environment in our urban areas. But, before a program of environmental forestry can be fully effective, we need to develop much new knowledge about the best types of trees to use and the special cultural techniques that will be needed to establish, protect, and grow trees in these heavily populated areas.

We are all aware that forests and trees can be used to improve the human environment by screening highways, factories, junkyards, airfields, and other noisy or unsightly areas. But, what species are best for these purposes? Which one will best withstand the adverse conditions of urban areas? And, how, and in what pattern, should they be planted to achieve the quickest and most effective screening?

We also know that trees and forests modify the local climate through the transformation of solar energy into latent energy of evapotranspiration and that this process limits the heating of air. Trees, therefore, act as a natural air conditioner. It is also known that trees enrich the oxygen content of the air and remove some of the air pollutants. Again, however, we don't know what species perform these tasks most effectively or how they should be planted or arranged to best accomplish these tasks.

We find that even the most heavily inhabited sections of the great eastern megalopolis contain many wooded areas. These areas provide islands of quiet beauty, in or near our urban and surburban centers, and offer escape from the noise and clamor of cities. Also, many of these are major water-accumulating lands; in the megalopolis of the Northeast, over 400 municipalities draw water from forested watersheds. Although past research has provided much of the knowledge needed to manage wooded areas for wood and water production, there is little knowledge on how to coordinate these uses with the forests' often more important esthetic and amenity value.

The Forest Service, Department of Agriculture, has long been a forward-looking leader in the environmental aspects of forestry. For example, this agency employes more ecologists and landscape architects than any other Federal agency. These specialists help design projects for the national forests to help reduce pollution, maintain an attractive landscape, and develop physical structures compatible with the forest environment. Forest Service research programs also are concerned with improving the forests' environment. This is illustrated by work of their scientists in biological control of the gypsy moth and Dutch-elm disease, in repairing the ravages of surface mining, in forest recreation, and in the management of forested municipal watersheds. These programs and their contributions clearly demonstrate that the Forest Service has the foresight and the competence to conduct intensive and productive research on the complex problems of urban and environmental forestry.

We respectfully urge that the Forest Service undertake immediately a comprehensive program of research on environmental forestry with special emphasis on urban forestry problems. The University of Massachusetts also has strongly recommended that a similar program be established at Amherst and has offered substantial contributions to the program.

We have asked the Forest Service about establishing a program at Amherst and found that they plan to do so whenever the Federal budget will allow. Forest Service estimates are that the research would cost $325,000 annually.

In view of the tremendous environmental values involved and the millions of people who would benefit from this research, we feel that the Federal budget can permit the immediate initiation of this research. Therefore, we respectively request that you add $325,000 to Forest Service appropriations for the coming fiscal year to conduct environmental forestry research in cooperation with the University of Massachusetts.

Mr. LEDERER. Madam Chairman, I am Bob Lederer. We have always considered our testimony before your committee to be our stand on Government competition in the nursery business and for many years have come and asked that the production of seedlings by Federal nurseries, State nurseries, be abandoned. We still urge that but in the past year and a half a number of things have happened to give us an understanding of the Forest Service as it really is. Among these are Mr. Robert Hitt of the Forest Service, and Mr. Don Douglas of the Soil Conservation Service. These gentlemen have worked closely with us and shown our industry what the Forest Service is really all about and we couldn't be more impressed.

This year we are speaking on behalf of Research and Development programs for the Forest Service. We are interested in the many ways that forests and trees may be used to get into the battle on pollution. We find that we do not know what species are best for these purposes, which ones can best withstand the adverse conditions of urban areas, and how and in what pattern they should be planted to achieve the quickest and most effective screen.

We respectfully urge that the Forest Service undertake immediately a comprehensive program of research on environmental forestry. At the University of Massachusetts they support us in this recommendation. We understand from the Forest Service that there would be needed $325,000 for this purpose and we urge the committee's consideration of this appropriation for research at Amherst.

Mrs. HANSEN. Thank you very much.

FOREST SERVICE

WITNESSES

HON. BILL D. BURLISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI
HON. RICHARD H. ICHORD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI
CARSON W. CULP, MERAMEC BASIN ASSOCIATION
FRANK MACK, IRONTON DISTRICT
JUDGE LARRY CASEY, POTOSI DISTRICT
HAROLD TURNER, BELGRADE DISTRICT
JIM GAMBLE, KIRKWOOD DISTRICT

Mr. HANSEN. Mr. Carson W. Culp of the Meramec Basin Association. Mr. Culp, it is always a pleasure to see you.

Mr. CULP. Thank you. We have Congressman Burlison here if you would recognize him first, please.

Mrs. HANSEN. It is also a pleasure to welcome Congressman Burlison of Missouri.

Mr. BURLISON. Madam Chairman, if I may, I would like to make a very brief statement.

Mrs. HANSEN. Please insert your statement in the record.

(The statement follows:)

Madam Chairman, I will take only a minute of this busy committee's time to encourage your favorable consideration of appropriations for the Council Bluffs Reservoir in the Clark National Forest, outlined in the more detailed statement of the Meramec Basin Association which will follow.

It is my understanding that the association is requesting a total of $1,625,000 to complete construction of the reservoir. A part of the project area is in my district. I am impressed with the need for its development as part of the total Meramec basin project, as well as the benefits that it provides for the fast growing area in which it is located.

The return to the Treasury from mining royalties in the Clark National Forest more than offset the cost of this development as of this date and continuing to Mount. The population impact as a result of this mining activity is putting more and more pressure on the limited recreation resources of the forest.

It is my understanding that the annual benefits to be derived from the development will be $595,044 of which $103,385 will be to the Federal Government from entrance and user fees. It is simple arithmetic to show that the total benefits will repay the investment in less than 3 years and that the benefits to the Federal Government alone will recoup its investment in less than 16 years. From there on the annual benefits to the Government are pure profit, excluding interest costs which are not too substantial on a project of this size.

I am sure that this Federal investment will stand with others, and surpass many with respect to fiscal soundness alone.

Three years ago this committee earmarked funds to complete planning on the project. I hope that you will find it possible to complete its construction as soon as possible.

Thank you.

Mr. BURLISON. I would like to say Mr. Mack, Mr. Gamble, Mr. Culp are here, and also Judge Larry Casey of Potosi and Harold Turner of Belgrade.

Madam Chairman, I want to emphasize the importance of the Council Bluffs Reservoir in the Clark National Forest, which will be outlined in a bit more detail by the executive orders that are here with me.

It is my understanding that the association is requesting a total of $1,625,000 to complete construction of this reservoir. A part of the project area—and I say a very significant part of it—is in my district. I am impressed with the need for its development as part of the total Meramec Basin project as well as the benefit that it provides for the fast growing area in which it is located.

I might point out that in this area is the recent development of one of the richest iron and lead ore deposits in the world. The return to the treasury from mining royalties in the Clark National Forest more than offset the cost of this development as of this date and is continuing to mount. The population impact as a result of this activity is putting more and more pressure on the limited recreation resources of the forest.

It is my understanding that the annual benefits to be derived from the development will be $595,000, of which $103,000 will be to the Federal Government from entrance and user fees. It is simple arithmetic to show that the total benefits will repay the investment in less than 3 years and that the benefits to the Federal Government alone will recoup its investment in less than 16 years. From there on, the annual benefits to the Government are pure profit, excluding interest costs which are not too substantial on a project of this magnitude.

I am sure that this Federal investment will stand with others and surpass most others with respect to physical soundness alone.

Three years ago this subcommittee earmarked funds to complete planning on this project. I certainly hope that you will find it possible to complete its construction as soon as possible.

I would like to again express my thanks for the opportunity to appear before you, Madam Chairman.

Mrs. HANSEN. Thank you, Congressman.

Mr. BURLISON. I would like to have my colleagues attempt to answer any questions that you might have and make any further presentation they might have.

Mr. REIFEL. Congressman Burlison, I want to commend you and congratulate you for appearing before our committee and coming with your witnesses and showing this interest that you have in this project.

Mr. BURLISON. Thank you, sir.

Mr. WYATT. Madam Chairman, I would like to do the same thing with Congressman Burlison. I would like to inquire what the status of the land acquisition for the reservoir is at the present time. What percentage had been acquired by the Government?

Mr. GAMBLE. Fourty-one percent.

Mr. WYATT. Also, I would like to inquire how the project was authorized and initiated.

Mr. GAMBLE. Mr. Congressman, I could take more time than you would like on that. I would say it has been fully qualified.

The U.S. Engineers, in their authorized document for their reservoir system, include this reservoir, by study under the watershed protection and flood prevention act.

The Department of Agriculture has included it. The Forest Service has the basic authority for construction of the project and then last of all I think this committee has put a stamp of approval and authorization already by the appropriation several years ago of preconstruction funds.

Mr. WYATT. Do you anticipate any difficulty in acquiring the remainder of the real estate?

Mr. GAMBLE. None whatsoever. There were a couple of landowners who were hanging back because they were fearful of what they would get for their property but the Forest Service has been very fair and I definitely understand that they are coming into negotiation now.

Mr. WYATT. Finally, Mr. Gamble, just one additional question.

I know that you would like to get this project completely built this year but I am sure you recognize our financial problems and I think it is probably one of your principal aims to get the project started. What would be, in your judgment, a minimum requirement for getting this project actually under construction?

Mr. GAMBLE. I have consulted with the Forest Service on this as late as last night by long distance telephone and my understanding is that $150,000 to $200,000 would get it underway without wasting time and energy.

Mr. WYATT. Thank you, Madam Chairman. Thank you, Mr. Gamble.

Mrs. HANSEN. We will insert in the record the statement by the Meramec Basin Association of Missouri.

(The statement follows:)

Re: Forest Service reservoirs H–25 and HZ–22—Clark National Forest, Mo.

In our function as a not-for-profit citizens' agency working for the sound use and development of the resources in our Meramec Basin of Missouri, the association comes to you in a most unhappy and disturbed state of mind.

The continued, proper handling of the country's natural resources is basic to a continuing, sound life for the people of our region, our State, our Nation. Yet, except for committees such as yours, there is, apparently, an almost insurmountable adverse attitude to be overcome concerning the importance to the population of proper resource use and management.

The healthy preservation of people and resources rightfully commands the prime attention of all of us today. However, good development and the much-needed, careful use of resources for the benefit of people—now and in the future—seems to have been shunted into a corner and walled off.

In a similar vein, a human being can be assured of a healthy place to work and live—in terms of buildings and cities—but he, too, is walled off if he is denied space and facilities in the out-of-doors for rest, relaxation, and recreation; and, ultimately, he will not be very healthy for the deprivation—if he survives it at all.

With no fault of the respective committees to whom this is addressed, a general attitude toward severe curtailment of sound resource projects has occurred. This has placed such a management agency as the U.S. Forest Service in the impossible position of having worked up approved projects and gotten them underway, but then forced it to leave the work hanging incomplete in the face of needs of people.

We are here today to plead for construction funds, after 3 years of delay, for Council Bluff Lake (H–25) in Clark National Forest, and for preconstruction funds for reservoir HZ–22 in the forest.

These projects are part of a widely accepted, coordinated program instituted by local, State and Federal agencies for the basin. The projects go to the needs of people in our Nation's 10th largest metropolitan area, and to needs anticipated and not present in the Clark Forest area due to the occurrence there of the largest mining development of recent times in the United States.

We attach to this statement ample documentation of the reservoir projects, their planning, their progress, the expenditures to date, the requirements for funding, and statements of State of Missouri authorities.

In closing, we respectfully submit this fact to you: From 1961 to March 31, 1970, the Clark Forest received mineral royalty moneys in the sum of $3,677,460.29. Of this amount, $1,170,814.51 was received in 1969; and $1,129,894.91 was received in the first 3 months of 1970. The fact that the new mines are getting into substantial production is evident by this very sizable, upward leap in receipts.

We say to you—with all due understanding of your very difficult task in apportioning our Government's money: we would hope that you can find a way to act on the unfairness of the existing situation. Standing opposed to the stark needs of the Forest Service projects, millions of dollars which represent an important part of our natural resources are being taken out of our region and State by the Federal Government, and will continue to be—for many, many years to come. In the meantime, the sound program for the needed use and preservation of a permanent and very important part of our resources languishes.

We think it unfair to not have the use of some of this money on the forest's renewable and continually usable resources, as against the necessary but permanent depletion of the region's resources which the mineral royalties represent. We think that it is unfair (and very uneconomical) to have the needed projects standing untouched or incomplete—and the needs of people neglected.

Will you help us—please?

U.S. Department of Agriculture, Forest Service,
Clark National Forest, Mo., April 6, 1970.

Reply to: 7,500 water storage and transmission.
Subject: Appropriations.

Mr. James F. Gamble,
Executive Vice President,
Meramec Basin Association, Kirkwood, Mo.

The following information is supplied in response to your telephone request of April 6, 1970. At that time you requested more details concerning our capabilities for work in the Meramec Basin next fiscal year.

1. Council Bluff Lake.

(*a*) *Construct dam.*—This item includes all work necessary to construct a complete structure at the dam site and emergency spillway. Work includes diversion of the river, cleaning and grubbing of the dam site and reservoir area, excavation, embankment, construction of intake structure, emergency spillway construction, riprapping of dam face, seeding, and mulching and site cleanup. Estimated $1,325,000.

(*b*) *Contract engineering.*—Provide engineering for complete construction control of the dam. Work includes controlled surveys for layout of the embankment, outlet works, spillway, and borrow areas; contract inspection for contractor compliance with plans and specifications; laboratory testing of materials and soils; preparation of "as-built" plans; and maintenance of project diaries, payment estimates, and other related documentation. Estimated $100,000.

(*c*) *Recreation design and development plans.*—Obtain through professional service contract preliminary and final development plans and specifications for the Council Bluff Lake Recreation Development. Work includes preparation of alternate development studies followed by complete development plans for all recreational facilities to be located around and adjacent to Council Bluff Lake. Items covered in these development plans will consist of campground, picnic ground, and boat landing developments; roads; water and sanitation systems; trails; and all other related recreational facilities. Complete plans and specifications suitable for contract construction of these items will result from completion of this work. Estimated $100,000.

(*d*) *Overhead.* Funding to cover regional office and supervisor's office overhead costs in connection with issuance and administration of construction of the above contracts during fiscal year 1971. Estimated $100,000.

Item 1 total cost: $1,625,000.

2. HZ–22 impoundment.

(*a*) *Feasibility study.* Contract for professional services to make a preliminary determination of the feasibility of HZ–22 structure. Study would include determination of the geologic suitability of the site, preliminary hydrologic information, and determination of the availability of suitable borrow material. Estimated $7,500.

(*b*) *Initial recreation planning.* Development of a preliminary recreational development plan and report for HZ–22 development. Estimated $7,500.

Item 2 total cost: $15,000.

If you need any further information, please let us know.

ED. J. BOBER,
Deputy Forest Supervisor.

U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE,
Clark National Forest Rolla, Mo., April 8, 1970.

Reply to: 1630 written information (6500).
Subject: Mineral receipts.

Mr. JAMES F. GAMBLE,
Meramec Basin Association, Kirkwood, Mo.

The following information is supplied in response to your telephone call to me of today (April 8). The records we have on file pertaining to mineral receipts date back to fiscal year 1961.

Fiscal year:	*Receipts*
1970 (As of Mar. 31, 1970)	$1,170,814.51
1969	1,129,894.91
1968	543,724.79
1967	207,496.69
1966	159,214.64
1965	148,810.72
1964	115,550.61
1963	57,004.67
1962	80,152.81
1961	54,795.94

If we can be of any further assistance, please call again.

ED J. BOBER,
Deputy Forest Supervisor.

MBA note: Total of above list of receipts is $3,667,460.29.

STATUS REPORT ON COUNCIL BLUFF LAKE (H-25)

Total acres within project area boundary		10,556
National forest acreage	66 percent	6,951
Acres in private ownership		3,619
(Appraised at $385,910)		

As of April 1, 1970:

Feasibility study, plans and specifications, and final cost estimates have been completed.

A 100-foot-high dam will be constructed south of Belgrade, Mo., at the headquarters of the Big River.

One thousand four hundred and seventy-six acres have been acquired—including the 160-acre tract presented to the March NFRC meeting (41 percent).

The cost has been $168,780, 44 percent of the original appraised values.

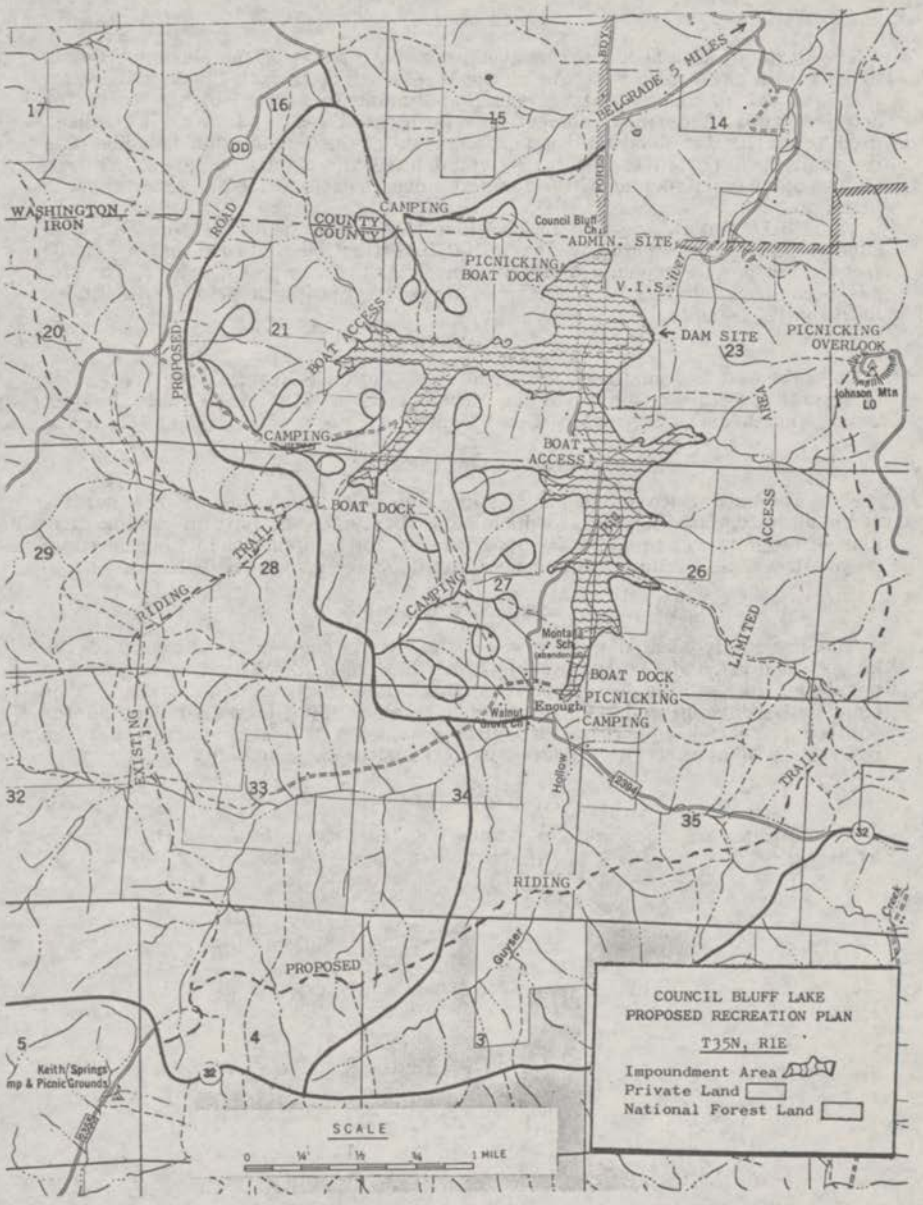
Present national forest ownership—approximately 80 percent of the project area.

Two thousand one and forty-three acres of private lands are still to be acquired under the L. & W.C.F. act. This consists of 21 tracts of land.

Expenditures.—Expenditures for the project to date are as follows:

1. Contract services:	
(*a*) Design for dam structure, emergency spillway, and related structures	$85,000
(*b*) Topographic maps of dam area and recreation area	16,000
(*c*) Geological feasibility study	6,500
(*d*) Commercial appraisal of properties	9,000
Total	116,500
2. Estimated Forest Service ranger and staff project cost, Forest Service personnel	14,000
Total, preconstruction expenditures	130,500
3. Acquisition costs of properties acquired to date includes 12 tracts, 1,476 acres	168,780
Total expenditures on the project to date	299,280

The demand for water-oriented outdoor recreation opportunities in the State of Missouri far exceeds the supply. The reservoir as proposed will provide facilities for an anticipated 162,000 visitor-days annually.


BELGRADE 5 MILES
WASHINGTON
IRON
COUNTY
CAMPING
Council Bluff
ADMIN. SITE
PICNICKING
BOAT DOCK
V.I.S.
DAM SITE
PICNICKING
OVERLOOK
Johnson Mtn
LO
PROPOSED
ROAD
BOAT ACCESS
CAMPING
BOAT
ACCESS
BOAT DOCK
TRAIL
RIDING
CAMPING
Montana
Sch
BOAT DOCK
PICNICKING
CAMPING
Walnut
Grove Cr
Enough
Hollow
EXISTING
TRAIL
RIDING
PROPOSED
Gusser
Keith/Springs
mp & Picnic Grounds
SCALE
0 ¼ ½ ¾ 1 MILE
COUNCIL BLUFF LAKE
PROPOSED RECREATION PLAN
T35N, R1E
Impoundment Area
Private Land
National Forest Land

West Fork of Huzzah Recreation Reservoir, Site HZ–22, Clark National Forest, Dent County, Mo.

INTRODUCTION

The Corps of Engineers in their comprehensive study of the Meramec Basin, indicated the need for a reservoir on the West Fork of Huzzah Creek. This reservoir was one of 12 tributary stream impoundments selected by the corps for detailed study. This impoundment was designated I–26 and would have been used primarily for flood-control purposes, with added recreation benefits. The reservoir, as reported by the corps, would have had a dam height of 121 feet, and would have impounded 630 acres at normal pool, and 1,200 acres at maximum pool.

The USDA report prepared in 1965 also selected the same location as a possible recreation impoundment site. Initial investigations indicate that a dam 65 feet in height will impound approximately 224 surface acres of water. The site has been designated HZ–22, a single-purpose recreation structure with added flood control benefits.

LOCATION

The proposed impoundment lies within the Meramec Basin on the West Fork of Huzzah Creek, a tributary of the Meramec River. The site is approximately 20 miles northeast of Salem, Mo., Dent County.

PLAN OF DEVELOPMENT

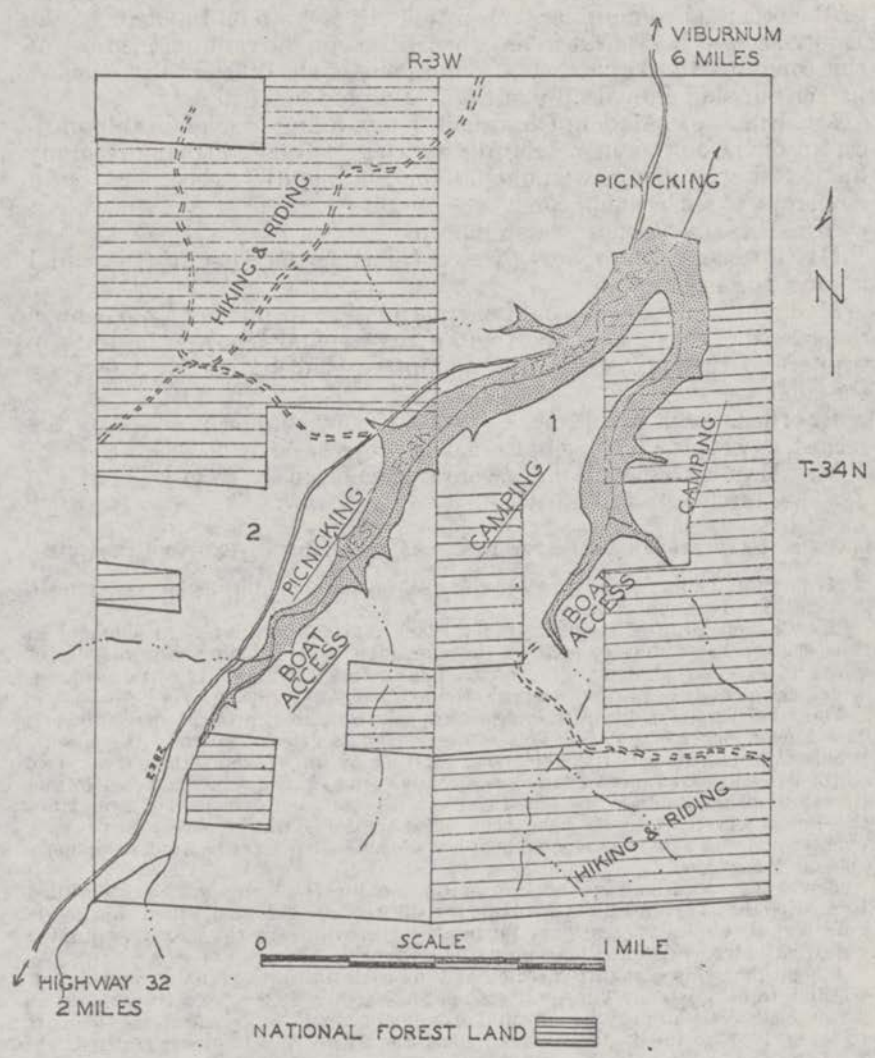
The Forest Service envisions a recreation lake consisting of 224 surface acres with two distinct arms which lend themselves to natural zoning. The plan of development provides for opportunities for camping, picnicking, boating, swimming, hiking, riding, and general outdoor recreation experiences.

RECREATION DEMAND

The project is located on the west edge of the new lead belt, one of the largest lead deposits in the world. There has been a substantial increase in population in the area directly related to the increased mining activities. This trend will continue and will result in a corresponding increased demand for outdoor recreation opportunities. When completed it is anticipated that the reservoir will attract an estimated 100,000 visitor-days annually.

ACQUISITION

Negotiations are underway to acquire needed private lands as they become available.


VIBURNUM
6 MILES
R-3W
PICNICKING
HIKING & RIDING
N
T-34 N
1
2
CAMPING
CAMPING
PICNICKING
BOAT ACCESS
BOAT ACCESS
HIKING & RIDING
0
SCALE
1 MILE
HIGHWAY 32
2 MILES
NATIONAL FOREST LAND

Mr. REIFEL. Congressman Burlison, I must not let you leave without recognizing all of the witnesses here before us.

Carson Culp, I am deeply indebted to him because he served on one of the other subcommittees. When this bill was up on the floor of the House he used to sit next to me when I became the ranking member of this committee and guide me through some of the difficult problems we had on our side. I am deeply grateful and glad to see him.

Mr. BURLISON. Madam Chairman, I was fixing to explain this project adjoins Congressman Ichord's district. It falls a little more in my district. I was going to apologize for his inability to be here, but I am happy to see he could come.

Mrs. HANSEN. Congressman Ichord.

Mr. ICHORD. I know how pressed for time the committee is and I apologize for being late.

Madam Chairman, I would ask permission to put my statement in the record. I have appeared before this committee several times in support of this project, as the committee well knows. My views are the same.

In order to conserve time, I would ask this statement be put in the record, as well as a history of the entire project.

Mrs. HANSEN. We will insert your statement in the record.

(The statements follow:)

CLARK NATIONAL FOREST—APPROPRIATIONS FOR COUNCIL BLUFFS RESERVOIR

Madam Chairman: I am happy to endorse the statement of the Meramec Basin Association which will follow.

The Council Bluffs Reservoir in the Clark National Forest is an element in the comprehensive development of the Meramec River Basin program, part of which involves my district. The reservoir is included in the authorized program which has already been funded in part to the Corps of Engineers.

The total basin program involves appropriations to the Corps of Engineers, The Forest Service and the Soil Conservation Service. Naturally it presents problems in pulling all of the elements together at the appropriations level. Two of the five mainstream reservoirs are already being funded. The upstream Forest Service impoundments in the Clark National Forest seem to be stepchildren since the Forest Service budgets have been quite tight for water recreation projects even though they may be elements in a comprehensive river basin development, such as this project.

The benefits and background information on the H–25 Reservoir are detailed in a brief that I would like to submit for the record. The area which this reservoir will serve for recreational purposes is returning to the Treasury mining royalties which are and will be many times its cost.

I hope that this committee which saw fit to initiate its planning will find it possible to complete it. The total cost is $1,650,000 which is relatively small as water conservation projects go, and extremely small in terms of the benefits to be derived by the Federal Government, the State, and the local entities.

Thank you.

UPPER BIG RIVER RECREATION RESERVOIR

INTRODUCTION

This report covers the present status of the proposed Upper Big River Reservoir, Council Bluff Lake, formerly designated H–25. The proposed reservoir is located in the upper reaches of the Meramec River Basin in the Clark National Forest, Iron County, Missouri.

Site H–25 was reported in the Corps of Engineers comprehensive study of the Meramec River Basin for a flood control reservoir of approximately 100 acres. The U.S. Department of Agriculture also selected this site but recommended the development of a higher dam and larger reservoir. The U.S.D.A. proposal indicated a potential 440-acre recreation reservoir was possible. The plan was

confirmed by the District Engineer, Col. James B. Meanor, that the recommended larger reservoir would not interfere with the Corps plan for the Irondale Reservoir situated further downstream on the Big River.

A geological feasibility study of the dam and reservoir was completed by Fruco & Associates, Inc., an engineering firm of St. Louis, Mo., in December 1965. This study indicated that the proposed project is feasible.

A design and cost estimate was completed in 1967. Construction costs of the dam and related structures are estimated to be $1,200,000. Construction of this reservoir will provide for development of a great variety of recreation facilities needed to meet the needs of the general public, and specifically to meet the needs of the public in an area which is experiencing rapid population growth. This growth is due to the development of the mineral resources in Iron, Reynolds, Crawford, Washington, and Dent Counties.

AUTHORIZATION

The Meramec Basin is one of the "most studied" areas in the Middle West. Numerous reports on this basin have been made by various Federal, State and local agencies since about 1880. Studies including the Meramec Basin were published in 1927, 1930, 1938, and 1949.

As public interest in improving the water resources of the Meramec Basin increased and became more widespread, public expressions of local interest and needs have become more specific and emphatic. Responsible local interests were instrumental in obtaining congressional authorization in April 1960 for a new, comprehensive study of the basin. The Meramec Basin Corp. also financed an independent study which was published in 1962.

In 1963, under authority of section 6 of the Watershed Protection and Flood Prevention Act (Public Law 566, 83d Congress; 68 Stat. 666) as amended, the U.S.D.A. published an interim survey report on the Meramec Basin in response to a request by the Corps of Engineers. This report supplements the Corps of Engineers report and indicates that Site H–25 (Council Bluff Lake) is an excellent area.

The Forest Service, U.S.D.A., has basic authority to undertake construction of the project. This is in line with section 6(e) of Public Law 89–72 and with the overall program of multiple use management of the renewable resource within National Forest boundaries. No new authority or non-federal participation would be needed to accomplish the project other than appropriation of funds.

LOCATION

The site of the proposed reservoir lies within the Meramec Basin on the upper Big River in Iron County, Mo. The proposed dam site is approximately 25 miles northwest of Ironton, Mo. Belgrade is approximately 5 miles northeast, and Potosi is 28 miles northeast of the project.

Viburnum, the first of the developments in the new Missouri lead belt, lies approximately 15 miles west of the Council Bluff lake site. This community has grown from a one-store, crossroads settlement, to a community of 600 people with modern water and sanitation facilities, new schools and churches, a small air strip and railroad. This trend will keep pace with the increasing mining developments.

DESCRIPTION OF PROJECT

This project, as proposed to be constructed by the Forest Service, U.S. Department of Agriculture, would be a single-purpose (recreation) impoundment, but would also contribute to flood control in the overall Meramec River Basin.

Construction of a 100-foot high dam would create a reservoir of approximately 440 acres with 13 miles of shoreline. A natural saddle in the left abutment ridge offers an unusual and excellent site for the spillway. Suitable material exists within a reasonable haul distance to construct the earth dam.

RECREATION DEMAND

Evidence clearly shows that the public is seeking the outdoors in ever-increasing numbers individually and as family groups. Each year the number of visitors

to National Forest recreation sites is significantly greater than the previous year. Current demand for camping and picnicking sites far exceed supply.

In addition, it is estimated that up to 30,000 additional people will be moving into this area with the development of the new lead belt in Iron, Reynolds, Washington, Crawford, Dent, and Shannon Counties.

According to past studies, each will average 30 recreation activity days per year. The Clark National Forest will receive more than one-third of these visits. Using this as a guide, the Forest can expect an increase of 300,000 visitor-days annually.

It is estimated that Council Bluff Reservoir, when developed, will have a capacity for handling 162,000 visitor-days annually.

PROPOSED RECREATION FACILITIES

The area surrounding the proposed reservoir area lends itself well to the development of a great variety of recreation facilities. Swimming, boating, fishing, camping, and picnicking in the scenic land around the impoundment will offer an enjoyable prospect for the vacationing public. Saddle trails and hiking trails are also very popular in this area. Preliminary estimates of proposed recreation facilities indicate an initial cost of $800,000.

LAND PURCHASE

At the time the project was first initiated, 35 percent of the land needed for the proposed impoundment and recreation facilities was in private ownership. Since that time, approximately 1,300 acres have been acquired, lowering the percent of private ownership to 22 percent. Funds are currently available under the Land and Water Conservation Funding Act to accomplish land acquisition requirements. The Forest is continuing its acquisition program in this area. The dam site is in public ownership, and construction can begin as soon as funds are made available.

EXPENDITURES

Expenditures for the project to date are as follows:

1. Contract services:	
A. Design for dam structure, emergency spillway and related structures	$85,000
B. Topographic maps of dam area and recreation area	16,000
C. Geological feasibility study	6,500
D. Commercial appraisal of properties	9,000
Total	116,500
2. Estimated Forest Service ranger and staff project cost, Forest Service personnel	14,000
Total preconstruction expenditures	130,500
3. Acquisition costs of properties acquired to date includes 12 tracts, 1,476 acres	168,780
Total expenditures on the project to date, as of April 1, 1970	299,280

ESTIMATED BENEFITS

During the recreation seasons of 1966–67, a tourist survey was completed under the auspices of the Highway 19 Tourist Travel Association. Highway 19 lies to the west of the project area and runs through the Meramec Basin. Figures obtained from the study were applied to the anticipated use figures for the reservoir to calculate economic benefits. It is assumed that an entrance and user

fee system will be used and returns to the land and water conservation fund and U.S. Treasury were calculated.

1. Returns to land and water conservation fund (entrance fees)	$62,884
2. Returns to U.S. Treasury (user fee)	40,501
Total to Federal Government	103,385
3. Return to communities (supplies and services)	478,159
4. Returns to counties (25 percent of user fees)	13,500
Total to local area	491,659
Total anticipated annual returns	595,044

In addition to providing recreation opportunities, the reservoir is being studied as a posible source of water for the town of Belgrade. This will further increase the benefits to be derived from the project.

Mr. WYATT. Madam Chairman, I would like to also commend our colleague, Mr. Ichord, for his interest in preparing a statement for us which I am sure will be helpful, and for being here with his people on behalf of this project. Also, I recognize another one of our former colleagues, Mr. Ben Guill, who has just entered the room and is also interested in the completion of this project and has very much helped.

Mrs. HANSEN. The committee is interested in the completion of all these projects.

Mr. ICHORD. Thank you very much, Madam Chairman. I hope the committee will find the money also to put back in the extra $2 million for forest fire protection which you put in this year and I understand the Bureau of the Budget has omitted. They have it back down to $14 million. I know of the chairman's interest and the interest of the members of this committee for fire protection in forestry districts. I hope you can find at least another $2 million to keep the same level that we did last time.

FOREST SERVICE

WITNESS

J. WALTER MYERS, JR., EXECUTIVE DIRECTOR, FOREST FARMERS ASSOCIATION

Mrs. HANSEN. Mr. Myers, Executive Director of the Forest Farmers Association. Please insert your statement in the record and summarize it for us.

(The statement follows:)

Mr. Chairman and members of the committee, my name is J. Walter Myers, Jr., and I am executive director of the Forest Farmers Association. It is a pleasure to appear before this committee again as a representative of our association. The Forest Farmers Association, as you may recall, is an organization of timberland owners—primarily small owners—in 15 Southern States. Headquarters for our association is Atlanta, Ga.

Over the years this committee has demonstrated outstanding support for maintaining a strong program of Federal research in forestry. The committee can take a great deal of pride in the many important accomplishments which have resulted from these programs. Timberland owners, wood-using industries, and the States have joined with the Federal Government to participate cooperatively in support of these programs at the local level. Furthermore, the Forest Farmers Association, Southern Pine, Southern Hardwood Lumber Manufacturers, and the American Plywood Associations, working together, have recently completed an indepth analysis of southern forest resources. This has resulted in

a detailed report on the status of the South's forests, and recommendations on needed actions so that this resource can meet future needs. Much of what I have to say today will be based on the findings of this analysis which, incidentally, was endorsed by the southern Governors at their annual meeting in Williamsburg, Va., in September 1969.

The Forest Farmers Association has carefully reviewed the 1971 fiscal year budget estimate as it provides funds for the U.S. Forest Service. Our organization heartily endorses this Agency's budget for fiscal year 1971, and particularly the increases for forest research programs, with particular emphasis on those items affecting the South. These increases, I understand, totalled $1,217,000, nationwide. Our association is hopeful that the committee will approve these increases and recommend certain additions above those already in the fiscal year 1971 budget estimate. These would be for forest research and cooperative fire control activities. The Forest Farmers Association also invites the committee's attention to certain high priority research facilities, including the following:

Wildlife Habitat and Silviculture Laboratory, Nacogdoches, Tex. ($410,000).

Forest Insect and Disease Laboratory, Gulfport, Miss. ($730,000).

Forest Hydrology Laboratory, (Coweeta) Franklin, N.C. ($740,000).

Forestry Sciences Laboratory, 2d stage, Research Park, N.C. ($1,490,000).

Headhouse-Greenhouse, Oxford, Miss. ($105,000).

Wood Processing Laboratory and Storage Building, Alexandria, La. ($200,000).

Congress appropriated $360,000 for the Wildlife Habitat and Silviculture Laboratory, Nacogdoches, Tex., in fiscal year 1970. This was impounded by the President's construction freeze order and it is now estimated that it would cost $410,000 to build this facility. An urgent need exists for this laboratory and the committee's thoughtful consideration to again appropriating necessary funds is requested. The committee's consideration is also invited to providing funds for architectural plans for much-needed facilities including:

Forest Engineering Laboratory, Auburn, Ala. ($50,000).

Forestry Sciences Laboratory, Fayetteville, Ark. ($68,000).

Forest Fire Laboratory, 2d stage, Macon, Ga. ($140,000).

Forestry Sciences Laboratory, Charleston, S.C. ($75,000).

Forestry Sciences Laboratory (Silviculture and Wildlife Habitat), Blacksburg, Va. ($75,000).

In addition to these research items, the Forest Farmers Association strongly recommends that cooperative forest fire control funds (CM–2) be increased to the full authorization of $20 million. This would be an increase of $3.6 million above the fiscal year 1970 appropriation and is one of the high priority recommendations contained in the report of the Southern Forest Resource Analysis. Due to certain administrative factors, the original budget estimate for 1971 shows a $2 million cut in this item in fiscal year 1971 versus 1970. We understand this came about because the budget for fiscal year 1971 had to be submitted before the 1970 budget was enacted into law. Our organization strongly urges this item be maintained at the fiscal year 1970 level and be increased to the full $20 million authorization in fiscal year 1971, if at all possible. Our forests contribute to a better environment, helping to provide purer air, cleaner water, and tremendous recreational opportunities. To do less than extend full protection to these forests lands is only inviting tragic waste.

Returning once more to our Association's review of research program activities, our group recommends an increase of $1,550,000 total spread over seven southern States, and including $750,000—southwide—for the forest survey. We feel this increase is clearly needed if minimum forest research needs are to be met in fiscal year 1971.

Certain of these funds are included in the 1971 fiscal year budget; however, it is not possible to determine which funds might be available for the South. Therefore, the following breakdowns merely list the total need estimated by specific items:

The Forest Survey.—This is a top-priority item. The survey provides invaluable State-by-State forest resource inventories on a current basis. The survey provides the basis for all forest planning, public and private, nationally and locally. A great need exists to strengthen this program, and especially in the South with its fast-growing timber and the increasing demands on its forest resources. A minimum annual increase of $750,000 is needed in the South, alone, beginning as soon as possible to achieve the objective of State resurveys on an 8-year cycle, which the Forest Service recommends. The 1971 fiscal year budget estimate provides a modest increase for the Forest Survey, nationwide, and the South would likely receive a portion of these funds but not in the order of the $750,000 needed.

Forest engineering research.—The changing economic picture has added great impetus to mechanization in harvesting and marketing of forest products. Mechanization on large acreages can normally be accomplished without unusual difficulty due to the size of the tracts and volume of timber involved. A great need exists, however, to develop efficient and economical systems for harvesting and transporting timber crops from small acreages. A minimum of $100,000 is urgently needed to strengthen and expand this work, centered at Auburn, Ala. on the Auburn University campus. The 1971 fiscal year budget estimate includes some increase for this activity.

Timber management planning and tree improvement.—To strengthen and expand existing programs to select, breed and release to the public foundation stock of superior strains of sweetgum, sycamore, yellow-poplar and other southern hardwoods. This work is centered at Athens, Ga., and $100,000 is needed. An urgent need also exists to develop and apply the principles of biomathematics and cost effectiveness, etc., using computer facilities available in cooperation with the University of Georgia. This work is also centered at Athens, Ga. and $100,000 is needed.

Forest economics and intensive pine culture.—An urgent need exists to provide forest economic information to evaluate alternative opportunities for increasing production of timber and associated benefits on different classes of forest ownership in the South. A minimum of $50,000 is urgently needed for this work. This activity would be centered at New Orleans, La. Certain funds for this item are in the 1971 fiscal year budget.

An urgent need also exists for intensive pine culture research to develop soil and stand management practices to maximize growth and quality of southern pines on Coastal Plain soils of the gulf region. This work would be headquartered at Alexandria, La., and $100,000 is needed.

Forest tree seed.—A minimum of $100,000 is needed for the strengthening of the forest seed research at State College, Miss., with particular attention to hardwood seed research.

An urgent need also exists for research on intensive culture of sycamore and pecan to develop soil and stand management practices to maximize growth and quality of these valuable species in the Mississippi Delta area. This program is centered at Stoneville, Miss. and $50,000 is needed.

Forest soil improvement.—$50,000 is needed to strengthen and expand existing programs to provide landowners with the prescription and methods to increase timber yields through fertilization and use of good soil management practices without deterioration of water resources. This work is headquartered at Research Triangle Park, N.C.

Wetland hardwood culture.—$50,000 is needed to strengthen and expand existing programs to develop better methods of managing the 13 million acres of wetland hard wood area in the Southeast to insure its continued productivity. This work is centered at Charleston, S.C.

Timber production economics.—$100,000 is needed to strengthen and expand existing programs of multiproduction management of forest lands to produce timber, provide for wildlife and recreation, and protect the environment. Accomplishment of these goals will require the help of economic analysis and systems analysis in selecting the best managerial techniques and multiuse management. This work would be done in close cooperation with the unusually strong economics group at Virginia Polytechnic Institute. This work is centered at Blacksburg, Va.

In addition to the preceding the Forest Farmers Association strongly endorses funds for bark-chip separation-segregation research at Houghton, Mich. and Madison, Wis. A solution to this problem would make available the equivalent of an additional 20,000,000 cords of wood, not currently utilized. It would also permit more efficient harvesting operations, which would help preserve the aesthetic beauty of our woods.

The committee may notice that no mention is made this year of the importance of insect and disease research. This is likewise a top priority item, and we hope that major consideration can be given to it in fiscal year 1972. With the discontinuance of use of DDT and other important pesticides, it becomes increasingly important that other effective means of controlling forest insects and diseases be developed and adopted, as quickly as possible.

The committee's consideration to the views of the Forest Farmers Association will be appreciated. Thank you for your courtesy in hearing me.

Mr. MYERS. I do know this subcommittee is chaired by one of the loveliest ladies in Washington.

It has been my pleasure to appear before this committee upon a number of occasions before and I would just like to highlight certain points here if I might.

I might say that I am very delighted that our distinguished Congressman from Georgia, Mr. Flynt, is here.

Mr. FLYNT. Walter, we are glad to have you here with us. We thank you for your contribution to these hearings.

Mr. MYERS. I did want to say that over the years this committee certainly demonstrated a great understanding of forestry matters. This is much appreciated and you can look to these accomplishments with a great deal of pride because you have had a part in them.

Recently the Forest Farmers Association—which is an organization of timberland owners in 15 Southern States and primarily small owners—got together with Southern Pine, Southern Hardwood Lumber Manufacturers, and American Plywood and, working together over 2 years, we came up with an indepth analysis of southern forest resources called the South's third forest. Some of you perhaps have heard of the Third Forest Report and its recommendations. Much of what I am going to say today is going to be based on these recommendations. These recommendations, incidentally, were endorsed by the Southern Governors at their annual conference at Williamsburg last year and we were very gratified about that.

I would like to say for our association that we do endorse the funds as provided in the budget for the Forest Service. We think the program is well conceived and the budget is well conceived, and particularly the increases for research which I understand total $1,217,000 nationwide. We are hopeful these increases can be held and that there can be additional increases for research and for cooperative fire control.

There is a number of high-priority items. I have them listed in my statement and one we hope the committee can consider is the laboratory at Nacogdoches, Tex., which you provided funds for last year, which were frozen by the President. These people are about to be moved out by the Boston University. There is a real need there which I think you recognized last year. I hope something can be done there. The other items are of high priority too.

There is a great need for the forest fire laboratory planning money in Macon, Ga., as was mentioned this morning, and the other items likewise are high.

On fire control I think you know the picture. I sat there and heard the matter talked about but we believe fire control is a tremendous thing. This study we completed showed that for every dollar invested in fire control over the past years, since the CM–2 cooperative program went into effect, why, $4 in value have come back. It has been a cost-effectiveness ratio of 1-to-4. I wouldn't say today that $1 would yield $4 because we are at a pretty high level, but I think the whole picture of environment and reaction and all of this to a great degree hinges on fire protection. If we don't protect it and burn it up, the opportunity for multiple use and maximum use which we thoroughly, wholeheartedly endorse, just wouldn't exist.

We would like to see not only the $2 million put back, but if it is at all possible, the full authorization of $20 million. It can be well justified and hopefully that can be done as soon as possible.

Returning to research, the forest survey is a top priority item. All of our plans are based on the forest survey. There is need for $750,000 in the South for the forest survey. There are some funds in the budget for it, but not in that order.

The other items are well detailed here. I won't bore you by reading them, but the forest engineering research and timber management planning and tree improvement, the forest economics and intensive pine culture, the forest tree seed, the forest soil improvement, the wet land hardwood culture, and timber production economics; some of these items are in the budget.

It is needless to say the budget is complicated. It is difficult for us to determine what items are in and what amounts but we put down the amounts that we felt—and this has been done in consultation with landowners and the Forest Service and other knowledgeable individuals. We would appreciate your consideration of it.

We also would like to endorse the funds for the bark chip separation and segregation research at Houghton, Mich., and Madison, Wis.

This would provide 20 million cords or the equivalent of it of wood not currently utilized. This would be helpful in meeting our wood needs.

The committee may notice that no mention has been made this year of the importance of insect and disease research. This is a priority item and we hope major consideration can be given to it in fiscal year 1972. With the discontinuance of the use of DDT and other important pesticides, it becomes increasingly important that other effective means of controlling forest insects and diseases be developed and adopted as quickly as possible.

We don't take issue with what has necessarily been done but the problem still exists. If we can't fight it this way, it becomes essential that we find some way to meet the damage and the damage from insects and disease is greater than from fire. This isn't always realized. This is the problem.

I appreciate the opportunity to testify, Madam Chairman.

Mrs. Hansen. Mr. Myers, it is a pleasure to have you. You have made an excellent presentation.

Mr. Flynt. Madam Chairman, I have worked with this group in our part of the country over a long period of time. The effectiveness of the group is due to the work of Mr. Myers who is its director and coordinator. Walter, we are glad to have you with us.

Forest Service

WITNESS

W. D. HAGENSTEIN, EXECUTIVE VICE PRESIDENT, INDUSTRIAL FORESTRY ASSOCIATION, OREGON

Mrs. Hansen. Mr. Hagenstein, Executive Vice President of the Industrial Forestry Association of Oregon.

Mr. Wyatt. I would like to welcome Mr. Hagenstein who happens to be a constituent of mine as well as being from the State of Oregon, and is a very close personal friend, both he and his wife, and I think that we are very, very fortunate to have the benefit of his views as

one of the real experienced pros in forestry, as president for 4 years of the Society of American Foresters.

It is a great pleasure to have him here.

Mr. REIFEL. I haven't any national forests at all in my district but I have served on this committee now for 8 years and in all of that time Mrs. Hansen has been on our committee and for most of that time she has been our chairman. Mr. Wyatt has been on the committee for 4 years. I don't need to tell you that these two members of the committee have been in the forefront of trying to do everything possible to convince anyone who comes that we need to do more for forestry. I understand from Mr. Wyatt that he is very appreciative of your efforts.

Mr. HAGENSTEIN. It is nice to hear this. I can tell the committee we are all well aware of the fine representation we have for the forestry field in this committee.

Mr. REIFEL. I must not leave out our colleague from Georgia who had a wonderful witness before us this morning who pointed out how much of the forestry products and timber problems are concentrated in the South.

Mr. HAGENSTEIN. That is very important because the work being done by the lab is coincidental work with that being done in the woods. It takes the two of them to make it go. It is very important.

I appreciate your calling attention to the fact that Mr. Flynt had a gentleman from Georgia here because Mr. Myers is a long professional colleague of mine in our society nationally and I am delighted to be with him.

Madam Chairman, I will do my best to summarize here very quickly.

The first thing I want to talk about is the cooperative deposits which are paid to the Forest Service for the performance by it of such operations as slash disposal, tree planting, road maintenance, rock replacement, erosion control, and log scaling.

These cooperative deposits are all made pursuant to laws authorizing the Forest Service to require in its timber scale contracts that its timber purchaser pay cash to the Forest Service for performance of specific operations outlined within the contract. The costs are allowed in the appraisal of the timber by the Forest Service, but the cash to perform the work is actually paid by the operator.

In 1969 the Bureau of the Budget ordered certain amounts of these cooperative funds to be impounded and thus denied their use by the Forest Service for disposal of slash on areas from which the timber had been harvested, maintenance of roads on the national forests used by timber purchasers for hauling logs and by the public for recreation and by the Forest Service for protection and administration and replacement of rock on road surfaces where necessary.

To give you an example of what this impoundment meant in just one region, I include here a tabulation showing the actual experience in region 6 of the Forest Service for fiscal year 1969:

	Total amount collected	Expenditures	Amount frozen
Co-op Work Forest Service	$5,127,300	$2,853,400	$2,273,900
Knutson-Vandenberg, reforestation and stand improvement	7,779,700	5,324,900	2,454,800
Brush disposal [1]	5,488,800	4,322,400	1,166,400
Total	18,395,800	12,503,700	5,892,100

[1] Referred to as slash disposal in this statement.

Examination of the data show that approximately one-third of the moneys paid by the operators to the Forest Service for performance of the work indicated was impounded by the Bureau of the Budget and thus not available for use by the Forest Service.

This is highly inequitable for a number of reasons.

Mrs. HANSEN. This is a very strange activity.

Mr. HAGENSTEIN. Yes, it is. It isn't really their money. First, the money has been paid by the operators pursuant to a valid timber purchase contract for performance by the Forest Service at certain times of work required to reduce the fire hazard, reforest the harvested area, maintain roads or replace their surface rock. Second, not performing these functions when required on schedule interferes with orderly and efficient management of the national forests and causes losses in productivity. Third, in the case of road maintenance, not doing it when needed causes such deterioration that often reconstruction is needed to replace the road and during the period it is in disrepair it retrogrades other national forest values as well as causing safety hazards and inconvenience to the public. Fourth, it works a special hardship on a timber sale purchaser who has completed all of his part of the operation, paid his cooperative funds to the Forest Service for the disposal of slash and because the funds were impounded the Forest Service cannot perform, so the operator is not allowed to receive clearance of his obligations under the contract and the Forest Service cannot return his performance bond. This has the practical effect of reducing every operator's bonding capacity and for those who depend heavily on public timber, this is an extremely important part of their working capital.

I would like to emphasize that as strongly as I know how. If you don't maintain the big capital investment you have in roads—and they cost a lot of money in the mountainous parts of the country—then when you go back and try to pick it up you really have a job of reconstruction to do and it costs you a lot more than if you had done the maintenance on a regular basis.

I'm glad to note, for the committee, that the situation has been greatly improved in fiscal year 1970 with only about a million dollars out of $18,400,000 impounded. But, I wanted to acquaint the members of this committee, which has the oversight function on the expenditure of funds for the protection, management and administration of the national forests, with this problem. Hopefully, the committee can influence the Bureau of the Budget to allow the Forest Service to use these cooperative funds to fulfill its legal and moral obligation to both the American people who own the national forests and to its timber purchasers who have provided the cash for performance of essential work.

Another item I would like to discuss with you briefly is the growing problem in the Pacific Northwest of a voracious tree killer, the balsam woolly aphid. This European import was first found in 1954 near Mount St. Helens in the chairman's district. Since then the aphid has spread to include an area from south of Crater Lake in Oregon to the Skykomish River in northern Washington. It appears to be only a matter of time until it reaches the new North Cascades National Park. Last year it was discovered for the first time on the Olympic Peninsula just a few miles from the Olympic National Park. This insect is wrecking havoc to recreational and commercial forests alike throughout our region.

I have a map here which, if possible, I would like to have included as a part of the record. It shows you that from 1954 when this thing was discovered on the south side of Mount St. Helens its spread is shown here. It now covers an area of 2,900,000 acres in the area depicted. This insect can produce from an unfertilized egg. That is the problem you have here. You don't have to have males. It is a female society. The females lay eggs and unfertilizd though they be, they create the nymphs which in time become females and repeat the process and this is one of our big problems. You can't get after it like research in the Department of Agriculture did against the screw-worm and made cattle-raising successful in the south by denying the males the opportunity to reproduce. You can't do that here because you don't need any males to begin with. It is a very interesting insect and that is one of the reasons why it is so dangerous.

The insect is killing three species of true firs—grand (*Abies grandis*), silver (*Abies amabilis*), and alpine (*Abies lasiocarpa*). On an area of 400,000 acres near Mount St. Helens, the balsam woolly aphid killed or severely damaged 1½ billion board feet of merchantable timber between 1954 and 1957—enough wood to build over 150,000 homes. Since 1957 the insect has spread to almost 3 million acres and heavy killing has occurred throughout Washington and Oregon in the areas indicated on the attached map. Aphid-killed trees deteriorate rapidly and cause considerable loss if they are not salvaged within 2 years. In addition, after the trees are killed saprophytic fungi cause increased breakage during salvage logging because aphid-killed trees are brasher than normal trees.

This insect is also causing severe damage to alpine fir, the most susceptible species of true fir in the Northwest. This damage is changing the ecology of hundreds of thousands of acres in national parks and wilderness areas throughout the high Cascades. There is also the danger that the insect will spread to other regions of the West where true firs grow.

The balsam woolly aphid problem points up the great importance of priority harvest and salvage of infested areas first. It also points up the need for an adequate protection policy for recreational areas. At present the agencies responsible are hamstrung because of the physical inaccessibility of many areas and the statutory prohibition of roads and use of mechanized equipment in some of them. It is a decision the Congress is going to have to make soon, if it wants to protect not only the aesthetic and recreational portions of the high mountain country, but to maintain their watersheds in healthy condition as well.

We have learned much about the habits of the balsam woolly aphid and how to decrease damage in commercial timber stands through forest management practices. But no means have been found for even slowing its increase and spread in the high elevation, inaccessible and recreational forests.

An evaluation of the balsam woolly aphid problem has been made by the Northwest Forest Pest Action Council. The council has concluded that intensive programs of basic research offer the only hope of developing a satisfactory control method for the aphid. The council recommends three kinds of research: (1) Determination of the in-

sect-host relationships, so as to uncover the fundamental reason why North American true firs are killed or damaged by the aphid where as European species of the firs are not; (2) develop trees genetically resistant to the aphid; and (3) develop tailormade chemicals and methods for application thereof which will control the aphid without damaging other organisms in the environment.

Present research on the aphid problem in the Pacific Northwest is less than one scientist man-year. The program that the Northwest Forest Pest Action Council recommends would increase this effort greatly. It would cost about $200,000 annually for approximately 10 years, depending on research progress. We think such a program should be planned and coordinated by the Pacific Northwest Forest and Range Experiment Station of the Forest Service. However, much of the kind of research recommended requires equipment and skills available at only universities, and such work should be done under contract with universities equipped to handle it.

As a member of the Pest Action Council's executive committee and chairman of its timber disaster committee, I respectfully commend your support during the current session of Congress for initiation of a research program to get after and control this virulent tree killer, the balsalm woolly aphid. The research cost is insignificant as compared with the value of the resources it is destroying.

One other thing needed to assist in control of the balsam woolly aphid is more timber access roads so that infested stands can be salvaged before deterioration makes their timber unmerchantable and before they retrograde the quality of the environment.

We have a suggestion here, Madam Chairman, for a research program. We think it will cost about $200,000 a year and ought to be carried on for at least a period of 10 years, because very little is known about this insect now. Imported though it was from Europe, strangely enough in Europe it doesn't do the damage, nor isn't the voracious killer, that it is in the northwestern part of the United States. We don't understand this. We need to find out why.

A third thing I would like to bring to your attention is the urgent need to complete the construction of the Forestry Sciences Laboratory of the Forest Service at Corvallis, Oreg. This lab was begun in 1962 and in 1966 moneys were appropriated to plan the second phase. These plans have been completed for nearly 3 years and, even though Congress appropriated $500,000 last year to make a start on the additional construction, to date the funds have not been released for building. Because the primary forest insect and disease research at this lab emphasizes biological and forestry controls for pests, it is important that it be completed as early as possible so that it can get on with the job. I hope that this committee is able this year to appropriate funds for obligation before May 1 so that the construction can get started and completed without further delay.

This lab is one that can do the kind of work we are talking about.

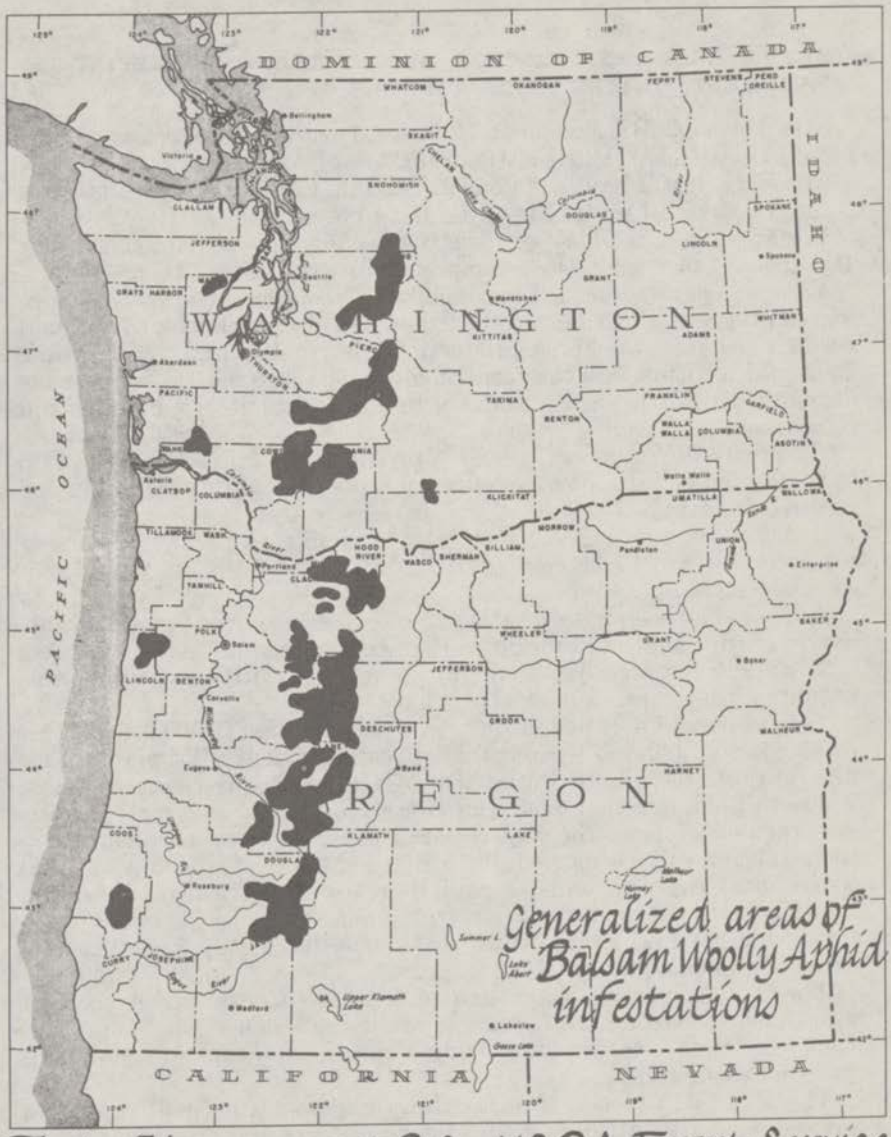
Mrs. HANSEN. The Bureau of the Budget intended to use the $500,000 that was appropriated for the Corvallis Laboratory to meet pay costs. The committee denied this request.

Mr. HAGENSTEIN. Pay increases are fine, but we have to have the facilities as well as the people.

The last matter I would like to discuss is the need for appropriation of the full authorization under section 2, Clarke-McNary Act. In this year's budget request there is only $14,396,000, whereas the authorization is $20 million. This is a drop of $2 million from last year and, with the increased use of our forests by the public, the State foresters need appropriation of the full authorization to do the job. We support fully their justification to you on this and recommend appropriation of the full authorization.

Mrs. HANSEN. Thank you very much, Mr. Hagenstein.

(The map referred to follows:)



Timber Management R-6 - U.S.D.A. Forest Service
(From Cooperative Survey)

WITNESS

JOSEPH P. BRENNAN, DIRECTOR, RESEARCH AND MARKETING DEPARTMENT, UNITED MINE WORKERS OF AMERICA

Mrs. HANSEN. Mr. Joseph P. Brennan, Director, Research and Marketing Department, United Mine Workers of America.

Mr. BRENNAN. I have a statement, Madam Chairman, which is about 5 minutes, which I would like to read, if I may.

We appear here today on behalf of America's coal miners, their families and in a sense, the communities in which they live.

We come here to urge this committee to support a proper coal research program. Such a program should be fully responsive to national needs in the areas of energy production, distribution and consumption. It should also provide the technological base for the fullest possible development of the wealth inherent in our anthracite, bituminous and lignite coal reserves.

To date the Federal coal research program has failed to measure up to these twin criteria of excellence. In our opinion, this failure is due to three factors:

1. Adequate funding has not been available to permit promising research projects to be carried from initial inception through commercial feasibility.

2. There has been misallocation of research resources toward atomic energy, with a neglect of promising projects for fossil fuels.

3. Energy research has been fragmented with little over-all coordination to insure optimum return.

The proposed OCR budget for fiscal year 1971 is $16,200,000. Of this total, $12,205,000, or 75 percent, is allocated to four pilot plants. Few new projects have been initiated by OCR in the past several years. There is a danger that potential contractors with imaginative ideas will turn away from the coal research program to other areas where their talents will be more fully utilized. Moreover, because of fund limitations, several promising projects ready for pilot plant operation have had to be postponed or even terminated.

Consider several examples of lost or postponed opportunities because of an inadequate OCR funding.

The P. & M. project has stagnated. The fact that it has survived at all is due to the Congress, especially to the chairman of this committee, who put funds into the OCR budget for it, even though such funds were not requested.

The P. & M. process, if successfully demonstrated, will provide a low-ash and low-sulfur fuel for electric utilities and other consumers. In view of the present demand for such a fuel, the successful demonstration of the P. & M. process several years ago would have meant much to the national welfare. Unfortunately, instead of being able to use a de-sulfured U.S. coal in areas with pollution problems, electric utilities now are looking more and more to low-sulfur foreign oil for this purpose. The fact that it is not now available can only be attributed to the myopia of those determining energy research priorities.

Fluidized-bed combustion offers hope for improved thermal efficiency and better pollution abatement. Several fluidized-bed concepts have been tested, both here and abroad. One has been funded by the

Office of Coal Research. In adition, a major electric utility company in Pennsylvania is prepared to invest more than $30 million in a pilot plant if it can secure Government participatoin. To date, the OCR project has been canceled and the Pennsylvania utility is still seeking Federal assistance.

MHD (magnetohydrodynamics) is considered to be a promising new technology in the power generation field. Efficiencies with MHD can reach a 60 percent efficiency level, as compared to 40 percent for our best fossil fuel units and 30 percent for current light-water nuclear reactors.

The Federal Government spends more than $200 million annually in the civilian atomic reactor program. In contrast, the OCR budget provides for $400,000 for MHD research—a promising alternative to atomic reactors.

In essence, all of these examples point to one thing—lost opportunities, a national failure to fully exploit the wealth that lies buried beneath our soil. Naturally, as people affected by the economic viability of the coal industry, we are disappointed by this failure. But, more importantly, our Nation is the main loser because the prosperity which would come from resource utilization has not materialized.

I am a member of the General Technical Advisory Committee of the Office of Coal Research in addition to my position with the United Mine Workers of America. In my judgment, there must be a funding level of at least $50 million annually if the coal research program is ever to be fully successful. While this level represents almost triple the present level of OCR funding, it is still only one-quarter of the funds expended for the civilian nuclear power program—coal's major competitor.

We hope that this committee will share the opinions we have expressed here today. We also hope that those in the executive branch charged with the formulation and implementation of energy research policies will also agree with our position. For, we believe a proper energy R. & D. program is essential to continued national progress and to the well-being of present and future generations of Americans.

Mrs. HANSEN. Thank you.

FOREST SERVICE

WITNESS

JAMES S. BETHEL, DEAN, UNIVERSITY OF WASHINGTON COLLEGE OF FOREST RESOURCES

Mrs. HANSEN. Dean Bethel of the University of Washington College of Forest Resources. It is always a pleasure to welcome someone from my alma mater.

Dean BETHEL. Thank you. I have submitted to the committee a written statement from the Association of State Colleges and Universities for Industry Research Organization.

Mrs. HANSEN. Please insert in the record your statement and summarize it for us.

(The statement follows:)

I am James S. Bethel, dean of the College of Forest Resources, University of Washington. As president of the Association of State College & University Forestry Research Organizations, I represent the State-supported institutions of higher education that are actively engaged in forestry research at the State

level. Our schools and colleges are the principal sources of forestry research talent for the laboratories and field stations conducting research for industry and State and Federal agencies, including the U.S. Forest Service.

Forestry in the United States today is faced with critical and urgent tasks which can be intelligently faced only through the guidance offered by significant research. A fast growing and rapidly changing national population is very properly making increasing demands for goods and services upon a limited forest resource. Emerging from an era of forest abundance that easily served the Nation's requirements for all forestry goods and services, the country must now accommodate itself to an essentially stable forest land base. During such a transition, conflicts can be minimized if research develops the body of knowledge basic to wise decisions. Forestry is inherently a long-term activity. Forestry decisions inevitably have long-term consequences. Wise decisions stem from adequate knowledge generated by long-term research. As president of ASCUFRO, I am concerned about the increasing pressure to seek short-term solutions to what are essentially long-term problems, in the presence of an inadequate information base. ASCUFRO and the Forest Service, under the auspices of the U.S. Department of Agriculture, prepared a national research program for forestry. We are now midway through that 10-year program. If the 10-year program had been implemented as envisaged, the Forest Service, for example, would have 1,325 scientists today engaged in forestry research.

Instead, it has about 950 scientists, almost the same number as it had in 1966 when the plan was approved. Modest budget increases for research both in the Forest Service and in the forestry schools and colleges have barely kept abreast of increased costs of doing business. Notwithstanding inability to substantially implement the long-range research plan, forestry is being asked to make long-term decisions and commitments that influence such important factors as timber supply, recreational resource supply and pollution abatement. It is imperative that we accelerate funding for forestry research if we are to develop the technology that will enable forest land managers to simultaneously increase production of timber and yet preserve the quality of the forested environment that is so important to so many Americans.

Let me speak directly to the budget request for forestry research that is before you at this time. I would certainly support the modest increases included in the President's fiscal year 1971 budget for forestry research. Without commenting specifically on each of the line items in the research budget, I should like to focus on two that are particularly important; namely, the forest survey ($435,000) and forest economics research ($170,000). The forest survey involves compilation and analysis of information on the status of national and regional timber resources. It is a basic research tool used by research workers and land managers in State and Federal agencies, private industry, and university forestry research oganizations. Decisions on forest land use are no better than our knowledge of the land the the forests that occupy it.

Related to the forest survey inventory studies are the research efforts undertaken in the area of forest economics research. These studies provide a basis for evaluation of alternative uses of forest land to make the most efficient use of land, labor, and capital. Vigorous pursuit of forest economics research permits dealing with problems of compatibility and noncompatibility in forest land use and the tradeoff required to implement multiple use. Such other research items as watershed management, utilization, and engineering deal with crucial problem areas and the level of increases proposed seem inadequate in view of the importance of the problems in these fields.

I am disappointed to see no increases in forest protection, recreation, and wildlife habitat research. As I indicated earlier, I am concerned with what seems to me to be the inadequacy of the proposed fiscal year 1971 budget. In view of the many critical problems which are confronting American forestry, I strongly urge you to not stop at the small increase which is proposed in the budget now under consideration. I recommend that you increase the Forest Service research budget by an additional $3 million this year. Such an amount would get research moving in critical areas. It would realistically provide the basis for dealing with problems which are serious now and will only become more serious with passing time. Action is needed now so that answers will be available soon for forest land managers. What are the problems emerging today? Where should we place our emphasis in order to forestall crises that are all too common today in forestry? As I see it, these problems are:

1. *Hard Pesticides.*—The ban on restrictive use of hard pesticides forces us to accelerate the research and biological control of insects and diseases—an increase of $600,000.

2. *Environmental quality.*—Americans love their great out of doors. We must develop practices to enable the use of forests for goods and services even as we maintain their attractiveness. European and Japanese foresters have been highly successful in developing an accommodation between production and environment. Recreation, wildlife, range, and water are all valuable products of the forest, but research to fully protect and develop these resources has seriously lagged. Paradoxically, many of the Nation's conflicts in forest land use derive from inadequate knowledge of these values—an increase of $1,200,000.

3. *Intensive timber culture.*—Application of techniques that have proven so successful in agriculture are only now starting in forestry. Tree breeding, fertilization, cultivation, and improved pest control: these must be accelerated to make our most productive forest land more productive, thus avoiding the anticipated supply gap in timber—an increase of $900,000.

4. *Fire and water.*—We must develop new techniques to reduce fire losses, including methods to modify lightning storms and increased precipitation through weather modification—an increase of $300,000.

The education of forestry scientists is the business of the forestry schools and colleges and the university forestry research organizations. We in education are most conscious of the time requirements involved in developing a competent research scientist. From high school graduation to doctorate is rarely less than 7 years and more commonly 8 to 10. There are inevitable delays between the recognition of research problems, the consummation of the research, and the emergence of usable new technology based upon the research. There is a great problem in the maintenance of the competence of working scientists. The scientist must be constantly renewed professionally if he is to be effective. Education and continuing education for research is the role of the 61 State-supported colleges and universities engaged in forestry research. The fruitful partnership between these institutions and the U.S. Forest Service is mutually advantageous and it is in the national interest. For this reason, we are concerned about the Forest Service research budget and we welcome the opportunity to comment on it.

Dean BETHEL. As you will note from the statement, we are concerned primarily with the research budget of the Forest Service and we are recommending support of the increases proposed in the President's fiscal 1971 budget.

As you will note also, we are requesting additional support beyond that currently requested. We do this recognizing that the budget situation this year is critical; that there are great demands in the budget area for defense, for urban problems and so on.

We are also conscious of the fact that there are major issues and problems in the forestry field that are critical at this particular time. We find that the greatest demand, for example, for forest land, increased forest land use is in the area of recreation which very frequently results in the shrinking land base with respect to the production of forest products. We are conscious of the fact that there is a great number of people who feel some of the agricultural methods being pursued are inappropriate with respect to esthetics and this has serious implications with respect to the productivity of the land.

Pollution problems, including insecticides, herbicides, fire, and industrial residues from forest products industries create problems and there is a major problem of timber supply. Even though current level of housing starts is low, the need for housing is being banked and soon will meet a critical situation where we will have to build a great many more houses and this will require timber.

Unfortunately, the demands for decisions in many of these areas also are current and are not being delayed until the Vietnam war is over, until the urban problems are solved.

Those of us in the university for industries research organizations feel very strongly that if important decisions are going to be made

currently in the forestry field that it is important, too, to do the research that is required in order to get proper answers. Many of these problems are being presented in highly emotional form and many decisions are being pressed upon State legislatures, upon the Congress, on the administrative agencies of State and Federal governments, on private industry in the presence of information vacuums where there ought to be adequate information.

Therefore, we press for an increase in the research necessary to provide suitable answers to these kinds of critical questions.

The Association of State Institutions that I represent cooperated with the Forest Service in the preparation of a National Research Program for Forestry. We are now, time wise, in the middle of that period, the 10-year period that this program projected and I think if we had been able to get the support projected in that program, far down the road, and having some of the kinds of answers that are needed today, it would have been well, but unfortunately this hasn't been possible and we would urge that, as fast as it can be done, the National Research Program for Forestry be implemented.

We cooperate with the Forest Service and its 61 institutions through the cooperative programs funded under the Forest Service budget and also through the program of the Department of Agriculture.

As the principal producers of the research people who staff the laboratories of the Forest Service and other Federal agencies, State agencies and private industries in the forestry area, we have a concern for the length of time required to produce the kind of research people who are necessary to solve the problem.

Specifically, our budget request supports the present increases asked for in the President's budget. We would like to highlight two items in there.

First, the $435,000 item that relates to the forest survey. This is in some sense an unglamorous kind of subject and yet the forest survey is the basic inventory information that has to be provided if we are going to do adequate kinds of forestry research. All forestry research organizations have to depend on this and only the Federal Government, through the Forest Service, is equipped to do the job.

Related to this is the request for an increase of $170,000 in the area of forest economics. Here, too, it is essential that we have the basic information, so that we can make judgments concerning compatability and incompatability of forest land uses, and the trade-off between, for example, recreational use and forest products production and so on.

We propose, in addition to the increase asked by the President in his budget, an increase of $3 million to be divided up among four major categories where research needs are critical.

In the area of pesticides, particularly with reference to the potential for the replacement of hard pesticides, $600,000. In the area of environmental quality, there is an area of extreme pressure in the forest area currently, an increase of $1.2 million.

In the field of intensive cultivation of timber—again a field in which we have got to make progress if the land base is going to be reduced—$900,000. In the area of fire and water research, $300,000.

Thank you very much.

Mrs. HANSEN. Thank you very much, Dean Bethel, for an excellent statement.

WITNESSES

HON. ROBERT L. F. SIKES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA
HON. WILLIAM JENNINGS BRYAN DORN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF SOUTH CAROLINA
HON. WILLIAM L. HUNGATE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI
RAY SHIRLEY, CHAIRMAN, NASF LEGISLATIVE COMMITTEE, GEORGIA FORESTRY COMMISSION
GEORGE DEAN, VIRGINIA STATE FORESTER
WILBUR WALKER, ADMINISTRATIVE ASSISTANT TO CONGRESSMAN DANIELS OF VIRGINIA
W. FRED FLETCHER, CONGRESSMAN ABBITT'S ADMINISTRATIVE ASSISTANT
J. RAY DOTSON, ADMINISTRATIVE ASSISTANT TO CONGRESSMAN WAMPLER
JOHN TILLER, PRESIDENT, NASF, SOUTH CAROLINA STATE FORESTER
TOM BORDEN, COLORADO STATE FORESTER
PAUL KRAMER, TEXAS STATE FORESTER
LESTER McCLUNG, WEST VIRGINIA STATE FORESTER
EDWARD SCHROEDER, OREGON STATE FORESTER
ASCAL CAPPS, MISSOURI STATE FORESTER
AUSTIN WILKINS, MAINE STATE FORESTER
RALPH WINKWORTH, NORTH CAROLINA STATE FORESTER
GEORGE R. MOORHEAD, NEW JERSEY STATE FORESTER
SAMUEL COBB, PENNSYLVANIA STATE FORESTER

Mrs. HANSEN. We now have the very distinguished Congressmen, Mr. Sikes of Florida, Mr. Dorn of South Carolina, and Mr. Hungate of Missouri.

Mr. SIKES. And Mr. Jack Flynt, who is doubling in brass.

Madam Chairman, I am not the spokesman of this group, but if I might have a very few moments, I would like to say I like to come before this committee. It is not only a distinguished committee from the standpoint of membership; it is probably the best and most effectively led subcommittee of the great Committee on Appropriations, and certainly it has the most attractive chairman.

Mrs. HANSEN. You are just trying to melt my heart for additional funds.

Mr. SIKES. Madam Chairman, I am here to support the efforts of Ray Shirley and others in the National Association of State Foresters. My own colleague in the House, and many others who are supporting an increase in funds for forest fire control, is something the committee has already recognized the need for and I hope will again recognize the need for. I am not the spokesman. Are you going to be the spokesman for this group?

Mrs. HANSEN. Congressman, it is always a great pleasure to have you appear before the committee because of your active assistance and I am grateful.

Mr. SIKES. I believe in standing for what I say to this committee and I can best stand for it by being there with you when you are on the floor.

Mr. REIFEL. Madam Chairman, I want to join you, too, in commending the distinguished guest and colleague, Mr. Bob Sikes, for his support of the work of this committee. I would like the witnesses here who are not members of the Congress to know that Congressman Bryan Dorn—another distinguished colleagues of ours—and Bill Hungate, support the actions of this committee on the floor and we deeply appreciate it. We need all the help we can get. We are very grateful. We want you gentlemen to know that these members of the Congress who are here with you today, including those on this committee, are your advocates in every respect.

Mr. SIKES. Thank you very much. It is very kind of you.

Mrs. HANSEN. We are also very happy to have Congressmen Dorn and Hungate.

Mr. HUNGATE. I am pleased to be here with our State forester from Missouri, and with our distinguished colleagues and gentlemen. I am privileged to be before this committee. Our colleague from South Dakota that we all regret will be retiring at the end of this term; we are going to miss him. We also know that he is Sitting Bull's cousin, once removed.

Mr. REIFEL. His body was stolen from North Dakota and put down in South Dakota. I refer to him as a cousin once removed.

Mr. DORN. Madam Chairman, I just wanted to associate myself with Mr. Sikes.

Mrs. HANSEN. You couldn't have a better association.

Mr. DORN. And with this group here. Forestry is good business. It is paying the Federal Government 10-fold what we have spent.

Mr. FLYNT. Madam Chairman and my colleagues on the committee, I take particular pleasure in again presenting to this committee my lifelong friend, Ray Shirley, who is the Chief Forester of the State of Georgia. He is currently the chairman of the legislative committee of the National Association of State Foresters.

I have known and we had a great admiration and respect for Ray Shirley ever since we were at the University of Georgia. He is a fine citizen of our State in many, many ways, not only in the field of forestry but in anything which is for the betterment of our region and our State.

I think that, more than any words that I could say, a tribute has been paid to Mr. Shirley by being accompanied by the tremendous group here today, a group large not only in quantity, but in quality.

I know about what Ray is going to say and I, for one—and I think that I speak for my colleagues who have joined us here today in coming with Ray—that I wholeheartedly endorse what he has to say and I am grateful to him for coming.

He has certainly made me more conscious of the needs for which he is going to express not only his personal support, but the support of the Association of State Foresters.

It is with pleasure and pride that I present to you my friend, Ray Shirley of Macon, Ga.

Mrs. HANSEN. Mr. Shirley, please insert your statement in the record and summarize it for us.

(The statement follows:)

My name is Ray Shirley. I am Director of the Georgia Forestry Commission. However, I appear before you as spokesman for the National Association of State Foresters and Chairman of the Legislative Committee.

On behalf of all 50 State forestry agencies, we thank you for the opportunity to appear before this distinguished committee to present our common needs on programs vital to State and private forestry.

We are particularly concerned about the appropriation item in the administration budget request for U.S. Forest Service Cooperative State and Private Forest Fire Control—Section 2—Clarke-McNary Act of $14,396,000. This is $2 million less than the appropriation which your committee and the Congress approved for fiscal year 1970.

We respectfully ask your favorable consideration not only to restore the $2 million reduction, but to increase this item to the maximum $20 million as authorized by Public Law 392 (81st Congress) under section 2 of the Clarke-McNary Act.

This requested increase of Federal funds is based on existing conditions common to all States. Some are as follows:

1. Personnel, equipment, operational, and maintenance costs continue to escalate—increases are needed in maintaining the same level of services, to say nothing of improvements needed.

2. The majority of the States do not have an adequate forest fire protection program. In addition, there are more than 35 million acres of forest lands without any organized protection.

3. State and private funds available for forest protection have increased from $63,778,950 in 1965 to $84,618,871 in 1969, a 33 percent increase. The Federal appropriation in 1965 was $11,848,002 and in 1969, $14,396,000—an increase of only 22 percent. The total 1969 funds for forest protection were $99,014,871, consisting of State, county and private—$84,618,871; and Federal—$14,396,000; or 85 percent State and 15 percent Federal. The Clarke-McNary CM–2 law was based on a 50–50 sharing arrangement.

4. Almost daily ecologists, preservationists, and conservationists are reminding the public of the many local and national environmental problems. They include forested areas in which they state everyone has an interest. Too, they state that most forest areas should be enjoyed by the masses to some degree.

5. Trees and forests play a primary role in the environment. A tree is an almost perfect ecological system. Trees—a producer of oxygen, one-third of the earth's oxygen comes from trees and other green plants; a purifier of polluted air, trees take in carbon dioxide gas and monoxide gas and give off oxygen, act as a filter for our water supply, and nature's best soil stabilizer and conserver of water, through its network of roots and leaf functions.

The hundreds of miles of shelter belt trees planted from Canada to Texas in the 1930's to combat the ruinous dust storm, transformed the Midwest area of the United States, and in about 10 years it again returned to a highly productive area. The soil was stabilized, relative humidity levels raised, rainfall increased, wind reduced, and the bird and wildlife population increased, and the environment was completely changed.

6. Trees are basic to most outdoor recreation.

7. The forests provide cover and food for wildlife and control water temperature for many specie of fish.

8. A burned over forest gives a rapid water runoff, causing flooding, silting, mud slides, and other problems.

9. Forest fire protection is basic to the continued flow of forest raw material for housing needs and the more than 5,000 items made from wood.

The great majority of the forest land in the United States is in private ownership or 72 percent; State 6 percent; and Federal 22 percent. Annual timber harvest from private land 75 percent Federal land 25 percent.

The Federal Government in its proposed environmental programs has to the best of our knowledge completely omitted forests and forest lands as being important. The forests are basic to many phases of environment.

We urge you to correct this omission and assist the States in providing a meaningful forest fire prevention and protection program for all forest lands. A positive approach could be increasing forest protection funds to the full $20 million authorized.

Many national and sectional forestry and related organizations are on record supporting this level of funding. Some are: American Forestry Association, American Pulpwood Association, Western Forestry & Conservation Association, Forest Farmers Association, Soil & Water Conservation District Supervisors Association, professional groups, and others.[1]

We support and urge your approval of other items in the U.S. Forest Service budget for State and private cooperative programs for 1971.

Tree planting	$313,000
Forest management and processing	4,950,000
General Forestry Assistance	2,207,000

These increases are based on the ever increasing need for more forest resources for the years ahead, and make it imperative that we accelerate programs to encourage increased forest growth and better land use. The tree genetic program is of prime importance in meeting this goal. Some States have going programs on tree genetics; others need assistance and encouragement to begin a basic program. Results already obtained from genetics in some States have increased tree growth 20 to 50 percent above average, plus other superior traits in the trees.

Technical forest assistance is needed to advise and assist the more than 4 million owners of small forests in the United States. Only a small percent of these owners receive assistance from any source. However, they account for more than 50 percent of the timber harvested annually in the United States. Forest assistance will encourage owners to adopt production and harvesting methods to meet the present and future wood products for housing and the many other demands for forest products. We support the programs and plans of the U.S. Forest Service that have been proposed to help meet present and future demands for forest products.

We request also favorable consideration for the increase in forest research funds to accelerate forest surveys. A forest survey is basic to planning for future timber and other forest needs and changing land use patterns. It provides the forest inventory data needed for formulation of a sound forest policy by State agencies and forest industry.

The State forestry agencies do not obtain any Federal funds other than through the U.S. Forest Service. We sincerely appreciate the opportunity to present these requests of States needs before your committee.

We earnestly solicit your favorable consideration for funding these items.

Mr. SHIRLEY. Thank you very much, gentlemen. I appreciate the fine words you have stated in introducing me.

Madam Chairman, it is wonderful to come before your committee again. I want to say before I am seated how much we do deeply appreciate the Congressmen who have come to join us today. Congressman Sikes came of his own volition. I didn't go by his office today, and some of the other Congressmen are here, and I want to express on behalf of every State forester, our deep appreciation for the knowledge and for their interest in conservation of this Nation and particularly in the phase that we so aptly represent, and that is the trees, that we think are very vital to the well being of our country.

I would like to introduce now, if I might, some of my colleagues, and some of them have their congressional leaders with them that haven't been introduced and I want to start off by introducing George Dean, the State Forester of Virginia, and he has some people he wants to present.

Mr. DEAN. Madam Chairman, on my left here is Wilbur Walker who is administrative assistant to Congressman Daniels of Virginia, and this gentleman over here with the glasses, Mr. Fletcher, Congress-

[1] We have been notified by the Southern Forest Resource Analysis Committee, directors of The Third Forest movement, that the following organizations whose representatives comprise this committee, fully endorse and support the implementation of the full $20 million authorized funds for forest fire protection: Southern Pine Association, Forest Farmers Association, Southern Hardwood Lumber Manufacturers Association, American Plywood Association, and Southern Forest Institute.

man Abbitt's assistant, and the gentleman next to him is Mr. Dotson who is Mr. Wampler's man. These men are tied up in committee and they said the best they could do was send their assistants.

I want to introduce John Tiller, the President of our association, State Forester of South Carolina, and Tom Borden from Colorado, State Forester of Colorado, and Paul Kramer, State Forester of Texas, and Lester McClung, the State Forester of West Virginia, and Edward Schroeder, the State Forester of Oregon. Ascal Capps is the State Forester of Missouri. Austin Wilkins is the State Forester of Maine. Ralph Winkworth, the State Forester of North Carolina, and George Moorhead, the State Forester of New Jersey, and Samuel Cobbs, the State Forester of Pennsylvania.

I would like to also say that Mr. Braden of South Dakota, the State Forester, was going to be here. He was grounded yesterday in South Dakota. No planes left there. I had a telegram from him saying that he might not get here today but he wanted me to remember you, Mr. Reifel, to him, that he would have been here.

Mrs. HANSEN. It is a pleasure to welcome all the gentlemen from the State Forestry Associations.

Mr. SHIRLEY. On behalf of the 50 State forestry agencies, we thank you for the wonderful consideration that you gave to us last year and I want to publicly thank you for the $2 million that you did recommend and which was approved by the Congress to supplement our forestry fire protection funds last year.

The $2 million represented a 13 percent increase in forest fire protection funds to each State in the Nation and so every State received their proportionate share of the $2 million based on the forest lands to be protected.

We are protecting in this nation, the group that I represent today, 78 percent of the forest land in the United States. 72 percent of the forest lands are owned by private individuals, companies, corporations. Six percent by State, county and municipal governments. Twenty-two percent by the Federal Government.

We think we are representing a sizable resource base as we come before you. Our problem is that we are wery disappointed that the President's budget this year reduced the $2 million that you all in your wisdom saw fit to put in last year back to the level that we came before you to request last year. It was reduced back to the $14.4 million. It is at the present for this fiscal year $16.4 million. There is, of course, Public Law 392 of the 81st Congress which authorized $20 million for this particular funding for forest fire protection on a cooperative basis with the States.

Now, when this law first began it was for 50–50 sharing. Today, or last year, it was 85 State and county and local governments against 15 percent Federal and so, as you see, this is very low.

In some of our States—and, Madam Chairman, I believe in your State and in mine it is under 10 percent maximum. Some of the smaller States are up to the 50 percent but the majority of the States, of course, as you can see, are well above it.

Now, I don't have to tell you what is happening to personnel, equipment, operation and maintenance costs in this period of inflation. This $2 million increase that you all granted us last year helped us just to maintain the level of services that we were given. To go

back, we would certainly lose and lose tremendously, if we were to lose this $2 million. We think that it should go to the full $20 million authorization and we do not think that that is an unreasonable request to make. The majority of the States have less than what is desired in forest fireprotection equipment and personnel. There are 35 million acres still of forest land in the United States that does not have organized protection. I hate to tell you this, and it is because of the local funding situation. Much of it is watershed land where we do not have commercial forests on it, but it is very vital to the conservation of this Nation and because of this fact the States have not see fit in their wisdom to appropriate the funds. It is needed and with some encouragement I believe they would.

Now, almost daily the ecologists, preservationists, conservationists and others are reminding the public of the many local and national environmental problems. They include forested areas in which everyone has an interest, and they also—the masses are stating every day that the public should enjoy the forestlands of this country.

Mrs. HANSEN. I am going to ask our ranking colleague, Mr. Flynt, to preside while you finish your statement.

It has been a pleasure to have you here this morning. I know Mr. Flynt will do an excellent job.

Mr. SHIRLEY. Thank you, Mrs. Hansen.

I would like to remind the committee and all of of us the tremendous part that trees and forest play in the environment. A tree is almost a perfect ecological tool or system. It does the opposite of man. It takes in carbon dioxide gas and produces oxygen. The trees and the green plants of the earth provide one-third of the oxygen produced in this country on the earth today. It is also an air-conditioner. It takes in the pollen and the dust and it gives off pure oxygen and it also takes in the humidity from the air and it gives off clean water. It serves as a blotter during our floods. It is the very base for our game and fish, for cover and for food. It is the very base for our outdoor recreation and for our various areas of enjoyment of the forests. So we feel, certainly, when we think of all the values the trees contribute to this Nation, that we should have better treatment and more consideration in trying to preserve a resource that is national in scope, not local, but beneficial to all of our Nation.

Now, the Federal Government has proposed an environmental program. The President's statement—I have yet to find anything in his environmental statement regarding trees. When you leave the cities, the concrete areas where the people are wanting to go as soon as they get off from work or from their job or for a vacation, they get out into the country a little bit where the air begins to smell sweeter. They get out to where the trees are, where the beauty is. We feel like that is a really important item; that trees should be a part of the environment and it is worth protecting. They speak of game and fish and the outdoor recreation, and the gentleman who preceded me spoke of research. Research is a wonderful thing but unless we have basic protection for this resource all the research and all the other money that we spend we are spending very foolishly, in my opinion.

I will show you some photographs in a few minutes to illustrate some of the things that are happening today in this Nation. Now, there are many organizations that are supporting us in this request.

The American Forestry Association, the American Pulpwood Association, the Western Forestry and Conservation Association, the Forest Farmers' Association, the Soil and Water District Supervisors Association, the professional groups and others. I have received recently correspondence from the Southern Forest Institute Analysis Committee. They have just corresponded since I prepared this statement telling me that they have gone on record supporting the full $20 million authorized for this profession of forestland, and they consist of the Southern Pine Association, the Forest Farmers Association, the Southern Hardwood Lumber Manufactures Association, American Plywood Association, and Southern Forest Institute.

Now, we also want to encourage your favorable consideration on other items in the U.S. Forest Service budget for State and private forest cooperative programs for 1971 at the level they have been submitted. For tree planting, $313,000. For forest management and processing, $4,950,000, and for general forestry assistance of $2,207,000. These increases of course, are based on the ever-increasing need for more forest resources for the years ahead.

Now, I think it is imperative that we not only maintain but accelerate the programs to encourage increase in our forest growth and our forest industries.

A tree that we plant today is a long ways off from making a board for a house, or any other product. Even in our part of the country in the South, it is 10 years away from the first products that we can use. We feel that we can grow probably as fast or faster. In some sections it takes three times that amount of time.

We have found, to support what the Forest Service has requested for some of the other programs in the field of genetics—there are many States that need some Federal assistance in developing the approach. In many leading timber States they have developed forest genetic programs and we are finding we can increase the growth of trees up to 50 percent over the average tree through genetics as other people have done for grain, for livestock, for poultry and some of the other fine agricultural and farmer interests.

Technical forestry is assisted to help guide the 4 million small forestland owners in this Nation that are producing today over 50 percent of the amount of wood that is harvested each year. We must provide some technical guidance.

Now, I would like to say just one word about forest surveys. We need more funds for this particular phase of forestry assistance to States. Forest surveys are made by the Federal Government, but it is the very basis and the foundation we use to establish sound forestry policies by State agencies and forest industries. We must know what we have, what we are growing, if we are to plan wisely for the future.

I would like to summarize by just saying this: That we in the 50 States, for our forest protection and our other forestry technical assistance programs—not only protection, but all the programs we heve—the only funds we received from the Federal Government are through the U.S. Forest Service cooperative fund which you are examining today. We do not have any other source. We certainly earnestly solicit your favorable consideration for the funding of these

items and we are very grateful to you for permitting us to come and for giving us the opportunity of presenting our views to you.

Mr. FLYNT (presiding). Mr. Shirley, we thank you and your colleagues who have accompanied you here today. We are grateful to you for the information that you have provided us and I hope that we can look favorably upon the requests that you have made.

I think that you brought with you some pictures which I am sure my colleagues would be interested in seeing. I have had the opportunity to look at those before and if you would like to briefly describe them and pass them to other members of the committee, I think they would enjoy seeing them.

Mr. SHIRLEY. Thank you, Congressman.

I want to show the devastating effect the forest fires have. This picture was taken in April of this year in the State of Maine. The fire occurred in 1962. I want you to see how long it takes nature to heal an area that has been devastated by a first-class forest fire. We are having some serious fires now. We have many areas like that.

Here is an area where a fire occurred in Nebraska in 1968. It destroyed a recreational area. It burned cabins, it completely destroyed and ruined this recreational area. The trees were completely killed.

Here is another view of 1968 from Florida of a recreational area along the gulf. The air pollution, plus the fire, has destroyed that as a recreational area for a long time.

Here is a picture of a mud slide and silting that occurred from flooding right after the canyon fires in California a couple of years ago, showing how these residents were completely silted and destroyed, a whole community, after the forest and other ground cover was burned off of these slopes.

Mr. FLYNT. I think you described that to me earlier as one of the indirect devastating effects of forest fires.

Mr. SHIRLEY. Yes, sir. The silting and flooding and other things that come from rapid runoff. This probably is the worst fire that I have ever witnessed, the Sundance fire that began on privately owned land in Idaho in 1967. Everything was consumed in the wake of that fire. It will be many, many years before anything grows there. They are trying to get some grass and rye.

This is another fire that occurred, the Bow Ridge fire in 1966 in Oregon. One hundred percent of the timber was killed. You see the mountains. Not only the timber, but the erosion. This area completely destroyed the game and fish. There will be no fishing in that lake for years. The game, erosion and other problems besides the commercial timber loss.

Here is a fire last May in North Carolina that burned 16,000 acres. This shows the destruction and air pollution that occurred in this particular area of North Carolina.

Here is a picture that occurred in my own State of a fire that occurred in February 1970. It so happened we were able to contain it under 100 acres. It happened on one of the worst fire days. That is a 10-year old stand of planted pine. They are 100 percent killed. It cost around $35 an acre to plant that. They had 10 years of growth. It is true they are large enough, we will get a little salvage, but they were just coming into the period of growth when they were really valuable.

I would like to leave those pictures with you because I think they not only illustrate what we are trying to say about the environment, but the destruction that fires do and the need we have for, we feel like, some support from the Federal Government.

Mr. FLYNT. Those pictures will be received for the committee files, Mr. Shirley.

Mr. REIFEL. I would like to go further than that. I wonder if, with the cooperation of the Forest Service, you could fix up a display of these pictures so when our bill is up we could have it in the speaker's lobby as we have in many other instances seen displays at the time the bills were under consideration.

Mr. FLYNT. I think that is an excellent suggestion.

Mr. REIFEL. Here is one where you spent $35 an acre and 10 years of growth and it is destroyed by fire. It is a tremendous story in itself. I just wonder if this might not be done.

Mr. FLYNT. I think so and we could have some of those pictures there which are about 8 by 10 in size blown up to where they, if necessary, could be displayed not only outside, but elsewhere.

That is a good suggestion which will probably be carried out, Mr. Reifel.

Mr. SHIRLEY. We will be pleased to work with you to see that you get a cross section of the whole United States. I knew I had a limited amount of time but I could have brought 50 pictures. All of these are within our present capability of firefighting in the United States. We haven't gone back to 1950, 1954, and 1960.

This only goes back to 1962 with a photograph taken in 1970 to show how long it takes to heal a fire.

Mr. REIFEL. If it would be possible to indicate the costs to the public in pollution——

Mr. FLYNT. If you can elaborate on the captions you have here, I think it would be more self-explanatory. When we make our presentation it would be well to have self-explanatory descriptive captions in addition to the titles you have under these at the present time.

Mr. REIFEL. If the pictures were of places across the Nation where this is happening, I think they will tend to have a tremendous impact, or should have, on the Congressmen who represent those sections.

Mr. FLYNT. We are about to go into recess but before we do I would like to ask at least one final question, Mr. Shirley, for the record.

I think it appears in the record of these hearings, but I would like for you to elaborate on it if you can today. If not, supply it for the record. What is the present estimate of annual fire losses of forests?

Mr. SHIRLEY. Congressman, I don't want to make a statement. I might be incorrect. I would like to research this and be sure that I can give you this particular figure because, in doing this, we have got to take in more than just timber loss. We have to take in recreation; we have to take in other things. I would like to give you the total loss.

Mr. FLYNT. If you will supply those figures, they will be included in the record at this point.

Mr. SHIRLEY. Thank you, sir.

(The information follows:)

National values of forest land, and related resources and uses, and annual damages resulting from fire[1]*—Values at risk for all forest land and related resources—private, State, and Federal*

Use:	*Dollar value (billion)*
Timber value	$74,489
Water	31,389
Recreation	74,342
Wildlife	37,696
Foliage	7,804
Real and personal property	45,877
Total	271,597
Total forest acreage	1,136,500
Total combined value per acre	$239
Average annual acreage burned, State and private lands	1,582,389
Total value of burned area	$378,190,971
Estimated annual loss 25 percent of burned area	$95,000,000

[1] Results of study by a special task force made up of State foresters representing various regions of the United States; U.S. Forest Service specialists from Washington and regional areas; and consultants. The study made over a 3-year period completed in 1969.

The above data is based on present level of forest fire protection afforded by State and private cooperative forestry programs under the Clarke-McNary CM–2 act.

Mr. REIFEL. Mr. Chairman, one concluding remark. This committee, Mr. Shirley, is deeply appreciative of your work and that of each of the State directors. For them to take this time from their busy schedules to come here is deeply appreciated by this committee and, I am sure, by Members of the House.

Mr. FLYNT. I would certainly like to concur in the statement just made by my colleague from South Dakota and, in doing so, to express our deep appreciation to my constituent, Mr. Shirley, from Georgia, and to each of his associates and colleagues, the State foresters from all parts of the country, who have taken the time and have come great distances to be here with you, Mr. Shirley, and provide you the support and backup for which I know you are grateful to them.

With our expression of gratitude to each one of you, this meeting will adjourn and the committee will reconvene at 1 o'clock.

HISTORIC PRESERVATION

WITNESSES

GORDON GRAY, CHAIRMAN OF THE BOARD, NATIONAL TRUST FOR HISTORIC PRESERVATION
JOSEPH PRENDERGAST, EXECUTIVE DIRECTOR, NATIONAL TRUST FOR HISTORIC PRESERVATION
ROBERT GARVEY, EXECUTIVE SECRETARY, ADVISORY COUNCIL

Mrs. HANSEN. Mr. Prendergast.

Mr. GRAY. My name is Gordon Gray. Mr. Prendergast is with me. I have a statement.

Mrs. HANSEN. Please insert your statement in the record.

(Mr. Gray's statement follows:)

STATEMENT OF GORDON GRAY, CHAIRMAN OF THE BOARD, NATIONAL TRUST FOR HISTORIC PRESERVATION IN THE UNITED STATES

The act of Congress of October 26, 1949 (63 Stat. 927) created the National Trust for Historic Preservation in the United States as a charitable, educational, and nonprofit corporation to carry out the following three specific purposes:

1. "To further the national policy enunciated in the Historic Sites Act of 1935 (49 Stat. 666) 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."

2. "To facilitate public participation in the preservation of sites, buildings, and objects of national significance or interest;" and

3. "To provide a national trust for historic preservation to receive donations of sites, buildings, and objects significant in American history and culture and to preserve and administer them for public benefit."

The National Historic Preservation Act (Public Law 89-665) approved October 15, 1966, strengthened and broadened the national historic preservation program conducted under the Historic Sites Act of 1935 and charged the Department of the Interior with the major responsibility for integrating the element of historic preservation into the total fabric of our Nation's environment.

While the Federal Government has increased its historic preservation activities, the private sector, under the leadership of the national trust, continues to face an awesome responsibility to protect the vast area of American heritage that lies outside Federal and State ownership. In that respect, the 1966 act provided for matching grants to the national trust, as well as to the States, to carry out its work in the private preservation movement.

During the first 3 years of the 1966 National Historic Preservation Act, the Congress appropriated only $1,369,000 of the $32 million authorized of that amount. The Secretary of the Interior apportioned $617,500 to the National Trust for Historic Preservation, which was expended as follows:

Acquisition and development of national trust properties	$200,000
Maintenance and administration of national trust properites	143,750
Technical assistance and educational programs for preservation groups in all 50 States	273,750
Total	617,500

In this 3-year period, the national trust has become a more effective preservation force than at any previous time in its history. Property holdings have been expanded from 9 to 10 historic properties, and considerable progress has been made in their restoration. Progress has also been made in developing educational programs at the properties. It is our purpose to make national trust properties model examples for organizations throughout the country. Technical assistance and educational programs have also been expanded to meet the ever-increasing demands of private citizens and organizations and State and local governments.

The growth of the national trust's membership since passage of the National Historic Preservation Act is indicative of the increased concern for our man-made environment. Whereas, the trust's membership in 1966 was 10,668, it is currently 21,832, a 100 percent increase.

But if the national trust is to keep pace with the needs of a society increasingly concerned with environmental conservation and preservation problems, it must continue in the future to expand its capabilities and professional responsibilities.

For fiscal year 1971, the national trust has applied to the National Park Service for matching grants-in-aid totaling $2,094,801, which would be used for the following purposes:

Maintenance and administration of trust properties	$435,291
Acquisition and development of trust properties	395,227
Technical assistance and educational programsforpreservationgroups	235,
Technical assistance and educational programs for preservation groups	235,505
Emergency financial assistance for the preservation of nontrust properties	1,028,778
Total	2,094,801

The National Park Service has included $6,119,000 in its budget request for fiscal year 1971 for matching grants to the States and to the national trust.

The apportionment of such appropriations as the Congress may make for matching grants-in-aid to the national trust and the States will be made by the Secretary of the Interior. The distribution of the national trust apportionment among the four programs listed above will be determined by the national trust in consultation with the National Park Service. A brief description of such programs is set out below.

1. MAINTENANCE AND ADMINISTRATION OF TRUST PROPERTIES

To insure preservation, the national trust has accepted the donation of a number of sites, buildings, and objects significant in American history and culture and administers them for public benefit. The national trust must conduct its stewardship of properties with exemplary effectiveness and must set high standards for preservationists across the Nation. It is therefore necessary that the trust continue in its efforts to upgrade currently held properties and that it respond affirmatively to opportunities for additional property acceptance in circumstances where trust ownership is indicated.

While the trust often receives some financial assistance from the donor for the long-range care and administration of the properties it accepts, because of the limited resources of donors and the increasing costs after the property has been accepted, such assistance is generally inadequate.

The administration of national trust properties includes not only the maintenance and management of the properties, but the use and development of programs for public benefit, including educational seminars and tours geared to the needs of the communities in which properties are located.

The National Trust now owns and operates the following 10 historic properties for the public benefit:

*1. *Decatur House*, Washington, D.C. Built by Commodore Stephen Decatur, hero of the War of 1812, and designed by Benjamin H. Latrobe, America's first professional architect.

*2. *Woodrow Wilson House*, Washington, D.C. House to which the late President and Mrs. Wilson retired in March, 1921, after 8 years in the White House.

3. *Shadows-on-the-Teche*, New Iberia, La. Classical revival style house erected by avid Weeks, wealthy Louisiana planter, in the 1830's.

*4. *Lyndhurst*, Tarrytown, N.Y. Neo-Gothic villa designed by Alexander Jackson Davis in the 1830's; former home of financier Jay Gould.

5. *Casa Amesti*, Monterey, Calif. Typical California adobe structure erected in 1834.

*6. *Belle Grove*, Middletown, Va. Erected circa 1790 by Revolutionary officer, Major Isaac Hite, Jr.; site of the Civil War Battle of Cedar Creek, October 18, 1864.

7. *Pope-Leighey House*, Mount Vernon, Va. Twentieth century Frank Lloyd Wright designed small house, called by Wright a Usonian House.

8. *Woodlawn Plantation*, Mount Vernon, Va. George Washington's wedding gift to his foster daughter Nelly Custis; designed by Dr. William Thornton, designer of the U.S. Capitol.

9. *Oatlands*, Leesburg, Va. Circa 1800, erected by George Carter, great-grandson of Virginia landholder, Robert "King" Carter.

*10. *Chesterwood*, Stockbridge, Mass. Barn gallery museum and studio (1900) of Daniel Chester French, the sculptor of the seated Abraham Lincoln Statue at the Lincoln Memorial.

2. DEVELOPMENT OF TRUST PROPERTIES

The development of historic properties, that is, their preservation, restoration, and renovation, requires the professional knowledge and special skills of architects, historians, archaeologists, landscape architects, museologists and experienced craftsmen. The nature of preservation work is such that it generally requires more time and more professional knowledge than would be expected in new construction.

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*National Historic Landmarks (Historic Sites Act of 1935—Public Law 81–408). Also included in the National Register of Historic Places (National Historic Preservation Act of 1966—Public Law 89–665).

3. TECHNICAL ASSISTANCE AND EDUCATIONAL PROGRAMS FOR PRESERVATION GROUPS

A national program of preservation involves citizens and organizations in every State. These persons and organizations must be informed on the many technical aspects of restoration and preservation projects. Therefore, there must be a source, a clearinghouse, of information to which participating citizens and organizations can turn to gain from the experience of others as well as to learn the newest techniques in the field.

The Trust conducts a service program furnishing experts and consultants qualified to recommend solutions to involved and difficult questions relating to architecture, history, construction, and local organizations. To the largest possible audience, the Trust makes available a wide variety of publications pertinent to preservation and restoration activities.

Additionally, with the approach of the 200th Anniversary of the Declaration of Independence, the Trust will, whenever possible, assist citizens and preservation organizations in planning programs and preservation projects relating to the Bicentennial Celebration. For such programs to be active by the 1976 Bicentennial, in this year the Trust will undertake the implementation of such projects.

The Federal matching grants-in-aid received by the National Trust Help to support the Trust's (a) preservation archives, (b) conferences and seminars, (c) publications, (d) advisory services, and (e) other services.

a. Preservation archives

Since its inception in 1949, as a part of its function as a clearinghouse of information on historic preservation, the Trust has sought to collect material on preservation and related fields. The archives serves as a research center for lawyers, writers, governmental agencies, professional preservationists and the members of the National Trust for information on historic preservation problems. Special collections are maintained on governmental agencies involved in historic preservation, preservation legislation at all levels of government and on certain technical subjects. A small technical library and slide collection are maintained. An illustrated slide lecture series on the National Trust and its properties and films on historic preservation are also available to the general public through the National Trust archives.

b. Conferences and seminars

The National Trust holds three regular annual conferences. An annual membership meeting provides opportunities for preservationists from throughout the Nation to exchange ideas and to evaluate past, present, and future policies. A 6-week graduate level seminar for prospective historical administrators is cosponsored annually by the National Trust, the American Association of Museums, the American Association for State and Local History and Colonial Williamsburg in Virginia. A 2-week conference is conducted annually at the Trust's Woodlawn Plantation for historic house museum staff and volunteers to discuss and analyze museum problems and administration. Periodic regional conferences on historic preservation are cosponsored in different sections of the country. During the summer months, summer interns are employed at the Trust headquarters and are given specific projects in the field of historic preservation.

c. Publications

Through its Publications Office the Trust issues two regular publications to its members, a monthly newspaper and a quarterly journal. The newspaper, Preservation News, reports current activities in the preservation field, and a quarterly journal, Historic Preservation, features articles on American history and culture and the successes and failures of the preservation movement. A monographic series on technical aspects of preservation and reprinted articles on historic preservation are also available through the Trust.

d. Advisory services

By telephone and mail, as well as by professional staff visits, the National Trust advises community leaders on problems of historic preservation. The Trust assists with questions involving the inspection and evaluation of properties, their preservation, restoration and educational programs related to their use.

One of the most valuable services the Trust can render to the national preservation movement is to provide "on location" consultants. With the growing concern for the total environment—particularly that of the cities—increased attention must be, and is being, directed to urban redevelopment, city planning, and the role preservation can play in providing diversity in the city landscape.

In 1969, to expand our professional capabilities and corps of professional consultants, the Trust established an Office of Field Services, directed to assist the preservation movement in determining what should be saved and how to accomplish specific preservation goals, as well as identifying and making available information on governmental preservation programs at all levels. A major function of this new office is its consultant services program. Grants-in-aid to match local funds or services are available on a competitive basis to assist preservation organizations in locating and funding consultants for specific preservation problems.

e. Other services

Other services include special research projects in various aspects of historic preservation, the representation of the American preservation movement at international conferences and in contact with foreign visitors seeking information about American preservation policies and procedures. The Trust also works with such Federal agencies concerned with preservation as the Department of Transportation, the Department of Housing and Urban Development, and General Services Administration and the U.S. Travel Agency.

4. EMERGENCY FINANCIAL ASSISTANCE FOR NONTRUST PROPERTIES

National disasters, such as a hurricane damaging a Mississippi gulf coast historic house and its contents, a major fire in one of the historic mining communities of the California Mother Lode Country, or the sudden availability of a key property in an established historic district, often require the immediate availability of financial assistance to insure their protection and preservation.

These funds would provide emergency matching financial assistance to private organizations and individuals throughout the country for the purpose of preserving for public benefit properties that are significant in American history, architecture, archaeology, and culture.

It would be required that properties receiving assistance must be included on the National Register of Historic Places, as established by the 1966 act, and must meet the approved criteria defining an emergency. Such criteria are being developed by the National Park Service in consultation with the Trust. Grants by the Trust under this provision would be covered by a contract between the National Trust and the grant recipient, subject to approval by the National Park Service.

Mr. GRAY. My name is Gordon Gray. I am the volunteer Chairman of the Board of Trustees of the National Trust for Historic Preservation in the United States, an educational, nonprofit corporation established by an act of Congress dated October 26, 1949. The Attorney General of the United States, the Secretary of the Interior and the Director of the National Gallery of Art are ex-officio Trustees, and there are 30 other Trustees selected from outstanding leaders in the field of historic preservation in all parts of the country.

Entrusted with responsibility for leadership of private preservation efforts throughout the United States, the National Trust now has 930 member organizations in 490 communities, as well as approximately 22,000 individual members, dedicated to the protection of our historic and architectural heritage.

I am appearing before you today to support the request of the National Park Service for a fiscal year 1971 appropriation of $6,950,000 of which $6,119,000 will be used for matching grants-in-aid to be apportioned among the States and the National Trust for Historic Preservation. In December 1969, 33 States and the National Trust indicated to the National Park Service their ability to match these Federal funds.

With the permission of the committee, I would like to submit a statement for the record and make only brief remarks at this time.

The Trust was charged by the Congress with the following three responsibilities: (1) to further the national preservation policy as established by Congress, (2) to facilitate public participation in the national preservation movement, and (3) to administer historic buildings, sites, and objects for the public benefit. In this time of great national environmental concern, the National Trust must increase and expand its program efforts to assure the preservation of our cultural heritage held in private ownership.

Any grants-in-aid as may be appropriated by the Congress and apportioned to the National Trust by the Secretary of the Interior for fiscal year 1971, together with private matching funds, will be used by the National Trust (1) for the provision of technical assistance and educational programs to preservation groups throughout the country, (2) for the acquisition, maintenance, and administration of the Trust's own historic properties for the public benefit, and (3) to provide emergency financial assistance to private organizations other than the Trust for the preservation of significant properties in all parts of the Nation.

I should like to emphasize three points in respectfully requesting the committee's approval of this appropriation.

First, we are about to enter the second phase of the 1966 National Historic Preservation Act's implementation. In the past 3½ years, the States and the National Trust have demonstrated their support of the partnership with the Federal Government created by this act. The operational machinery for implementing the act in Washington, at State capitols, and at the National Trust has been established, and programs are now in the early stages of being developed and funded.

All 50 States, Guam, Samoa, the Virgin Islands, Puerto Rico, and the District of Columbia have established State liaison officers to support the 1966 act in their respective States. The State liaison officers have recently formed a National Conference of State Historic Preservation Liaison Officers to better coordinate their individual programs. In some 35 States survey and planning work is underway, and several States are approaching the point of submission of their statewide historic preservation plans to the Secretary of the Interior.

While it is evident that the initial phase of the act was one of thoughtful planning and preparation, the States and the National Trust are now prepared to undertake meaningful expanded program activities.

Second, it is most important that the Federal Government take appropriate action to sustain the momentum which has been established in the States and by the trust through adequate appropriations for the 1971 fiscal year.

Finally, the appropriation request by the administration of $6,119,000 for fiscal year 1971 for the matching programs of the National Historic Preservation Act represents an increase of $5,150,000 over the 1970 fiscal year request and appropriation. It is the first major increase in an appropriation request in the brief history of this act. It is most significant, I think, that the executive branch has recognized the importance of this program to the cultural elements of our Nation's concern for environmental preservation.

Mr. REIFEL. In behalf of the committee and the citizens of this country I would like to mention our appreciation to you and others who have given their time to this very important aspect of the preservation of our heritage.

Mr. WYATT. An excellent statement and excellent work.

Mrs. HANSEN. You are performing a great service. We deeply appreciate it.

HISTORIC PRESERVATION

WITNESSES

DR. S. K. STEVENS, CHAIRMAN, ADVISORY COUNCIL ON HISTORIC PRESERVATION

Mrs. HANSEN. Dr. Stevens, Chairman, Advisory Council on Historic Preservation.

Dr. STEVENS. First, I would like to endorse heartly the statement made by Mr. Gray. I shall not try to repeat anything that he has said because he has done it better than anyone else could.

Madame Chairman, I appreciate this opportunity to appear before your committee in connection with your consideration of the 1971 budget.

In 1966 a giant step was taken by the Congress in providing additional means to preserve the significant evidences of our past. Not only was the Historic Preservation Act important to the historical resources of our Nation but it has helped to provide a basis for subsequent congressional actions related to our overall environment and the quality of life with which we are all concerned.

Among the beneficial provisions, the act established the Advisory Council on Historic Preservation. It is as Chairman of the Council that I appear before you today.

The Council was charged with advising the President and the Congress on preservation matters and also with providing a private citizen interagency forum which would provide a means of weighing the public interest concerning Federal undertakings that effect properties listed in the National Register of Historic Places, our official list of historic resources throughout the Nation deserving protection.

The comments of the Council growing out of these deliberations have been especially helpful to the heads of Federal agencies having responsibility for Government projects which effect historic properties.

For example, Secretary Volpe, in arriving at his decision that an expressway should not be built through the historic Vieux Carre in New Orleans, gave credit to the Council's recommendation that an alternate route be found for the expressway. The system envisioned by the Congress is working.

In its short lifespan of only 3 years, our Council has given assistance, either formally or informally, in more than 50 situations where Federal projects either adversely effected or had the potential to adversely effect some resource which should be protected. However, the Council is aware that all historic properties are not afforded the protection envisioned by Public Law 89-665 simply because many have not been identified in State surveys and have not been placed in the National Register.

The States greeted the Historic Preservation Act with enthusiasm. State officials were appointed, procedures were adopted, and State budgets were enlarged to provide funds that could be used to match the anticipated Federal grants. These grants have not met the hopes and expectations of everyone concerned.

The original legislation authorized $32 million to be appropriated for the purposes of the act. Of this amount only $1,369,000 was appropriated and the existing authorization will expire at the end of this fiscal year. Amendments to Public Law 89–665 are now under consideration by the Congress. These amendments will reauthorize the appropriations necessary to carry forward the work which has already begun in locating and registering significant historic properties, add the Secretaries of Agriculture and Transportation and the Secretary of the Smithsonian Institution as members of the Council and provide for U.S. membership in the Rome Centre, a source of great assistance to the preservation professionals working at the Federal and State level and in the private movement.

If the Council is to continue its useful and effective service to the Federal officials charged with planning their programs to protect our historical resources as prescribed by the Historic Preservation Act, the Demonstration Cities Act, the Transportation Act, the National Environmental Policy Act, and others, State surveys must be completed and the National Register must expand at a pace matching the growth of other Federal programs effecting these resources.

The Advisory Council urges that the budget under consideration be approved so that the States can get on with the surveys and so that all Federal officials will have the benefit of the basic tool, the National Register, necessary to their programs of protecting our important historic sites.

Mrs. Hansen. I would like to congratulate the Council with regard to not building the expressway through the historic Vieux Carre in New Orleans.

Dr. Stevens. Well, I feel Secretary Volpe should get most of the credit for that.

Mrs. Hansen. Thank you very much, Dr. Stevens.

Mr. Reifel. Thank you, Dr. Stevens.

Historic Preservation

WITNESS

LOUIS L. TUCKER, ASSISTANT COMMISSIONER OF EDUCATION, STATE OF NEW YORK

Mrs. Hansen. Mr. Louis L. Tucker, Assistant Commissioner of Education from the State of New York.

Mr. Tucker. Thank you, Madam Chairman.

The American Association for State and Local History is pleased to have this opportunity to present a statement to the House Appropriations Subcommittee on the Department of Interior and Related Agencies. As a representative of the more than 3,000 historical organizations in the United States and their several million members, we should like to express our support for the proposed appropriation of

$6,950,000 to the National Park Service for preservation of historic properties.

In an age of discord and discontent there is, on the part of many Americans, a visible and alarming sense of estrangement from our society. This estrangement stems from many causes, but one of the most important is a lack of understanding of the conditions and actions which have created our present society. Like an individual suffering from amnesia, many people do not know where they came from, and how; what forces and ideals have shaped the country in which they live; what our Government has done to make this a better Nation. Without memory of what has gone before, the quality of American life becomes pessimistic preoccupation with our shortcomings instead of enlightened dedication to continued progress. True progress, after all, is keeping the best of what has gone before, and adding to it as we attempt to create a better society.

The preservation of buildings which reflect great events, great men, or great artistic endeavors of the past is an important means of creating a better awareness and greater appreciation for our traditions. This has been widely acknowledged for more than a century by State and local governments and private organizations which have saved for future generations the homes of such great national leaders as Washington, Jefferson, and Jackson; the sites which have been important in American national expansion; the outstanding examples of great American architecture; and, more recently, entire historic districts which can help people of today experience the continuum of urban development.

Until very recently the concern of the Federal Government for the national heritage has been evident mainly in its support of programs in the National Archives, the Library of Congress, and the National Park Service—programs of great quality, but reaching the average citizen only indirectly, except for the fine work of the Park Service in the historic sites which it administers. The real work of safeguarding our heritage has been done by agencies of State and local government and by private organizations working, for the most part, in cooperation with those agencies. Figures secured by our association in a current survey of the financial problems of historical organizations demonstrate this rather dramatically. Considering all historical organizations (societies, libraries, museums, archives, and preservation groups), 49.1 percent of their total support is from government (municipal, county, State, and Federal), 45.5 percent is from private sources, and 7.7 percent is from sources which they classify as "other". The amount of support from Federal sources is only 2.9 percent.

In the face of the devastating effect of inflation on such traditional revenue sources as endowments, plus the acknowledged tax squeeze being faced by State and local governments, it would appear that the National Government will have to assume a larger share of the burden of preserving our heritage. The Congress has made a start in the enactment of Public Law 89-665, the Historic Preservation Act, but appropriations have been much less than authorizations; and allocations to States—and through them to local governments—have been disappointly small. The present appropriations bill contains the first item of sufficient size to be of any substantial help to State and local preservation efforts. The $6,119,000 recommended to be appropriated for

matching grants-in-aid can have a major impact on the historic preservation effort by supplementing the already heavy investments of State and local governments and private organizations in this important work. We urge your support for the full amount.

Mrs. HANSEN. Thank you very much, Mr. Tucker.

Mr. TUCKER. My pleasure.

Mrs. HANSEN. The committee is deeply interested in the historic preservation activities.

SMITHSONIAN INSTITUTION

WITNESS

ROBERT H. SIMMONS, WASHINGTON, D.C., AND FALMOUTH, MASS.

Mrs. HANSEN. Mr. Simmons will be our next witness.

Mr. SIMMONS. I am Robert H. Simmons of Massachusetts and Washington, D.C. I am a writer and I am working on a book on the Smithsonian Institution.

Mrs. HANSEN. Perhaps it would be well for you to state who your employer is.

Mr. SIMMONS. I am self-employed, and a writer, and I am working now on a book on the Smithsonian. This information I am imparting today is the result of the work I am doing for the book.

The following information and recommendations are respectfully submitted regarding Smithsonian Institution budget justifications for the fiscal year 1971:

1. Appropriations for the so-called Joseph H. Hirshhorn Museum and Sculpture Garden should be disallowed in both categories of (*a*) salaries and expenses and (*b*) construction.

(*a*) "Salaries and expenses" request for fiscal year 1970 was $263,000, totaling $484,000 for the 3 years 1968, 1969, and 1970. Information given Congress by the administration of Smithsonian Institution was misleading. The present program of the so-called Hirshhorn Museum is actually the continued program of the Joseph H. Hirshhorn Foundation and the private program of the Joseph H. Hirshhorn Collection.

Mrs. HANSEN. What is the authority for this statement?

Mr. SIMMONS. This is my interpretation of the information that I will give here.

Mrs. HANSEN. If you want to put this portion of your statement in the record you will have to give us the source of your information.

Mr. SIMMONS. Yes. The source is the agreement between the Smithsonian Institution and Joseph Hirshhorn and the Hirshhorn Foundation, Public Law 89–788, and the foundation directory of the Russell Sage Foundation published in New York.

Mrs. HANSEN. It is his statement?

Mr. SIMMONS. Yes, a statement of the Joseph H. Hirshhorn Foundation.

Mrs. HANSEN. I refer to the statement regarding the misinformation provided by the administration of the Smithsonian Institution.

Mr. SIMMONS. That is in the budget justification for the Smithsonian Institution of 1970.

Mrs. HANSEN. This is your statement about the 1970 budget?

Mr. SIMMONS. That is my statement about these, yes.

The Hirshhorn Museum does not yet have a board of trustees, which, according to Public Law 89–788—

> Shall have sole authority (i) to purchase or otherwise acquire (whether by gift, exchange, or other means) works of art for the Joseph H. Hirshhorn Museum and Sculpture Garden, (ii) to loan, exchange, sell, or otherwise dispose of said works of art, and (iii) to determine policy as to the method of display of the works of art contained in said museum and sculpture garden.

The board of trustees is to be appointed by the President of the United States. This has not yet been done. The Hirshhorn Museum cannot, then, be a legal entity, in this strict interpretation.

Mrs. HANSEN. Do you have a legal opinion in this connection which you would care to append to your statement?

Mr. SIMMONS. No.

Mrs. HANSEN. I think we should have a legal opinion on this. With a statement like this we should have a legal opinion attached.

Mr. SIMMONS. All right. I am sure there will be other interpretations of it. There must be, because they are now operating as a museum. I suppose they are concerned with legal ramifications. This is my interpretation.

Mrs. HANSEN. Most agencies act upon the advice of the Office of the Attorney General of the United States who is the legal representative of the United States. When there is a contrary opinion rendered, or any evidence that suggests legal opinions of the United States have not been valid, then we should insert in the record the legal opinion, by whom it was made, and upon what occasion.

Mr. SIMMONS. Second, according to the agreement between Joseph H. Hirshhorn, donor, the Joseph H. Hirshhorn Foundation, codonor, and the Smithsonian Institution, title to works of art to be donated to the Smithsonian Institution shall not pass over to the recepient until after the completion of the museum building and the sculpture garden. This is now projected for 1972. Until that date, the agreement clearly states:

> Donor and the Hirshhorn Foundation shall respectively care for the said works of art * * * and shall respectively pay all costs—incidental to such care.

These costs are precisely what is described in budget justification for salaries and expenses for the Hirshhorn Museum and Sculpture Garden now demanded of the Federal Government and the American taxpayer. With no building, no collection, with offices in New York rather than in Washington, and with no board of trustees, the Joseph H. Hirshhorn Museum and Sculpture Garden exists on paper only.

(*b*) Further appropriations for construction of the Joseph H. Hirshhorn Museum and Sculpture Garden should be withheld until after full investigation by Congress into matters of oversight. Incomplete information was given to Congress when it considered authorization for the project.

Mrs. HANSEN. That is in the province of the authorizing committee. You will recall that when the authorizing bill was pending before the House of Representatives several distinguished members of various committees voiced their support for sympathetic consideration of the authorizing legislation.

It is not customary for the Appropriations Committee to peer into the conduct of the authorizing committees. If there is a legitimate question on the validity of the authorization for this project, it should be

taken up with the authorizing committee and not the Appropriations Committee.

Mr. SIMMONS. I see.

Mrs. HANSEN. We can make determinations on other matters, but not on the matter of the legitimacy of the authorization. Otherwise the authorizing committee never would accomplish its purposes.

For example, we have received many appeals against providing funds for the Indiana Dunes. Yet the authorizing committees in Congress saw fit to authorize the Indiana Dunes. We proceeded to fund it upon that basis.

I think we will not peer into the conduct of the authorizing committee. That would be entirely irrelevant to this hearing.

Mr. SIMMONS. Then my own criticism falls into three categories. One is the collection of works of art which will not be a free gift to the Nation but actually it will cost the Federal Government much more than was indicated. Over the next 10 years costs will total probably more than $50 million.

Second, the quality of the collection and the advantages to the Nation of accepting it with specified contingencies has been challenged by outstanding authorities in the art field but their voices have not been heard or considered carefully.

Mr. WYATT. Mr. Simmons, I have been reading your statement a little bit ahead. I think at this point you should clearly understand that what you say in number three is possibly slanderous.

Mr. SIMMONS. You feel that?

Mr. WYATT. It is possibly slanderous. I am not passing on it although I am a lawyer. I want to be sure that you understand that if it is, you are in a room full of people and you are publishing it and you have no immunity by virtue of the fact that you are here.

I think that should be clearly understood.

Mr. SIMMONS. Should I say that I feel there are questions that involve this matter of number three which should be studied?

Mr. WYATT. It is up to you as to how you want to put it before this committee. I only want you not to be under any false assumption that you have any sort of immunity from civil liability in anything you might say here.

Mr. REIFEL. I am not a lawyer but I was also reading ahead in your statement. It seems you make a rather serious accusation of this gentleman.

Mr. SIMMONS. Morality is relevant, of course.

Mrs. HANSEN. I will make a ruling at this point. We shall accept all that you have read thus far for the record.

I feel the committee would be derelict in its adminstration of the rules of the House, rule XI(m), if we admitted section 3 of your statement. If the committeee receives evidence or testimony that may tend to defame, degrade, or incriminate any person, it must—

(1) Receive such evidence or testimony in executive session;

(2) Afford such person an opportunity voluntarily to appear as a witness; and

(3) Receive and dispose of requests from such person to subpena additional witnesses.

This is the rule of the House. We would have to receive such testimony in executive session which we are not prepared to do because of time limitations and other considerations this afternoon.

I may say on your question as to the value of art, I am sure it is of interest to you that we have already requested a special appraisal of the value.

Mr. SIMMONS. Value is in two categories, also. One is the monetary value. Second is the artistic value. One person can say it is great and another person can say it is poor.

It is my feeling that when you acquire works of art for a Federal institution of this kind, a standard-setting institution, the selection of works of art should be very carefully selected and it should not be from one man selecting it but a committee.

Mrs. HANSEN. I assure you that such is not the case.

Mr. WYATT. Mr. Simmons., would you agree—and it is my personal view speaking as one member of the committee—that we are probably pretty well bound by what might be the fair market value, which means what a willing purchaser not forced to purchase would pay to a willing seller not forced to sell? It seems to me we are probably pretty well bound to consider that as the monetary value.

If you have any other suggestions contrary to that I would appreciate hearing them.

Mr. SIMMONS. We already have in this city a museum of art called the National Collection of Fine Arts which was intended to be our great museum of American art. That was passed by Congress a long time ago. We have the program going. We had money appropriated to continue that museum. It would amount to about $2 million a year. We have a great building for it, a building rescued by Representative Thompson and Senator Humphrey some years ago. This is the Old Patent Office Building which has been restored for some $6 million total to embrace two beautiful museums.

Now, if we had authorized from Congress about, say, $500,000 a year to purchase works of art, American contemporary paintings and sculpture, 19th century paintings and sculpture, it is my feeling as a student of art, and the feeling of several others I have consulted who are authorities on art, that within about 10 years we could purchase under an enlightened program of purchase the equivalent and better than the equivalent of what is in the Joseph Hirshhorn collection of American art, you see.

Mr. WYATT. The horn of the dilemma we are on is that the authorizing committee authorized this procedure. Now our judgment is pretty much limited to the financing of the program which already has been authorized by the authorizing committee.

If they had authorized a program such as you have described perhaps in their judgment it might have been better, but they did not. That is the horn of the dilemma.

Mr. SIMMONS. What we are stuck with, you see, is the Joseph Hirshhorn Museum, which is a large accumulation of paintings and sculpture than one man made. He often has said he doesn't care what anybody else thinks about his collection but he would buy what he wants. We are stuck with liking it. The cost is not $5 million. For salaries and expenses we feel $3 million a year. That is $30 million over the next 10 years.

Mr. WYATT. I can assure you that we are seeing that there is independent appraisal information.

Mrs. HANSEN. Since the committee has interrupted you to ask questions we will give you two additional minutes to complete your statement.

Mr. SIMMONS. Let me say under section 3 that when we build a memorial on the Mall I feel we should consider carefully all manifestations of what we are doing.

When we select a Supreme Court Justice the man is brought in and questioned. He is investigated, and so on. If it is found he had three wives or something he is not put on the Supreme Court.

In this case we did not look into these things. I think these matters should be carefully looked into and in these terms you should look back, as I did, to the words of what I think are Washington and Jefferson.

In the legend published in 1791 it states there relevant to such memorials as the Hirshhorn Museum and Sculpture Garden: "to perpetuate not only the memory of such individuals whose counsels or military achievements were conspicuous in giving liberty and independence to this Country; but also those whose usefulness hath rendered them worthy of general imitation—to invite the Youth of succeeding generations to tread in the paths of those Sages or Heroes whom their Country hath thought proper to celebrate."

We should consider this when we build a building.

Mrs. HANSEN. You should have suggested this to the authorizing committee.

Mr. SIMMONS. In 1966 I was opposed to this, Madam Chairman. I did not feel this man should be honored on the Mall merely for amassing a large collection of art. My words were not heeded then.

Mr. REIFEL. As one member of the committee I would like to say to the gentleman that we appreciate his point of view. However, substituting your opinion for the judgment of two bodies of Congress which passed the authorizing legislation is difficult to accept. It is there where you must turn to see whether there are any changes that can be made.

As previously pointed out, we are the committee which appropriates funds within authorizations made by Congress. We have no power to change what the substantive law is.

While your time is up I wanted to make that observation.

Mr. SIMMONS. I am deeply interested in historic preservation, and Congress also authorized $30 million over a period of 3 years for historic preservation. That was cut down to virtually nothing by the committee, so I felt if that could be done——

Mrs. HANSEN. The major portion of the reduction was made by the Bureau of the Budget.

Mr. SIMMONS. And not by the committee?

Mrs. HANSEN. The committee was constrained to a large extent by the recommendations of the Bureau of the Budget.

Mr. SIMMONS. I am glad to hear that. That covers that.

I have one more point in another section of the budget justifications under special foreign currency program. I felt some investigation should be made fully by the General Accounting Office into what seemed to be in my investigation of 1970 some discrepancies. These may be easily explained.

I noted in the distribution of funds by country in the recapitulation, for example, Yugoslavia is assigned in fiscal 1970 a total of $678,750.

Mrs. HANSEN. What accountant made this report?

Mr. SIMMONS. The budget justifications for 1970 Smithsonian Institution.

Mrs. HANSEN. What accountant assisted you in your evaluation?

Mr. SIMMONS. I merely added these up. There are 113 grants and it is stated in most of the grants country by country where the money should be spent.

At the end of the total section there is a section called a recapitulation. Yugoslavia is assigned $678,750.

When I added up the nine grants, designated in this list as Yugoslavia money grants, the total I get is only $294,000. This leaves $384,750 unaccounted for.

Similarly, Poland is assigned a total of $300,750, while the total for Poland that I find in the grants seems to come to only $210,000, leaving $90,750 unaccounted for.

I am sure there may be an answer for it.

Mrs. HANSEN. I am sure you are aware that the committee does continually ask for reports from the Smithsonian on their expenditures. The entire budget justifications of the Smithsonian are printed in the record.

Also the General Accounting Office has recently conducted an investigation, the report of which has not yet reached us.

Thank you very much, Mr. Simmons.

SPORT FISH

WITNESS

RAYMOND A. KOTRLA, WASHINGTON REPRESENTATIVE OF TROUT UNLIMITED

Mrs. HANSEN. Mr. Kotrla, Washington Representative of Trout Unlimited.

Mr. KOTRLA. Madam Chairman and members of the committee, I am Raymond A. Kotrla, Washington representative of Trout Unlimited and a member of its national board of directors. We are very appreciative for this opportunity to offer our views regarding appropriations for Interior and related agencies for the fiscal year 1971.

Trout Unlimited, which is a national, nonprofit, nonpolitical, conservation-minded membership organization, has been preoccupied with the natural environment of our nation's water resources which are being destroyed or threatened with destruction by pollution, alteration of river and stream courses, sedimentation and other man-made changes. In other words, Trout Unlimited believes that only by preserving the kind of water quality vital to man can we preserve trout fishing.

My main purpose today is to support the fiscal year 1971 appropriation for Interior and related agencies. I do that with this observation.

If America is to preserve and develop its natural resources and particularly its water resources, wilderness areas, parks, shores, mountains and wildlife—this spending must be increased. The people of America must be made aware of our needs for safeguarding the environment and the burdens that will have to be shouldered to pay for it.

I note, for instance, $212,000 is in the budget to expand the fish pesticides monitoring program. I recognize this is an increase over the 1970 spending. But is it adequate? I'm concerned as to whether an accountant at the Bureau of the Budget—or biologists, ecologists and game management experts—made the determination?

Are we spending enough money on cataloging our natural resources and in developing a capability for evaluating the annual rate of improvement or deterioration of our natural environment? Are we spending enough to investigate the impact the proposed trans-Alaska pipeline and related activities will have on the ecology of that vast natural area? Is there half-hearted funding of Interior's efforts to protect the public interest in the entire TAPS project?

This fine committee, I am certain, has asked piercing questions along these very lines during the current hearings. All concerned with the proper management of our resources will be most interested in the replies by the administration.

I have used pesticides and TAPS as examples—although Trout Unlimited views both most dimly and with many grave reservations.

But, I ask this committee, the Congress and the administration, is funding for the protection and renewal of our natural resources adequate?

I would like to quote, briefly, from a speech which came to my attention. It was delivered on March 16 by the distinguished chairman of this committee before the 37th annual Crown Zellerbach papermaking class. Since my time is limited today, I quote only the closing two paragraphs. I do commend the entire speech to everyone interested in our environment and Nation. Mrs. Hansen said:

> It has never been easy to secure funds for the Department of Interior and for the U.S. Forest Service. In fact, sometimes it has been almost impossible. The Chairman of the Full Committee has said, "Make cuts!" Members of Congress constantly offer cuts on forest roads or forest management and other vital environmental needs. The Bureau of the Budget is constantly restraining such expenditures as management for the Bureau of Land Management, Coal Research, Geological Survey.
>
> I reiterate: I am willing to bring you the statistics, the picture, the proposals for providing our full life's equation, and I do it because I love this Nation, because I want it to survive as the great and beautiful thing it can be. I know you citizen papermakers will agree in pledging our support to build and rebuild this land of ours, keep its spacious skies, its purple mountain majesties, mend its every flaw until the final chorus is truly "America, the Beautiful."

I am pleased that, during the past years, there have been increases in the budget for the Bureau of Sport Fisheries and Wildlife for management and investigation of resources. In 1969, the budget was $47.2 million and that was increased to $52.6 million for this year. The 1971 estimate is $56.2 million—so there is no slippage. But, I wonder if most of this increase has not been absorbed by inflation and wage increases?

Should we not be investing greater amounts in research for and management of our sport fisheries and wildlife programs?

At a time when most sensitive lawmakers, President Nixon and millions of Americans are demanding a better environment, improved recreation facilities and new access to nature and the out-of-doors, we must be certain the budgets are adequate to expand these vital programs.

Trout Unlimited also would like to salute the Bureau of Sport Fisheries and Wildlife for its urban sport fishing opportunities programs which have exposed a great American tradition—the fishing pole—to thousands of children from the inner cities of America. On behalf of those children, I would like to thank this committee for supporting this program—and others like "Summer in the Parks"—which have done so much to ease urban tensions and broaden the horizons of so many American youth.

Thank you.

Mrs. HANSEN. You might be interested to know that this committee started the "Summer in the Parks" program.

Mr. KOTRLA. I am aware of that. You might be interested in some personal experience in this regard if I might take just a moment. We volunteered to assist in the training of youth under this program. Many children never caught a fish before and when they did catch one they wanted a picture taken so they could take it home to the parent. You would hear up and down the stream "Hey, Mister, take my picture." You would expect to see this youngster with a fish in his hand.

But what was most gratifying to all of us involved in this program was this: That on one occasion such a youngster called out and said "Hey, Mister."

I looked around to see him with a fish and instead he wanted me to take a picture with a beautiful environment. At this point we are getting through to him.

Mrs. HANSEN. Thank you again.

BUREAU OF INDIAN AFFAIRS

WITNESS

TANDY WILBUR, NATIONAL CONGRESS OF AMERICAN INDIANS, SPECIAL ASSISTANT TO THE EXECUTIVE DIRECTOR

Mrs. HANSEN. Mr. Tandy Wilbur, National Congress of American Indians.

Mr. Wilbur is the Special Assistant to the Executive Director and a member of the Swinomish Tribe from northwest Washington.

Mr. REIFEL. Before Mr. Wilbur proceeds, I am sure you already know but I think it is well to underscore that you have as your representative from the State of Washington the chairman of this committee, one of the most concerned and deeply dedicated members of Congress in searching out in every way possible a method of being helpful to the American Indian.

While you already know that I wanted to say it again.

Mr. WILBUR. That is very reassuring. I thank you very much.

Mrs. HANSEN. This country and the Indian people are losing one of their best friends, Mr. Reifel. The committee feels very badly that he is retiring.

Mr. WYATT. I am sure we are not losing him. I am certain Ben will be available to help not only the Indian people but Members of Congress. He has done so much that I also wish he would continue as a Member.

Mrs. HANSEN. Thank you.

Mr. WILBUR. My name is Tandy Wilbur, Jr. I am a member of the Swinomish Tribe in northwest Washington State, and the special assistant to the executive director of the National Congress of American Indians.

I am here in place of Mr. Bruce Wilkie, the executive director, who had to attend the funeral of one of our greatest Indian leaders of the present day—Dr. Paschal Sherman, of the Colville Tribe—who passed away recently. Mr. Wilkie asks your understanding in not being able to attend. I will read NCAI's statement.

Mr. REIFEL. We are grieved over the passing of Dr. Sherman. I remember seeing him not too long ago. They called up downtown and wanted someone who was a respected Indian-American beyond his sixties to serve on the committee having to do with the aging. I recommended to them Dr. Sherman.

I don't know whether steps had been taken to invite him on to the committee or not but we have a high regard for him and we are saddened by his passing and we regret he is no longer with us. I understand why Mr. Wilkie would be present at the funeral.

Mr. WILBUR. We have studied the budget justification submitted to you by the Bureau of Indian Affairs as basis for appropriation of funds for fiscal year 1971. We heartily approve the Bureau's stated goal which is: the ultimate goals of the Bureau of Indian Affairs for the American Indians are maximum economic self-sufficiency, equal participation in American life, and equal citizenship privileges and responsibilities.

On the basis of the Bureau's budget, however, we believe that the Bureau is continuing to overlook the basic fact that Indians need not shed their Indianhood to become economically self-sufficient participants in American life enjoying the privileges and responsibilities of equal citizenship. This is indicated in the budget by the continued expansion of relocation services and emphasis on educating Indian children in the public schools.

From the standpoint of the Indian who lives on a reservation and has seen the results of the expenditure of relocation money, it appears that in this necessarily tight budget, the $3 million allocated to this program would bring more returns in human betterment if spent on the reservation. As we see it, the relocation program is of dubious value. It takes Indians from rural poverty, where they are at least emotionally, if not physically comfortable, among their own people and deposits them in urban slums where many lose whatever inner peace they had. The very qualities that helped the successful relocatee to adjust and absorb and make use of the training would have made them useful members of tribal government. Yet they cannot serve in the tribal government, which badly needs them, because they are trained for jobs they can find only in the city. The result is a "brain drain" away from the reservation, loss of Indian leadership necessary to help the less fortunate to achieve self-sufficiency.

We believe that individual Indians who want to leave the reservations and integrate into the white society will do so on their own. We are not averse to the Bureau's helping them; but we know that most Indians on the reservations today would prefer to stay there if they could achieve economic self-sufficiency there.

We believe that the Bureau's goals can best be reached through education on the reservations, towards skills and professions usable on the reservations or in the vicinity of the reservations. We have observed that participants of job training programs carried on or near to the reservation are far happier and absorb their training with much more ease then their relocated counterparts.

We have seen our children drop out of public schools at an alarming rate because they feel different and prefer their difference to conformation to the White-man's culture. We urge that the $3 million allocated in the Bureau's budget for relocation, and more be allocated to improving the Bureau's school system toward making it the model school system that a Federal system ought to be. We urge, in addition, that the Bureau allocate funds to develop programs for use in the public schools and especially those serving Indian children, to educate non-Indian as well as Indian children in the history and culture of the American Indians; to educate teachers to understand the difference between Indian and non-Indian cultures and not feel required to turn all students into a single mold.

Knowing the widespread need for improvement of physical facilities for Indian schools and dormitories, we are disturbed by the Bureau's cutback in construction funds for fiscal year 1971. There should be, instead, a crash program of improvement. Similarly, although the Bureau reports that at least $600 million is needed for road construction on the reservations, it budgeted only $20 million for that purpose for fiscal year 1971 (Justification p. 99). Roads mean the marketability of land leases and the produce of the lands. Economic development of the reservations cannot come about without adequate road systems. So great a need cannot be budgeted in such small bites. If reservation roads are to play a part in bringing Indians to economic equality, they must be undertaken on a crash basis.

The revolving loan fund should be reactivated, with a priority on lending tribes funds to purchase key tracts of land essential for community and economic development.

We are aware that the Government budget is being held in check to combat inflation. We urge, however, that to fail, for reasons of economy, to undertake the badly needed crash programs in the improvement of Indian education, educational facilities, and roads, and economic development, would be poor economy indeed.

We would not pass up the opportunity to speak openly on the proposed estimates for Indian health appropriations for the coming year.

First of all, we are disappointed at the lack of construction funds requested. Primarily, Indian people will continue to suffer extremely poor health because of a simple lack of facilities. As you know, a great many Indian tribes are located in the most remote areas of our Nation. Transportation and communication facilities are poor. Indian people literally die because medical personnel and facilities are not readily available.

Construction of badly needed hospitals, clinics, and health field stations adequately staffed should not be overlooked. Because, in the long run, improvement of Indian health will be prolonged, and the cost in funds and human lives will multiply. One health field station can mean the saving of up to 25 lives a year in a given Indian community.

An aggressive mental health program should be funded in order to seek out the reasons for the mentally disturbed, and provide a means to treat the many cases evident in Indian communities.

A very successful Indian health effort has been the community health representative program. Here nonprofessional Indian people are trained to observe and do something about health problems in their own communities. They are most effective in getting to the root of the problem quickly and convincing our oftentimes traditionally minded Indian people, to get to the clinic or hospital where help is available. We are disappointed to see that allowance has been made for only 100 trainees this coming year. Twice as many are needed and more, if we are to amplify emphasis on problems of poor health within our Indian communities.

We cannot overemphasize the need for additional funds in the field of Indian health. Satisfactory personnel and facilities can only bring gratifying results to both Congress and the American Indian.

Thank you for the opportunity to appear before you. The Indian tribes are most grateful.

Mrs. HANSEN. Are you requesting $3 million for relocation to be transferred to the Bureau's school budget?

Mr. WILBUR. Either that or more to the reservation rather than to the relocation and having our children sent off to other places for training.

Mr. REIFEL. Where you have from 45 to 70 percent unemployment on the Indian reservation because there is virtually no industry there and no way of bringing jobs to the reservation, what does the National Congress of American Indians propose to meet that problem?

Mr. WILBUR. We feel that $3 million would help to decrease that 75 percent unemployment.

Mr. REIFEL. There are no job opportunities. This is the big problem. They are faced with this all the time.

Mr. WILBUR. Yes, sir.

Mr. REIFEL. Since there are no opportunities on the reservation they must turn somewhere.

Mr. WILBUR. We feel we should help to make the opportunity on the reservation.

Mrs. HANSEN. Thank you for coming, Mr. Wilbur. We appreciate your statement.

KINZUA DAM

WITNESSES

HON. ALBERT W. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA
CHARLES R. TRANTER, EXECUTIVE DIRECTOR, KINZUA DAM VACATION BUREAU
BARRY EPSTEIN, EXECUTIVE VICE PRESIDENT OF THE WARREN COUNTY CHAMBER OF COMMERCE
BLAIN M. MEAD, BOARD OF COUNTY COMMISSIONERS OF WARREN COUNTY

Mrs. HANSEN. Mr. Johnson?

Mr. JOHNSON. May I in advance introduce my three witnesses so I may retire?

Continuing my testimony of yesterday on the Kinzua Dam area we have three witnesses today. One is Mr. Charles R. Tranter substituting for LeRoy Schneck, who is my first witness.

Then also we have Mr. Barry Epstein, who is the executive vice president of the Warren County Chamber of Commerce. Then we have the Honorable Blain Mead, Board of the County Commissioners of Warren County. These three gentlemen have been allotted 15 minutes. I regret I cannot remain to hear their testimony.

Mr. WYATT. I would like to comment that we will miss Congressman Johnson. He has spent more time with this committee in 2 days than any other Member of Congress.

I can assure you people that nobody has worked harder or more effectively under very difficult circumstances than Congressman Johnson has in your behalf.

Mr. JOHNSON. Thank you very much.

Mrs. HANSEN. You are a very welcome witness any time.

Mr. Tranter, executive director, Kinzua Dam Vacation Bureau.

Mr. TRANTER. As a representative of the Kinzua Dam Vacation Bureau, the official tourist promotion agency for Warren and Forest Counties, Pa., and the Warren County Chamber of Commerce, I want to point out to this committee the great concern we have for the furture development of the recreational facilities in the Allegheny National Forest and the Kinzua Dam and Allegheny Reservoir which have become destination points for vacationers and tourists.

We need funds appropriated for many projects in Kinzua country, as our area is popularly known. We could submit a long list including the continued need for funds on behalf of black cherry research and the need for a fish biologist for the reservoir since fishing is one of the chief attractions for the 55 million people who live within 300 miles of the dam.

But, today, we want to name a specific need for fiscal year 1971. The need is for an addition to the budget so that boat launching ramps and related facilities can be finished at the Elijah Run development on the Kinzua Arm of the Allegheny Reservoir.

First, however, we want to point out how far behind we have fallen in the development of facilities in the forest and around the reservoir. In 1966, a very knowledgeable group of men adopted the master plan for the Allegheny Reservoir recreation area to provide enough facilities to handle the anticipated demand once the dam and the reservoir were completed.

It was estimated then that Federal appropriations of approximately $1,500,000 per year would be necessary to construct the facilities and keep pace with the growing use demand. But, instead, every year since 1966, there has been a decreasing appropriation to the Allegheny National Forest while at the same time the use of the forest has increased beyond all estimates. The fiscal year 1971 budget under consideration contains only about 60 percent of actual fiscal year 1970 appropriations.

Thus, the gap between supply and demand grows wider, and development of facilities has failed to keep pace with public use. In calendar year 1969, for example, the Corps of Engineers reported more than 2 million visitations to the reservoir area, and the Allegheny National Forest reported 1,800,000 visitor days spent in the

forest. The Allegheny National Forest shows the third heaviest use in the Northeast Region, the fifth heaviest in the Eastern Region, and the 27th heaviest in the Nation out of 154 national forests.

Although the Forest Service has constructed some fine facilities on the reservoir, already the campgrounds are filled to overflowing, and the boat launch ramps are congested, with long delays in placing boats in the water and removing them. How many boats? A study in 1969 showed the use of nearly 40,000 boats on the reservoir during the summer season.

There were plans for providing a new boat launching area in fiscal year 1970 at Elijah Run on the Kinzua Arm of the reservoir, but due to budget limitations, construction has been delayed. Now we are told by forest officials that the Elijah Run launching area cannot be finished in fiscal year 1971 because the budget contains no funds for construction. Road access can be provided, we're told, but there is no money for the launching facilities which will cost about $150,000.

I want to point out to the committee that while the people in Kinzua country look to government for the completion of recreational areas on public land, they are not leaving the entire job to the Federal Government. It is estimated that by 1975, State and local government units, and private investor groups including the Seneca Nation of Indians, will spend some $138 million in developing highways, parks, motels,. and four-season resorts, in both the Pennsylvania and New York State regions adjacent to the Allegheny Reservoir.

The Forest Service, however, controls all of the land around the reservoir itself, and the full development of our area cannot be accomplished as long as the Federal funds are inadequate to keep pace with the demand for recreational use of the forest and the reservoir.

In contrast to the $1,500,000 needed annually to stay on top of the needs, we find that in the 1971 budget now under consideration, the appropriation is only $282,000 and this is earmarked for a new and much needed campground at Tracy Ridge.

The recent Highlands recreation study made by the Appalachia Regional Commission refers to Kinzua country as a latent terminal recreation center, and the development of this center is important to the economic improvement of Warren, Forest, Elk, and McKean Counties.

Our hope for the future is for Federal appropriations that will begin to close the gap between supply and demand. Our specific request today, however, is that this committee add $150,000 to the water resources development budget to be used for the express purpose of securing the construction of Elijah Run boat launch area on the Allegheny Reservoir.

Mrs. HANSEN. Thank you very much. We are delighted to have you.

It is a great pleasure to welcome the very distinguished Chairman of the Full Committee on Appropriations, Mr. Mahon.

We are delighted to have you with us today.

Mr. MAHON. Thank you, Madam Chairman.

I am honored to introduce one of the witnesses from my area and from my State who is to appear before your subcommittee, Mr. George Latimer. I know you will give him your serious attention and we will all do the best we can for the project he is supporting today. It is a program in which he has a great interest.

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With that I shall go on back to my hearing in the Defense Subcommittee.

Mrs. HANSEN. We are delighted to have you, Mr. Chairman, and we are delighted to have Mr. Latimer, Executive Director of the Great State of Texas Historical Survey Committee.

Mr. MAHON. And the Governor's representative, Mr. Pendleton.

NATIONAL HISTORIC PRESERVATION ACT

WITNESSES

TRUETT LATIMER, EXECUTIVE DIRECTOR OF THE TEXAS STATE HISTORICAL SURVEY COMMITTEE AND STATE LIAISON OFFICER FOR THE NATIONAL HISTORIC PRESERVATION ACT IN TEXAS
RANDY PENDLETON, GOVERNOR'S REPRESENTATIVE

Mrs. HANSEN. Mr. Latimer.

(Mr. Latimer's statement follows:)

Madam Chairman and members of the committee, my name is Truett Latimer and I am executive director of the Texas State Historical Survey Committee and the State liaison officer for the National Historic Preservation Act in Texas. I am also secretary of the National Conference of State Historic Preservation Liaison Officers which was organized in 1969 to seek answers to mutual problems, disseminate information and to speak to Congress in one unified voice. It is on behalf of both of these organizations that I appear before you today.

First, let me say that the Congress is to be commended and congratulated for the giant step that was taken in behalf of historic preservation with the passage of the National Historic Preservation Act of 1966.

In the passage of this act, the Congress clearly established a new policy and found:

"(1) That the spirit and direction of the Nation are founded upon and reflected in its historic past; and

(2) That the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people".

This new national policy has permeated most Federal agencies and is now given due consideration by those agencies which fund and license various projects. I must admit, however, that it was very painful for some Federal agencies to give historical preservation the proper perspective it deserved in their overall planning.

The Office of Archeology and Historic Preservation has been fully organized within the National Park Service and is administered by extremely competent individuals and gives guidance and direction to the 55 States and territories as well as to Federal agencies who request its assistance.

The Advisory Council on Historic Preservation is operating most effectively and has demonstrated great successes on numerous federally funded or licensed projects throughout the nation.

State Historic Preservation Liaison Officers have been appointed in all 55 States and territories. Most States have appropriated money for their State surveys and are moving toward the statewide comprehensive historic preservation plan as invisioned by the act. The States have responded to the challenge that was given them when the National Historic Preservation Act was passed.

What I have tried to indicate by these statements is the fact that the national historic preservation policy as outlined in the original act is moving forward. The State and Federal agencies charged with the administration of the act are in full gear.

States will soon begin to move through the survey stage and start reaching the point when grants-in-aid for specific projects will be needed. As this point is reached, it will be necessary for more money to be available for actual preservation projects as this was the ultimate aim of the program.

To preserve the best of our country's historic places, the Congress authorized, over 4 years, a total of $32 million dollars in matching grants-in-aid to the States and the National Trust for Historic Preservation. During that time, fiscal years 1967–70, only a portion of this authorization has been budgeted and appropriated.

These appropriations were definite steps forward. But the steps did not go very far. Spread over 36 States and the National Trust, some States received less than a thousand dollars and no money could be made available for bricks and mortar projects.

President Nixon is asking the Congress for $6,119,000 in the National Park Service budget to fund the grants-in-aid program for the coming year. This sum should enable the States to begin actual physical rehabilitation of the Nation's best historic sites and structures. Without money for the physical repair and development of these superior properties, all the survey, all the planning, is for nought.

Only up to 50 percent of a project may be matched under the act, depending upon the quality of the project. The act clearly envisions a partnership to exist between the Federal Government on the one hand, and the States, local governmental units and private individuals on the other.

Our nation is faced with the crisis of a decaying environment; an environment not only of water and air—resources that sustain our lives—but an environment including those visual and historic works that enrich our lives.

Madam Chairman and members of the committee, I trust you will appropriate at least the $6,119,000 for historic preservation grants-in-aid to the National Park Service as requested in the President's Budget. With this, the historic preservation thrust which has been generated by the passage of the National Historic Preservation Act of 1966 can move forward at an accelerated rate.

Mr. LATIMER. Basically what I am interested in is the funding for the National Historic Preservation Act. As you know, this is an item contained in the National Park Service budget. They are requesting in that National Park Service budget approximately $6,119,000 for grants-in-aid for historic preservation under the National Historic Preservation Act.

You will recall this act was passed by Congress in 1966. It was not funded more than $1,369,000 since that time. Reauthorization has just passed again and we trust it will be passed in the Senate and that the amount of money which they are asking at this time can be granted.

I would like to point out that most of the States in the Nation have appropriated money to carry out the provisions of this act. For instance, I think when the testimony was presented in favor of this, the reauthorization legislation, it was pointed out that the States had about $16,910,000 that could be matched. Reauthorization legislation carried $7 million the first year, $10 million the second, and $15.3 the third year.

We feel the amount that the National Park Service is requesting here is entirely reasonable, prudent, and at the same time we feel that the States can accomplish and start accomplishing the purposes for which the National Historic Preservation Act was accomplished.

I would like also to say, if you are not familiar with the act, that only up to 50 percent of a particular project may be matched, and this depends upon the quality of the project. It could be much less.

The fact that the act clearly envisions a partnership between the States and the Federal Government and local government subdivisions and private agencies this is a unique thing. It has established a new preservation code within the Nation. It has established, we think—a very significant step forward in historic preservation.

I could spend a great deal of time talking about the accomplishments.

The appropriations have not been as much as we might have anticipated but rather than looking at that side of the fence I would rather look at the positive side of it. A great number of things have been done. We think it is good and we think it should be continued.

I speak today in behalf of our organization, the Texas State Historical Survey Committee and also the record reflects the National Conference of State and Historic Society Liaison Officers.

I would be glad to answer questions.

Mrs. HANSEN. Thank you, Mr. Latimer. It is a pleasure to welcome friends of the Chairman from the State of Texas.

Mr. LATIMER. I appreciate the opportunity of coming in, Madam Chairman.

BLACK CHERRY RESEARCH

WITNESS

BLAIN M. MEAD, WARREN COUNTY COMMISSIONER, PENNSYLVANIA

Mrs. HANSEN. Mr. Mead, Warren County Commissioner.

Mr. MEAD. Madam Chairman, members of the House Subcommittee on Appropriations for the Department of the Interior and Related Agencies. My name is Blain Mead, and I am one of the county commissioners of Warren County, Pa. I thank you for the privilege of meeting with you and telling you my concern about the need for increasing Forest Service research on black cherry at Warren, Pa.

Warren County is a small county in northwestern Pennsylvania. It is only 910 square miles, but 84 percent of it is covered with forest. It ranks second in the State in volume of sawtimber. As you might suspect, our forest resource is very important to us; in the county there are 23 sawmills, three dimension or flooring mills, and five secondary wood-products plants. Also, we have a heavy recreational load. Our population has increased 18 percent in the last 6 years, but in addition, it comes and goes seasonally with tourists, fishermen, and recreationists in the summer, and hunters in the fall.

Now, I'd like to make several points: The first is that Warren County is not an isolated case. Most of the counties on the Allegheny Plateau in Pennsylvania and other States are in a similar situation. The second is that our wood industries, our recreation, our deer herd, and consequently a large part of our people are vitally dependent on the forest resource, especially on black cherry. The third point is that with the population increasing and more houses being built, the demand for black cherry keeps going up. In fact the demand for cherry lumber has increased 13 times in 20 years, and the most valuable grades and sizes are scarce.

So to maintain this forest resource in a vigorous and productive condition—to grow the amount of cherry and maple and ash timber the country needs, to keep the deer healthy and plentiful, and at the same time protect the environment for rural communities and recreationists, the forest will have to be managed with a care and intensity we never dreamed of a few years ago.

And there's where the rub comes. The information needed for this kind of management is not available, and it can be obtained only by greatly increased research.

As you know, the Forest Service built a research laboratory near Warren, Pa., 5 years ago to work on black cherry problems, and they have a small research unit there that's been making progress. But the funds necessary to finance the major part of the program, for which the laboratory was built, have never been available.

The Forest Service did get a small increase last year and immediately expanded its research into the factors that limit natural reproduction of cherry. We are grateful to this subcommittee for granting the increase, but the amount is simply not adequate to permit the kind of prompt, vigorous program that is needed on the problems involved.

Therefore, we are requesting that the subcommittee increase Forest Service appropriations by the $335,000 necessary to finance the full, planned program of black cherry research at Warren, Pa. Again I appreciate the opportunity to meet with you. Thank you for your time and your consideration.

Mrs. HANSEN. I think you will be pleased to know that the committee is deeply concerned about the need for additional research.

Mr. MEAD. I appeared last year on the same subject.

Mrs. HANSEN. We appreciate having your statement.

BLACK CHERRY RESEARCH

WITNESS

BARRY R. EPSTEIN, EXECUTIVE VICE PRESIDENT, WARREN COUNTY CHAMBER OF COMMERCE, PENNSYLVANIA

Mrs. HANSEN. Mr. Barry R. Epstein, Executive Vice President, Warren County Chamber of Commerce.

It is always a pleasure to have one of Congressman Johnson's constituents.

Mr. EPSTEIN. Chairman Hansen, members of the House Subcommittee on Appropriations for the Department of Interior and related agencies. My name is Barry R. Epstein and I am executive vice president of the Warren County, Pa., Chamber of Commerce. I appreciate your giving me this opportunity to point out the continuing and critical need to increase the Forest Service program of research on black cherry and white ash at Warren, Pa.

The Allegheny plateau of northwestern Pennsylvania and surrounding States includes 18 million acres of scenic forests noted for their fine hardwoods and for their high recreational value. These forests protect the watersheds of many mountain streams, and they are the habitat for large populations of deer, turkeys, and other wildlife. These attractions annually draw armies of hunters, fishermen, campers, and tourists to the plateau. And the excellent black cherry, maple, and ash temper provides the livelihood for thousands of families and many communities.

Black cherry is the mainstay. With a value among American woods exceeded only by that of black walnut, it is used for fine paneling, veneer, and top quality furniture. Nearly 1,500 mills and factories on the plateau, employing 30,000 people and adding annually more than $250 million to the region's economy, depend heavily on black cherry timber for their raw material. Demand for lumber from cherry,

and the other fine hardwoods that grow with it, will increase because programs to achieve national housing goals will carry with them increased requirements for hardwood trim, paneling and furniture. And the additional manufacturers will help improve living standards and stabilize rural communities.

But critical problems have developed in reproducing and growing this sensitive species. The natural factors that determine whether or not new seedlings will become established and develop into a new growth of trees are unknown. Ecological relationships that protect the fragile balance between deer and timber must be determined so that both resources can be maintained in healthy, vigorous condition. Intensive cultural methods necessary for increased future production must be developed, and then adapted to economically feasible operations. Nutrient requirements, soils, and fertilizer relationships hold much promise for increasing growth and must be determined.

And the solutions to these and similar problems must be compatible with recreational requirements and environmental preservation.

These answers can come only through scientific research. Last year the Forest Service received $25,000 increase in appropriations to strengthen the black cherry research at Warren, Pa. With it, the Forest Service has assigned a regeneration specialist to make a start on determining the ecological factors that govern seed germination and seedling establishment.

We are grateful to this committee for its consideration in granting this increase, for it shows that our problems are recognized. However, the program remains pitifully inadequate in view of the values at stake and the serious problems that surround them. Additional specialists are badly needed, especially mensurationists, physiologists, ecologists, nutrition and soils experts. Therefore, we again request your acquiescence in the addition of $335,000 to the Forest Service budget for funding the whole necessary and planned research program in black cherry and white ash.

I trust you will give full consideration to our request.

Mrs. HANSEN. Thank you so much for appearing.

BUREAU OF COMMERCIAL FISHERIES

WITNESS

L. LEE HARRINGTON, PRESIDENT, MASSACHUSETTS COASTAL SEAFOODS, INC.

Mrs. HANSEN. Mr. L. Lee Harrington, President of Massachusetts Coastal Seafoods, Inc.

Mr. HARRINGTON. I wish to thank you very much for inviting me here today. I live and operate my own business in Gloucester, Mass. This is where the fishing industry all began back in 1623. Today our domestic fishing industry is dying and dying fast. My family has been in the fishing business for four generations, however, I do not believe that there is any future for my three sons in this business. My main purpose in coming down here to Washington is to register a very strong objection to any plans to cut the BCF operating funds.

I have been advised—that the 1970 budget of BCF has been cut by $1 million—that the 1971 budget will be further cut. The American fishing industry is continuing to decline in importance and in effectiveness at a time when consumption of fish in the United States and throughout the world is increasing.

The American fishing industry is receiving very little Government support, and what little we get comes through the function of the BCF. This is, however, token compared to the support received by the fishing industries of foreign countries. And so it is that other fleets travel great distances in excellent ships and reap vast amounts of the rich protein resource with which the waters off this continent are blessed. Every day, most American fishermen limp out to sea in old, outdated ships—some ships are so unseaworthy that insurance companies do not want to insure them—and the outmoded American ships return with only a fraction of the catch that should be ours.

We must face the humiliating fact that the American fishing fleet can only finish last in competition for those resources which are lying outside our territorial limits.

It is unbelievable that just when the American fishing fleet is humbled to its knees in the face of foreign competition, its only assistance, from the government, namely the BCF, is about to lose more of its operating funds.

Well, as I said, I am part of the fishing industry—it has been my life, and I don't want to see it sacrificed as though we don't need it. The importance of the ocean's resources is only now becoming recognized. It is not only my personal duty but it is also my patriotic duty to point out that we must revive our capability to complete successfully for these resources. We can protect our interest in the sea only by maintaining a vigorous fishery industry. To do that, we need increased Government assistance, not decreased Government assistance.

I would like to say at this time that the Canadian Government recently placed a fixed price on cod blocks which is the main source of fish sticks and fish portions in this country. Their action resulted in a direct increase in the price of fish for the American consumer. The Canadians were able to do this because they knew the American fishing fleet was so weak that it could not catch enough fish to cause a decrease in this price. At this time under present conditions the Canadian government can continue to raise the price of fish to the American consumer and there is very little that can be done about it.

Now it doesn't really matter to me, personally, how the industry receives its help. If the Bureau of the Budget wants to reduce the funds of the Bureau of Commercial Fisheries, that's all right with me. Maybe we don't need the Bureau of Commerical Fisheries. But we do need a fishing industry, and any proposal to endanger its existence is not all right with me.

I feel that at this time we can ill afford to eliminate our fishing industry but the actions of the Bureau of the Budget can result only in the ultimate destruction of what has been a viable part of America for over 300 years.

Thank you again for giving me this opportunity to speak before you.

Mrs. HANSEN. Thank you again for an excellent statement. I am particularly interested in the Canadian situation.

Mr. REIFEL. Mr. Harrington could have made his case a little stronger if he had said that "In addition, if the Bureau of Fisheries wants to reduce its funds, it is all right with me, maybe we don't need the Bureau of Commercial Fisheries."

He should have said "Maybe we don't need the Bureau of the Budget."

Mrs. HANSEN. I believe Congressman Harrington, from Massachusetts, represents your district?

Mr. HARRINGTON. He is no relation. He has been to my fish plant when he was campaigning and I met him.

Mrs. HANSEN. Mr. Harrington spoke to me about this project.

Mr. HARRINGTON. I hope it does some good.

Mr. FLYNT. First let me say I am very much impressed with your statement. It was excellent.

Can you point out very briefly one or two things that are not presently being done that could be done to revitalize the American commercial fishing industry?

Mr. HARRINGTON. One thing is the very outmoded law that is on the books which does not permit us to build our fishing boats in foreign countries where the cost would be tremendously less. We are hamstrung. We cannot go outside the country to build a fishing boat. Yet the Russians and the Canadians and everybody else has these tremendous boats, fish right off the New England coast.

The Russians in the last 10 years have cleaned out our stocks of fish to a degree that is unbelievable. I am saying this from knowledge. I know of this.

That law itself has no fishing boats being built in this country. We can do nothing about it.

As I say, the Bureau of Commercial Fisheries has its gear research area. In this budget cut they will have to close down the gear research.

An average fisherman is like a small family business with four or five people on a boat. They do not have the expertise to be able to go out and make improvements and changes. It would depend upon the work of these people of the past and those people who have helped the small fishermen.

With a budget cut that year, research laboratory work will not go on.

We are developing a shrimp industry in the New England area. Without the boats, the *Delaware* and the *Albatross* to be fishing and determine what the resources are and where they are that fishery may never get off the ground as it should. It is a shame.

Mrs. HANSEN. Thank you very much.

Mr. FLYNT. I did not mean to transgress on the time of the committee to ask those questions. The subject matter of those questions and your response more properly belong before a different committee, the Committee on Merchant Marine and Fisheries.

However, I was aware of this condition and I wanted it stressed. You said the domestic fishing industry is dying and dying fast. We want to do what we can to revitalize it.

Again thank you.

Mr. HARRINGTON. Thank you very much.

WITNESS

FRED CUTLIP, PROGRAM DIRECTOR, OUTDOOR RECREATION SECTION, OFFICE OF THE GOVERNOR, WEST VIRGINIA

Mrs. HANSEN. Mr. Fred Cutlip, Program Director, Outdoor Recreation Section, Governor's Office, West Virginia.

Mr. CUTLIP. I am appearing before you today at the request of Arch A. Moore, Jr., the Governor of the State.

Mrs. HANSEN. Please express the committee's best wishes to Governor Moore.

Mr. CUTLIP. I certainly will. Madam Chairman and distinguished committee members, I am appearing before you today at the request of Arch A. Moore, Jr., Governor of the State of West Virginia. Governor Moore has asked that I convey to you his concern on matters relating to the land and water conservation fund program.

Specifically, those concerns are in the following four areas:

1. The level of funding of the program.
2. The lack of continuity in funding.
3. The distribution of funds between the States and Federal agencies.
4. The time lag in releasing the funds.

I shall now address myself to each of the individual items.

THE LEVEL OF FUNDING

The State of West Virginia initiated an active campaign in 1966 to inform local political subdivisions of the possibilities of Federal assistance to plan, acquire and develop high quality public outdoor recreation areas. That campaign served as a catalyst throughout the State for much activity to meet the prerequisites of the program. That action brought about the successful completion of numerous projects of various design and scope. The results exemplified what could be accomplished by cooperative Federal, State and local government action.

The program was new, we knew how much money was available, and everyone seemed interested in doing what was necessary to get the funds into the projects to meet the documented needs.

Now with a less ambitious information program, the Governor's Office of Federal-State Relations is barraged with requests from local political subdivisions alone, amounting to more than three times the amount of L. & W.C.F. assistance available.

The State of West Virginia in 1966 initiated an active campaign to inform local political subdivisions of the possibilities of the land and water conservation fund program. That action brought about the completion of numerous projects of various design and scope. The results exemplified what we felt to be—could be accomplished through cooperative Federal, State, and local governmental action.

Now, with the less ambitious information programs, the Governor's office of Federal-State relations is barraged with requests from local political subdivisions alone amounting to more than three times the amount of money available to the land and water conservation fund program.

Enactment of Public Law 90–401 in 1968 established legal authority to set aside $200 million annually for this program for a 5-year period. It was adequately stated that there was a documented need for at least twice that amount.

A review of the funding since the passage of Public Law 90–401 reveals that only $92.5 million was appropriated in fiscal year 1969. The administration requested $154 million last year, the House Subcommittee on Interior and Related Affairs recommended nearly the same, but the final funding was $30 million less than requested.

The need is greater today than ever before. President Nixon has acknowledged as much in his message on the environment, and this is exemplified in his request for full funding of $327.4 million. I realize that some aspects of this program are beyond congressional responsibility, but I urge you to provide the executive branch the maximum opportunity to make a success of the L. & W.C.F. by authorizing the full $327.4 million in fiscal year 1971.

THE LACK OF CONTINUITY IN FUNDING

The varying amounts of funds appropriated to the states on an annual basis due to such things as unexpected "freezes" and the ever-changing ratio of disbursement between the states and federal agencies makes it impossible to derive any meaningful outdoor recreation capital improvement program.

The overall obligation rate of available funds to the States is high, but it would be even higher if we could rely on some continuity in the amounts of funds appropriated. For instance, West Virginia received $1,125,465 in fiscal year 1966. With the exception of the first year, the all-time low was in fiscal year 1969 totaling less than $600,000, and it was only up to $783,787 this fiscal year. To be quite frank, we don't know what to expect in fiscal year 1971.

Sound planning principles and budgeting procedures require the establishment of priorities. It is essential that we have a better estimate of potential assistance so that our State legislature and local political subdivisions can establish their priorities, provide the matching funds and realize adequate financial assistance to meet their most pressing problems.

We are asking that you take the required steps to provide a level of continuity to the amounts of funds available through the L. & W.C.F.P.

THE DISTRIBUTION OF FUNDS BETWEEN STATE AND FEDERAL AGENCIES

Last year I submitted a written statement to this committee which contained comments relative to the distribution of L. & W.C.F. moneys between the States and Federal agencies. I am going to repeat that it is West Virginia's opinion that the Department of the Interior has been unduly influenced by the U.S. Forest Service and the National Park Service. We are cognizant of the great need at the Federal level for land acquisition, but we are even more aware of the real pressing need at the local and State levels of government.

The State is particularly concerned about a way to meet the needs in our urban areas. The West Virginia Statewide Comprehensive Outdoor Recreation Plan provides us with an evaluation of public out-

door recreation needs at the local level. The plan established an immediate need to acquire nearly 28,000 acres of land at an estimated cost of $32 million and development needs are estimated to be more than $64 million. I am talking about a need for $96 million in acquisition and development of public outdoor recreation land at the local level of government to meet accepted standards.

Our State contains nearly 1 million acres of federally administered forest land, and overall we have almost one acre of public recreation land for each of the State's inhabitants. When I think of the funds necessary to meet the local needs in our basically rural state, I wonder what the needs must be nationwide.

Provision of more than 50 percent of the L. & W.C.F. to Federal agencies is not in the best interest of the collective states. Anything less than 60 percent to the States is undesirable, and if full funding of $327.4 million is not authorized, it is imperative that the States receive at least 60 percent of the funding.

THE TIME LAG IN RELEASING THE FUNDS

As the committee is well aware, the fiscal year begins on July 1 of each calendar year. Delays in authorizing the L. & W.C.F. appropriations have far-reaching effects.

The Bureau of Outdoor Recreation's restrictions on retroactive expenditures do not allow much leeway in obtaining matching funds for expenditures made prior to having a project approved.

The delay in allocating funds to the States during this fiscal year has caused West Virginia to be nearly 6 months behind in its anticipated schedule of submitting applications for this program.

I could cite examples where projects have been lost in their entirety because options on land have expired. Local action programs are not being carried out as scheduled because of the inability of the State liaison office to guarantee Federal assistance at a given point in the future. Land and construction costs are rising annually, and every delay causes increases in costs to the projects.

I urge you to give immediate and decisive attention to those matters relating to the L. & W.C.F.P. It is my hope that Congress will give early authorization for funding this year so that the States can begin to make up for the time lost during fiscal year 1970.

In summary I reiterate the four recommendations made in this statement.

1. That the Congress authorize full funding of the L. & W.C.F.P in the amount of $327.4 million in fiscal year 1971.

2. That some continuity be established in the annual appropriations that will permit sound planning and budgetary practices.

3. That anything less than 60 percent to the States is undesirable and if full funding of $327.4 million is not authorized it is imperative that the States receive 60 percent of the funding.

4. That Congress act early and decisively on the appropriations for fiscal year 1971 so that the States can gain time lost due to the delays in authorization of the fiscal year 1970 funds.

It has been my pleasure to appear before this distinguished committee and present the views of Gov. Arch A. Moore, Jr., in behalf of the State of West Virginia.

Mrs. HANSEN. The Johnson administration budget request for this activity was about $154 million, but this request was revised by the Nixon administration. The House of Representatives did provide a larger proportion of funds for the States than was agreed to in conference.

The funds were available by October but the Department of the Interior had to make its decision in-house as to the allocation of the funds. The House Appropriations Committee does not feel it has neglected this program.

Mr. CUTLIP. I thank you very much for a clarification of the points, Madam Chairman, and it has been my pleasure to appear before this committee in behalf of Governor Moore and the State of West Virginia.

Mrs. HANSEN. Thank you. The present administration will request in the near future a supplemental appropriation for this program.

Thank you.

LAND AND WATER CONSERVATION

WITNESS

NEY C. LANDRUM, PRESIDENT, NATIONAL ASSOCIATION OF STATE OUTDOOR RECREATION LIAISON OFFICERS

Mrs. HANSEN. Mr. Ney C. Landrum, President, National Association of State Outdoor Recreation Liaison Officers.

Mr. LANDRUM. I am Ney C. Landrum, associate director, Division of Recreation and Parks, Florida Department of Natural Resources, and president of the National Association of State Outdoor Recreation Liaison Officers (NASORLO). I have with me members of our board of directors representing six additional States. I have two statements here from the States of North Dakota and Missouri which I would like to offer.

Mrs. HANSEN. Please insert the statements in the record.

(The statements follow:)

My name is John F. Greenslit, State liaison officer for the State of North Dakota for the Land and Water Conservation Fund Act of 1964.

My testimony today relates to budget presentations of the Bureau of Outdoor Recreation via the President's budget for the fiscal year of 1971.

The Land and Water Conservation Fund Act program has been very successful in North Dakota to date. The State has processed 186 projects for acquisition and/or development throughout the State. There is a current backlog of projects that total nearly $2 million. The total impact in North Dakota since the inception of the program has been nearly $6.6 million of Federal, State, county, and local government funds for outdoor recreation.

Based on the opportionment formula of the fund, North Dakota receives about 1 percent of the funds provided to the States. This relatively small apportionment has served to greatly enhance the natural resources of the State, as well as help fulfill the intent of the act itself.

Considering the intent of the act, the program has been successful as serving as a stimulus to all forms of legal entities to acquire and/or develop public lands and facilities for all citizens, both resident and nonresident. Through comprehensive planning efforts, it has also served the original intent of the act to let the State of North Dakota serve in a pivotal role in the implementation of the act.

The State of North Dakota feels that the opportunities present to the States and other legal entities has been gratifying by the use of land and water funds.

The overwhelming passage of the original act and the amending features of Public Law 90–401 to provide additional revenues shows a great concern by the Congress to stimulate action by the States before it is too late.

With this in mind, North Dakota would repectfully request that the President's budget request of $168.5 million be a minimum figure in further implementation of the goals of the Land and Water Conservation Fund Act of 1964. We should further appreciate favorable consideration on the great potential offered to the States and Federal agencies by supporting an amendment or supplemental request for $188.9 million to provide full funding of the program. Interior Department spokesmen have indicated that distirbution of the amendment would be along the lines of a 65 percent State share and 35 percent Federal share, which in effect would give the total full funding a desired 60–40 State/Federal funding ratio. This ratio would be in agreement of the intent of Congress along the lines of section 4(a) allocation of Public Law 88–587.

Full funding would provide a great acceleration of the Federal acquisition program, as well as, enabling the State to fully utilize the results of the many State and Federal dollars that have been invested in comprehensive planning to determine definite needs of each individual State.

Another point of interest for the State of North Dakota would request the committee to consider the acceleration of implementation of the total program based on the comprehensive planning efforts of the 50 individual States and 5 Terriorial outdoor recreation plans, rather than seeking to place restrictive language in a final appropriation bill regarding various ratios concerning acquisition of land versus development.

Acquisition of land is given top priority in nearly every one of the 50 States and 5 Territories. Development is needed quite desperately in many of our Western States and some of our urban States where independent bonding programs have been used exclusively for acquisition. Prominent examples of urban acquisition programs outside of the Land and Water program are the massive bonding programs of the State of New York and State of California.

Restrictive language would, in my opinion, negate the gains that have been made in comprehensive planning research, providing a stimulus for public action in this field, and the ever growing public support for the preservation and most wise use of our natural resources. The many social problems of our country can best be resolved by a combination of immediate acquisition and/or development.

Effective implementation of outdoor recreation fund programing has been placed in a rather chaotic situation, and these pressures can best be relieved by moving ahead with appropriated but unreleased funds. I have tried to point out in the supporting testimony for full funding the great interest and backlogging of many high priority quality projects. The steps to improving the quality and quantity of living in this great country are difficult enough without additional temporary and possibly permanent steps backward rather than forward.

The Land and Water Conservation Fund program can be the greatest impact that society has seen on improving the quality of life in the past century. It is my sincere hope that this program can be continued, accelerated, and implemented to the fullest intent of Congress. I pledge that the State of North Dakota will exercise every means possible to fulfill its obligation to provide the greatest amount of public support for quality implementation of the program.

STATEMENT OF ROBERT L. DUNKESON, EXECUTIVE SECRETARY, MISSOURI STATE INTER-AGENCY COUNCIL FOR OUTDOOR RECREATION

This is to respectfully request full funding of the authorized Land and Water Conservation Fund, and to urge a return to the original 40: 60 formula for division of the Fund between the Federal agencies and the States.

Missouri's record for the use of the fund speaks for itself: The State Legislature created an Outdoor Recreation Council composed of the directors of 13 State agencies concerned with outdoor recreation.

This council allocates the State's share of the fund to individual projects for purchase of land and development of facilities, and always has allocated all of the fund available. Over $7 million has been matched with State or local funds in 200 projects; 112 of these projects are now complete and in service. More than half of all available funds have gone to cities and counties for local outdoor recreation projects.

Through annual updating of the State plan, the council is attempting State coordination of the many facets of outdoor recreation development; i.e., Federal, State, local, and private.

All of this is part of the effort to make the State the "focal point" in outdoor recreation as was contemplated in the original legislation which created the Land and Water Conservation Fund.

The same factors still apply which originally emphasized the need for the Land and Water Conservation Fund. Increasing population, greater mobility and rising expectations of our citizens all increase the demands of Missouri as well as increasing outdoor recreation demands on the Federal agencies.

Full appropriation of $357.4 million is needed, with 60 percent of this amount to be allocated to the States.

Copies of the attached statement have been sent to the following:

Hon. Warren E. Hearnes, Governor of Missouri
Hon. Stuart Symington, U.S. Senator
Hon. Thomas F. Eagleton, U.S. Senator
Hon. William Clay, Representative, 1st District
Hon. James W. Symington, Representative, 2d District
Hon. Leonor K. Sullivan, Representative, 3d District.
Hon. William J. Randall, Representative, 4th District
Hon. Richard Bolling, Representative, 5th District
Hon. W. R. Hull, Jr., Representative, 6th District
Hon. Durwood G. Hall, Representative, 7th District
Hon. Richard H. Ichord, Representative, 8th District
Hon. William L. Hungate, Representative, 9th District
Hon. Bill D. Burlison, Representative, 10th District

Mr. LANDRUM. This association was formed 3 years ago to provide a medium through which the States could unite their efforts in areas of common interest to promote the most effective possible application of the Federal Land and Water Conservation Fund (LWCF) program. Each of the 50 States and five territories is represented in NASORLO by the official State liaison officer appointed by the Governor for LWCF Program purposes.

NASORLO has worked very closely with the Bureau of Outdoor Recreation as well as with its member States, and feels it can speak authoritatively on the problems and needs of the Land and Water Conservation Fund program.

Since passage of the LWCF Act in 1964, the intent of Congress to stimulate and financially assist the States and Federal agencies in acquiring, developing, conserving, and managing quality outdoor recreation areas has in large measure been fulfilled. Further progress, however, has been limited by the lack of available funds at all levels of government, and by the erratic and uncertain flow of funds from the LWCF Program in particular. The states are now experiencing a backlog of several worthy projects for every one that is eventually funded. Meanwhile, land prices rise almost daily, and recreation needs in the Nation's urban areas have reached such a critical point that a crash program of land acquisition and development should be initiated without further delay.

Because of the situation as we see it, NASORLO is especially pleased to note the recent expression of Presidential interest in accelerating appropriations to the LWCF Program. We strongly support the concept of full funding—of appropriating for immediate use the maximum amount already authorized by Public Law 90–401.

With regard to the President's regular budget request for $138.5 million plus $30 million advance contract authorization, we would be highly disappointed but for the anticipation of the promised supplemental budget request of $188.9 million. Taken alone, the $138.5 mil-

lion already requested is inadequate to meet the needs of either the States or the Federal agencies. It provides only $62.5 million for grants to States, and even further reduces the State-Federal distribution ratio—from 60 percent for the States as originally envisioned, to 50 percent the last 2 years, to only 45 percent this year.

While we certainly are aware of the tremendous backlog of authorized Federal projects and share the desire to expedite their implementation, we nevertheless submit that the States are in a far better position to meet the most urgent recreation needs of the American people. It is our sincere hope that the President will recommend and the Congress will appropriate the full $327.4 million already tentatively proposed, and that it will be allocated in a manner to restore the 60 percent State-40 percent Federal ratio originally envisioned. This would make available $131 million for priority Federal acquisitions, and $196.4 million, matched by an equal amount of non-Federal funds, to meet the critical needs existing at the State and local levels.

To quickly summarize our position: we fully support early and favorable action on the $138.5 million appropriation requested by the President, in the hope that this will be soon followed by a substantial supplemental appropriation in which the needs of the States might be more adequately provided for. In the unfortunate event that fiscal circumstances make a supplemental appropriation infeasible this year, then we would respectfully request that the regular appropriation be distributed according to the original 60–40 percent State-Federal ratio.

Nasorlo also recognizes the need to complete the Nationwide Recreation Plan and to continue the water resources and special area studies now underway by the Bureau of Outdoor Recreation. We strongly urge that the sums of $1,003,000 for nationwide planning and $1,274,000 for water resources and special area studies be included in the Bureau's general appropriation for fiscal year 1971.

Thank you for this opportunity to express our views. We respectfully urge your most favorable consideration, and have every confidence that the action you take will be in best interest of the public we all seek to serve.

Mrs. HANSEN. Thank you.

Mr. LANDRUM. Thank you, Madam Chairman.

NATURAL RESOURCES

WITNESS

MISS LYNN HAYES, REPRESENTING GEORGE ALDERSON, ACTING WASHINGTON REPRESENTATIVE, FRIENDS OF THE EARTH

Mrs. HANSEN. Miss Lynn Hayes representing Mr. George Alderson from the Friends of the Earth.

Miss HAYES (reading). I am George Alderson, acting Washington Representative of Friends of the Earth, a national conservation organization committed to preservation, restoration, and rational use of the ecosphere. FOE headquarters are at 30 East 42d Street in New York City; our Washington office is at 917 15th Street, NW. Other staff members are based in San Francisco, Seattle, Anchorage, and

Honolulu. FOE is the publisher, in collaboration with Ballantine Books, of three recent paperback editions on conservation matters—the "Environmental Handbook," edited by Garrett De Bell, the "SST and Sonic Boom Handbook," by William A. Shurcliff, and "Defoliation," by Thomas Whiteside.

Friends of the Earth appreciate this opportunity to present recommendations on the appropriations for fiscal 1971 for the Department of the Interior and related agencies.

The budget submitted to Congress betrays a curious tendency—though a traditional one, to be sure—to confuse conservation with construction. We suppose that this harks back to the days when conservation was indeed something you accomplished with dams and bulldozers, in the great public works programs of the 1930's. However, now that the United States has had a couple of generations to think it over, it's not really clear whether construction is necessarily a conservation measure; in many cases it clearly is not. That was a decision Congress made in 1966 and 1967 by rejecting the proposed Grand Canyon dams. Congress has since made similar decisions in other situations, and it can extend this salutary practice by questioning more of the construction items in the Interior budget.

NATIONAL PARK SERVICE

For example, the National Park Service budget calls for $20 million for roads and trails, while the Bureau of Land Management would get only $5.9 million for its central function of range management. The contrast is heightened by the fact that the BLM is trying to spread its meager approprioatins out across a vast acreage of public land, while the park roads would be concentrated within a very limited part of the Federal lands. We note also that the National Park Service submits no breakdown of the road and trail funds which would permit Members of Congress and the public to judge how necessary or desirable this $20 million worth of roads actually is.

In the public works tradition, the conservation value of roads was not questioned, but now that the national parks are already well provided with roads, it is time to begin asking about each road: "Suppose we didn't build it?"

Even a cursory knowledge of the national parks leads one to the conclusion that there are far more important purposes to which money can be put than to build more roads. One of these purposes is the acquisition of inholdings—privately held parcels of land within the boundaries of the national parks. Congress has always insisted, and wisely so, that a national park be an integral land area, instead of a loose collection of so-called scenic wonders. Their integrity, their ecological wholeness, has been a principal requirement of national parks. This vital quality of the parks is threatened by private inholdings, which are subject to development in ways that can utterly destroy the park value of the adjacent parkland. A case in point is at Wawona, a privately owned tract held in many small lot-sized parcels, within Yosemite National Park. Until the lots, and the flimsy cabins built on them through the years, can be bought by the National Park Service, Yosemite park will have its own little vacation slum, in jarring contrast to the surrounding park. Almost every park has

its inholdings, and as the years go by the price of land and the temptation to develop the inholdings keep increasing. This is a spiral that is only going up, making more difficult the acquisiton of these problem areas.

The time to go after the inholdings is now. We urge a substantial increase in the appropriation for this purpose, as has been proposed by other conservation groups.

Another basic program of the national parks which deserves emphasis and augmentation is the interpretive program. Park naturalists and historians have always been one of the best means by which citizens could gain a sense of pride in our national resources—natural and historic. The inability of the interpretive programs to keep pace with increasing visitor use is obvious, and salaries of seasonal naturalists and historians have not increased fast enough to let the Park Service recruit the well-qualified people the program should have. The interpretive program as a result has more and more relied on machines and electronic devices, and the result has been bad both for the National Park Service and for the parks themselves. Friends of the Earth urge a major increase in the funding of interpretation in the national parks.

Mrs. HANSEN. If you curtail funds for road construction you will endanger the lives of people.

Miss HAYES. We believe there are substantial roads.

Mrs. HANSEN. Funds for road construction helps protect the lives of people. This is why the National Park Service has requested funds for road construction.

Miss HAYES. I agree with you completely.

Mrs. HANSEN. Proceed.

Miss HAYES (reading):

Like the Park Service budget, the Forest Service budget overemphasizes roads and underemphasizes the programs that are in the long run going to affect the general well-being of our Nation.

Mrs. HANSEN. The basis for the Forest Service roads is not only for timber production but also for fire protection.

Miss HAYES. Again we agree. (Reading):

For example, the reforestation program is far behind schedule. While roads have been funded to help cut trees down, the replanting has been grievously neglected. Friends of the Earth propose a major increase in the funding for reforestation, to enable the Forest Service to catch up with its needs in this field.

The Forest Service has also been carrying out research that will have a broad, beneficial effect in coping with insects, by alternative means to the hazardous chemical pesticides now in use. Research at the Forest Service laboratories in several locations is focusing on biological control methods and, we understand, will have biological controls for several types of insects ready to enter production within a year, if we can provide the requisite funding for this year. Friends of the Earth therefore join with other organizations in recommending an additional $320,000 for biological control research.

Research in another field by the Forest Service likewise will affect total wood consumption and reuse. At the Forest Products Laboratory in Madison, study is being devoted to methods of recycling wood products. Friends of the earth urge that this work be accelerated, to the

end of making wood a highly recyclable commodity, thus making less drain on the productivity of the forests. Friends of the Earth support the request advanced by other organizations for an increase of $200,000 for research on recycling.

Mrs. HANSEN. Thank you very much.

Miss HAYES. Thank you very much.

BUREAU OF INDIAN AFFAIRS

WITNESS

EDWARD C. CLINE, CHAIRMAN, OMAHA TRIBAL COUNCIL, NEBRASKA

Mrs. HANSEN. Mr. Edward C. Cline, chairman, Omaha Tribal Council, Omaha Indian Reservation.

Mr. REIFEL. I want to welcome Mr. Cline. I knew his father on the reservation when I used to be with the Indian Bureau.

Mr. CLINE. Madam Chairman, members of the committee, my name is Edward Cline. I am chairman of the Omaha Tribal Council which is the governing body of the Omaha Indians on the Omaha Reservation in the State of Nebraska, a duly organized and chartered form of government under the 1934 Reorganization Act.

It is for the purpose of conveying to this august body the wishes and thinking of the Omaha people, regarding Nebraska's offer of retrocession of criminal jurisdiction to the U.S. Government, that I am here.

The Omaha Tribe supports the offer of retrocession by the State of Nebraska and we urgently and respectfully ask that U.S. Government accept the offer and that the Congress provide the necessary funding to establish and maintain an adequate system of criminal justice on our reservation.

We of the Omaha Tribe are deeply concerned about the rapid disintegration of the Omaha Indian culture that accelerates daily, and we feel an urgent need to reverse this process. After the passage of Public Law 280 a series of events have occurred that have promoted the cultural disintegration that we are witnessing today.

Under Public Law 280 we become a part of the State of Nebraska and legally subject to the criminal and civil justice systems and neither has proved satisfactory in terms of our needs.

As a point of departure and a basis for our grievances, I would like to say on behalf of the Omaha Tribe that it is our desire and intent to do several things which are hindered by Nebraska jurisdiction over us; that is—

1. Preserve the Omaha culture and langauge not in opposition to, but in conjunction with other cultures. We believe that true acculturation cannot take place in a vacuum and that until the Indian knows and understands his own culture and is able to identify himself is part of a worthwhile culture, he has no point of departure for taking on the traits of another culture.

2. Preserve a reservation home base for all Omaha Indians who are beginning to scatter over the Nation as a result of criminal justice practices to which they are subjected.

As American citizens, we are seeking equal treatment under the law.

For the past 17 years, we have been legally subjected to the criminal and civil jurisdiction of the State of Nebraska, and we are extremely dissatisfied with the quality of service provided. This dissatisfaction is aggravated by the fact that the Omaha and Winnebago Tribes are the only Indian tribes in the country paying State taxes on allotted trust lands. The return on our tax dollar is less than fair in terms of service to our tribes in the areas of criminal justice.

Instead of receiving equal protection under the law we are penalized by a dual system of criminal justice. Indians are subjected to jails not fit for human occupancy and to cruel and inhuman treatment in jails; for example, a pregnant Indian woman was forced to give birth to a baby on a filthy jail floor because the Thurston County Sheriff would not transport her to a nearby hospital. When she complained of labor pains, she was given an aspirin. No action was taken though the baby died.

By some quirk of Nebraska justice, there, to my knowledge, has never been an Indian juror in a criminal case in which an Indian was the defendant. The bail process for Indians is so intricately involved that it operates to deny Indians access to bail and to a speedy trial. Non-Indians are released on recognizance or the bail process is greatly eased. An Indian arrested on Friday as a simple drunk cannot go to trail until the following Tuesday. Records for a 3-month period revealed that 95 percent of all prosecutions for that quarter were against Indians.

Indians leaving a bar under the influence of alcohol are arrested. Non-Indians are taken home or told to go home. In short Indians are denied due process of law. There are also instances of juveniles and adults being placed in the same jail cells at Pender, Nebr., and there are endless examples that can be cited.

Under Federal jurisdiction we can obtain fair and just treatment from enforcement personnel and the courts and protection of our hunting and fishing treaty rights.

The Bureau of Indian Affairs supports our bid for Federal jurisdiction but under current budget allocation no program expansion is allowed. The Bureau of Indian Affairs, Division of Law and Order cannot provide services without additional funds.

We have worked in conjunction with Bureau of Indian Affairs representatives in drafting a cost estimate for round-the-clock coverage on the reservation. It has been estimated that an additional $383,000 will be needed to provide an adequate level of service for the first year. Subsequent annual costs will be a lesser level—$250,000 per year. The initial cost will provide equipment, staff and mobile housing for courts, jails and office space and will not constitute immediate recurring costs.

If our economic condition would permit we would only ask for acceptance of retrocession and would gladly pay all or part of the cost of such a program.

Unfortunately, our total annual income is approximately $80,000. Therefore, we find it necessary to petition the Congress.

As a means of aiding the Omaha Tribe in promoting the best interest of our tribal government and our people we urgently ask that this committee give a "do pass" recommendation to our request.

I thank you for your interest and attention.

Mrs. HANSEN. Thank you very much, Mr. Cline. We appreciate your statement and we understand the problem. We had the good fortune of having the distinguished Member from the State of Nebraska before us to explain the situation with regard to law and order on the reservation. We do understand.

Mr. REIFEL. Madam Chairman, Congressman Denny was here and made an excellent justification. He was very much concerned in your behalf and this committee is also.

NATCHEZ TRACE PARKWAY ASSOCIATION

WITNESSES

HON. JAMIE L. WHITTEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSISSIPPI
S. A. HANCOCK, JR., MEMBER, NTPA
HARRY MARTIN, SECRETARY-MANAGER, TUPELO COMMUNITY DEVELOPMENT FOUNDATION (C. OF C.)
THOMPSON POUND, EXECUTIVE DIRECTOR, TOMBIGBEE RIVER VALLEY WATER MANAGEMENT DISTRICT

Mrs. HANSEN. I would like to recognize at this time our distinguished member from Mississippi, Mr. Whitten, chairman of the Agriculture Subcommittee and member of the Public Works and the Defense Subcommittees.

Mr. WHITTEN. It is a pleasure to be here. Perhaps, as you know, I have with me Mr. Hancock, Mr. Pound, and Mr. Martin in connection with the Natchez Trace Parkway Association. We would be glad to have a few words to say at your convenience.

Mr. Pound has been active in this area. He is operating head of the Tennessee Tombigbee Water Association, the Development Association.

Mr. Hancock has a business in Tupelo. Mr. Martin is the chief economic promoter and advertiser and operator in the town of Tupelo, Miss., and what they are here for is to urge consideration for funds to carry the Natchez Trace Parkway from Tupelo to the Mississippi line.

Mr. REIFEL. Madam Chairman, I do want to add a word of appreciation to our distingushed and very able colleague, Jamie Whitten. Not only is he supportive of things before this committee concerning the resources of the Nation, but he is also making sure in every way that he can that the agriculture of the country survives. In that regard, he has been very helpful in respect to water conservation activities and whatever has to do with agriculture across the Nation and the country is grateful for his leadership, as we are grateful for the leadership of the subcommittee chairman on this committee.

Mrs. HANSEN. Mr. Pound, we are very happy to have you here today. I know it is a pleasure for you to be here with Congressman Whitten.

STATEMENT OF MR. THOMPSON POUND

Mr. POUND. Members of the committee, we are happy to have the privilege of appearing before you and your committee today in behalf

of the people in northeast Mississippi who are very concerned in the development of the Natchez Trace Parkway.

We are very grateful to you and your committee for the appropriations you have provided in the past for the implementation of this fine project which has meant much to the economic development of our area.

This is an authorized project that was started in 1938, and various segments have been constructed throughout the entire length; however, there are some missing links that are badly needed in view of recent developments in northeast Mississippi.

Northeast Mississippi is now a part of the Appalachian region, a preferred section of the United States. We want to impress upon you people the social and economic conditions of our area. Our citizens are striving hard to better conditions in this area, but we need your help.

Madam Chairman, we would like to ask that you and your committee consider an appropriation to the National Park Service for the completion of the Natchez Trace Parkway from the segment now under construction in Tishomingo County, Miss., to Tupelo, Miss., approximately 36 miles.

This would tie in with the completed section at Tupelo which extends to Jackson, Miss.; thereby providing a much greater asset to our area.

We have compiled additional information for your consideration. We would like to leave this with you and ask that this file of information be made a part of your records.

We thank you again for the opportunity of appearing before you.

(The material follows:)

WHY CONSTRUCTION FUNDS ARE NEEDED TO COMPLETE NATCHEZ TRACE PARKWAY IN MISSISSIPPI

(1) Mississippi has the lowest per capita income of the 50 States. Regional travel and tourist travel is a boost to economic development and therefore will aid thousands of low per capita income Mississippians as a result of the jobs that would be created in supportive services and businesses to serve the Natchez Trace user.

(2) The trace does not cross an interstate highway from Jackson, Miss., to Nashville, Tenn. This area of Mississippi was left off the interstate highway system. Its location in the heart of Appalachia, one of the underdeveloped regions of the Nation is severely handicapped by the lack of adequate roads and highways. It will be years before new programs can be developed by Appalachia and the interstate system to serve the area. However, the Natchez Trace already has 71.44 miles of right-of-way acquired and plans developed and with appropriations from Congress, construction could begin immediately.

(3) The parkway is now very inaccessible to the center of population of the Nation that it must depend on for useage because of the five disconnected links constructed. We believe that priority should be given to the construction of those missing links in northeast Mississippi, Alabama, and in Tennessee since this is likely to be the gateway to the trace because this direction is orientated to the North, East, and Midwest sections of the Nation. Failure to open the gateway to the northeast could mean only that local traffic rather than regional traffic could use the parkway.

(4) In our opinion, Congress should give some priority to completing a parkway that began in 1938 rather than finding major new projects at this time.

(5) We sincerely hope that funds can be appropriated at the earliest possible date for the completion of the parkway.

HARRY A. MARTIN,
Secretary-Manager.

CURRENT INFORMATION

General: The Natchez Trace Parkway is administered by the National Park Service of the U.S. Department of the Interior. A condensed history of the Natchez Trace, general parkway information, and a location map are contained in the parkway's informational leaflet, free copy of which may be obtained from Post Office Box 948, Tupelo, Miss. 38801.

Parkway lands: The lands or rights-of-way for the parkway are acquired and conveyed to the United States by the three States through which it passes, Mississippi, Alabama, and Tennessee. The estimated length of the completed parkway motor road is 445 miles, 311 being in Mississippi, 33 in Alabama, and 101 in Tennessee. Parkway construction and development cannot be undertaken until title for lands has been accepted by the Federal Government. At the present time, title has been accepted for 285 miles of parkway land in Mississippi, 33 miles in Alabama, and 58 miles in Tennessee. Land acquisition for right-of-way is complete in Alabama, nearly complete in Mississippi, and the Tennessee Highway Department is actively engaged in acquiring the remaining lands necessary for parkway construction.

Development and design features.—The American Association of State Highway Officials defines a parkway as: "An arterial highway for noncommercial traffic, with full or partial control of access, and usually located within a park or a ribbon of park-like development." The Natchez Trace Parkway is an elongated park which includes a high-standard motor road. Right-of-way averages 100 acres for each mile of construction, and would have an overall width of 825 feet if uniformly applied. However, the width varies from 400 to 700 feet, with a wider right-of-way at areas of historical, scientific, or recreational value. The parkway commemorated the Natchez Trace, a frontier road prominent in the development of the Old Southwest, and makes available to the leisurely traveler many points of interest relating to the history of the Old Trace, nearby Indian sites, and nature areas.

Commercial vehicles are excluded from the parkway motor road. However, pickup trucks and other vehicles not exceeding ¾-ton rated capacity are permitted to travel on the parkway when used solely for transportation of persons or for recreational purposes. Access to the parkway is limited in keeping with its character as a route for interregional passenger car traffic and recreational use. The principles of limited access, grade separations for crossroads, long curves and easy grades, adequate sight distances, and no commercial traffic all serve to protect the motorist by increasing the safety features of the parkway motor road. The safety features inherent in grade separations and limited access are emphasized in various reports of the Committee on Engineering of the President's Highway Safety Conference.

Construction program.—Construction of the parkway road by private contract, under supervision of the National Park Service and the Bureau of Public Roads, was begun in the summer of 1937, and grading of 105 miles was accomplished in the 4 years before World War II. At present 311 miles are paved and in public use, and 6 miles are under contract in Mississippi. Paved units include: 12 miles in Adams and Jefferson Counties, Miss., extending northward from U.S. 61 at Selma, between Natchez and Fayette; 54 miles in Claiborne and Hinds Counties, Miss., extending from 5 miles south of U.S. 61 (just south of Port Gibson) northeasterly to the Raymond County road, 3 miles south of U.S. 80 at Clinton, Miss.; 166 continuous miles running northeasterly from Interstate 55 (just north of Jackson) to U.S. Highway 45, 5 miles north of Tupelo; 79 continuous miles in Alabama and Tennessee, from U.S. 72 in Alabama (11 miles east of Iuka, Miss.) to the Lewis-Maury County line, 7 miles north of Tennessee Highway 99. The northernmost access to the parkway is 27 miles west of Columbia, Tenn., by Tennessee Highway 99, and about 5 miles north of Meriwether Lewis Park. This section crosses the Tennessee River (Pickwick Lake) via a mile-long bridge at the Colbert Park area.

As paving of the parkway road sections is completed, the related park facilities are also being developed, including historic sites, wayside signs and exhibits, nature trails, and picnic and campground areas. Construction and maintenance costs are borne by the Federal Government. Usually, grading, drainage, construction of bridge structures, and surface treatment type paving require about 1½ years, or two construction seasons. The programing of construction depends on the availability of rights-of-way and construction funds.

SUMMARY

	Mileages			
	Mississippi	Alabama	Tennessee	Tota
Construction completed	231.94	22.09	57.34	311.37
Under construction	6.07			6.07
ROW acquired and held by States	23.73		9.47	33.20
ROW accepted by NPS and ready for construction	47.71	11.35		59.06
ROW yet to be acquired by States			33.72	33.72
Total	309.45	33.44	100.53	443.42

1. Northeast Mississippi is a part of the Appalachian regional development program.

2. Appalachian study of northeast Mississippi projects the population will increase from 406,187 in 1960 to 597,000 in 1980, to 995,000 in 2000, and 1,392,000 by 2020.

3. Studies reveal that the lack of transportation, bringing people into our area, is one of the most pressing problems.

4. The implementation of the authorized Tennessee-Tombigbee Waterway project (sponsor: Tombigbee River Valley Water Management District), will create a greater need for the completion of the Natchez Trace Parkway segment in northeast Mississippi.

5. The Tombigbee River Valley Water Management District is sponsoring an 8,600-acre recreational project (waterfowl-hunting management), in the area where the Natchez Trace Parkway and the Tennessee-Tombigbee Waterway intersect. This site is in the area of the mising link, 26 miles, from Tupelo, to State Highway No. 25 at Tishomingo. An access from the parkway to this recreational development will be an asset to the intended purpose of Natchez Trace Parkway.

6. Appalachian study—water oriented recreation and tourist attraction, points out the importance of the Natchez Trace Parkway to this area, when completed.

7. The completion of the 26-mile segment referred to above will provide access for tourists into the greatly expanding recreational and tourist attraction program being developed in the Tupelo trade area by:

A. City of Tupelo.
B. Private investment.
C. State.
D. Federal programs.
E. Tombigbee River Valley Water Management District:
   (*a*) Old Natchez Trace Park (2,500 acres).
   (*b*) 43-mile scenic trail on Old Trace.
   (*c*) Multiple purpose structure. Dam Site No. 6 (840.9 acres).
   (*d*) Regional recreational complex.

THOMPSON POUND,
Executive Director.

Mrs. HANSEN. We appreciate your appearance before us and we appreciate your statement. I may say that the Natchez Trace has a long history of being of interest to many people in the United States.

Mr. POUND. May Mr. Hancock make a comment there? He is a member of the Natchez Trace Association and he has been doing a little talking on the way up here about having you down that way.

Mr. HANCOCK. We would be delighted to have you.

I would like to point out too that this unfinished portion here in northeast Mississippi we are talking about is all in the Appalachian region. In other words, we are just poor folks and we need help. This will be one of the greatest things—and I say this with all sincerity—there is no way in the world the U.S. Government can spend a dollar that would be more effective, be more solid or give a better return on the money than finishing what they started 32 years ago.

We bow on our knees and we cry that you will help us complete this uncompleted Natchez Trace Parkway, the pearly gates to Mississippi.

Mr. WHITTEN. I am proud of the testimony of my constituents but it also helps for my colleagues to testify a little. Thank you both.

Mrs. HANSEN. Thank you.

BLACKBIRD CONTROL

WITNESS

JACK STECKEL, EXECUTIVE VICE PRESIDENT, NATIONAL PEST CONTROL ASSOCIATION, FROM THE STATE OF OHIO

Mrs. HANSEN. Mr. Steckel, Chairman of the Coordinating Committee for the Control of Depredating Birds, from the State of Ohio.

Mr. STECKEL. Madam Chairman and members of the subcommittee, my name is James W. Steckel, chairman of the Coordinating Committee for the Control of Depredating Birds, from the State of Ohio—Blackbirds.

I am happy for this opportunity to express to you, on behalf of thousands of Ohio farmers and agribusiness interest, our appreciation for the past interest and efforts of this subcommittee. At the same time, I want to appeal to you, the full Committee on Appropriations, and the Congress for the need to continue the assistance necessary in dealing with this damaging blackbird problem.

My study of the history of this work, shows the first appropriation for blackbird research and control came in fiscal year 1968. An excerpt from Report 206, First Session, 90th Congress, "Department of the Interior and Related Agencies Appropriation Bill, 1968" is as follows:

> $400,000 for the control of blackbirds. Of this amount, $250,000 shall be allocated for research and $150,000 for operations. In addition, the committee directs that of the $800,000 included in the budget estimate for bird control, the major portion of these funds be utilized for the control of blackbirds.
>
> During the hearings, the committee received extensive testimony of the increasing severity of damage to corn and other crops by blackbirds. The committee is not convinced that agency officials are giving this problem sufficient attention in proportion to the huge losses in farm income that are occurring.
>
> It is therefore the expressed desire of the committee that activity in the blackbird control program be greatly accelerated and that the committee be furnished with quarterly reports during the next fiscal year on progress that is being made in this connection.

We greatly appreciate this recognition of the problem and this action by Congress. It is my understanding, however, that due to severe budgetary problems, the appropriated figures were cut back approximately one-half by administration order. The level of expenditures for fiscal 1968 was the level of appropriations for 1969, according to my information, and again in 1970.

In spite of this rather deep cutback for 3 years, some progress has been made during these years. The wording in the report showed a clear intent on the part of Congress to solve this problem. This, in turn, permitted the Department of Interior to more clearly state its policy in this regard. Their action since that date has been positive and determined. The limitation has been the lack of sufficient money to conduct an accelerated research program and insufficient funds to field test the various control techniques already known to them from research but not field tested.

You surely realize that I am not an authority on blackbirds nor am I trying to interpret the intent of Congress. I am, however, one who has worked with these problems in the lab, the field and with the informally organized groups in Ohio so as to have firsthand knowledge of the seriousness of the problem.

When I mentioned that progress has been made and has been greatly appreciated by Ohio farmers and agribusinessmen, I should have indicated that the damage is as great today as was 3 yaers ago, but it is not as concentrated.

By yearly survey, the Department of Interior reports show actual corn loss in Ohio to be nearly $3 million annually. When the cost of the present day protection programs and the loss due to mold in ear corn caused by the birds damaging the ends of the ears is added to the actual losses, our best estimates take the total loss to an excess of $10 million annually.

The magnitude of this problem is like Grand Canyon, it is difficult for me to describe to you and likewise, I am certain it is impossible for you to comprehend. I hope you can understand the feeling of helplessness and despair the farmer has as he watches these large flocks drop in in his fields and damage almost every ear. Many farmers have stopped raising corn in the heavy damage areas until some relief can be given.

Their only encouragement comes from the word they receive that accelerated programs of research and control may bring a solution to this problem. We meet regularly in Ohio to keep everyone informed and to pool ideas that are helpful in crop protection.

The magnitude of the problem extends well beyond Ohio and the men stationed in Ohio by the Department of the Interior have participated in and headed up projects in some of the Southern States this winter.

I don't pretend to know how much money the Department of Interior can effectively use in research and control work. However, they have continually felt that significant work will be impossible until the appropriations have been restored to their originally intended level of $400,000. We would encourage your careful consideration of this request.

Thank you all sincerely for this opportunity to present this statement on the need for additional money for the blackbird research and control effort.

You have been very kind to us in the past. We hope you will continue your kindness and like everyone else we are asking for restoration of moneys that were not appropriated.

Mrs. HANSEN. Thank you so much.

LAND AND WATER CONSERVATION

WITNESS

JOHN F. GREENSLIT, STATE LIAISON OFFICER FOR THE STATE OF NORTH DAKOTA

Mrs. HANSEN. Mr. Greenslit.

Mr. GREENSLIT. My name is John F. Greenslit, State liaison officer for the State of North Dakota for the Land and Water Conservation Fund Act of 1964.

My testimony today relates to budget presentations of the Bureau of Outdoor Recreation via the President's budget for the fiscal year of 1971.

The Land and Water Conservation Fund Act program has been very successful in North Dakota to date. The State has processed 186 projects for acquisition and/or development throughout the State. There is a current backlog of projects that total nearly $2 million. The total impact in North Dakota since the inception of the program has been nearly $6.6 million of Federal, State, county, and local government funds for outdoor recreation.

Based on the apportionment formula of the fund, North Dakota receives about 1 percent of the funds provided to the States. This relatively small apportionment has served to greatly enhance the natural resources of the State, as well as help fulfill the intent of the act itself.

Considering the intent of the act, the program has been successful as serving as a stimulus to all forms of legal entities to acquire and/or develop public lands and facilities for all citizens, both resident and nonresident. Through comprehensive planning efforts, it has also served the original intent of the act to let the State of North Dakota serve in a pivotal role in the implementation of the act.

The State of North Dakota feels that the opportunities present to the States and other legal entities has been gratifying by the use of land and water funds. The overwhelming passage of the original act and the amending features of Public Law 90–401 to provide additional revenues shows a great concern by the Congress to stimulate action by the States before it is too late.

With this in mind, North Dakota would respectfully request that the President's budget request of $168.5 million be a minimum figure in further implementation of the goals of the Land and Water Conservation Fund Act of 1964. We should further appreciate favorable consideration on the great potential offered to the States and Federal agencies by supporting an amendment or supplemental request for $188.9 million to provide full funding of the program. Interior Department spokesmen have indicated that distribution of the amendment would be along the lines of a 65 percent State share and 35 percent Federal share, which in effect would give the total full funding a desired 60/40 State/Federal funding ratio. This ratio would be in agreement of the intent of Congress along the lines of section 4(a) allocation of Public Law 88–587.

Full funding would provide a great acceleration of the Federal acquisition program, as well as, enabling the State to fully utilize the results of the many State and Federal dollars that have been invested in comprehensive planning to determine definite needs of each individual State.

Another point of interest for the State of North Dakota would request the committee to consider the acceleration of implementation of the total program based on the comprehensive planning efforts of the 50 individual States and 5 territorial outdoor recreation plans, rather than seeking to place restrictive language in a final appropriation bill regarding various ratios concerning acquisition of land versus development.

Acquisition of land is given top priority in nearly every one of the 50 States and 5 Territories. Development is needed quite desperately

in many of our Western States and some of our urban States where independent bonding programs have been used exclusively for acquisition. Prominent examples of urban acquisition programs outside of the land and water program are the massive bonding programs of the State of New York and State of California.

Restrictive language would, in my opinion, negate the gains that have been made in comprehensive planning research, providing a stimulus for public action in this field, and the ever growing public support for the preservation and most wise use of our natural resources. The many social problems of our country can be best resolved by a combination of immediate acquisition and/or development.

Effective implementattion of outdoor recreation fund programing has been placed in a rather chaotic situation, and these pressures can best be relieved by moving ahead with appropriated but unreleased funds. I have tried to point out in the supporting testimony for full funding the great interest and backlogging of many high priority quality projects. The steps to improving the quality and quantity of living in this great country are difficult enough without additional temporary and possibly permanent steps backward rather than forward.

The Land and Water Conservation Fund program can be the greatest impact that society has seen on improving the quality of life in the past century. It is my sincere hope that this program can be continued, accelerated, and implemented to the fullest intent of Congress. I pledge that the State of North Dakota will exercise every means possible to fulfill its obligation to provide the greatest amount of public support for quality implementation of the program.

Mrs. HANSEN. Thank you.

FOREST SERVICE

WITNESSES

JOSEPH W. McCRACKEN, EXECUTIVE VICE PRESIDENT, WESTERN FOREST INDUSTRIES ASSOCIATION

BOB BARNES, GENERAL MANAGER, STEVENSON CO-PLY, STEVENSON, WASH.

VERNON S. LINDGREN, GENERAL MANAGER, FEATHER RIVER LUMBER CO., LOYALTON, CALIF.

HAROLD KELLER, GENERAL MANAGER, CRAIG LUMBER CO., CRAIG, COLO.

Mrs. HANSEN. Mr. McCracken, from my neighboring state of Oregon.

Mr. MCCRACKEN. I have with me four people. May I suggest they come up here and make short statements.

Mr. Barnes.

Mr. BARNES. My name is Bob Barnes. I am general manager of Stevenson Co-Ply, a worker-owned plywood manufacturing plant located in Stevenson, Wash.

It gives me a great deal of pleasure to appear before you, Madam Chairman. I want to express the pride which all of our members have in the fact that you, as our Representative in Congress, are chairman of such a very important committee.

The regional forester of the Forest Service in Portland, Oreg., has recently put into effect a new policy called by the industry "the clean logging policy." This policy, among other things, will require that, along access roads rights-of-way built by the forest products industry under terms of timber sale contracts, all stumps will be removed or completely disposed of. The policy will require that landscape management areas, along scenic routes, and in the increasingly large areas where esthetic considerations are a part of the multiple-use picture, logging debris and, indeed, all evidence of logging will be completely cleaned up and all evidence of damage mitigated. The policy also requires that in other areas substantial improvement in cleanup after logging will be required.

Madam Chairman, Congressman Wyatt, and other members of the committee, I wish to assure you that the forest products industry in our area does understand the reason for this policy. We subscribe wholeheartedly to the objectives, and we are thoroughly cognizant of the necessity to make this policy work in fact. I think we are learning that, if policies such as this do not work on the ground, the consequences for our industry and for the economy of our areas will be very serious, indeed.

I am concerned, however, that the technique which is now to be relied upon to operate this policy will not do the job. The Forest Service, for reasons I will discuss, has decided to rely on the timber operator, the logger, as a condition of the timber sale contract as the instrument to landscape these esthetically sensitive zones.

The basic problem here stems from the fact that in our Douglas fir region, Forest Service timber sales are extremely competitive. Our own company has Forest Service timber under contract at prices in excess of $160/M board feet. There have been many instances in recent months where our company has bid prices much in excess of $100/M board feet and have been unable to successfully purchase Forest Service timber. Under such extremely competitive conditions it is readily apparent that in the operation of the timber sales—the road construction, the logging, erosion control, manufacturing of the product from the log—every economy and cost item must be held to an absolute minimum. The economic compulsion in this situation is to cut every corner that is possible. Otherwise, one cannot successfully compete for the timber.

It is this basic conflict between the Forest Service officer charged with enforcing a contract, and the operator having purchased the timber at an excessive price with the compulsion to economize, that is leading to an increasing number of difficulties between the Government and the industry in our region.

In this situation, to add a major new area of work, namely, logging cleanup, to this dilemma, will, in my opinion, simply result in many cases of inadequate performance.

The industry has recommended to the Forest Service very strongly that logging cleanup is too important to all of us to become an element in the bidding contest for public timber, for the economic incentives are at cross-purposes. The industry has urged the Forest Service to handle this program by making adequate cost allowances in their appraisals requiring the successful timber purchaser to deposit that amount of money with the Government, as we have been doing for decades in the field of slash or brush disposal, and finally that the For-

est Service, with this "co-op" money, themselves perform the work, either by contract or force account as they determine. This would merely be a logical extension of the way the Forest Service is increasingly handling slash disposal, and, after all, what we are talking about is logging debris disposal.

The Forest Service, while admitting that such a proposal has merit, states that they are unable to consider this proposal because of personnel ceiling restrictions. Madam Chairman, I am not familiar in detail with the complexities of how the Government operates personnel ceilings.

Mrs. HANSEN. It is a subject the committee is familiar with and a subject with which we have had a great deal of displeasure.

Mr. BARNES. I have been told recently that the existing personnel ceiling bothering the Forest Service are imposed by the administration rather than by Congress.

If this is true, your committee may be unable to help us in this case directly, but I would certainly hope that you could advise on some way which would permit the Forest Service to directly supervise and take care of this very important administrative problem on their lands. This is too important a matter to degenerate into a "pass-the-buck" contest.

There is another matter involving proposals on timber sale matters now being discussed between the Forest Service and the industry which I wish to bring to your attention. In the interest of time I think it would be better if I wrote you a report on the matter in the near future.

I would like to urge, as others have, that the timber selling program of the Forest Service of 1971 not be decreased, as I understand the budget indicates.

Thank you very much for the opportunity of appearing before you today.

Mrs. HANSEN. Thank you very much. We are very cognizant of the personnel ceilings.

STATEMENT OF MR. VERNON S. LINDGREN

Mr. LINGREN. I am Vernon S. Lindgren, general manager of the Feather River Lumber Co. from Loyalton, Calif. The Feather River Co. is a division of the Di Giorgio Corp. of San Francisco, Calif. The Feather River Lumber Co. has sawmills at Loyalton, Sloat, and near Quincy California. I am also general manager of the Cal-Ida Division, which has sawmills in Auburn, Calif. Other lumber manufacturing facilities of the Di Giorgio Corp. are located in Klamath Falls and Chiloquin, Oreg.

I am here to express my concern about one aspect of the 1971 budget before your committee. That aspect has to do with the planned reduction in timber sale preparation for the U.S. Forest Service. My company has understood that the 1971 budget carries a proposed reduction in timber sales (placing timber under contract) in the neighborhood of 1¼ billion board feet. Madam Chairman, this is going in the wrong direction.

Only 1 year ago softwood lumber and plywood prices were at an alltime high. Several congressional committees held inquiries into the

situation. The President of the United States appointed a special task force to study the problem. These actions reflected a deep and widespread concern about these prices and indeed the availability of softwood lumber and plywood nationwide. Today, the market is at a low point because of the drop in new housing starts.

It is predicted, however, that within the next 12 months, probably late in 1970, housing starts will be rising dramatically once again, and despite the best efforts and intentions of those of you in government and those of us in the forest products industry, it is almost inevitable that softwood lumber and plywood prices and their availability will once again become a major national problem.

One year ago the administration presented a budget amendment to your committees asking for increased funds to sell additional volumes of Forest Service timber. It does not make sense this year to reduce the timber selling program of the Forest Service by an even greater amount than it was increased last year.

There were many factors which led to the crisis in softwood supplies last year, but one thing was clear. Former Forest Service Timber Management Chief Ira Mason, in an article in the American Forests magazine, put it very succinctly—For the first time in history the forest products failed to respond adequately to a market stimulus. In other words, sharply rising prices did not result in adequately increased production of lumber and plywood.

A principal reason for the inability to respond is the fact that an increasingly large number of mills in the Western United States are increasingly dependent upon Federal timber, and the volume of Federal timber under conrtact to a great many of these mills in the West is so small, their raw material supply so insecure, that adequate increases in production are stifled even with sharply rising profit opportunities.

I think it is generally agreed that a constructive move will be to increase somewhat the average length of timber sale contract and consequently the average volume of timber under contract to the Western lumber and plywood industry. I would like to insert in the record, Madam Chairman, a copy of a recent letter from the San Francisco region of the Forest Service to the Chief of the Forest Service recommending an increased timber sale contract period.

Mrs. HANSEN. Please do.

(The letter follows:)

Reply to: 2450 Commercial Timber Sale Contracts. MARCH 24, 1970.
Subject: Period of Contract.
To: Chief, W.O.

In accordance with Mr. Hixon's request made at the industry meeting in San Francisco March 9, we are enclosing our proposed guidelines for establishing contract periods to be used only in conjunction with a tightening-up of the extension policy. These are essentially the same as those submitted with our February 27, 1969 memorandum to you.

A copy of this memorandum and our proposed guidelines are being furnished George Craig and the other regions.

PAUL E. NEFF,
Chief, Division of Timber Management.

2458.2—PERIOD OF CONTRACT (B8.2)

The period established for each timber sale must be of sufficient duration to give every prospective purchaser a reasonable time to complete the contract without need for an extension. The contract period for normal sawtimber sales shall be based on the following operating seasons by sale size classes:

Sale Size, MMBF:	*Number of operating seasons* [1]
2 and Under	2
Over 2 to 6	3
Over 6 to 12	4
Over 12 to 25	5
Over 25	5 or 6

[1] Based on operating seasons 5 to 8 months in length.

The year in which a sale is made will be considered as the first operating season if it is anticipated that award will be made prior to July 1. The termination date will normally be during the non-operating season as specified in R-5 Supplement to FSM 2458.21.

The contract period for each sale may be shortened or lengthened to reflect abnormal conditions. Examples of conditions justifying changing the contract period are as follows:

1. *Access Road Construction.*—A longer contract period should be established when logging will be delayed due to major road construction required to provide access to the timber sale area.

2. *Chief's Timber Sales.*—Sales 50 mm board feet and larger may require longer contract periods depending upon the conditions of each sale.

3. *Construction of New Manufacturing Facilities.*—When the sale premise is based on constructing new manufacturing facilities to operate the timber a longer contract period will be established.

4. *Length of Operating Season.*—When the operating season is less than five months or more than 8 months, longer or shorter contract periods of about one operating season may be established.

5. *Logging restrictions.*—Special sale conditions which restrict logging, such as prohibiting logging in recreation areas during periods of heavy public use, or requiring specialized equipment new to the area, such as skylines, may justify longer contract periods.

6. *Time requirements.*—It may be necessary to shorten the contract period in order to meet specific time objectives, such as required in insect control sales, reservoir and right-of-way clearing projects, etc.

7. *Special products.*—Sales of products other than sawlogs and peeler logs, such as Christmas trees, pulpwood, etc. generally require different contract periods.

Mr. LINDGREN. In the Forest Service method of operating a sustained yield allowable cut program, the objective is to cut in any given plan period—generally 10 years—approximately 10 times the allowable cut. It should be clear that before timber can be cut it must be sold and placed under contract. It is a general rule of thumb that if the Forest Service is to achieve the allowable cut they must place under contract—sell—a volume of timber equivalent to the allowable cut times the weighted average length of contract. In other words, if on a given forest the timber sale contracts are of 3-years' average duration the Forest Service should have under contract about 2½ to 3 times the allowable cut if they are going to cut the allowable cut. An easy illustration of this principle can be seen in the recent timber sale accomplishment report for the fiscal year 1969 just released by the Forest Service. With your permission I would like to insert this report in the record.

Mrs. HANSEN. The document will be inserted in the record.

(The document follows:)

JANUARY 19, 1970.

MINUTES OF INDUSTRY-FOREST SERVICE MEETING

SOUTH IDAHO-WESTERN WYOMING-UTAH FOREST PRACTICE COMMITTEE

Salt Lake City, Holiday Inn, December 10, 1969

The meeting was opened at 9 am by Cochairmen Floyd Iverson and Gordon Crupper. Following self-introduction of those in attendance (see list attached), and introductory remarks by the cochairmen, the agenda items which had been agreed to in advance were presented as indicated below.

Most of the initial statements and responses were written and are attached as given at the meeting. The other presentations are summarized, along with the discussion on each topic.

Subject	Initial statement	Response
Timber supplies:		
(A) Allowable cuts	Kirk Ewart	Marlin Galbraith.
(B) 3-year supply under contract	Art Lynn	Do.
(C) Utilization, marketing, pricing	Gary Tucker	Do.
Transportation system priorities:		
(A) Short-term timber supplies	Jim Usher	Paul Steed.[1]
(B) Long-term timber supply needs	do	Bob Baker.
(C) Insect and disease situations	Marlin Galbraith, Jim Usher.	Rem Kohrt.[1]
Public understanding:		
(A) Statutory authority	Alex Smith	Howie McDowell.
(B) Public involvement	do	Gordon Wilson.
(C) Support for timber harvesting	do	Dale Anderson.[1]
Industry-forest service communications:		
(A) Regional committees	Doyle Romans	Marlin Galbraith.
(B) Periodic meetings	Doug Smith	Do.
(C) Followup on Dec. 10 meeting	Gordon Crupper[1]	Floyd Iverson.

[1] Indicates no written statement as part of the proceedings.

As a guide for determining where followup action is needed, the Forest Service posted charts which noted specific problem areas on specific region 4 national forests and promised that Forest Supervisors would receive this information. The information contained on these charts has been noted on the accompanying sheet labeled "Timber Industry Concern and Follow-Up Action."

PARTICIPANTS IN DECEMBER 10 MEETING

Paul Steed, Skyline Lumber Co., Escalante, Utah.
Jim Blazzard, Blazzard Lumber Co., Kamas, Utah.
Dale Leavitt, Grey's River Lumber Co., Kamas, Utah.
Ren South, South & Jones Lumber Co.
Art Lynn, Consulting Forester, Vernal, Utah.
J. H. Crofts, Crofts Lumber Co., Vernal, Utah.
Alfred Crofts, Crofts Lumber Co., Vernal, Utah.
Angelo Mancini, Star Studs, Inc., Afton, Wyo.
Gary Tucker, U.S. Plywood-Champion Papers, Inc., Riverton, Wyo.
Robert Lindgren, U.S. Plywood-Champion Papers, Inc., Riverton, Wyo.
Bob Baker, U.S. Plywood-Champion Papers, Inc., Riverton, Wyo.
Allen Brooks, U.S. Plywood-Champion Papers, Inc., Riverton, Wyo.
Gordon Wilson, Idaho Stud Mill, Inc., St. Anthony, Idaho.
Rem Kohrt, Idaho Stud Mill, Inc., St. Anthony, Idaho.
John Kugler, Bear River Lumber Co., Grass Valley, Calif.
Richard Hitchcock, Evergreen Forest Products, New Meadows, Idaho.
Gordon Crupper, Intermountain Co., Salmon, Idaho.
John Jacobsen, Intermountain Co., Salmon, Idaho.
Dale Anderson, Boise Cascade Corp., Boise, Idaho.
Vern Gurnsey, Boise Cascade Corp., Boise, Idaho.
Rich Kettlewell, Boise Cascade Corp., Boise, Idaho.
Kirk Ewart, Boise Cascade Corp., Boise, Idaho.
Jack Morgan, Morgan Logging Co., New Meadows, Idaho.
Bruce Groves, Hoff Lumber Co., Horseshoe Bend, Idaho.

Stanley Vail, Wasatch Forest Products, Evanston, Wyo.
Joel Frykman, Consulting Forester, Ogden, Utah.
Bob Hayes, Boise Cascade Corp., Boise, Idaho.
Rex Zeiger, Forest Products Sales, Salt Lake City, Utah.
Doyle Romans, Elk Studs, Inc., West Yellowstone, Mont.
Knox Marshall, Western Wood Products Association, Portland, Oreg.
Howard McDowell, Western Wood Products Association, Missoula, Mont.
Douglas Smith, Western Wood Porducts Association, Boise, Idaho.
Ernest Grambo, U.S. Forest Service–Region 2, Denver, Colo.
Floyd Iverson, U.S. Forest Service–Region 4, Ogden, Utah.
Marlin Galbraith, U.S. Forest Service–Region 4, Ogden, Utah.
Jim Usher, U.S. Forest Service–Region 4, Ogden, Utah.
Alex Smith, U.S. Forest Service–Region 4, Ogden, Utah.
Max Rees, U.S. Forest Service–Region 4, Ogden, Utah.
Blair Hutchison, Intermountain Forest and Range Experiment Station.
Paul Sjoblem, State of Utah, Salt Lake City, Utah.
Dick Klasen, State of Utah, Salt Lake City, Utah.
Clin Bishop, State of Utah, Salt Lake City, Utah.
Gordon Harmston, State of Utah, Salt Lake City, Utah.
Jack Gillette, State of Idaho, Boise, Idaho.
Bryce Lundell, State of Wyoming, Cheyenne, Wyo.

On Timber Supplies: Statement by Art Lynn

3-year supply under contract

A continuous supply of raw materials at an "affordable" or "economic" price is a necessity to the forest products industry. Of all the problems that face a mill operator of production, labor, markets, and financing, the raw material supply is the most critical and persistent.

If the Nation's shelter needs are to be met, this critical and persistent problem of inadequate timber supply must be resolved. The Forest Service controls and manages the timber supply in the West and in particular the Rocky Mountain area.

An adequate timber supply at an affordable price would first and foremost provide jobs in the rural communities. A serious urban and rural community social problem is one of migration to the urban areas which President Nixon and his Cabinet are committed to resolve.

An adequate timber supply would contribute to the economic health and stability of the community by a greater contribution to payrolls, taxes, and expenditures for services.

An adequate timber supply would insure a better product at a lower cost to the consumer. A lower cost and more efficient job would result in timber harvesting, manufacturing, and marketing.

An adequate timber supply would result in a better job of timber harvesting and easier timber sale administration through more operator planning.

An adequate timber supply would make more and better financing available for capital investment which means modern equipment and procedures that produces a better product at less cost.

All these factors are links in a chain, but without the first link of a continuous supply of timber at an affordable price, the jobs, the economic stability, the whole process is stifled.

Forest Service scientific timber inventories tell us the timber resource is "on the hill" in great need of harvesting, the rural communities to provide the skill and the manufacturing facilities are in the valley, and the markets are just over the horizon in the urban communities. What must we do to start these three factors working together in region 4 of the Forest Service?

Of the 17 national forests in region 4, only two forests have more than 3 years' allowable annual cut under contract and uncut, only two forests have over 2 years, and 13 forests have less than 2 years.

The mill operators know the story of no access, no funds, no manpower, no demand and so forth, and in some instances these are valid reasons. But on the other hand Congress has appropriated more moneys for access roads. President Nixon has set up special timber moneys to offer additional timber. President

Nixon has taken the unusual step of excluding timber road access moneys from his anti-inflation measures, and Congress has rarely reduced Forest Service appropriation requests for timber sale moneys.

These positive actions should have produced substantial positive results, but they have not. The progress is isolated and agonizingly slow. There are great imbalances in timber sale offerings and road programs.

Along the way we have acquired more problems. Problems inherent to overmature timber, such as mortality losses due to insects and disease; preservationists "lock-up" fever; and others.

This distracing us from the basic responsibility and job of the Forest Service and forest products industry.

The Forest Service has the responsibility through congressional law of providing an even flow of raw material at an "affordable" price up to the annual allowable cut for the shelter needs of our people.

The forest products industry has the responsibility of harvesting, processing, and marketing the best quality forests products at the lowest cost to meet the pressing shelter needs of the American consumer.

RESPONSE BY MARLIN GALBRAITH

We recognize that this is a very important matter affecting your operations. In some cases, it affects your ability to get financing; in other cases, it affects your decisions regarding plant expansion and plant modernization. In all cases, it affects the orderly planning of your operations. It gets back to the old proverb that "a bird in the hand is worth two in the bush." Allowable cuts, annual sales program announcements, et cetera, are just not as certain as a source of supply as is standing timber you already have under an inked contract.

I do want to add one further perspective to this subject. Although the subject title might indicate that we are operating under a general policy of having 3 years' uncut timber under contract, this is not a policy, nor is it a hard-and-fast rule. On the other hand, because of the importance to you of having timber under contract, we are using a general guide of trying to have 2 to 3 years' cut under contract.

Regionwide, our record looks pretty good. Based on the volume of timber cut in fiscal year 1969, the region has under contract uncut timber amounting to approximately 2.7 years of supply. The record for each individual forest in the region is as follows:

WORKSHEET BY NATIONAL FORESTS AND R.O. DIVISIONS

[In M board feet]

	Timber cut, fiscal year 1969	Timber under contract, June 30, 1969	Planned sales, fiscal year 1970
Ashley	10,126	16,487	39,700
Boise	151,266	357,743	236,000
Bridger	17,525	63,435	36,200
Cache	2,090	2,316	10,600
Caribou	1,630	1,088	740
Challis	5,339	9,989	21,420
Dixie	26,650	101,930	46,610
Fishlake	708	720	5,800
Humboldt	9		2
Manti-Lasal	12,447	13,900	23,260
Payette	101,651	164,400	115,000
Salmon	27,000	38,365	53,400
Sawtooth	14,972	25,967	21,800
Targhee	54,394	372,552	286,700
Teton	25,256	36,210	48,300
Toiyabe	6,631	21,043	9,000
Uinta	4,560	4,777	2,000
Wasatch	6,049	13,100	11,600
Total	469,203	1,244,022	968,130

We need to discuss some of the units on which the volume under contract is below our general guidelines:

1. You will note that the Ashley had only approximately 1½ years' cut under contract. This situation will be imporved considerably, however, at the end of fiscal year 1970, during which time the planned sales program amounts to more than 30 million board feet.

2. The situation on the Cache will be greatly improved by the 10 million-plus planned for sale in this fiscal year.

3. The situation on the Challis should be greatly improved with somewhat more than 15 million planned for sale in fiscal year 1970.

4. The situation on the Manti-LaSal will, likewise, be improved with the sale of 23 million in fiscal year 1970.

5. The situation on the Payette will undoubtably remain fairly tight. The planned sell of 115 million in fiscal year 1970 will be about 15 million over the expected cut, planned sell on Boise more than 40 million over expected cut, which will bring the timber under contract close to a 2-year supply.

6. If the cut remains at the 27-million level on the Salmon, the planned sell of 50 million during fiscal year 1970 will give us slightly more than a 2-year supply under contract.

7. The planned sell of more than 40 million feet on the Teton during fiscal year 1970 should give us slightly more than a 2-year supply under contract at the end of the fiscal year, provided the timber cut does not increase above the volume cut in 1969. With more dependence on Teton timber, however, we probably will not find ourselves in that favorable a position.

8. The situation on the Uinta will undoubtedly remain tight. It should be noted, however, that more than 4½ million feet on this forest was offered and not sold during fiscal year 1969.

Mr. LINDGREN. This report shows that on the four national forests in northeast California with which I am particularly interested the uncut volumes under contract as of last June 30 were as follows:

Lassen National Forest, 2.39 (times the allowable cut under contract).

Plumas National Forest, 2.57.

Shasta-Trinity National Forest, 2.56.

Tahoe National Forest, 2.68.

On the other hand, this same report indicates that in region 10, which is Alaska, the Forest Service, as of last June 30, is carrying over 24 times the allowable cut under contract, and at the same time are only cutting about 60 percent of the annual allowable cut. In Alaska this is merely a reflection of the fact that most of their timber is under long-term timber sale contracts.

There is nothing unusual or out of the way in what I am discussing. I would like to insert into the record at this point a portion of the minutes of an industry Forest Service meeting held last December 10 in Salt Lake City. Part of the minutes which I am asking permission to insert involve discussion of additional volumes of timber to be placed under contract.

Mrs. HANSEN. The document will be inserted in the record.

(The document follows:)

NATIONAL FOREST TIMBER SALE ACCOMPLISHMENTS FOR FISCAL YEAR 1969

HIGHLIGHTS

Timber harvested from the national forests dropped from 12.1 billion board feet to 11.8 billion. The volume sold was 13.9 billion, including a large sale in Alaska. Timber receipts reached an all-time high of $306,833,100, up 49 percent from $205,643,105 in fiscal year 1968.

Both timber harvested and sold on the national forests in fiscal year 1969 was seriously affected by an upheaval in lumber and plywood price levels in the spring of 1969. Prices advanced to record levels in February and March, only to fall at precipitous rates during April, May, and June. The chaotic market pattern affected the sales program during the period as the Forest Service tried to keep pace with the market in appraisals. There were nearly 2 billion board feet of no-bid sales of sawtimber and convertible products during the period. Harvest likewise soared during the advance in prices and fell off during the decline.

On July 1, volume of uncut timber under contract was 44.9 billion board feet of sawtimber and 9.9 million cords of convertible products—up in both categories from the past year.

The separate summary of the 42 national forests in the West was discontinued as a special item last year. There are additional forests where supply-demand relationships are of significance now, and the national summary is of more importance in the picture today. If comparisons on the original 42 forests should be needed, the information can be readily obtained from the regional listings.

Following are some further highlights of the fiscal year 1969 cut and sold data:

1. For budget planning purposes, it was estimated that 12.7 billion board feet would be cut; 11.8 billion board feet, or 93 percent, were cut.

2. The goal for sawtimber to be sold was 11 billion board feet, 17.9 was sold which includes the Juneau unit sale in Alaska.

3. The 44.9 billion board feet of uncut sawtimber under contract on July 1 amounts to 3.9 times the annual allowable cut of such material.

4. The average price bid for sawtimber was $53.18 per thousand board feet, up $27.62 (108 percent) from the average of $25.56 in 1967. The average bid ratio for sawtimber was 1.41 compared to 1.64 in 1968.

5. Average road construction cost estimates in appraisals of sawtimber were $6.29 per thousand board feet, compared to $4.70 per thousand board feet in 1968.

6. The 1.6 billion board feet of sawtimber offered but not sold reflects the dramatic variation in the lumber market during the past year.

SUMMARY OF TIMBER SALE ACCOMPLISHMENT AND ALLOWABLE CUT ON THE NATIONAL FORESTS

FISCAL YEAR 1969

National Forest	Area Non-reserved Commercial Forest Land M Acres	Allowable Cut Sawtimber as of 7/1/68	4/ Allowable Cut Backlog or Overcut	Financed Sales: Cut: Plan	Cut: Actual	Cut: Percent	Sell 3/: Plan	Sell 3/: Actual	Sell 3/: Percent	Volume Offered Not Sold	Uncut Volume: Under Contract	Uncut Volume: Ratio to Allowable Cut	Average Price: Appraised per MBF	Average Price: High Bid MBF	Average Specified Road Cost Per Unit	Allowable Cut Conv. Prods. as of 7/1/68	Allowable Cut Backlog or Overcut	Converted Products: Financed Sales: Cut: Plan	Cut: Actual	Cut: Percent	Sell: Plan	Sell: Actual	Sell: Percent	Volume Offered Not Sold	Uncut Volume: Under Contract	Uncut Volume: Ratio to Allowable Cut	Average Price: Appraised Per Cord	Average Price: High Bid Per Cord	Average Specified Road Cost Per Unit
		M I L L I O N S O F B O A R D F E E T														T H O U S A N D S O F C O R D S												
1/																												
Region 1																												
Beaverhead	1038.4	41.6	117.7	31.3	18.0	57.5	39.6	35.7	90.2	4.6	103.5	2.49	2.08	4.33	2.58			1.8	1.9		1.3	1.5						
Bitterroot	905.5	66.3	-0.8	59.5	71.8	120.3	56.3	61.9	109.9	-	91.7	1.38	27.57	34.34	4.46			-	1.8		-	3.6						
Clearwater	1315.9	211.8	375.5	205.4	191.3	93.1	176.9	99.2	56.1	73.7	537.7	2.54	28.88	32.96	12.41			17.6	9.2		10.8	3.3						
Coeur d'Alene	694.4	137.5	-14.9	161.9	146.2	103.0	131.5	99.9	76.0	2.8	193.5	1.46	41.04	46.88	7.24			4.0	0.2		4.0	0.1						
Gallville	841.2	92.5	55.0	102.1	73.2	71.7	93.4	88.2	94.5	-	198.1	2.14	31.39	42.92	9.44			9.0	3.3		5.0	0.9						
Custer	416.5	10.4	136.8	4.0	3.8	95.0	2.0	0.6	30.0	-	1.5	0.14	-	-	-			1.2	1.0		1.2	0.7						
Deerlodge	845.7	67.0	212.6	44.0	28.3	64.3	51.2	42.1	82.2	5.9	123.0	1.84	8.98	10.99	5.29	135.0		5.6	2.4		3.8	3.1						
Flathead	1192.1	135.9	-47.4	155.2	167.8	108.1	179.4	150.5	83.9	31.4	276.9	2.04	27.98	48.06	4.80			7.4	2.1		11.6	1.8						
Gallatin	688.8	52.0	126.2	38.8	31.6	81.4	33.8	26.8	79.3	-	113.9	2.19	7.19	11.81	1.07	23.5		7.0	1.0		18.6	1.1						
Helena	473.0	33.4	112.8	29.6	26.1	88.2	31.5	31.9	101.3	-	72.2	2.16	8.79	20.74	4.48			3.4	4.4		4.6	3.6						
Kaniksu	1442.3	153.1	98.8	198.3	164.1	82.8	181.6	154.7	85.2	29.4	286.9	1.94	31.64	37.67	7.19			23.6	2.7		12.6	3.8						
Kootenai	1675.4	200.0	80.6	209.2	191.0	91.3	219.2	215.9	98.5	12.1	507.7	2.54	23.48	39.35	5.32			11.0	2.8		6.8	1.7						
Lewis & Clark	1138.7	40.4	231.9	27.6	17.0	61.6	17.7	7.4	41.8	6.4	86.4	2.14	8.75	8.75	-			10.0	2.3		3.8	2.3						
Lolo	1967.7	162.2	127.1	148.8	170.4	114.5	159.5	152.8	95.8	14.2	413.9	2.55	30.20	49.34	6.44			1.8	5.0		1.8	2.7						
Nezperce	1180.8	105.3	- 9.1	118.3	121.7	102.9	134.3	135.3	100.7	38.6	379.9	3.61	20.13	23.65	5.58			0.8	1.4		0.6	0.3						
St. Joe	815.1	99.0	-106.3	134.7	143.5	106.5	115.5	101.6	87.7	6.8	254.1	2.57	34.34	45.39	6.61			7.0	4.3		5.0	2.0						
Subtotal	16430.9	1603.4	1476.3	1648.7	1565.4	97.0	1625.8	1377.7	84.4	229.4	3650.9	2.28	24.93	37.50	6.40													
Region 2 2/																												
Arapho	668	28.5	66.5	21.5	13.3	61.9	28.0	18.1	64.8	7.3	39.7	1.39	21.50	21.50	.96	63	475.0	1.8	1.3	94.4	2.6	2.6	100.0	-	2.6			
Bighorn	628	19.5	53.9	22.0	21.0	95.5	23.0	.2	0.1	-	55.0	2.82	18.04	18.04	-	67	459.0	4.0	1.7	42.5	2.7	1.1	30.0	-	1.2			
Black Hills	1115	67.0	136.3	55.0	55.4	100.7	65.0	12.6	19.7	57.0	195.2	2.91	10.98	11.47	1.44	170	654.6	76.4	58.6	76.7	70.0	53.0	75.7	12.8	192.9		1.01	1.04	.42
Grand Mesa-Uncompahgre	627	40.0	237.1	22.5	20.3	90.2	11.0	4.2	38.3	9.3	98.8	2.47	15.08	16.16	2.80	69	475.2	.6	.6	100.0	.6	.6	100.0	-	-			
Gunnison	1007	46.2	229.5	24.5	18.8	76.7	22.0	7.6	34.5	14.2	50.9	1.10	22.73	27.48	1.72	20	136.3	.6	.3	50.0	.6	.5	83.3	-	.4			
Medicine Bow	779	59.1	248.9	43.0	28.7	66.7	44.0	36.8	83.6	12.6	184.3	3.12	32.54	32.78	3.84	130	935.0	8.4	3.4	40.5	17.4	9.9	56.9	4.3	-			
Nebraska	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	-	.68	.72	-
Pike	851	10.0	45.5	6.3	5.3	84.6	3.0	.5	16.7	.8	20.1	2.01	-	-	-	13	46.3	1.0	3.0	300.0	2.0	2.9	145.0	-	-			
Rio Grande	973	40.6	281.5	44.0	31.0	70.5	80.0	43.7	54.6	26.6	128.0	2.11	33.46	36.01	3.79	26	22.9	-	.3	100.0	-	.3	100.0	-	-			
Roosevelt	336	39.3	122.1	12.0	8.4	70.0	3.0	.4	8.0	1.2	16.6	.59	-	-	-	46	297.0	2.8	4.3	160.7	3.0	4.4	146.7	-	4.1			
Routt	839	50.7	161.1	39.0	35.5	91.0	34.0	18.2	42.5	18.3	62.4	1.23	10.70	10.76	3.09	93	693.4	12.7	6.3	51.4	14.6	4.9	33.6	3.6	12.1			
San Isabel	599	10.0	33.9	8.0	5.7	71.3	3.0	.7	23.3	3.4	8.3	.83	-	-	-	8	119.5	.4	.4	100.0	.4	.4	100.0	-	.9	225.0	-	-	
San Juan	1187	127.0	366.2	110.0	97.5	88.6	105.0	55.9	53.2	44.9	320.9	2.53	25.58	26.43	5.94	94	309.0	1.0	.9	90.0	1.0	2.3	230.0	-	-			
Shoshone	627	24.4	36.7	17.0	14.8	85.9	17.0	1.7	10.0	5.0	29.9	1.23	12.29	12.34	-	29	136.2	.6	.6	100.0	.6	.8	133.3	-	.8			
White River	1086	78.8	193.1	15.0	10.8	72.0	27.0	22.6	103.6	8.0	54.6	1.41	20.19	22.45	5.12	19	1067.6	2.2	1.7	77.3	1.0	2.1	210.0	-	1.9			
Subtotal	11561	810.1	2212.3	440.0	366.3	83.3	461.0	271.7	47.4	306.9	1364.7	2.02	24.95	26.18	3.97	839	5633.2	113.0	84.0	75.0	118.0	89.3	74.4	20.4	223.9		.97	1.00	.37
Region 3 2/																												
Apache	832	68.7	-16.5	79.0	108.5	137.3	180.3	44.0	24.3	27.6	183.2	2.67	38.91	45.25	2.20	70.1	398.5	26.8	17.5	65.3	0.8	0.6	75.0		1623.0			
Carson	797	48.8	130.0	38.8	36.0	100.0	22.2	5.6	25.2	5.1	93.6	1.92	6.05	11.00	4.22	105.8	600.3	1.8	3.2	177.8	1.8	3.2	177.8		0.1			
Cibola	527	17.0	80.5	10.8	12.9	119.4	11.9	4.1	34.4	1.7	16.4	.96	6.49	6.49	-	80.0	442.7	6.2	3.3	53.2	6.7	3.3	49.3		0.1			
Coconino	800	65.2	-6.1	60.6	70.1	115.7	92.9	40.2	43.3	8.3	127.6	1.96	30.16	30.19	3.01	48.0	256.9	13.0	3.8	29.2	13.0	1.5	11.5		1180.2			
Coronado	68	5.0	32.6	3.7	3.3	89.2	4.6	1.9	26.8	-	-	-	2.03	2.03	-	-	-	2.6	2.3	88.5	2.6	2.5	96.2		-			
Gila	534	23.6	5.1	20.3	25.1	123.6	23.1	24.3	105.2	-	43.9	1.86	40.24	40.24	.26	65.3	318.9	1.4	1.2	85.7	1.4	1.2	85.7		-			
Kaibab	604	34.7	49.3	49.0	51.5	105.1	21.2	39.2	184.9	8.3	118.3	2.16	20.76	20.76	5.81	27.9	144.7	23.4	22.0	94.0	2.4	0.9	37.5		737.7			
Lincoln	328	11.4	11.0	24.5	16.0	65.3	15.3	5.8	37.9	4.3	108.7	16.38	34.03	34.03	-	1.0	0.9	4.8	3.1	110.9	4.8	3.4	121.7		-			
Prescott	92	3.1	6.7	2.1	1.2	57.1	0.4	0.1	25.0	-	0.3	.10	-	-	-	17.3	85.9	1.2	1.0	83.3	1.2	0.9	75.0		-			
Santa Fe	701	46.1	100.6	32.6	47.0	89.4	18.7	1.6	8.6	18.2	79.5	1.72	46.89	46.89	-	-	-	1.2	1.3	125.0	1.2	1.3	108.3		-			
Sitgreaves	424	36.2	-43.2	52.5	62.7	119.4	27.2	22.2	81.6	0.2	90.7	1.76	34.68	34.71	1.33	38.9	47.8	37.4	21.4	57.2	1.4	1.2	85.7		870.4			
Tonto	262	9.6	- 9.0	7.6	5.8	77.6	0.5	0.2	40.0	-	26.1	2.78	-	-	-	20.7	74.6	15.6	18.6	119.5	3.5	7.2	157.1		335.2			
Subtotal	5509	409.7	350.4	401.5	443.8	110.1	421.0	169.2	40.9	73.6	974.5	2.30	30.87	32.55	2.75	454.5	2253.8	137.0	100.7	73.5	36.0	24.4	67.7		4430.7			

1/ Volumes for cut and sell sawtimber include convertible products shown on convertible products portion of report.
2/ Percentage accomplishment does not include volume offered and not sold.
3/ Volumes for cut and sell sawtimber do not include convertible products.
4/ Reflects only actual cuts during management plan period. Does not effect uncut volumes under contract.

National Forest	Area Non-Reserved Commercial Forest Land M Acres	Allowable Cut Sawtimber as of 7/1/58 M Bd. Ft.	3/ Allowable Cut Backlog or Overcut M Bd. Ft.	Cut Plan	Cut Actual	Cut Percent	Sell 2/ Plan	Sell 2/ Actual	Sell 2/ Percent	Volume Offered Not Sold	Uncut Volume Under Contract	Uncut Volume Ratio to Allowable Cut	Average Price Appraised Per MBF	Average Price High Bid Per MBF	Average Specified Road Cost Per Unit	Allowable Cut Conv. Prods. as of 7/1/58	Allowable Cut Backlog or Overcut	Finance Cost Cut Plan	Finance Cost Cut Actual	Finance Cost Cut Percentage	Finance Cost Sell Actual	Finance Cost Sell Percent	Volume Offered Not Sold	Uncut Volume Under Contract	Uncut Volume Ratio to Allowable Cut	Average Price Appraised Per Cord	Average Price High Bid Per Cord	Average Specified Road Cost Per Unit
		MILLIONS OF BOARD FEET														THOUSAND												
3/ Region 4																												
Ashley	569	30.2	86.7	9.0	9.5	105.6	6.0	8.2	136.7	8.3	16.5	.55	21.93	29.18	.22				1.3		1.7	-					
Boise	1616	175.8	76.8	135.0	151.0	111.9	148.4	141.8	95.5	14.1	357.5	2.03	33.83	33.79	6.18				.6		.5	.5					
Bridger	456	39.4	77.2	23.0	17.3	75.2	40.0	23.2	58.0	25.6	45.3	1.62	36.78	36.78	5.96				.6		.9	.7					
Cache	234	16.1	27.3	2.0	2.8	140.0	5.0	.4	8.0	2.2	2.3	.14	-	-	-				.3		.2	.1					
Caribou	378	18.8	39.6	2.0	1.2	60.0	.7	.3	42.9	-	1.1	.06	-	-	-				.9		.9	-					
Challis	1078	78.4	216.3	10.8	5.1	47.2	7.0	1.9	27.1	6.1	9.3	.13	20.07	20.07	-				.5		1.4	-					
Dixie	656	29.2	14.4	26.0	24.9	95.4	37.9	13.2	40.1	9.8	99.3	3.49	4.77	4.77	.24				1.3		5.2	-	.40	.40	.41		
Fishlake	350	19.8	56.2	1.7	.6	35.3	4.9	.4	8.2	8.3	.7	.04	-	-	-				.3		.3	-					
Humboldt	-	-	-	.1	-	0	.1	-	0	-	-	-	-	-	-				-		-	-					
Manti-LaSal	600	17.1	2.8	16.2	12.3	75.9	19.6	6.4	32.7	14.2	13.8	.81	8.13	20.20	-				.1		.2	-					
Payette	1097	95.2	9.6	96.3	101.6	105.5	108.0	62.4	57.8	50.5	164.4	1.73	33.36	33.91	3.05				.2		.1	.4					
Salmon	1138	40.4	40.3	36.2	26.0	71.8	45.0	14.5	32.2	33.2	38.2	.95	28.19	28.20	4.01				.7		.4	.3					
Sawtooth	444	20.5	2.4	24.6	13.1	53.3	17.1	6.1	35.7	5.1	35.0	1.27	34.27	34.27	-				3.7		3.4	-					
Targhee	794	62.8	79.7	32.0	51.7	161.6	158.0	34.6	21.9	156.3	372.4	5.93	17.27	17.31	.22				4.4		5.3	.4					
Teton	302	33.4	199.5	23.0	24.9	99.8	35.0	13.2	37.7	9.8	36.2	.80	48.56	48.56	1.76				.7		.6	.2					
Tetonia	164	16.3	14.0	10.1	6.3	62.4	12.3	11.4	92.7	-	20.8	1.29	40.88	40.89	-				.7		.9	.6					
Uinta	293	3.4	1.9	3.0	4.5	150.0	4.0	2.7	67.5	4.8	4.8	.84	2.91	3.08	7.85				.2		.2	-					
Wasatch	353	21.6	46.9	8.0	4.7	58.8	5.8	2.5	48.3	-	11.6	1.61	4.39	4.39	4.52				2.6		2.3	3.0					
Subtotal	10514	740.4	965.0	460.0	457.4	99.4	655.0	363.3	55.4	344.4	1239.3	1.07	30.35	30.90	3.93				25.6		23.5	12.4	.40	.40	.41		
Region 3 3/																											
Angeles	43.8	1.2	9	.2	.1	50.0	.3	.1	50.0	-	0	-	-	-	-			1.8	.8	.4	1.2	-					
Cleveland	8.8	0.0	9	0	0	-	0	0	-	-	0	-	-	-	-			.8	.4	.3	1.4	-					
Eldorado	347.9	130.3	102.8	144.0	112.8	78.2	144.0	150.6	104.6	-	332.5	2.55	50.92	65.41	2.42			10.0	.8	1.3	.9	-					
Inyo	96.2	13.3	3.7	14.6	9.1	41.8	8.5	0	0.0	8.9	14.7	1.12	-	-	-			.8	.4	.2	.4	-					
Klamath	1018.8	240.3	33.9	292.0	227.5	77.9	270.0	259.3	96.0	11.4	576.6	2.40	39.55	59.13	9.03			3.4		-	.8	-					
Lassen	736.1	166.4	138.7	203.7	240.1	117.9	179.4	175.7	97.9	-	393.5	2.39	39.00	69.75	4.22			.6	.6	.3	.6	-					
Los Padres	54.0	2.0	- 0	0	0	-	0	0	-	-	0	-	-	-	-			.8	.4	.2	.4	-					
Mendocino	336.8	90.5	-9.8	97.8	83.6	85.5	113.5	129.1	113.7	-	195.7	2.16	36.30	41.42	10.82			2.4	2.0	.8	.4	-					
Modoc	570.0	61.6	66.1	66.9	83.5	124.5	66.9	91.3	105.1	-	189.1	3.06	42.57	43.89	10.38			.2	.2	.1	.2	-					
Plumas	888.3	220.3	-159.5	214.8	178.3	81.5	210.0	222.1	106.1	-	564.1	2.57	44.18	47.96	6.38			4.4	2.6	4.4	2.4	-					
San Bernardino	114.0	7.1	0	13.0	.2	1.5	17.4	5.0	-	-	1.3	-	8.80	8.80	-			6.0	5.6	4.2	9.4	3.8					
Sequoia	415.4	110.0	377.1	109.8	123.8	113.8	146.0	115.0	78.9	27.1	400.3	3.64	37.17	37.54	4.77			16.4	.6	7.4	1.8	1.3					
Shasta Trinity	1417.6	283.7	86.3	255.2	318.1	124.6	264.0	258.0	97.9	18.8	725.9	2.56	48.09	61.38	7.26			1.6	6.4	1.4	3.8	-					
Sierra	430.4	152.2	195.6	136.5	142.4	104.3	169.0	136.5	81.4	20.0	345.6	[illegible]	27.17	27.22	4.95			5.0	1.4	3.0	1.4	-					
Six Rivers	641.7	179.6	17.5	121.0	114.5	97.3	186.7	113.4	61.5	31.0	413.0	2.44	47.85	47.21	5.63			-	37.8	-	8.2	-					
Stanislaus	369.7	139.4	32.6	169.7	191.9	113.8	125.3	156.8	101.3	-	316.1	1.56	42.46	47.97	4.84			.6	1.2	.2	1.0	-					
Tahoe	516.3	148.6	213.4	114.4	115.3	142.0	132.0	93.6	75.5	32.5	301.3	2.00	40.25	50.11	5.29			3.2	2.8	3.2	2.6	-					
Subtotal	6023.0	1946.7	1436.3	2400.6	2107.9	102.3	2028.9	1876.7	92.8	149.5	4813.1	[illegible]	41.23	50.25	6.94			52.4	37.6	32.2	34.2	5.2					
Region 4 1/																											
Deschutes	1374	138.0	-34.2	184.4	171.3	92.8	155.7	97.4	62.8	65.2	285.7	2.09	39.71	40.23	1.49												
Fremont	933	143.0	-75.8	201.0	131.2	65.3	162.7	137.8	84.8	22.8	331.4	2.32	43.79	48.41	9.83												
Gifford Pinchot	1039	381.0	-373.1	462.6	480.7	103.9	377.4	357.8	94.8	37.4	944.2	2.48	38.22	71.91	7.53												
Malheur	1238	171.0	-39.6	237.2	225.3	95.0	186.5	153.4	82.5	65.9	387.7	2.27	39.04	39.16	9.50												
Mt. Baker	386	164.3	-92.7	225.1	187.1	83.1	114.3	118.3	103.7	10.0	309.0	1.87	23.4	33.62	9.55												
Mt. Hood	1039	330.0	23.6	313.3	353.2	114.0	252.2	349.3	138.1	12.3	827.8	2.43	49.43	68.04	9.83												
Ochoco	673	111.3	-42.0	143.7	117.9	82.0	135.4	83.7	61.8	46.7	133.3	1.37	31.18	31.30	4.51												
Okanogan	912	90.0	-45.4	148.6	110.1	74.4	106.7	95.5	89.6	12.0	226.1	2.73	27.77	37.31	4.84												
Olympic	529	367.4	131.7	490.1	278.5	89.8	383.9	294.2	76.2	18.1	837.5	2.40	41.93	47.20	9.83												
Rogue River	562	176.4	-83.8	219.7	173.4	78.9	185.9	200.3	107.7	1.2	384.7	1.23	40.98	74.42	3.53												
Siskiyou	909	190.9	-173.0	229.1	314.2	93.5	303.2	220.4	109.5	4.3	353.0	1.89	48.54	51.01	9.00												
Siuslaw	577	346.0	174.8	442.0	377.2	85.3	379.4	378.3	100.0	3.2	485.8	1.40	51.91	51.91	5.11												
Snoqualmie	710	349.4	356.6	337.5	223.5	66.2	293.1	134.8	52.8	38.5	341.4	2.37	34.93	40.39	3.20												
Umatilla	1043	115.1	172.5	207.4	163.8	74.9	148.7	125.0	84.3	41.4	349.2	2.34	27.10	32.83	3.91												
Umpqua	955	317.0	-49.4	446.5	388.3	86.9	373.3	383.3	102.7	4.0	723.4	1.97	43.08	60.70	9.51												
Wallowa-Whitman	1445	167.7	-31.2	226.1	210.1	92.9	206.1	99.4	48.2	95.3	251.2	1.50	39.14	39.71	3.64												
Wenatchee	776	171.2	3.0	159.1	109.4	68.9	142.1	163.4	111.1	.2	304.8	2.83	39.07	39.81	9.75												
Willamette	1321	627.4	41.2	842.8	709.4	84.1	651.9	680.9	104.4	.5	1547.1	2.47	48.05	81.90	9.87												
Winema	814	77.5	-57.2	130.4	127.3	97.6	129.2	126.8	98.1	10.3	272.4	2.79	37.05	45.62	3.45												
Subtotal	17419	4790.2	216.1	5559.4	4787.3	86.1	4573.8	4290.8	93.8	491.7	10112.5	2.33	42.51	53.47	7.25												

National Forest	Area Non-reserved Commercial Forest Land M Acres	A/ Allowable Cut Sept. 1/1/68	A/ Allowable Cut Backlog or Overcut	B Financed Goals: Cut: Plan	Cut: Actual	Cut: Percent	Sell 2/: Plan	Sell 2/: Actual	Sell 2/: Percent	E Volume Offered Not Sold	F Uncut Volume: Under Contract	F Uncut Volume: Ratio to Allowable Cut	G Average Price: Appraised Per MBF	G Average Price: High Bid Per MBF	H Average Specified Road Cost Per Unit	C Allowable Cut Conv. Prods. as of 7/1/68	C Allowable Cut Backlog or Overcut	C Financed Goals: Cut: Plan	Cut: Actual	Cut: Percent	Sell: Plan	Sell: Actual	Sell: Percent	C Volume Offered Not Sold	P Uncut Volume: Under Contract	P Uncut Volume: Ratio to Allowable Cut	P Average Price: Appraised Per Cord	P Average Price: High Bid Per Cord	P Average Specified Road Cost Per Unit
		MILLIONS OF BOARD FEET														THOUSANDS OF CORDS												
Region 8																												
Alabama	616	47.1	9.3	42.7	37.8	88.5	34.8	39.3	112.9	1.9	39.6	.84	38.34	44.83	1.61	48.3	3.6	23.2	23.6	144.8	18.6	31.0	166.3	-	31.9	.66	5.08	6.13	-
Cherokee	579	31.0	44.0	30.6	26.9	89.6	26.0	24.1	92.7	3.0	56.0	1.81	16.85	20.71	1.33	61.8	145.0	40.0	37.6	69.0	51.0	38.4	75.3	8.0	64.0	1.04	1.46	1.76	-
Daniel Boone	530	31.9	1.0	33.0	30.9	93.6	35.3	35.9	101.1	2.4	36.1	1.76	15.57	16.49	.98	43.5	-	10.0	12.0	120.0	7.0	11.0	157.1	0.5	6.2	.14	1.67	1.69	-
Florida	900	15.3	5.9	13.0	11.0	84.6	11.2	13.4	119.6	0.4	17.3	1.13	44.25	48.72	.58	113.6	121.9	105.0	123.6	117.7	89.8	148.6	165.5	9.1	315.9	2.81	7.24	8.61	.51
George Washington	922	19.8	7.4	16.0	12.4	77.5	20.0	18.4	92.0	2.2	25.2	1.27	15.71	18.00	.54	104.0	42.6	54.0	71.2	131.9	70.0	70.2	100.3	16.0	179.5	1.05	1.27	1.37	-
Georgia	768	47.0	35.0	51.0	45.6	89.4	45.2	48.9	108.2	-	57.2	1.22	28.43	42.59	-	21.8	30.4	18.0	17.6	97.8	21.4	18.2	84.3	-	28.1	1.53	6.80	7.28	-
Jefferson	506	15.0	19.4	12.7	9.9	66.5	13.1	14.4	109.9	0.1	21.1	1.41	18.83	22.66	-	60.0	95.1	48.4	30.0	43.9	54.2	48.8	90.0	6.8	120.0	2.00	1.50	1.52	-
Kisatchie	368	51.0	102.6	36.0	42.7	118.6	40.0	40.2	100.5	-	51.4	1.01	48.37	65.47	3.29	67.7	87.6	41.0	71.4	174.1	36.0	71.4	198.3	-	137.6	2.03	3.85	4.87	.58
Mississippi	1100	96.1	5.6	94.5	107.9	114.2	101.8	100.6	98.8	0.5	133.7	1.39	39.80	46.93	4.36	113.5	120.0	95.0	72.4	76.2	85.4	89.5	105.2	2.0	133.2	1.18	4.38	5.33	.08
N. Carolina	967	42.2	108.7	54.9	37.7	68.7	44.9	43.4	96.7	-	105.9	2.51	25.49	35.08	2.09	98.6	-94.8	84.6	38.2	45.2	59.7	46.3	77.6	3.7	111.9	1.13	1.74	2.09	.53
Ouachita	1518	87.0	26.0	83.0	60.9	73.4	68.0	69.2	100.3	3.0	69.0	.79	46.73	59.62	.98	84.7	19.0	76.0	58.8	77.4	73.0	83.4	114.2	-	124.0	1.46	2.63	2.82	.05
Ozark-St. Francis	1066	35.4	-	35.9	17.0	47.3	16.5	17.1	103.6	-	29.7	.83	34.35	47.19	-	94.2	- 5.3	18.0	20.0	125.0	20.0	19.4	97.0	0.9	21.1	.22	3.45	3.99	-
S. Carolina	343	57.3	3.8	64.0	53.4	83.4	59.0	55.5	94.1	4.8	90.6	1.58	38.42	44.33	3.46	98.8	-27.5	132.0	119.2	90.3	110.0	129.4	117.6	17.2	241.6	2.44	4.51	5.75	.81
Texas	591	68.2	-58.3	61.7	53.5	86.7	61.3	72.4	118.1	3.7	88.3	1.00	45.57	56.53	3.74	140.1	97.4	25.9	34.6	133.6	26.3	47.4	180.2	3.3	23.3	.17	2.85	3.32	-
Subtotal	11174	844.4	406.3	809.5	643.1	89.1	579.8	596.6	102.9	24.0	821.1	1.27	30.33	43.98	2.25	1148.6	635.0	789.1	730.2	92.5	724.8	853.4	117.8	67.7	1669.2	1.28	3.42	4.72	.33
Region 9 3/																													
Allegheny	453	25.0	82.4	24.0	24.2	100.8	26.0	26.1	100.4	.8	48.3	1.93	39.34	51.71	12.33	35.0	738.2	24.0	39.0	162.5	32.0	22.9	71.6	4.8	65.1	1.86	.64	.65	-
Chequamegon	747	5.3	9.1	2.8	2.3	82.1	4.3	5.0	116.3	.5	9.0	1.70	25.72	28.59	-	108.0	137.1	90.4	80.6	89.2	93.4	95.1	101.8	9.4	272.3	2.52	2.12	2.66	-
Chippewa	570	8.5	64.0	15.2	9.0	59.2	11.7	8.3	70.9	.2	25.0	2.94	28.92	40.02	-	144.8	527.0	81.6	69.9	85.7	86.4	99.2	114.5	8.6	301.0	2.09	1.37	1.75	-
Clark	740	24.8	49.5	20.7	19.6	94.7	21.6	24.6	113.9	1.1	42.1	1.70	12.79	15.54	.03	8.9	20.7	8.8	12.8	168.8	8.8	11.5	130.7	-	8.2	.92	4.00	5.27	-
Green Mountain	223	18.0	73.3	19.7	11.7	59.4	16.2	13.9	85.8	-	32.8	1.82	34.17	49.52	.57	12.0	74.0	4.6	6.2	134.8	7.4	4.5	59.2	-	12.0	1.00	1.93	2.07	-
Hiawatha	736	6.8	9.0	2.4	1.4	55.8	3.2	2.2	68.8	9.6	4.2	.62	35.00	41.99	-	98.0	83.0	92.8	51.1	55.1	71.4	61.7	86.3	481.9	131.3	1.34	2.37	2.96	-
Huron-Manistee	850	10.3	41.1	4.1	3.0	73.2	5.0	2.9	58.0	-	11.0	1.07	9.38	13.25	-	141.0	301.6	127.8	131.0	102.5	196.0	193.1	98.6	4.4	381.5	7.71	1.04	1.89	.28
Mark Twain	572	19.6	65.4	19.1	19.9	104.2	18.4	18.8	102.8	-	47.5	2.42	13.24	19.88	-	6.0	-	3.8	2.9	76.3	3.2	3.4	106.3	-	-	-	-	-	-
Monongahela	778	36.0	145.0	31.1	29.4	94.5	38.6	42.2	109.3	3.5	70.0	1.25	18.16	25.77	1.14	50.0	140.0	39.8	25.0	62.8	42.8	27.5	64.3	20.3	72.0	1.44	.62	.75	-
Minolat	571	8.3	9.1	5.9	3.6	61.0	7.3	9.7	132.9	.1	17.7	2.81	30.11	39.96	.15	90.0	36.0	90.7	59.3	65.7	87.4	90.9	104.0	.1	273.6	3.04	2.08	3.43	.09
Ottawa	831	11.2	3.8	10.5	5.9	56.2	10.1	8.1	80.2	.5	16.9	1.51	32.66	45.73	.52	136.0	269.0	87.0	64.4	74.0	65.8	100.6	117.2	6.2	336.6	2.48	1.41	1.61	.02
Shawnee	188	6.0	12.4	6.6	4.3	65.2	5.5	4.7	85.5	.1	18.4	3.07	22.68	26.68	-	20.0	22.1	4.8	4.4	91.7	1.0	2.7	270.0	.1	25.4	1.27	.32	.52	-
Superior	1377	12.1	45.3	9.6	10.3	107.3	14.1	16.8	119.1	2.7	44.2	3.65	12.28	19.96	-	599.0	4439.2	160.8	95.8	59.6	161.8	265.8	164.3	38.9	1323.8	2.21	1.54	1.66	-
Wayne-Hoosier	249	6.1	- 4.9	8.0	7.7	96.3	5.1	4.1	80.4	1.0	8.9	1.13	14.93	19.30	-	15.0	20.6	4.0	5.6	140.0	3.2	7.9	247.9	1.5	8.6	.57	.57	.71	-
White Mountain	405	13.0	41.6	12.4	7.3	58.9	12.2	8.6	53.5	1.0	16.2	1.08	23.82	32.13	-	80.0	268.0	55.2	57.9	104.9	58.6	43.1	73.5	6.5	81.5	1.02	2.36	3.11	-
Subtotal	9490	231.0	648.7	192.3	159.6	83.0	199.0	194.2	97.6	23.1	610.2	1.78	23.06	31.63	2.22	1542.9	7064.5	875.4	709.8	80.6	940.4	1029.9	109.5	582.7	3313.1	2.13	1.53	2.06	.07
Region 10 3/																													
North Tongass	2631	530.1	1272	238	225	90.0	351.1	8811.1	100.0	15.0	14183.0	26.76	2.68	2.97	6.20														
South Tongass	1912	295.8	131	294	294	100.0	116.0	54.7	47.2	-	6888.0	23.44	9.21	15.40	-														
Chugach	732	67.5	311	10	4	40.0	11.4	7.0	59.3	-	536.0	7.94	7.17	10.93	-														
Subtotal	5275	891.4	1716	554	523	94.4	478.9	8872.8	100.0	15.0	21607.0	24.24	5.83	8.96	6.20														
Summary R 8 - 10																													
Region 1	16830.9	1603.4	1476.5	1648.7	1565.6	95.0	1675.8	1606.7	88.4	228.4	3650.9	2.28	26.93	37.50	6.40														
Region 2	11561.0	610.1	2212.3	440.0	366.5	83.3	468.0	221.7	47.4	206.9	1266.7	2.07	24.95	26.18	3.97	839.0	5835.2	112.0	84.0	75.0	116.0	86.3	74.4	20.4	223.9	-	.97	1.02	.37
Region 3	5989.0	409.2	330.4	401.5	442.2	110.1	421.0	189.2	44.9	73.6	974.5	2.38	30.67	32.55	2.75	454.3	2253.6	137.0	100.7	73.5	38.0	24.4	64.2	-	4946.7				
Region 4	10014.0	740.4	945.0	468.0	457.4	99.4	655.0	343.3	52.4	344.4	1238.3	1.67	30.35	30.90	3.93				23.6			32.5			12.4		.60	.60	.41
Region 5	8023.0	1948.7	1436.3	2060.6	2187.9	102.3	2028.9	1878.7	92.6	149.5	4813.1	2.47	41.23	56.29	6.84			52.4	87.8		52.1	59.2			5.3				
Region 6	17239.0	4350.6	-216.1	5559.9	4752.3	85.5	4573.8	4200.8	91.8	491.7	10117.5	2.33	42.61	63.97	7.25														
Region 8	11174.0	644.4	406.3	809.5	643.1	89.1	579.8	596.6	102.9	24.0	821.1	1.27	30.33	43.98	2.25	1148.6	635.0	789.1	730.2	92.5	724.8	853.4	117.8	67.7	1669.2	1.28	3.42	4.72	.33
Region 9	9490.0	231.0	648.3	192.3	159.6	83.0	199.0	194.2	97.7	23.1	610.2	1.78	23.06	31.63	2.22	1542.9	7064.5	875.4	709.8	80.6	940.4	1029.9	109.5	582.7	3313.1	2.13	1.53	2.06	.07
Region 10 3/	5275.0	891.4	1714.0	554.0	523.0	94.4	478.9	8872.8	100.0	15.0	21607.0	24.24	5.83	8.96	6.20														
Grand Totals 3/	96095.9	11429.2	8957.2	11926.5	10917.6	91.5	11031.0	17902.8	100.0	1536.6	44897.3	3.93	37.41	53.18	6.29	3983.0	15768.3	1965.9	1732.0	88.1	1871.1	2036.7	108.9	670.8	9970.7	-	2.48	3.10	-

3/ Region 10 volumes and Grant Totals reflect the Juneau Unit sale of 8.75 billion board feet sold during the year.

Mr. LINDGREN. The key part of this insertion is on page 3 where the Forest Service responds, mentioning several specific forests where they intend to sell two or three times the allowable cut over the next year or so in order to bring the under contract volume to an adequate level. It is recognized clearly in this discussion, as you will see, that the objective is twofold: One, an adequate volume under contract is essential to actually cutting the allowable cut, and, two, some additional volume behind these major mill investments is of substantial benefit to the industry, particularly in terms of their ability to respond to market stimuli.

You will also notice in the accomplishment report which I inserted in the record a moment ago that on the four national forests of northeastern California there were very substantial accrued undercuts as of last June 30. "Undercut" means that during the management plan period the allowable cut has not been cut by the amount of the undercut. The accrued undercut on the forests was as follows:

Lassen National Forest, 138.7 million board feet.

Plumas National Forest, 159.5 million board feet.

Shasta-Trinity National Forest, 86.3 million board feet (all of this on the Shasta portion of that forest).

Tahoe National Forest, 213.4 million board feet.

One other element pertinent to this case is the fact that the Forest Service and the forest products industry are about to agree on a substantially tightened extension policy, which means that timber sale contracts will no longer automatically be extended upon request. Agreement seems to be developing that there will be only one extension period of a contract allowed, that period to be anything from 6 months to perhaps 2 years. As conditions precedent to such an extension period being granted, all road and pertinent development work on the sale must be completed, and automatic pro rata payments of the balance of the timber sale contract owing must be paid monthly in cash during the extension period.

This new extension policy, coupled with the new proposed initial sale length which I have inserted in the record from our San Francisco Regional Office, indicates that the average length of contract period (initial plus extension period) in the California forests will be something in excess of 5 years. This means that there should be somewhere between four and five times the allowable cut placed under contract if the allowable cut is to be actually harvested. Madam Chairman, that volume under contract is substantially in excess of the volume presently under contract.

To conclude, if the undercuts are to be reduced before the management plan period on these four national forests terminates, and if the volume under contract is to meet the objectives just stated, then over the next two or three years substantial additional volumes of Forest Service timber will have to be placed under contract (sold) as compared to this fiscal year and the past fiscal years. In other words, a program will have to be placed into effect in the California forests similar to the one now in effect for the Idaho, Wyoming, and Utah national forests. While I have no way of knowing what the Forest Service budget before your committee contains for timber preparation for our national forests, I would be almost confident that with a decreased timber selling budget overall there will be no reaching of

the objectives I have mentioned unless additional funds are available to our region some way or other. On four national forests alone I am talking about selling in 3 or 4 years about 1 to 1½ billion board feet of additional timber over current and recent levels.

Representatives of our northern California indsutry are going to be talking with Forest Service personnel late next week at an industry meeting in Victoria, British Columbia. I would hope, Madam Chairman, that you might see fit to ask the Forest Service for a report on the points I have just made to see whether additional appropriations are needed, or whether fund shifts within the proposed appropriation might achieve the objective.

Thank you very much for the opportunity to appear before you today.

Mr. McCracken. Mr. Keller and Mr. Lulich have a joint statement to be put in the record.

(The statements follow:)

I am Harold Keller, general manager of Craig Lumber Co. of Craig, Colo. Appearing with me today is Mr. William Lulich, general manager of Big Horn Lumber Co., Laramie, Wyo.

The Craig Lumber Co. uses about 18 million board feet annually and is very largely dependent for its timber supply on the Routt National Forest located in northern Colorado, and to a degree on the White River National Forest of north-central Colorado. The Big Horn Lumber Co. has capacity to produce about 12 million board feet of lumber per year oprating on one shift, and has just completed the installation of a barker and chipper to improve the utilization of the forest resources. This mill is entirely dependent on the Medicine Bow National Forest in south-central Wyoming, although it could obtain timber from the Roosevelt National Forest of northern Colorado. The national forests with which our two companies are concerned are all located in region 2 of the Forest Service with headquarters in Denver, Colo.

Madam Chairman, we are here to point out to you and members of your committee a record which is deeply disturbing not only to our companies but to all in the forest products industry in the Central Rocky Mountain Region. The officially reported annual allowable cut of region 2 for fiscal year 1967 was 607.7 million board feet. Congress, following the leadership of its appropriations committees, financed this region for a cut of 390 million board feet. There was actually cut 331 million board feet. Of substantially greater concern, however, was that this region was financed to sell 423 million board feet, but actually sold only 189 million board feet, or 45 percent of the goal which you financed them to accomplish. Seventy million board feet was offered but received no bids.

In fiscal year 1968, the official allowable cut for region 2 remained unchanged. Your committee and Congress financed the region to harvest and cut 440 million board feet. The region actually harvested 343 million board feet. Of greater concern, the region was financed to prepare and sell 375 million board feet. They actually sold 326 million board feet.

In fiscal year 1969, the official allowable cut of this region had increased to 610.1 million board feet. The region was financed to harvest 440 million board feet. They actually harvested 366.5 million board feet. Again, of much greater concern, this region was financed to prepare and sell 468 million board feet. They actually sold 221.7 million board feet. A total of 207 million board feet was offered but received no bids.

For fiscal year 1970, region 2 had a total sell program of 769 million board feet. This was composed of 550 million board feet of new sale preparations plus 219 million board feet of no bid carryovers from prior fiscal years. In the first half of fiscal year 1970, the region offered 349 million board feet but actually sold only 256 million board feet. The balance received no bids. It is our understanding that in the second half of fiscal year 1970, region 2 intends to offer for sale 318 million board feet. It is possible, then, that the region will actually sell only 574 million board feet, almost 200 million board feet short of its financed goal.

As deficient as this record is on a regional basis, we would like to point out the record of the Forest Service on three national forests with which our two companies are concerned. The allowable annual cut of the Medicine Bow Forest has remained officially for many years and is currently listed at 59.8 million board feet. In 1967 fiscal year, this forest was financed to sell 24 million board feet. They actually sold 18 million board feet. In 1968 fiscal year, this forest was financed to sell 35 million board feet. The actually sold 17½ million board feet. In fiscal year 1969, this forest was financed to sell 46 million board feet. They actually sold 37 million board feet. Twelve million board feet received no bids. Of equal concern, the 5-year timber sale plan for this forest for the 5 years ahead promises offerings of around 30 to 35 million board feet annually, barely half the official allowable cut.

The Routt National Forest currently has an official allowable cut of 50.6 million board feet. In 1967, this forest was financed to sell 43 million board feet. They actually sold 2½ million board feet. Eighteen million board feet received no bids. In 1968 fiscal year, this forest was financed to sell 21 million board feet. They actually sold 27 million board feet. Some of the prior year "no bids" made up the difference. In fiscal year 1969, this forest was financed to sell 38 million board feet. They actually sold 16 million board feet. Eighteen million board feet received "no bids."

The Roosevelt National Forest, tributary to Fort Collins, Colo., Walden, Colo., and Laramie, Wyo., has an official annual allowable cut of 28.3 million board feet. In fiscal 1967, this forest was financed to sell 8 million board feet. The actually sold 5½ million board feet. In fiscal year 1968, this forest was financed to sell about 10 million board feet. They actually sold 6 million board feet. In fiscal year 1969, this forest was financed to sell 5 million board feet and actually sold 400,000 board feet—this with an allowable cut of over 28 million board feet, mind you. Of equal concern, the future 5-year timber sale plan for the Routt Forest at no time suggests sale offerings of over 7 million board feet.

I am sorry to burden your committee, Madam Chairman, with dry statistics, but I know of no other succinct way of describing our dilemma. This is not a good record. It raises very serious questions for the forest products industry in Wyoming and Colorado, particularly to those of us who are small business, as to whether we are justified in asking our principals to endure losses as many are encountering at this time, and particularly as to whether we can justify any further investments so that we might add our small part in providing wood for the American market.

The Forest Service is, of course, thoroughly familiar with the problem we have recited. It is clear to us that they are caught in a terrible dilemma. On the one hand, they seem loathe to admit that vast areas of their present commercial forest land base should not be in the allowable cut. On the other side of the dilemma, they are afraid to sell the allowable cut for fear of controversy from those who are opposed to any timber cutting. All of us are also caught in the same dilemma.

We have only two suggestions to make. One, we would urge that the timber selling budget for fiscal 1971 not be reduced, as we understand the case to be. Our region has had a difficult enough time selling timber when budgetary increases were approved. Secondly, we strongly urge your approval of the increase contained in the budget for access road construction. One of the great problems in our region and a leading factor in the number of "no bid" sales is the costly nature of the roads required by the Forest Service for multiple use purposes, coupled with frequently marginal economic timber chances. It would be a great help in our area if the Government were to assume a much larger role in constructing the access roads into the timber. This would make our timber sales marginal rather than submarginal.

Finally, I would like permission, Madam Chairman, to insert in the record a recent speech made by Mr. Jack Buchanan to the Colorado State Foresters meeting on March 3, 1970, which points out in much more detail and much more clearly than I have been able to the problems which are facing all of us—in the Government and in the industry—in our region.

Thank you very much for the opportunity for me to appear before you today.

Madam Chairman, Congressman Wyatt, and other members of the Subcommittee, I am Joseph W. McCracken, executive vice president of the Western Forest Industries Association, from Portland, Oreg. This Association is made up of lumber and plywood manufacturers, heavily or entirely dependent upon public timber. Our Association has membership in most of the Western States and Alaska.

Among the myriad of problems confronting the forest products industry I would like to discuss just two. First, I would like to express our deep concern with the projected cut for fiscal 1971 in the Forest Service timber sale and preparation program. It is our understanding that the Forest Service in this proposed budget projects a reduction in timber sale preparation of around 1¼ billion board feet.

A fundamental aspect of the problem this poses was covered by Chief of the Forest Service Edward P. Cliff in a speech to the Western Wood Products Association last September 10 in Portland, Oreg. I would like to quote one paragraph from Mr. Cliff's remarks:

"I cannot release details of these revised projections while they are under consideration by this working group [Interdepartmental Working Group on Lumber and Plywood Prices]. I can say that if timber product price trends and relationships do not change significantly from those prevailing in the 1962–67 period, there will be substantial increases in the demand. Softwood saw timber demands are likely to increase from 47.6 billion board feet to between 60 and 64 billion board feet by 1978."

Later in the same speech, Mr. Cliff stated:

"We believe that with an all-out effort, supported by adequate funding, the Forest Service could increase production from the present level of 13.8 billion board feet to about 19.5 billion board feet by 1978."

A reduction of 1½ billion board feet in next year's timber selling program is clearly going in the wrong direction from Mr. Cliff's stated goals. We well realize the stringency of Federal funding in these days, but from the standpoint of overall Government budgetary surplus or deficit situations, increased appropriations for increased timber selling are well recognized as strong money-makers, substantially more than returning the cost of the appropriation even in the year of the appropriation.

In January of 1969, the adjusted annual rate of housing starts (not including mobile homes) was around 1,850,000. The adjusted annual rate of housing starts at this time is around 1 million. These statistics alone indicate why there was a lumber and plywood price crisis a year ago and why the economy of the Pacific Northwest and our own forest products industry is in trouble today. I have recently seen projections of the adjusted annual rate of housing starts by months for the balance of 1970—the projections made by the National Association of Home Builders. NAHB is projecting that we are now at the bottom of the housing slump and that there will be very gradual improvement from the present 1 million plus rate to around 1,200,000 as of September 1970. They then project that by November 1970 the adjusted rate of housing starts will have increased to around 1,650,000, and that this sharp trend will, of course, continue on into 1971. Most authorities on housing which we have consulted concur in the type of projection I have just described. If this projection comes to pass, Madam Chairman, we will rather likely have another lumber and plywood price crisis a year from now.

There are relatively few things that can really be done to mitigate the effects of what is immediately ahead of us. One of the things which could help some would be placing of *more* Federal timber under contract throughout the balance of 1970 calendar year rather than less.

A second problem which I would like to touch on briefly concerns the very strong and increasing attack upon the cutting of public timber, particularly "clear-cutting." Your committee, I know, is familiar with the controversy in the Monongahela National Forest in West Virginia, on the Bitterroot National Forest in Montana, and the Bridger National Forest in Wyoming. Not too long ago, the Forest Service sent a report to Congressman James McClure of Idaho touching on the same type of problem. Congressman McClure was kind enough to ask our Association for its comments on the Forest Service report. We asked for a report by Dr. Carl A. Newport of the consulting forestry firm of Mason, Bruce & Girard. That report we recently received and have transmitted to Congressman McClure. I would like to insert both documents in the record, if I may, Madam Chairman. Dr. Newport's report to us contains a most significant proposal regarding appropriations and programs for the United States Forest Service. I will not take the time to read Dr. Newport's report at this time, but I urge you and the members of your committee to study it most carefully.

If we are to continue to harvest timber effectively in harmony with the other uses and interests in our national forests, something along the lines that Dr. Newport suggests will have to be accomplished or our public land commercial forest base will continue to be eroded drastically. This erosion will make it impossible for this country to meet its wood needs.

I appreciate this opportunity to present this testimony. Thank you very much.

Mr. McCracken. In the areas of the previous two speakers, the Forest Service has had a very bad performance.

Mrs. Hansen. Is this due to a lack of appraisal funds?

Mr. McCracken. Partly that and there is a dilemma in this particular area of the Forest Service. On the one hand they seem not to want to question their own allowable cuts and on the other hand they are afraid to sell timber at all. They have pointed this out in their statements.

My own statement—which I have submitted for the record, Madam Chairman, merely points out in a little more detail one point Mr. Lindgren made and that is that we urge that the timber selling of part of the Forest Service program for next year, rather than being decreased, might at least be kept at the present level.

Mrs. Hansen. Thank you very much.

Mr. McCracken. We have a statement made at the foresters meeting which we would like to have placed in the record. It is by Jack Buchanan.

(The statement follows:)

Mr. Chairman, gentlemen, it is a privilege to talk to you, today, on the subject of "Problems of Maintaining Environmental Quality as Associated with Timber Harvest." I say it is a privilege because I hold some strong beliefs with regard to timber harvest and the environment.

May I take a moment or two to give you some of the highlights of my 45 years of experience in the lumber business, which, I believe, gives me some qualification to talk to you on the subject at hand.

I was born in Tacoma, Wash., in 1904; and as a 6-year-old I watched the last of the sailing ships load lumber at my father's mill dock. After 2 years at the University of Washington Forestry School, I went to work, in 1926, in this same mill, working on the log pond; tailing the edger and the planer; chasing crane; loading scows; log buyer; yard foreman; mill superintendent; sales manager; and general manager.

I've designed, redesigned and operated cargo mills, resaw and planing mills, dimension mills, timber fabricating plants, and stud mills. I've run mills in the States of Washington, Oregon, Montana, and Colorado. I've logged and manufactured Douglas-fir, hemlock, lodgepole and spruce. I have investigated timber chances in British Columbia, Washington, Oregon, California, Idaho, Montana, and Colorado.

I am past 65, have exercised the great American privilege of going broke—not once, but twice—but have always paid my creditors 100 cents on the dollar.

I am now retired but hope to continue an active career as consultant in the wood conversion field.

I've had a happy life, a life full of rich experience, have a wonderful family, made a little money, and if I had it to do all over again I wouldn't change one line of the script. So much for background and qualification.

To put timber harvest in relation to environment, in its proper prospective we must define what objectives we desire to meet, methods to be used in meeting these objectives, and the criteria to be used to measure our accomplishments in meeting these objectives.

First, let's define what a tree is, in terms that may be different from what you are used to. A tree is a growing, living and drying organism with a life span, in our area, of approximately twice that of man; it's subject to disease, insect infestation, and old age. Like a tree, so is the forest. More than this, however, a tree is a life machine. A tree and a forest are giant producers of oxygen and giant consumers of carbon dioxide. They support life by producing oxygen, vital to all living organisms, and by consuming the deadly pollutant, carbon dioxide. Overripe trees, stagnated stands of overmature timber, produce little oxygen and consume little carbon dioxide.

It takes young, growing, healthy, vigorous trees and stands to produce life-sustaining oxygen. One acre of a young, vigorous stand produces enough oxygen to supply the needs of five people for 1 year. The 11,561,000 commercial forest

acres in region 2, if converted from stagnated, old-growth stands to managed, growing stands, will produce enough oxygen to supply the oxygen requirements for 57 million people for 1 year. If all the national forest commercial timber lands, some 90 to 100 million acres, were converted to properly managed growing stands, the oxygen produced would keep about 500 million people alive for 1 year—two and one-half times the population of the United States.

Today, the world is at a delicate balance point between oxygen production and consumption. Can anyone deny that tomorrow, with predicted population explosions and with vast increases in oxygen consuming industrial processes, conversion from stagnated old-growth stands to growing stands will play a vital role in mankind's future on what, we are told, will be an oxygen starved planet.

The only practical method of changing from our present, stagnated, overripe Forest Service timber stands, to young, vigorous, healthy, oxygen-producing stands is that of controlled timber harvest.

The first imperative, therefore, in achieving a better future environment, is that of abandoning the custodial concept of timber management, replacing it with the dynamic management concept of timber harvest in consonance with the attainment of maximum tree and forest growth. Only through this concept can the forest fullfil its future function as an oxygen-producing life machine.

Let us, next, consider the southwest Colorado spruce forests from the standpoint of maintaining an esthetically satisfactory forest environment. Again, we are confronted with the inescapable fact that trees and forests are living, growing, dying organisms, subject to disease, and particularly in southwest Colorado, insect infestation. Contrary to popular opinion, which holds that if tree cutting is stopped the forest environment is maintained forever, you professional foresters know that any forest cover is subject to constant change.

Uninformed people, individually and collectively, see the forest within the framework of their own life spans. From youth to middle age, a span of 30 to 40 years, when they visit the forest for recreation, hunting, fishing, or hiking, they recognize little of the slow, subtle changes in the forest pattern. Understandably, because of lack of knowledge of the forest life cycle, they are shocked at the sight of forest harvest with its unavoidable, relatively short-term debris.

You, as well as I, know of the catastrophy that can be wreaked on whole forests through epidemic outbreaks of spruce bark beetle. If you do not know of this devastation, then let me refer you to the record. N. D. Wygant, U.S. Forest Service, in his paper entitled "Engelmann Spruce Beetle Control in Colorado," reports as follows:

"From 1949 to 1952, the White River, Arapaho, Routt, Uncompahgre and San Juan National Forests were heavily hit by an epidemic outbreak of spruce bark beetle. The infestation in these five forests covered 55,700 acres. Over 1,627,000 trees were chemically treated. Over $4,800,000 were spent in control measures.

"In orderly harvest and eventual development of intensive management, certain practices and measures will be helpful in prevention of excessive beetle-caused losses. These are:

"1. Close and continuous surveillance for abnormal amounts of windfall that might develop outbreaks. This will require the help and coordination of all foresters to ensure complete annual coverage of the spruce forests. In addition, an annual insect aerial survey by trained observers will provide helpful added insurance against large outbreaks.

"2. Harvest should commence with the overmature stands, for in these stands endemic infestations and blowdown incidence are highest.

"3. The cutting system should be designed to hold the incidence of blowdown to the minimum, whether the cutting system be a light selection, clear-cut in groups, or clear-cut in strips.

"4. Prompt salvage of abnormal blowdown

"5. Greater use of trap logs for curtailment of beetle populations."

Circular No. 944, U.S.D.A., "Biology and Control of the Engelmann Spruce in Colorado" states that: "From 1939 to 1951 the beetles destroyed 4.3 billion board feet of timber in western Colorado.

Bulletin No. 1824, U.S.D.A. further states:

"Logging operations during the flight period undoubtedly remove a great many beetles from the woods, since the beetles are often attracted to freshly felled logs. In this connection it is worthy of note that there is no record of a serious infestation of this beetle ever having been built-up in or near an area where continuous logging was in progress."

Finally, a Forest Service U.S.D.A. Bulletin, Denver, Colo., entitled "Saving the Trees Beyond" states:

"It has been discovered that twice as many beetles are attracted to green, down timber as to standing trees. Green trees, felled and left in the woods until after the mature beetles emerge from the bark and make their flight in search of new trees to attack, are known as 'trap trees.' When these trees full of beetles are later removed from the woods, the logs are milled into lumber, slabs are burned, and large numbers of beetles are destroyed."

The report goes on to state that "unless control work continues" the results will be: Fire hazard and control costs will grow; water runoff damage to the soil will increase; employment will be reduced; business returns will be reduced; recreation values will be impaired.

Disease, overmaturity, fire, insects and windthrow, all are enemies of a continuing, growing, always-green forest environment. If the forest environment is to be esthetically maintained, controlled harvest, not preservation, is the only acceptable, practical, silvicultural tool the professional forester can use. This means harvest on all acres not now in wild, wilderness or primitive areas. This means harvest where there is a montary return to the Government; this means harvest where there is no monetary return to the Government. This means harvest, whether done by the Forest Service or private industry, where the cost of harvest exceeds the monetary return—in other words, subsidized harvest.

Right here is where the hang up comes. If the basic objective is to maintain a forest environment from an esthetic standpoint, this objective cannot be met or made compatible with the present Forest Service policy of selling timber only when and where a stumpage payment must be made to the Government. Everything and everybody loses under this archaic policy of Forest Service's blind, unyielding commitment to a positive dollar return or no timber harvest. The forest environment loses, the recreation public loses, the man who wants to build a house loses, the entrapped ghetto dweller loses, the timber industry loses, and what may surprise you, even the U.S. Treasury loses.

The Organic Act of 1897 clearly sets forth the importance of timber and water production vis-a-vis recreation and other uses. It says,

"No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flow, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States."

The Multiple Use Sustained Yield Act of 1960 states:

"Multiple use means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output."

In 1903, Theodore Roosevelt said:

"And now, first and foremost, you can never afford to forget for one moment what is the object of our forest policy. That object is not to preserve the forests because they are refuges for the wild creatures of the wilderness, though that, too, is good in itself; but the primary object of our forest policy, as of the land policy of the United States, is the making of prosperous homes. It is part of the traditional policy of homemaking of our country. Every other consideration comes as secondary. The whole effort of the government in dealing with the forests must be directed to this end, keeping in view the fact that it is not only necessary to start the homes as prosperous, but to keep them so. That is why the forests have got to be kept. You can start a prosperous home by destroying the forest, but you cannot keep it prosperous that way."

Sixty-seven years later, just last October, Dr. Melville Bell Grosvenor, a dedicated conservationist and Chairman of the Board of the National Geographic Society, reemphasized President Roosevelt's thesis that wise use in a basic element of true conservation. He told the American Forestry Association:

"Important as it is, pure preservation is but a minor aspect of good conservation. The big thing in conservation is wise use of the things we possess. Merely to survive, we must use our natural resources. We must eat, we must clothe

and house ourselves. If in so doing we ruin our soil, pollute our waters, defile our air, lay waste our forests, we are bad conservationists, and the ultimate penalty of bad conservation will be first, lives scarcely worth living, and finally extinction. The nondestructive use of natural resources—the major part of good conservation—is beautifully defined in a term that originated in forestry: 'sustained yield.' If we practice 'sustained yield,' then we are good conservationists, and humankind can look forward to unlimited existence in an environment that will assure contentment and happiness." Mayor Walter Washington of Washington, D.C., put it another way when testifying before the House of Representatives:

"It is possible that many of our poor and needy families that may never be able to get to the senic beauty of our great trees would be able, rather, to get the exposure by looking at cabinets and walls of wood in a descent home in a decent environment in the cities of America? It appears to me, Mr. Chairman, that this is part of our American dream, and it would seem to join one of our great natural resources with human resources to assure a healthy city and a healthy America."

Nowhere in the act, nor in the statements of prominent men herein quoted, do you find a policy that only when dollars are returned to the U.S. Treasury may timber be sold.

The Sierra Club, the Wilderness Society, and the myriad other "save this and save that" organizations accuse the timber industry of raping and plundering the public forests in pursuit of an unholy profit. Some day they may learn that they have been pointing the finger at the wrong culprit. I say, categorically, that the Forest Service is the proper culprit.

From top to bottom, your Service worships at the feet of Mammon. The Forest Service pays lip service to the environment by laying-out timber sales to protect this or that environmental aspect; to slow down water runoff; to screen logging operations from the recreation public; to maintain streamside, roadside, and recreation influence zones; and to window dress roadside cleanup.

Then the Forest Service bureaucratic system tries to cram all these objectives into a timber sale contract, and twists and turns to appraise it so it shows a dollar return to the U.S. Treasury. I have long waited for the day when the Forest Service will stand on its two hind feet and tell the American public, loudly and clearly, that if the prime social objective is the maintenance of forest environment, then they, and not the timber industry, will have to pay part of the bill.

About now, you are saying to yourself or muttering to your neighbor that the indictment I place on the Forest Service is too harsh and probably not true. Let me, again, quote from the record.

Just this fall, your own Forest advised our firm of three sales that did not appraise out at the going margin for risk and profit, and that one of them showed a minus $5 per million below zero appraisal. Your Forest further advised that unless we requested they be advertised these sales would be put on the shelf until such time as the market advances to the point the sales show a positive return to the government, at which time they will be advertised.

The sustained-yield, annual, allowable cut for region 2 (Colorado, Wyoming, South Dakota) is established at something over 600 million, yet for the last 3 or 4 years this region has only offered for sale, each year, from 300 to 350 million feet, or approximately half of what could have been offered. This, in itself, from the standopint of achieving a meaningful environment through timber harvest, cannot be justified.

But more than this, each of these same years, over 550 million feet have died of the natural causes of over-maturity, disease, and insect infestation.

Dead timber, standing or down, returns nothing to society. It is a mute witness to an inexcusable waste. A social waste to the environment; a resource waste to the public; a waste of homes to those who cry for decent living; a waste of income opportunity to the local wage earner.

If you recall, a few moments ago, I said that the U.S. Treasury would also gain if the Forest Service shifted from a policy of hoarding timber to a policy of growing timber. If high-yield forestry were practiced on selected lands, at no impairment of other multiple uses, more than enough additional stumpage income accruing from increased growth and harvest, would become available to practice environmental forestry, through controlled harvest, on those marginal forest areas requiring harvest subsidation.

So far, I have talked about new concepts in timber management without directly relating it to people. Let me now put people in perspective as related to

these new concepts of timber management. Forest Service timber management up to now has been oriented almost exclusively to dollar outputs. If harvest wouldn't return dollars, the Forest Service has not harvested. I submit that timber harvest must, in the future, be related to the much broader concept of social outputs.

What do I mean by social outputs? I mean, first and foremost, on all Forest Service forested lands, other than wilderness, wild and primitive areas, an ever-continuing maintenance, through timber harvest, of a viable forest environment. This is basic to achievement of all the other desirable social outputs the National Forest can give our society and its changing culture.

Recreation opportunities of the type and kind most of the public can use and want to use, such as hunting and fishing, open space family camping, boating, skiing, tourist travel, and recreational vehicle, are many of the social outputs.

Watershed protection, water production, livestock grazing, mining and timbering add to the list of social outputs.

Road construction must provide access for all of social outputs, and yet it must harmonize and blend with the environmental whole. Vehicle use must be provided for, but so regulated as not to damage fragile high-altitude soils. Campgrounds must be built with sanitary facilities, but in such a way as to avoid stream pollution and must be in consonance with the total environment.

Water production must be assured in harmony with prolonging snow runoff.

Timber harvest to meet the expanding future housing needs of our people must be assured, yet harvest must not do irreparable damage to the terrain, silt the streams, or unduly clash with the open space environment.

The extractive industries, mining timber, grazing, and those commercial enterprises which derive income from recreation such as skiing, snowmobiling and recreational vehicles must realize that they have no vested rights in the National Forest lands. They do have privileges and responsibilities toward the totality of the open space environment. By the same token, neither have the professional preservationists any overriding, vested interest as the self-appointed, self-proclaimed, sole protectors, through preservation, of the open space environment.

Increased timber growth on high-yield areas with matching harvest, orderly liquidation of stagnated, old-growth stands, continuing timber harvest, in balance with all other uses, to ensure the continuity of a satisfactory forest environment, accelerated planting of denuded forest areas, increased recreational opportunities through access penetration in unroaded areas—these are the objectives we must achieve if our National Forests are to fulfill the needs of our people.

If the Forest Service is to function responsibly in meeting these national objectives, then, I believe, the following is necessary:

The Forest Service must accept full responsibility for maintaining the forest environment on the unreserved lands, and for increasing social outputs on these lands.

The Forest Service must promptly initiate high-yield forestry on selected lands with no impairment of other multiple-use values, and use timber harvest on all unreserved lands, as the best, most practical, least costly silvicultural tool to maintain a viable forest environment and to increase social outputs.

In the use of timber harvest to maintain a satisfactory forest environment and to increase social outputs, the Forest Service must evaluate harvest in terms of environmental and social benefits, and not, as is presently done, in the sole evaluation of dollar return to the U.S. Treasury.

The Forest Service must use modern, simplified, appraisal techniques, including costs of achieving environmental and social benefits, that realistically measure the full costs of timber harvesting and processing.

The Forest Service must become professionally responsible for establishing long-range, sustained yield, allowable cuts, based on harvest volumes necessary to salvage natural mortality and increase social outputs. Sale programs, designed to carry out these objectives, must be established at least 3 years in advance of planned sale dates, and once established must be adhered to.

There must be established, under the Secretary of Agriculture but above and outside of the Forest Service, a Review and Appeals Board, to which any aggrieved extractive user can appeal and obtain a prompt, objective, and fair review of his case.

The Forest Service must take the leadership in a long-term, public, educational program to explain why timber harvest is a necessary silvicultural tool that must be employed if social and environmental objectives are to be attained.

And finally, the Forest Service must advise the Congress, candidly and forthrightly, of the changes necessary in its objectives, policies, administration and funding, to achieve the necessary social and environmental goals our society will demand in the future.

Commercial Fishing

WITNESS

JAMES A. NOE, JR., PRESIDENT, CATFISH FARMERS OF AMERICA

Mrs. Hansen. Mr. James Noe, President of the Catfish Farmers of America.

Mr. Noe. I am James Noe, president of Catfish Farmers of America. CFA was founded in July of 1968. It represents over 600 members in 30 States. The purpose of this organization is to further the catfish industry and secure better working environments for catfish farmers. I would like to present the following testimony in behalf of this organization's request for additional funds for research, diagnostic, and extension work in catfish.

Catfish farming is a new aqua-agriculture enterprise which has come into prominence in the last decade. In 1960 only 200,000 pounds of catfish were produced. By 1968, the production acreage had increased to 24,000 acres. In 1969 it increased to 40,000 acres, with the product adding a value of some $23\frac{1}{3}$ million to the economy of this country. It is estimated that in 1970, the acreage in catfish production will increase to 55,000 acres. By 1975, this industry might expand to 120,000 acres, with a production exceeding 200 million pounds and a farm market value of $70 million.

As a means of comparison, the trout producers in this country today are raising an estimated 7 million pounds of trout. Catfish production is approximately 7 times as great as this figure. I understand that the retail value of the trout industry in 1969 was $11 million. The retail value of the catfish industry in 1969 was $23\frac{1}{3}$ million. We understand that the trout industry receives in USDI assistance to all aspects of the trout industry, a figure approaching $5 million. Our industry receives $63,000 from the Bureau of Commercial Fisheries, and an additional $150,000 in biological research grants. Last year we received an $152,000 add-on appropriation. We also receive $300,000 a year from the Bureau of Sports Fisheries and Wildlife. All told, less than $700 thousand. This year catfish farmers are investing an estimated $4 million in pond construction. An equivalent amount is being invested in other equipment. Yet our industry is still apprehensive because so little expertise is available to assist us in the more scientific areas, and this is where we turn to the Bureau of Commercial Fisheries and the Bureau of Sports Fisheries and Wildlife for assistance.

Some excellent work is being done, but it is grossly inadequate. Let me give you several examples, please.

1. We currently have no way of measuring the demand or the supply of this industry. The market coordination and statistics preparation is done by one man operating out of Little Rock, to serve the entire industry—22 States. He does not have a full-time secretary.

Our association is setting up an industrywide marketing co-op and we are leaning heavily on this man, however, he is simply spread too thin.

2. Two years ago there were no catfish processors. Today there are 17 with a capacity of over 30 million pounds per year. We have one processing expert in the industry with the Bureau of Commercial Fisheries in Ann Arbor providing part-time services to our processors. With his assistance we have made remarkable progress—we have voluntarily requested the USDI to set standards and specifications and establish an inspection system for our product.

3. The Bureau of Sports Fisheries and Wildlife maintains three research stations in Arkansas and Alabama on a budget of $300,000 per year. The legislation establishing these stations was passed in 1960 and at that time the breakdown of expenditures was 60 percent for salaries and 40 percent for activities of the station. In the interim period, salaries of governmental employees have increased substantially, and 85 percent of the $300,000 is now being expended on salaries leaving only 15 percent of this figure to cover remaining expenditures. Also, since that legislation in 1960, the industry has increased from 200 to 40,000 acres. The staff of the three stations of less than a dozen men is spread vastly too thin. All too often, when a farmer needs diagnostic help or other types or assistance, the research personnel are away from their stations doing extension work which simply must be provided. However, these scientific personnel were intended, and should only, handle research and diagnostic work. USDA, with its vast field personnel, should handle extension work. During the past year, 400 diagnostic lab requests have been filled by the laboratories. Also 4,800 letters have been answered about catfish farming. The station at Stuttgart has had 1,400 official visitors and receives an average of 10 phone calls a day requesting assistance about catfish farming, so you can see why this has turned into more of an extension service than a research laboratory. They have done an incredible job considering their limited resources. However, these stations need to be greatly expanded if research and diagnostic work of the industry is to cope with the scientific problems facing it.

Catfish farming provides the economy of this country with a new source of revenue and a new method of diversifying the uses of our resources. As to the national potential of this industry, articles on catfish farming have appeared in Time magazine, the Wall Street Journal, and Business Week. Many of the Nation's largest industries have entered the catfish farming industry and invested substantial sums of money. To mention a few—Ralston Purina, Pennzoil United, International Paper, St. Regis Paper, Olin Mathieson, American Cyanimid, General Tire, United Fruit, and virtually every large feed manufacturer in the Nation has at least a pilot product on the market for the catfish farming industry.

There are other exciting possibilities in this industry which offer exciting new uses of our environment. One of these involves taking the warm water effluents of nuclear reactor electrical generating plants and growing catfish in the warm water runoffs. Indications are that fish grown in these warm waters will grow six times as fast as normal fish and produce a rather remarkable return for the grower. This procedure cools the warm water and diminishes thermal pollution.

Growing fish in cages has proven one of the great opportunities for this Nation to utilize its flowing streams for additional production. It has been found that fish can be cultured in intensities as great as 250 pounds of fish per cubic yard when intensively cultured in cages, while at the same time increasing the fertility of lakes and streams. We are faced with the staggering demand for additional research in this area to iron out the many problems which we face before making this the profitable enterprise which it can become.

CFA requests approximately $850,000 in new facilities for the three Warmwater Centers at Stuttgart, Kelso, and Marion, Ala.; and some $100,000 more operating funds per year for the Bureau of Sports Fisheries and Wildlife. We request permission for this Bureau to submit specific figures to this committee.

Further, CFA requests a substantial increase in operating funds for the Bureau of Commercial Fisheries; the exact amount to be furnished by the Bureau to this committee in the immediate future.

CFA asks the Federal Government to do what it alone can and should do: research, diagnosis, and extension. To possibly provide more funds for this work, we request the Department of the Interior to conduct an analysis of cost per catfish fingerling grown. If private enterprise can grow these fingerlings for less, CFA asks that these fish be purchased from private growers, and the savings be used for the above purposes.

The Office of Economic Opportunity is issuing grants as large as $1.3 million for commercial catfish projects including research and diagnostic work duplicative of work done by the Department of the Interior. This research and diagnostic work could be done for less by the Department of the Interior. CFA requests that OEO money be used to best serve the whole catfish industry.

With the exception of our $152,000 add-on secured last year, and which unfortunately was impounded by the Bureau of the Budget, this industry is and has been receiving a gross total of $513,000 for the past few years from the Department of the Interior. We urge you to substantially increase the assistance provided this industry, hopefully commensurate with the growth of this industry. We believe that a dollar invested in the catfish farming industry today by the USDI will produce many tax dollars for the Government in the coming years. The catfish farming industry is a profitable and unsubsidized industry. Farmers have now taken the initiative and made this industry into one of the fastest growing commercial fishery industries in the United States. We urge you to consider substantially increasing the level of assistance provided the catfish farming industry. Thank you.

Our executive secretary is here and our vice president-elect, Howard Clemens from Oklahoma.

Mrs. HANSEN. Thank you, Mr. Noe.

FOREST SERVICE

WITNESS

GEORGE R. MOORHEAD, FORESTER, NEW JERSEY DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT, BUREAU OF FORESTRY

Mrs. HANSEN. Mr. Moorhead, Forester, New Jersey Department of Conservation and Economic Development.

Mr. MOORHEAD. Madam Chairman and members of the committee, I am George Moorhead, State forester of New Jersey. I sincerely appreciate your consideration thereby permitting me to appear before you today.

In my position, I am very much aware of the need for research to adequately determine the effects of trees and forests on the human environment, and with municipal watershed problems in densely populated New Jersey and other similar areas in the Northeast. We are constantly being called on to make recommendations for trees as related to esthetics, amenities, and water yield. And very frankly, we just do not have the answers for most of these questions.

For example, how do trees reduce air pollution? How do trees affect air temperature? How effective are trees in reducing noise and what is the optimum arrangement of trees along highways, factories, and airfields to reduce noise and improve esthetics? How can we improve water production and water quality from the 2 million acres of forested municipal watersheds in the Northeast? How much recreation use is compatible with quality water production on municipal watersheds?

These are some of the reasons I am here today to recommend an appropriation of $350,000 for the U.S. Forest Service to set up a new research project at Princeton, N.J. to conduct research on problems with trees and the human environment.

I have been associated with the Forest Service research program in the Northeast for many years and based on my knowledge of their other research programs, I have great confidence that they can and will produce highly useful solutions to our problem on environment—if we can get a program financed.

The Princeton area is centrally located where the population pressures are extremely heavy and the environmental problems exist in direct proportion to these pressures. This location also provides for excellent cooperation and assistance from any organizations, agencies, and several universities.

The Stony Brook-Millstone Watershed Association (a private nonprofit citizen group) will be associated with the Forest Service research programs. Their interest has been substantially verified through their offer of land for research facilities and studies. Their experience and expertise on watershed programs will be invaluable to the research effort proposed. In addition, the Upper Raritan Watershed Association and the South Branch Watershed Association are immediately adjacent to the Princeton area. These associations are also groups of private citizens who are intensely interested in the improvement of the environment, and could be expected to cooperate and assist in research efforts.

Princeton University will provide not only an excellent atmosphere for research, but their cooperation on research in sociology, ecology, and other biological araes, will be most helpful.

The New Jersey Bureau of Forestry, Rutgers, the State university, and other organizations, will be working in close cooperation with the U.S. Forest Service.

So again, I strongly urge and recommend that $350,000 be appropriated specifically for a Forest Service research program on forest environment at Princeton. This will enable them to get started in an area of research that is badly needed.

Thank you again for allowing me to present this recommendation.

I certainly appreciate the opportunity to appear here. I am going to propose a research project, a new one for New Jersey.

This project will apply itself to the subject of a water research program as it affects people. The reason we are interested in getting this in New Jersey is it is at the center where watershed programs are acute. This location can actually provide a proving ground for development procedures where these things can be leading the way in other parts of the country. In addition, Princeton is nationally known as a research center and most of the people there are research-oriented.

In addition, this project will be receiving excellent cooperation from universities and other colleges, Princeton and Rutgers as an example.

Also supporting this project is the Stony Brook-Millstone Watershed Association which has offered land for facilities and studies. There are also two other large watershed associations in the immediate vicinity. These associations are nonprofit private groups interested in the total resource.

The New Jersey Bureau of Forestry will also cooperate in this.

There is no need for me to go into the benefits of these. I heard some of the testimony this morning and you are well aware of it, but I would like to name some of the things that we would like to determine.

We know some of the benefits in a general way but we do not understand, nor do we have quantitative knowledge. This must be available to use for proper planning and management. We want to know the total benefits from trees. We want to know how the benefits are measured and analyzed. We would like to know exactly how the physiological processes take place in the tree, actually the how and why of it.

We would like to know if the life processes can be adjusted or controlled. We would also like to know how much recreational use can be tolerated on a watershed without interfering with the quality and the quantity of the water supply. The money requested for this project is not in the budget of the U.S. Forest Service, so I respectfully urge strong support for adding $350,000 to this Forest Service budget for establishment of this research project at Princeton.

I thank you.

Mrs. HANSEN. We will now insert in the record the statement of Congressman Frelinghuysen, of New Jersey.

(The statement follows:)

REMARKS OF MR. PETER H. B. FRELINGHUYSEN

Mr. Chairman, I appreciate this opportunity to appear before you today to give my unqualified support to the creation of a research program on urban forest environment at Princeton University. The creation of such a research program, and locating it at Princeton, seems to me to be highly appropriate.

The research study proposal would be a valuable addition to our efforts to resore the purity of our air, water, and living environment. These efforts are particularly needed in the densely populated New Jersey-NewYork metropolitan area, where the natural environment stands in great peril.

Let me give you a brief illustration of what I mean. Dr. Rovert H. Daines, professor of plant pathology at Rutgers University in New Brunswick, N.J., recently addressed a public hearing called by the New Jersey Clean Air Council. At that hearing he said that air pollution—primarily from automobile exhausts—had become so acute in New Jersey that it was responsible for severely damaging, and even killing, many species of plants and trees. Dr. Daines emphasized

the importance of carrying out research, such as we are supporting today, on the effect of pollution on plant life, since plants act as a monitoring system of the air we breathe.

In closing, Mr. Chairman, I should like to say that the research program being proposed has my strongest endorsement and support. I urge favorable action by the committee.

FOREST SERVICE

WITNESSES

THOMAS C. SOUTHERLAND, JR., DIRECTOR, OFFICE OF RESEARCH AND PROJECT ADMINISTRATION, PRINCETON UNIVERSITY
DR. GEORGE P. BERRY, M.D., TRUSTEE EMERITUS AND SPECIAL CONSULTANT TO THE PRESIDENT OF PRINCETON UNIVERSITY

Mrs. HANSEN. Mr. Thomas C. Southerland, Jr., Director, Office of Research and Project Administration, Princeton University. Please insert your statements in the record.

(The information follows:)

Madam Chairman and members of the House Subcommittee on Appropriations for the Department of the Interior and related agencies, we are George P. Berry, M.D., trustee emeritus and special consultant to the president of Princeton University and Thomas C. Southerland, Jr., chairman, board of trustees, Stony Brook-Millstone Watersheds Association, and chairman of the Southern New Jersey Group of the Sierra Club.

We are here to recommend an appropriation of $350,000 for the U.S. Forest Service to set up a new research project at Princeton, N.J. This project would be concerned with the effects of trees and forests on the human environment and with municipal forest watershed problems in the densely populated areas of the Northeast.

Many of us in the Princeton community and especially at Princeton University are deply concerned about the deteriorating quality of man's environment and what can be done to improve it. Whereas some of us have been concerned for some time, general interest has been stimulated more recently by the increasing awareness of our population's growth, the resulting decay of our cities, the rising levels of air, water, and noise pollution, and the accelerating rate of the destructive exploitation of our natural resources. As a consquence, new courses and research activities on these and related issues are underway at Princeton University, at the Stony Brook-Millstone Watersheds Association and elsewhere.

Therefore, we believe the need is great and the time is ripe for the proposed Forest Service project that would complement and strengthen these research and teaching programs of the University. Simultaneously, the efforts of the Stony Brook-Millstone Watersheds Association and other conservation agencies and groups would be improved by the cooperative research studies of the University and the Forest Service.

The Stony Brook-Millstone Watersheds Association is a nonprofit, nonpolitical organization founded in 1951 for the purpose of protecting natural resources within its 285-square mile watershed. The association has the distinction of being the second oldest watershed organization in the Nation, the first in New Jersey. This watershed includes 25 municipalities and parts of five counties. Membership has recently increased to almost 1,000 members. The association has a 330-acre new land research reserve (a gift of an additional 70 acres is under discussion), where projects in ecology, water resources, forestry and bird-banding are conducted. It is of interest that one of the first studies on the effects of a pesticide (diazinon) on a total ecosystem was conducted on the watershed research land reserve. This study was under the direction of Dr. Paul Pearson, chairman of the Department of Zoology at Rutgers University. The staff is currently participating in numerous conservation and educational projects and testimony is being given at state and local municipal hearings on various conservation issues.

Carnegie Lake, situated on land owned entirely by Princeton University, forms the geographical center of the watershed where the Stony Brook and the Millstone Rivers meet. There has been much local concern about the degradation of the lake caused by organic pollution and excessive nutrients, a fact confirmed by a study undertaken for Princeton University by the Academy of Natural Sciences of Philadelphia.

Princeton is situated in the middle of a coastal megalopolis of 50 million people. More than one-half of this coastal area, from southern Maine to central Virginia, is covered by trees and forests, including small woodlands, municipal forests and watersheds, parks, and scattered trees and clumps of trees.

These trees screen highways, factories, junkyards, and other unsightly areas. Trees provide green open spaces and quiet beauty. Trees also affect air temperature and humidity, noise, air pollution, and water production and quality. The basic fact remains, however, that sufficient knowledge is lacking to permit planning for the attainment to the fullest values of trees.

The Forest Service has proposed a program that we believe could go a long way toward providing the needed information effectively to cope with the problems involving man in our evermore-densely populated megalopolis. Specific study areas in this proposed program include:

(1) Just how effective are trees in reducing air pollution, and how do they accomplish this reduction?

(2) What fosters or hinders the effect of trees on air temperature and humidity?

(3) Under what conditions and to what degree do trees deaden noise?

(4) How can tree vegetation be manipulated to improve water production and its quality from forested watersheds?

(5) Are recreation and other uses of forests compatible with municipal forest watersheds objectives?

The project proposed for Princeton, N.J., is the only one of this type in the Forest Service, that is, the only one focusing on the advantages of trees and forests in densely populated megalopolis and on municipal forest watershed problems. The proposed research program, requiring an annual appropriation of $350,000, is not listed in the Forest Service budget for fiscal year 1971. We would therefore urge your support at this time by adding this amount to the budget.

The philosophy underlying the effect for which we are addressing ourselves is beautifully described by the following quotation:

"In our largely urban society, the ability to appreciate trees has become dulled—the ability to see the wonder in a tree, the magic and the mystery, the indescribable peace and contentment that can fill our hearts when we walk the wild woods. Nowadays, too many people consider trees nothing more than a cash crop * * * if a tree can be sold, or if it is in the way of 'progress,' the practice is to cut it down without a second thought."

Thank you for giving us this opportunity to present our recommendation to your subcommittee.

Mr. SOUTHERLAND. Representing Princeton University, we too would like to request an appropriation not in the budget for $250,000 for the government for industry study. All of us in Princeton University, as well as the Princeton community, are most deeply concerned about our environment and we feel this project complements this.

The Stony Brook-Millstone Watershed Association is the second oldest in the Nation; it is the first in New Jersey. It was founded in 1951. We serve an area of 285 square miles, parts of five counties. We have approximately 1,000 members and we do ecological studies, water resources studies, birdbanding studies and also one of the first pesticide studies on a total eco system was conducted on our 330-acre land research reserve.

Princeton, as everyone knows, is in the middle of a vast megalopolis of some 50 million people. Unfortunately, the planners and the developers have not realized the value of these trees and we need the answers.

The Forest Service has a program fitting into this. It is my own personal opinion that today we need scientific research in the limits of our biosphere. In other words, we need to know how much oil can the oceans take. How much water vapor can the tropiforce take without adversely affecting weather conditions and what temperatures will bring on the next ice age, for example.

More important, we need to know about the relationship between trees and production of oxygen and absorbing carbon dioxide.

We need to know where we are to know where we are going.

Mr. Moorhead has mentioned some of the specific areas of research that would be conducted and I might add that the Princeton University Department of Biology is very excited over such a study and hopes to work with Yale, the University of Massachusetts, and Pennsylvania. We already work with them on the effects of forests in urban areas.

That is all I have to say and I thank you for the opportunity to appear.

Mrs. HANSEN. Thank you.

COMMERCIAL FISHING

WITNESS

J. RICHARDS NELSON, CHAIRMAN, CONNECTICUT STATE SHELLFISH COMMISSION

Mrs. HANSEN. Mr. Nelson, Chairman, Connecticut State Shellfish Commission.

Mr. NELSON. My name is J. Richards Nelson, I am Chairman of the Connecticut State Shellfish Commission, Rogers Avenue, Milford, Conn. Also, I am President of Long Island Oyster Farms, Inc., 610 Quinnipiac Avenue, New Haven, Conn.

The U.S. population has doubled since 1945, a period of only 25 years. The prospects are almost certain that it will double again before the turn of the century. The production of food for this rapidly expanding population and particularly the need to furnish a diet with adequate animal protein is a major problem.

Our country's farmers have done an outstanding job in keeping pace so far with the population growth but already we are importing large quantities of fish and meat and in spite of this, protein is the most expensive item in the food budget.

The U.S. is blessed with a long coastline indented with estuaries containing many millions of acres. It is here that aquaculture is developing and can grow into a source of food production that will be adequate for our expanding population for many years. A priceless resource where man's efforts with adequate know-how and capital can produce the additional protein food our exploding population requires.

The contributions of the Milford, Conn., laboratory to the development of molluscan aquaculture particularly is widely recognized the world over, and has formed the basis of a whole new industry which is rapidly maturing in New England and New York waters, as well as the Gulf States and the Pacific Northwest. Many of the scientists who contributed appreciably to this development are still working at Mil-

ford, and to disrupt these research and development programs would represent a great loss in time, financial and professional investments.

In addition to the outstanding accomplishments of the staff of the Milford Laboratory in the development of aquaculture, has been their work in testing certain harmful pollutants. Principally, as a result of their work on the effects of hard detergents on molluscan larvae, the American chemical industry voluntarily has made the decision to change their production from hard detergents to soft detergents, greatly reducing the pollution threat to our streams, lakes and coastal estuaries.

The U.S. Department of Agriculture has continuously carried on basic research for almost a century. This has been a major factor in the accomplishments of our American farmers. Only about 5 percent of our population are needed to produce the food for all of us, compared with more than 30 percent of the population in underdeveloped nations. The release of this tremendous pool of manpower is a major factor in our country's industrial success. Our agricultural production is the envy of the world.

Problems in underwater farming are vastly more complex than those on land. Basic research is essential if the goal of continued production of adequate food for our people is to be attained. If the Department of Agriculture had stopped their research program many years ago when the first successful developments took place, we would without doubt have neither the degree of industrial development nor the abundance of food in this country that we enjoy today. The announced decision of the Bureau of Commercial Fisheries to close the facilities at Milford, Conn., would be a major blunder if carried out. The entire budget does not exceed $360,000 per year and closing down the facility would save only a fraction of this.

Possibly the development of aquaculture should not be left with the Department of the Interior but should be transferred to the Department of Agriculture, along with the necessary appropriations. Certainly the evidence before us is that the Department of the Interior is not sympathetic to the development of aquaculture.

The Milford, Conn., laboratory operated by the Fish and Wildlife Service has been carrying on basic biological research since 1931. Their staff has never been large, but the dedication and the skill of the scientists working there have, over the years, formed a basis for agriculture, for underwater farming, that is taking hold. They have worked out a system of shellfish hatcheries so that we are no longer dependent entirely on nature's whims for our crops and, as a result of this and other work, we have an industry in New England, New York waters. Hatcheries are being started in the Gulf States and in the Pacific Northwest.

Our U.S. coastline is tremendous, as we know, and is one of our greatest assets. Our population has doubled since 1945. Prospects are, it is going to double again before the turn of the century. We have got to begin to think about feeding these people. The nutritious animal protein that is possible from our farms, and also from fish and shellfish.

The announced intention of the Bureau of Commercial Fisheries to close the Milford laboratory is a great blunder. Our Department of Agriculture has carried on basic research for nearly a century and as a result of this about 5 percent of our people on the farms are feeding us. It certainly wouldn't be possible today, without the work of the Department of Agriculture, and I think it is an extremely unfortunate thing if this basic research work cannot be continued.

I have a statement that I want to read at the end and say it is not without rancor. I say, "Possibly the development of aquaculture should not be left with the Department of the Interior but should be transferred to the Department of Agriculture, along with the necessary appropriations." Certainly the evidence before us is that the Department of the Interior is not sympathetic to the development of aquaculture.

The responses we have received are protests. The Department feels their work is completed and States and industry can take it over. Well, it is not. Work of that kind is never completed.

The Department of Agriculture has demonstrated what it can do. I am sure the Department of Interior can carry this work out, but the evidence is that, realizing they are working on reduced appropriations—we all realize that—the emphasis is on the exploitation of such at sea and not the production of food under water, which has such a great promise.

I would like to finish up by quoting from a pamphlet of the Department of the Interior:

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park and recreational resources. Indian and territorial affairs are other major concerns of America's Department of Natural Resources. The Department works to assure the wisest choice in managing all of our resources so that each will make its full contribution to a better United States now and in the future.

I am sure that is their intention. I am just saying it is not quite being carried out in this case.

Mrs. HANSEN. Thank you very much.

FOREST SERVICE

WITNESS

W. L. PALONE, ASSISTANT DIRECTOR, DEPARTMENT OF NATURAL RESOURCES, KENTUCKY

Mrs. HANSEN. Mr. W. L. Palone, Assistant Director of the Department of Natural Resources of Kentucky.

Mr. Palone.

(The statement follows:)

Madame Chairman and members of the House Subcommittee on Appropriations for the Department of Interior and related agencies. My name is Woodrow L. Palone, assistant director of the division of reclamation for the State of Kentucky, and I appreciate this opportunity to appear before you. I am here today to recommend an addition of $250,000 to the U.S. Forest Service appropriations for strengthening their research on surface mine reclamation at Berea, Ky.

In my position in reclamation, I believe I am able to see the complete picture as it pertains to surface mining problems, reclamation laws, and the need for

research on mining and reclamation methods. I believe I also have a pretty good idea of the importance of coal to the economy of the Appalachian area and to the electric power needs of the Nation.

Last year when I testified in the House subcommittee, I said that the production of coal would have to double in the next decade, just to meet the demands for electric power. I also pointed out that a large part (over one-third now) of this coal would come from surface mines. And believe me, the current outlook ahead makes these estimates look conservative—even after just 1 year.

It appears that coal will continue to be a valuable mineral and that surface mining will increase greatly in the years ahead. And since only a little over 1 percent of the mineable coal reserves in the Appalachians has been mined to date, it also appears that these rich mountain reserves will be in great demand.

Currently the coal industry provides full time jobs for over 25,000 people in the Appalachians. Many of these people are from rural communities. So we have all the ingredients—rich coal reserve, expanding industry, growing demand for coal, and jobs for rural people—for a bright future of surface mining in the Appalachian Mountains, except for one thing. We still do not know how to mine and reclaim the steep slopes of the mountains and at the same time effectively protect and maintain the forest environment and other natural resources.

For example, in eastern Kentucky, we have beautiful mountains, valleys, and streams, but our current strip mining methods often create critical problems in the forest environment during the mining and reclamation processes. Stripping may result in unstable overburden that slips or erodes, polluting streams with sediment, acids, and other foreign materials. Increased flooding is another problem that is related to stripping and coal-haul roads. Unstable spoils, excess water, and erosion also spell difficulties for revegetation which normally aids in stopping erosion and adds to the esthetic improvement of the disturbed landscape.

The answer to these problems lies somewhere in the area of better mining and reclamation methods, along with an effective regulatory law. I feel that Kentucky has a very strong surface mine regulatory law, and through strict application of the law and the excellent cooperation of the industry, we have made good progress in Kentucky. However, we know that we have a long way to go, and we are going to need the help of an intensified research program by the Forest Service to help and guide our progress into the future.

The U.S. Forest Service has a fine research project on surface mine reclamation located at Berea, Ky. This project was initiated in 1962 and has had excellent relations and cooperation with my division, the Berea College, the University of Kentucky, the mining industry, and others. The Berea project has research in revegetation, water management, spoil chemistry, and engineering.

The Berea project is the only project in the Forest Service that is doing research on surface mine reclamation, and to date the results from research done at Berea have been a major contribution to reclamation in Kentucky and throughout the Appalachians. Their contributions in revegetation and spoil bank chemistry have been especially helpful.

The big need now for research, however, is in the engineering and water management field, and the Berea project is too small both in manpower and funding to do the job that is so badly needed. We need a new technology for mountain mining, one that will leave the spoil materials in a more stable position and less subject to slides and erosion. We need engineered structures and water systems on the spoil areas to prevent stream pollution and to permit successful revegetation. All of these advances are needed to protect and maintain our forest environment, and an intensified and vigorous research program is vitally needed to help bring these things to reality.

For these reasons, I strongly recommend that you appropriate $250,000 for next year to strengthen the Forest Service research program at Berea, Ky. This will enable them to intensify their work on surface mine reclamation.

Very frankly gentlemen, if we do not get some help soon, surface mining on steep slope areas in the Appalachians—in spite of how badly the coal is needed—may not be able to continue.

I want to thank you again for giving me this opportunity to personally present my recommendations.

Mr. PALONE. My name is W. L. Palone, assistant director of Kentucky's Reclamation Division. I want to thank you for permitting me to testify for a $250,000 increase in the Forest Service budget. Of

course, strip mining is a new industry relatively speaking, and it has grown tremendously in the past 25 years. But today this particular industry has about 150,000 acres a year and about 40 percent of the coal being produced today in this country is by surface mining methods.

Kentucky has proven to be a source of information for other States with similar problems; the State of Washington, the State of Georgia, has just recently enacted surface mine legislation. The State of Montana and also the Canadian Provinces of British Columbia and Alberta have looked to Kentucky for information on surface mine reclamation.

These sources of information have been provided for in the past by research conducted by the Department of Natural Resources and by the U.S. Forest Research Center at Berea. Until 1962 there was no formal organization in the Forest Service or other Federal agencies that were doing basic strip mine reclamation research.

In 1962 they organized the center at Berea and their findings are produced and incorporated in the regulations drafted in Kentucky.

Their directions of research in the past have been primarily in the area of vegetation. They haven't gone into mining methods and they haven't gone into the pollution problems in depth.

The main reason we asked for this increase in appropriations is that the people in Kentucky, as well as in other States, find that many of the effects of surface mining are intolerable to the environment. During this 1970 Kentucky General Assembly, there were several bills that were introduced for the total elimination or abolition of surface mining in mountain areas.

These problems can be solved possibly, but the research that the Kentucky Department of Natural Research has done is quite limited because we haven't the facilities or permanent staff of people to seek answers to these different problems. That is the reason we look to the U.S. Forest Service Center at Berea for these answers.

As I say, they have not gone into mining techniques, which is quite expensive. It is easy to go out and count these trees and determine survival and the effect of fertilizer on strip-mined areas, but when you start talking about equipment, going into an area and doing the actual mining and placing of your overburden, this is quite expensive. They have come up with some proposals to cooperate with several of the mining companies in Kentucky and determine the most feasible ways of surface mining in eastern Kentucky. It is for this reason we have come before you today to present this testimony, a written statement and oral testimony in behalf of this increase in appropriations.

Mrs. HANSEN. Thank you very much, Mr. Palone.

Mr. PALONE. I understand Congressman Perkins and Congressman Watts have both spoken to this particular proposal.

Mrs. HANSEN. That is right.

Mr. PALONE. I thank you for the opportunity to appear again this year.

Mrs. HANSEN. Thank you.

WITNESSES

CARL POPE, WASHINGTON REPRESENTATIVE, SOCIETY OF AMERICAN FORESTERS
ROLAND CLEMENT, VICE PRESIDENT, NATIONAL AUDUBON SOCIETY

Mrs. HANSEN. Mr. Carl Pope, Washington State Representative of the American Foresters.

Mr. POPE. I would like to cede my time to Mr. Clement.

Mr. CLEMENT. Madam Chairman, I am Roland C. Clement, vice president for biology, National Audubon Society, 1130 Fifth Avenue, New York City. Although a specialist in wildlife conservation, I have a good background in botany and forestry, and have given considerable attention to such forest insect problems as the spruce budworm and the gypsy moth in the last decade. I am, also, a specialist in the ecological effects of chemical pesticides, and am a member of the National Gypsy Moth Advisory Council.

My studies in these overlapping areas have convinced me that forest research in the United States has lagged far behind Canada's, say. For example, the Canadians have had a systematic study project on the biodynamics of the spruce budworm for over a dozen years and are projecting another several years of continued scientific investigation. Many valuable results have already been published, and this work provides an ever stronger base for advancing our knowledge of this and other insects that may damage the forest. By contrast, U.S. research on insect pests has been of an ad hoc nature, and none has made so significant a contribution as the spruce budworm research of the Canadians.

The gypsy moth has been all too typical of our approaches in pest control. Although we have spent an average of $1 million annually for the whole of the last century in a vain attempt to control this introduced insect, the USDA, which has been in charge of this control program, never did systematic research on either the population biology of the gypsy moth or its effects on the eastern deciduous forest to justify its investments in control programs. No one yet knows how to predict a destructive outbreak of this moth's caterpillars, nor what the significance of defoliation really is on the productivity of a forest stand over its lifespan. In fact, the only properly ecological work on this insect was published in 1947 by the staff of the Harvard Forest, at Petersham, Mass. This study gave convincing evidence that the gypsy moth was of little consequence in well-diversified natural stands, but ravaged only those woodlands already ravaged by man.

In just the last few years, however, the Northeastern Forest Experiment Station, USFS, has encouraged basic research into the biodynamics of the gypsy moth led by a young man, Dr. Robert Campbell, now at the Forest Insect and Disease Laboratory in Hamden, Conn. This is, in my estimation, almost the first significant, promising approach to coping with this insect pest by the Federal Government. It deserves systematic funding and this is why I have come to Washington today—to testify on behalf of the necessary budgetary changes requested by the director of the Northeastern Forest Experiment Station, under whose supervision this research is progressing.

Gentlemen, I have been a consistent critic of USDA pest control programs over the last decade because I was convinced that too many of these programs had been inadequately researched and that overdependence on chemical pesticides, though of short-run advantage, was creating serious problems in the long run. I am therefore particularly pleased to be in a position to compliment the Department of Agriculture on this gypsy moth research program. It is the sort of solid scientific stocktaking that should precede all insect control programs. Its cost is modest, and it is almost sure to save money in the long run, and to teach us how to regulate gypsy moth numbers so that they do no significant damage to the forest.

I come simply to commend to you the request of the Northeastern Forest Experiment Station of the U.S. Forest Service for a budgetary adjustment to permit it to continue basic research on the biodynamics of the gypsy moth, a forest pest of the Northeast. I want to stress that this Nation has spent over $100 million in the futile attempt to control the gypsy moth in the last century or so. We have never done any basic research on this insect. This is the first time that the Federal Government, through the U.S. Department of Agriculture, has proposed really finding out what the relationship between this insect and the forest is and, having been a consistent critic of the USDA on its pesticide programs over the last decades, I take pleasure in commending this first real, real effort to come to grips with this problem by a thoroughly scientific approach.

I would like to commend this to your consideration.

Mrs. HANSEN. Thank you.

COAL RESEARCH

WITNESSES

W. W. McCLANAHAN, JR., EXECUTIVE VICE PRESIDENT, NATIONAL COAL POLICY CONFERENCE, INC.

CARL POPE, WASHINGTON REPRESENTATIVE OF ZERO POPULATION GROWTH

Mrs. HANSEN. Mr. McClanahan, Executive Vice President, National Coal Policy Conference, Inc. We will insert your statement in the record.

(The statement follows:)

Madam Chairman, I am W. W. McClanahan, Jr., exective vice president of the National Coal Policy Conference, an organization which represents all facets of our coal industrial complex—coal producing companies, the United Mine Workers of America, coal-carrying railroads and barge lines, coal-consuming electric energy systems, and manufacturers of coal-mining machines and equipment.

The conference and its members are becoming increasingly concerned at fast developing Government policies which make it more and more difficult for consumers of coal because regulations being widely advocated and adopted in the interests of combatting air pollution are not being accompanied by an equal dedication to research to develop combustion methods which would permit the consumption of most American coal within the limits of such pollution standards.

It is true that research on control of stack emissions on a limited scale has been carried on by the Government, and several private companies have announced the availability of various systems which they guarantee to work. However, utilities seem to be unwilling so far to generally accept and purchase these stack emission control systems; they apparently believe they are not proven in the scale demanded by large modern coal-burning plants, or else they do not believe they can be used to compete economically with other fuels, such as do-

mestic gas or foreign residual oil, as long as these two alternatives are available. Other methods of controlling emission releases from coal-burning plants, particularly sulfur oxides, through the use of new burning methods or altering the nature of the coal fuel, have been the objective of primary research and bench-scale development programs by the Office of Coal Research, the Bureau of Mines, the Bituminous Coal Research, and others. At least two of the new burning systems under research by OCR, so we are told, have now reached the point of showing great promise of practical and economical success, but because of a lack of comparatively minor research funds, work on one has had to be halted, and the other is practically so.

My purpose in appearing here today is specifically to urge this subcommittee to increase the amount recommended in the budget for the Office of Coal Research by a minimum of at least $6.4 million to permit continuation of these research and development efforts.

Of this amount, $5 million would make it possible for contracts to be let and for work to be started on building a pilot plant to demonstrate the technical and economical feasiblity of a process developed by the Pittsburgh and Midway Coal Mining Co. for upgrading coal as a pollution-free fuel. This is known as the Solvent Refined Coal Process. An additional $1.6 million could be devoted to carrying on a program working toward ultimate demonstration of the practicability of magnetohydrodynamics (MHD). I am sure you recall that a few months ago a study made by the President's Office of Science and Technology recommended that, because of its great promise, the Government continue an MHD development program, funding it at about $2 million a year for the next several years. The present proposed OCR budget contains $400,000 for this purpose, which is barely enough to keep the program alive. It seems extremely important to me that the Congress make possible the continuation of progress in this field at at least the level suggested by the OST study.

I realize that the budget is tight and that it is important that unnecessary expenditures be curtailed to hold the line against increases. But, I think this subcommittee has the responsibility to examine the priorities of this tight budget and to make whatever changes appear to be in the national interest.

We are assured by those knowledgeable of the P. & M. process for producing solvent refined coal that it is now a practical probability, and if so, it is urgently needed, particularly at this time when the Nation appears to be entering an era of energy scarcity and shortage of low-sulfur fuel to meet air pollution requirements so great that the Department of the Interior has given the green light to a Midwest utility to import low-sulfur foreign fuel oil at a cost of 50 percent more than the domestic high-sulfur coal currently being used by that plant.

The solvent refined coal project offers an opportunity, in this context, of a developing energy scarcity and increasing dependence upon imported fuel, to develop a new pollution-free domestic fuel for electric power generation and other industrial uses, and to do so at a total cost of around $20 million, over the next few years, the amount which experienced engineers believe will be sufficient to take this project to the point where commercial production can be started. It is my understanding that it would require about $5 million for this program to be launched on a determined, adequately funded and well-planned basis during the next fiscal year.

As all of you on this subcommittee know, this Nation is blessed with one of the world's greatest untapped source of energy in our vast coal reserves. Yet, it is one of the ironies of history that we are rapidly approaching the point where the great bulk of this coal cannot be legally burned, if air pollution control agencies continue to impose strict limits on the amount of sulfur in fuel, without comparable research to enable fuel consumers to control sulfur emissions.

In order for this coal to continue to be used, we must develop processes to remove the sulfur before it is burned or to remove the sulfur dioxide from the stack gases after combustion. The Department of Health, Education, and Welfare is attacking the latter problem with funds made available through the Air Quality Act of 1967. Unfortunately, progress has been much slower than is clearly necessary. We have urged the Secretary of HEW to greatly expand the Department's activities in this field, and, at the very least, to make a high-level, objective study of the various systems now available for stack gas emission control and if he is convinced after such a study that any or all of them are economically and technically feasible, then these findings should be published and made available to utilities and State, local, and Federal air pollution control authorities.

The urgency of this problem is such that ali possibilities must be pursued.

That is why I think the solvent refined coal project is so important. It can convert high-sulfur, high-ash coal into a fuel with less than 1 percent sulfur and with only one-tenth of the original ash. I have seen estimates based upon a careful evaluation of data produced in bench-scale testing of the process, that the finished low-sulfur, low-ash product made from one type of Illinois high-sulfur coal, for example, could be sold at a price ranging from 20 to 35 cents per B.t.u.'s.

We have now reached the point where this program must move in the pilot plant and ultimately into demonstration plant stages in order to determine if its tremendous promise is going to be proven. An additional year's delay at pushing the development of any of these pollution control systems, only compounds the problem of meeting our rapidly increasing demands for power while at the same time making possible the improvement of the quality of our air.

This Nation is going to need the energy represented in our coal reserves. The demand for power is growing at a rate which at least doubles every 10 years. Only this past week, we learned that proven domestic reserves of both natural gas and oil declined further last year. There is a limit to the amount of nuclear capacity which can be built and placed into operation by the end of the century. It is the considered opinion of my organization, based upon in-depth evaluation of the demand for power and the availability of the various sources of that power, that by 1990 more than 700 million tons of coal will be required for electric generations alone, even assuming that our liberal projections of the use of oil, natural gas and nuclear power for this purpose are borne out.

Yet, in face of this indicated significant growth in demand, spreading air pollution control regulations are denying access to the market to more and more coal each year. To me, one thing is clear. If we wish to avoid power shortages in the future, we had better get down to work right now to develop the technology that will permit the optimum utilization of our coal resources.

Admittedly, there is a lot of oil available throughout the world. But total world demand for oil is also growing rapidly, and even assuming that political and economic conditions prevail under which this oil would continue to be made available to us, we simply can't ignore the cost to the Nation in terms of the effect upon our already strained balance-of-payments situation. In 1969, according to the Department of Commerce, this Nation had to expend $843 million to buy foreign residual fuel oil. Perhaps a portion of this amount was returned in the form of dividends and repatriation of profits, but the fact remains that the net outflow of dollars added to the balance-of-payments deficit. And I might add, if the price which Commonwealth Edison has stated they anticipate paying for imported residual oil is typical, consumers in the Midwest will be putting out as much as $2.80 a barrel for residual oil imported from abroad, if additional quotas for imports into the Midwest are granted. The 34 million barrels of added high-cost imports, now being sought for that area through the Oil Import Appeals Board, could results in the outflow of another $84 million.

It seems to me to make much more sense to invest a nominal amount in research and development and produce a domestic pollution-free fuel which would be available at competitive prices and without a drain on our payments positions, and free from threats that fuel originating outside this country and over which we have no control could be cut off at any time.

Even if $6 or $7 million is added to the Office of Coal Research budget and earmarked for the solvent refined coal project and MHD development, the amount being spent for coal research would still be miniscule compared to the proposed budget for nuclear research and development. I realize this subcommittee has no jurisdiction over the Atomic Energy Commission budget, but you do have the authority to increase the OCR budget, and I earnestly request that you do so.

I am convinced that the returns to the Nation from this project, based upon any method of cost analysis, would be as great, if not greater, than returns from nuclear research.

The suggested increase in the OCR budget for this purpose could easily be justified and defended.

Thank you.

Mr. McCLANAHAN. I will just call your attention to the fact that I am here to urge two projects to be funded in the Office of Coal Research. Both, we think, are extremely critical at this point because we are running into a very serious situation as to fuels and energy in the United States as contrasted with and affected by our air pollution control efforts.

There are two projects that have been brought to this point by the Office of Coal Research, one of which is the so-called solvent refined coal process developed by Pittsburgh Midway Coal Co. and I will admit they are not a member of my organization, but I think their project is extremely important because it gives a prospect of not only increasing the efficiency of the coal we use, but of burning it without contaminating the atmosphere.

We understand that for about $5 million a year for about 4 years it could be brought to a practical stage where it could be applied.

The Office of Coal Research has no money for that purpose this year and unless something is done this project will have to be put in limbo, I presume.

The other project that I would like to recommend is an additional $1,600,000 which would bring the funds available for magneto hydrodynamic research up to the $2 million a year level recommended in a study by the Office of Science and Technology.

This, again, is a new system of burning coal which would increase the efficiency and therefore it would mean we would get more power for less actual fuel. While it, in itself, is not necessarily an air pollution control device, it does greatly simplify the application of the control devices to it, compared to present types of burning systems.

I'm sure you are aware we are possibly facing a very crucial energy shortage problem. Just last week we got reports that natural gas last year fell lower than it ever has as far as the new discoveries are concerned, compared to the total use. We are running short of oil. We are short of residual oil. We are beginning to import more and more foreign residual oils because of its low sulfur characteristics. That is North African oil. We have to do something to make it possible to burn and utilize our tremendous reserves of coal and these two projects, which have no equal anywhere else that I know of, except through this committee's action and the Office of Coal Research, are two very important ones I would urge you to give serious consideration to.

Mrs. HANSEN. Thank you.

Mr. REIFEL. Madam Chairman, may I bring to Mr. McClanahan's attention that Congressman John Melcher of the eastern district of Montana, who is on this side of the table at the moment, made a very effective presentation in support of the MHD process yesterday.

Mr. MCCLANAHAN. I appreciate knowing that because I think MHD will mean a great deal to those Western States and all their tremendous coal reserves because it eliminates the problem of water. That is getting to be a great problem with both coal and nuclear plants.

We are going to do our best in other areas too. If the money is here, we are going to try to see if we can't convince somebody that it needs to be spent.

Mrs. HANSEN. Thank you very much.

Mr. Pope.

STATEMENT OF MR. CARL POPE

Mr. POPE. I am Carl Pope, the Washington representative of Zero Population Growth, Inc. Zero Population Growth is a population-environment organization whose primary concern is with the problems caused by the rapid rate of population growth. We hope to achieve population stability through our educational and political programs.

To discuss population without relating it to the environment is meaningless. To talk about environmental dangers without considering population is self-defeating. While we must do everything we can to achieve population stability, we must also realize that our population is going to grow larger before we achieve such stability. In order to accommodate this growth, we will place increasing demands on our natural resources. To handle these demands we must develop policies for the rational use and preservation of our resources. I am appearing today to discuss two important research needs which will facilitate protection and rational use of our forest resources: biological control of forest pests and the recycling of wood products. I am also appearing today on behalf of the Society of American Foresters, which also endorses the research programs outlined in this statement, as do Friends of the Earth.

The Society of American Foresters is the national organization representing professional foresters in the United States. Its objectives are to advance the science, technology, education, and practice of professional forestry in America and to use the knowledge and skills of the forestry profession to benefit society.

It is the society's view that air, water, soil, plants, and animals are interrelated; that ecology is basic to forest land management and man himself is a significant part of any ecological system; and that forest conservation must be based on an understanding and application of ecological, social, and economic principles. These principles must be applied in all aspects of forest land management ranging from the intensive production of timber products to wilderness preservation.

The citizens of the United States have recently become deeply concerned about the deteriorating quality of their environment. Two issues that have been the object of considerable attention are pesticides and solid waste disposal. Pesticides threaten the existence of many species of wildlife including the bald eagle, our national symbol. Distribution of persistent pesticides, if continued, could reduce the photosynthetic capacity of the oceans, and by interfering with the life cycles of marine organisms ultimately turn the ocean into a dead body of water like Lake Erie. They have damaged the health of farm workers, and indeed threatened the health of all of us who consume residues on our food. There is no disagreement that there is some hazard from all use of pesticides, and that only the minimum amounts necessary to maintain public health and provide sufficient supplies of essential foods and fibers should be used. Steps that can be taken to reduce the use of pesticides must be taken.

Biological forest pest control research

One promising method of pest control is biological control, the use of natural predators and parasites to control pests. This has worked dramatically well in a number of cases. The Rodalia beetle was introduced into the California citrus groves from Australia, and proved an effective control for the cottony-cushion scale. When pesticides came into common use, they proved far more lethal to the Rodalia beetle than to the scale. The result was further outbreaks of cottony-cushion scale in the groves. In this case pesticides actually increased the damage from pests; this is not an uncommon result.

There are many opportunities for biological control of forest pests which can enable us to meet our needs for forest products from com-

mercial timber areas, without the exploitation of wilderness or primitive areas, and without upsetting forest ecology through the massive use of pesticides. Examples of these opportunities abound. Detailed knowledge of the micro-climactic and other conditions which affect the population dynamics of the gypsy moth might enable us to eliminate this pest as a serious menace. Bacteria such as *bacillus thuringiensis* are dangerous only to insects, and show promise as natural pesticides to suppress insect outbreaks. The alder can be employed to reduce the damage to Douglas fir from the root rot fungus, *poria weirii*, because the alder causes changes in the root zone which inhibit the fungus and help preserve the fir crop.

Unfortunately, the forest protection research budget for the U.S. Forest Service has not been increased for the 1971 fiscal year, but remains at the $11,414,000 level of fiscal 1970. In view of the promising benefits of biological control in solving pest problems more cheaply, more safely, and more permanently than chemical methods, it would be wise to increase this budget. Fortunately, research already sponsored and conducted by the Forest Service has brought us to the verge of a number of breakthroughs in this field. We urge appropriation for fiscal 1971 of the sums necessary to complete this research and provide us with several useful biological tools for the control of forest pests. An additional appropriation of only $320,000 will turn the research already done into operational biological control methods. The key programs in need of immediate additional financing are:

1. Bark beetle attractants.—$100,000, Pacific Southwest Forest and Range Experiment Station, Berkeley, Calif.

To develop operational techniques of detecting, assessing, and suppressing bark beetle populations with naturally derived attractant compounds, with particular reference to the western pine beetle.

2. Elm bark beetle.—$60,000, Forest Insect and Disease Laboratory, Northeastern Forest Experiment Station, Delaware, Ohio.

To identify and test natural and synthetic compounds that will prevent feeding by the elm bark beetle, the primary carrier of Dutch elm disease, and to develop effective means of applying such compounds to elm trees.

3. Integrated control of the gypsy moth.—$100,000, Forest Insect and Disease Laboratory, Northeastern Forest Experiment Station, Hamden, Conn.

To develop optimal strategies for maintaining gypsy moth populations at tolerable levels and preventing spread, using the most effective combinations of biological and ecological control methods for different situations.

4. Microbial control.—$60,000, Forestry Sciences Laboratory, Pacific Northwest Forest and Range Experiment Station, Corvallis, Oreg.

To develop operational techniques of processing and utilizing insect viruses and other microbial agents for control of Douglas-fir tussock moth, hemlock looper, and other major pests of western forests.

These programs represent biological alternatives to the use of hard pesticides currently used to control these pests. The investment of money in biological control now will be repaid many times. More important, we will have taken a step toward sound, long-term management of our commercial forests to guarantee a continuing supply of wood products without endangering man or wildlife with pesticides, or otherwise contributing to the deterioration of our environment. This appropriation will be one way to turn our rhetoric about the environment into concrete action which can be applauded by all Americans.

Research on recycling of wood fiber from urban wastes

Animals know better than to foul their own nests; not so man.

A nation with our knowledge, wealth, and technology ought to be able to do better than dumping garbage into its bays, oceans, rivers, onto the landscape or into the air through incineration. Americans are dumping five pounds of garbage per person every day; we face a mounting solid waste problem, and we are squandering valuable resources. One major component of our waste problem is wood fibre in the form of paper or cardboard. Of the 50 million tons of paper and paperboard produced in the U.S., only 10 million tons are reclaimed for recycling. Doubling the amount of waste paper used could save 15 million cords of wood per year, or the annual growth of 15 million acres of timber land.

The Madison, Wis. Forest Products Laboratory of the Forest Service, U.S. Department of Agriculture, is working with the Bureau of Solid Wastes Management, HEW, and the Bureau of Mines, U.S. Department of the Interior, on research projects to maximize the effectiveness of reusing materials, specifically wood fibers from paper and other sources in urban wastes.

The Forest Products Lab 1969 appropriation for this purpose was $53,000; the 1970 appropriation was $140,000; the proposed fiscal 1971 allocation is $230,000. The lab estimates that at this rate it will be 6 years before necessary technical data concerning wood fiber recycling is gathered for the construction of a full-scale demonstration urban waste recycling plant. The plant cannot be built without the necessary technical data. An additional appropriation of only $200,000 annually, beginning in fiscal 1971, would cut this time in half. Necessary data for the pilot plant would be available in 3 years, not 6. Thus, speeding up the appropriations process in this case will save $90,000 of the taxpayers' money, not to mention the savings from getting the recycling process going a full 3 years faster. The potential benefits from this modest appropriation include increasing our supply of available wood fibers and forest products, reducing the problem of solid waste disposal, reducing the atmospheric pollution which results from incineration, and easing future pressure for wood products from our wilderness and recreation areas. We strongly urge the Congress to increase the proposed appropriation for Forest Service research on recycling of urban wood fiber wastes to $430,000.

Thank you very much for this opportunity to testify. We appreciate this opportunity to present this statement with the endorsement of both the major professional forestry organization and major conservation groups.

Mr. Clement also mentioned the gypsy moth. We have to face the fact that the hard pesticides we have been using are a serious danger to long-term viability of the oceans, of the entire environment and the habit we have had of filling an airplane up with millions of gallons of DDT won't go much longer. We need an alternative and the most promising alternative at the moment are these programs of biological control.

Mrs. HANSEN. Thank you very much, Mr. Pope.

Mr. REIFEL. The gentleman has made an excellent presentation. I want to commend him for it.

Mr. POPE. Thank you.

BUREAU OF INDIAN AFFAIRS

WITNESSES

HON. JOHN MELCHER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MONTANA
HENRY S. RUEGAMER, PRESIDENT, BIG HORN CANYON HIGHWAY ASSOCIATION
EDISON REAL BIRD, CHAIRMAN, CROW TRIBAL COUNCIL
ELOISE WHITEBEAR PEASE, ECONOMIC DEVELOPMENT PLANNER, CROW TRIBE
HAROLD STANTON AND KAREN STANTON, ATTORNEYS FOR CROW TRIBE
JAMES O. JACKSON, SUPERINTENDENT, BUREAU OF INDIAN AFFAIRS
JACK LAWSON, BILLINGS, MONTANA, CHAMBER OF COMMERCE
JOHN ANDREWS, ECONOMIC DEVELOPMENT PLANNER—CHEYENNE TRIBE

Mrs. HANSEN. It is again a pleasure to welcome Congressman Melcher.

Mr. MELCHER. I have with me Henry Ruegamer, Edison Real Bird, Eloise Whitebear Pease, Harold Stanton, James O. Jackson, Jack Lawson, and John Andrews.

Mr. RUEGAMER. I will call on the Chairman of the Crow Tribe first.

Mr. BIRD. I am Chairman of the Crow Tribe of Indians representing 5,300 Indians in the State of Montana. Realizing that I represent quite a number of Crow people we have been involved in many projects along with the Bureau of Indian Affairs, as well as Congress, in our programs of developing the Crow Indian Nation itself. Very fortunately we are attempting to provide as many avenues as possible for good livelihood.

The Crow people have increased quite substantially. In 1957 we had 3,600 Crow Indians. Today we have over 5,300 members of the Crow Tribe.

Of this population 72 percent are under 25 years of age. These are people I represent. I want to speed up opportunities for them. Today we are here to discuss one of our objectives, one where we are involved in the new industry of tourism and recreation.

Fortunately the Crow Tribe was able to associate with the National Park Service to become a master concessionaire of this vast recreational enterprise that we will show you here in a minute.

Some years ago we had 38 and a half million acres in the Crow Reservation. Today we have 1,500,000 remaining, either individually or tribal tracts owned directly or indirectly by the Crow Tribe itself.

We are in the industrial field, too. We are associated with Mohasco Industries producing carpets.

In addition to that we are also involved in other ventures along with the Bureau of Indian Affairs, the Economic Development Association, as well as the National Park Service.

In our education alone we spend about $80,000 per annum.

Last year we had a dropout rate of 45 percent. Today we are 12 and 14 percent.

Ten years ago we had five Crow Indian children attending college. Today we have over 128 attending college or universities across the Nation.

With these in mind, just a brief summary of what the Crows are attempting to do, by providing and creating opportunities, at this time one of our new objectives is the new program of the Big Horn Canyon Recreation Area.

At this time I will call on Mr. Henry Ruegamer, president of the Big Horn Canyon Highway Association, a venture of the tribe, with the help of our non-Indian neighbors.

Mr. RUEGAMER. I am Henry S. Ruegamer. I am in business in Hardin, Mont. I am president of the Big Horn Canyon Highway Association, an organization made up of interested and energetic people from Montana and Wyoming. Our purpose is to bring to you a vivid description of this area so you will be very familiar with it.

We have a map here on one side and we will use this side for a screen presentation, and we are all set to go if somebody will get the lights over there. Then we will be in business.

Mrs. HANSEN. Please insert your formal statements in the record.

(The statements follow:)

My name is Edison Real Bird, chairman of the Crow Indian Tribal Council of Crow Agency in the great State of Montana. I am the official spokesman of the Crow Tribe of Indians of Montana, and am here to express the wishes, hopes and sentiments of my people in regard to the development of the Big Horn Canyon National Recreation Area. This great recreation area is situated in Wyoming and the State of Montana, with the major portion of the area being within the boundaries of the Crow Indian Reservation. This area includes the majestic Big Horn Mountains, which were named many years ago as the "Shining Mountains" from whence the great State of Montana became known as the land of the shining mountains in the big sky country. In this age of air and water pollution, it is a pleasure to live in a land of clear, blue skys and bluer water, abounding with fish. It is to this area that we want to direct your attention today.

The Crow Tribe is, by contract with the National Park Service, the master concessionaire of the Big Horn Canyon National Recreation Area. It is our plan to help eleviate the chronic poverty and unemployment among our people by the opening up of this beautiful area to the American and foreign tourists, thereby providing over 300 jobs in the tourist business for members of the Crow Tribe. The Crow Tribe are a proud people, and are not looking for charity to solve their economic problems, but we are looking for a chance to help ourselves. Please give us this chance. Later in our presentation, you will be shown some of the developments that are under construction, as well as those proposed for the future in this area. We are embarking on a $5 million development phase in this area, but are faced with the problem that the traveling public cannot get to and through our proposed developments due to the fact that the area is not

serviced by a highway. We are here today on behalf of the Big Horn Canyon Highway, which would go though the recreation area along the magnificent Big Horn Canyon, providing the tourist with access to our facilities, as well as one of the most beautiful scenic drives in the world. We know that we cannot make our tourist industry prosper, and provide the jobs and income for our people unless we have this highway. We cannot wait for 10 years to solve our problems, but know that we must act now. Inflation, and the things that cause inflation, are doubly hard on my people, since they must continually pay more for the necessities of life, while their income remains in the poverty bracket. For this reason, we do not feel that we are unreasonable in asking for the construction of this highway at this time.

We feel proud that we are joined in this effort by our non-Indian friends and neighbors from the great States of Montana and Wyoming. My people, and our non-Indian friends have worked together down through the years attempting to better the whole area by our efforts. One of the dramatic examples of this cooperation is the production of the reenactment of "Custer's Last Stand" in which both races work together to put on the show. We know that we can continue this cooperative effort in other areas of activity, and are here today as a group in this spirit of racial cooperation. We, as a group, ask that you give favorable consideration to budgeting and appropriating the $16 million which we have been told it will take to construct this highway which will make this dream of a new, tourist industry on our reservation a reality. When we complete this development, we would like to urge each and every one of you to come and see the Big Horn Lake lying within the majestic Big Horn Canyon, so that we of the Crow Tribe of Indians may be your hosts in our homeland.

With these brief remarks, we now invite you to come with us, by way of just a few colored slides, and visit the Big Horn Canyon National Recreation Area.

Mr. RUEGAMER. Mr. Chairman: My name is Henry S. Ruegamer. I am in business in Hardin, Mont. I am presently serving as president of the Big Horn Canyon Highway Association. Our association is made up of interested and industrious citizens from the States of Montana and Wyoming for the purpose of building a highway from Fort Smith, Mont., to Horse Shoe Bend, Wyo. This highway will attract thousands of people into the Big Horn Recreation Area. We are in a unique situation, as we are located between two of the most heavily traveled tourists attractions in the West—the Black Hills, Souh Dakota, and Yellowstone National Park, both of which accommodate almost 5 million visitors a year. Few of these people at the present time are now visiting the Big Horn Recreation Area as there is no direct connecting highway.

This highway would bring thousands of people to the recreation area and would also create employment for approximately 300 Crow Indians, which would alleviate the present unemployment now running over 50 per cent in our declared depressed area.

The purpose of our group being here today is to propose that the Government place in this year's budget an item of approximately $16 million to build the highway from Fort Smith, Mont. (Yellowtail Dam) to Horse Shoe Bend, Wyo., a distance of about 45 miles. This highway is needed now becouse OK-A-BEH Boat Ramp facility will be completed this year, making this the only access available to the Lake at Fort Smith, Mont., since Barry's Landing is only accessible over an unimproved dirt road.

The Big Horn Canyon National Recreation Area is one of the most scenic and attractive spots in all America. When you view these slides which show only a small part you will understand what we mean when we say "Here God has brought Heaven and Earth together."

Commentary and film

Highway 90—Average daily traffic during 1968	2,361
Highway 94—Average daily traffic during 1968	1,529
Highway 212—Average daily traffic during 1968	1,335
Average number of out-of-State (number in each party)	3.0

MINI-PROFILE: MONTANA TRAVEL INDUSTRY—STATE ADVERTISING DEPARTMENT

Economic importance of travel advertising

Travel Industry Ranks 3d in Montana—

1. Agriculture	$549,894,000
2. Minerals production	233,995,000
3. Travel industry	163,280,762

1968 figures: $118,866,362 from out-of-State; $44,414,400 from Montanans vacationing in Montana.

As an average, the out-of-State visitor party—

1. Consisted of three persons.
2. Stayed in Montana 3.5 days.
3. Spent $29.42 per day.
4. Spent $102 while in Montana.

Montana ranks 9th out of 13 western states in size of travel promotion budget

1. Hawaii	$1,773,711
2. Oregon	773,000
3. South Dakota	675,000
4. Alaska	550,000
5. Utah	533,881
6. Washington	509,000
7. Colorado	506,960
8. Wyoming	404,659
9. Montana	350,000
New Mexico	350,000
10. Nevada	335,000
11. Idaho	302,000
12. Arizona	215,000

Rocky Mountain States—1968 budget

1. Utah	$533,881
2. Colorado	506,960
3. Wyoming	404,659
4. New Mexico	350,000
5. Montana	350,000
6. Idaho	302,000

In 1969 Montana visitors to Glacier National Park came from: [1]

California	145
Washington	103
Utah	28
Oregon	44
Illinois	60
Michigan	39
Minnesota	61
Texas	21
Idaho	41
Colorado	30
New York	25
Montana	41
Ohio	28
Iowa	23
Wisconsin	31
Other States	202

[1] Tabulated at Hungry Horse Visitor Center—Summer 1969.

Dollars left behind by visitors are good dollars

In 1968—$163,280,762. Visitor dollars are obtained without extensive capital investment or local government tax concessions. Return on the outlay is 613 times the $350,000 invested.

Gasoline taxes in 1968

Paid by gasoline taxes, alone, to Montana by visitors to the State—$2,716,000. (Note that the money left in gasoline taxes by visitors more than pays for the cost of the promotion to attract them in the first place. Visitors are actually paying back to Montana more than 10 times money invested to invite them to come.)

Travel dollars spent exceed total payrolls of 12 largest U.S. companies

If a community can attract only two dozen travelers a day throughout the year, it is economically comparable to acquiring a new manufacturing industry with an annual payroll of $100,000.

Some part of the travel dollar goes into every pocket

Typical figures, 1966:[1]	
Lodging	$0.34
Food	.36
Gas, oil, and transportation	.22
Tips and miscellaneous	.08
Total	1.00

[1] Source: American Automobile Association.

Where the travel dollar goes into the Montana economy—2d time around

Salaries and professional services	$0.31
Taxes and insurance	.14
Mortgages and interest	.13
Furniture and repairs	.06
Heat, lights, and water	.04
Telephone	.03
Farmer and food processor	.29
Total	1.00

BIG HORN CANYON HIGHWAY ASSOCIATION—AUDIOVISUAL PRESENTATION

Mr. RUEGAMER. In a beautifully rugged and scenic but sparsely settled area of Northern Wyoming and southern Montana lies the waters and canyons of the Big Horn Canyon National Recreation Area. Located between the Pryor Mountains on the west and the barrier of the Big Horn Mountains to the east.

This land has had little development and except for the local people, its scenic beauty has been almost unknown until recent years. But came the demands of modern man for more water, for more electrical energy, and for flood control to protect his farms, fields, and towns.

The Yellowtail Dam was built at the north end of Big Horn Canyon, and the resulting body of water also contributes to the recreational potential of this geographic area.

The lake that has formed behind the Dam extends southward approximately 45 miles. Nearly one-third of this lake is in northern Wyoming. The energy created not only provides for man's heat, light, and safety, but excels as an outlet to satisfy his physical and emotional needs.

Recreation, a term that encompasses all of the factors that influences people to get to the out of doors, whether it be for sightseeing, or for active participation in the activities that are of interest to them.

This is the heart of "Crow Country." The ancestors of the present Crow Indians utilized the canyon rims in their seeking for a vision of things to come. It is extremely doubtful that the Crow Indians in their early day vision quests were able to foresee today's use of this magnificent land. A use that is not entirely alien to the land, a use that is compatible, a use that we feel these people would approve of. Yes, we are sure they would approve the use of this area for the benefit of today's "quest seekers" in this outstanding recreational area.

However, before the utilization of this resource may be realized, it is necessary to complete the development that the present-day "quest seeker" desire. Numerous studies have been made in portions of the United States: in the East, Midwest, and West that tell of the tremendous significance and economic impact of recreation activities.

The Crow Indian Reservation and Big Horn County in Montana are declared poverty areas. Big Horn County in Wyoming on the south end of the recreation area has been declared economically depressed. Within the recreation area there is the potential to alleviate the depressed economic conditions that exist today.

In December of 1967 the Crow Indian Tribe indicated their desire to participate in the recreation industry by signing an agreement with the National Park Service to develop the concessions facilities within the recreation area.

In keeping with this desire, the tribe placed approximately 62,000 acres of the reservation within the boundaries of the national recreation area, thus complementing approximately 63,000 acres of Federal lands.

The Federal Government, through the support of the Congress and the Department of Interior, has invested approximately $3 million in boat launching ramps and other recreation facilities. But, the full potential of this tremendous national asset will not be realized nor utilized until Fort Smith, Mont., and Horseshoe Bend in Wyoming are connected by an all-weather highway. This 45 miles of roadway requires an investment, for construction, of approximately $16 million by the Federal Government.

The Ernest & Ernest report prepared for the Crow Indian Tribe in 1964 on the economic feasibility of tribal participation in the recreation area, drew some interesting general conclusions about job opportunities. It indicated that it is going to take a lot of people to operate and maintain the Crow Tribe concessions complex.

Besides administrators and assistants, it will be necessary to have personnel to take care of a golf course, operate sightseeing boats, hotel managers, marina managers, desk clerks, cooks, waiters, bartenders, wranglers, campground managers and the list goes on. The total for one area of development: Pretty Eagle, involves over 200 positions, drawing salaries worth more than $120,000 annually by 1964 standards.

One of the outstanding benefits of the development of concessions on the recreation area by the Crow Tribe, is that these people will not have to go elsewhere to find their jobs. They will not have to go to San Francisco, Cleveland, or Chicago. The jobs can be right here in their home area.

In addition, a return for other than the Crow Tribe can be chalked up to the credit side of the ledger for the construction of this recreation area road. Studies made of the Grand Teton, Yellowstone, and Great Smokey Mountains National Parks and Cape Cod National Seashores, indicate a tremendous impact on the economic conditions of the communities adjacent to these park areas.

If I may, I should like to transgress for just a moment . . . prior to World War II, commercial fishing was the principal source of basic income in Dare County, N.C. . . . in 1953, Cape Hatteras National Seashore was established there. By 1965, the tourist industry was producing $9.1 million or 57.5 percent of that county's basic income, and commercial fishing represented only 10 percent of the county's income.

In Gatlinburg, Tenn., adjoining the Great Smokey Mountains National Park, there were 300 residents in that town in 1933. In 1964, the population had risen to 2,303.

By 1965, capital investment was estimated at $54 million and revenue was figured between $23 and $42 million according to the Gatlinburg Chamber of Commerce and their city manager.

It is estimated that vacationers in Teton County, Wyo., near Grand Teton National Park spent $7 million in 1958. By 1964, 6 years later, tourist expenditures in Teton County jumped to $13.1 million, an increase of 87.5 percent.

Although Montana is a northern State, it can still be termed as centrally located.

This recreation impact can be realized for the Crow Reservation and northern Wyoming and southern Montana beginning with the funding and completion of 45 miles of roadway.

This road is the key to opening the door of economic progress. The recreation visitor and user is already on the scene.

Travelers coming from the Black Hills of South Dakota to the Yellowstone National Park and Grand Teton National Park are the potential users of the area.

Each of these people presently travel roads that pass very close to the recreation area and it is a well known fact that the Yellowstone and Grand Teton National Parks are today faced with almost over-whelming numbers of visitors.

A great natural resource can be made available to the "quest seekers" of this country, but without the essential road system the resource will be wasted and economic investments will not be realized.

The necessary funds for the construction of the roadway through the recreation area is a prerequisite for the Development of a tourist industry that could place the Big Horn counties of Montana and Wyoming and Crow Reservation in a position of removing themselves from poverty and depression.

To begin utilization of all their natural, physical and human resources, we, the members of the Big Horn Canyon Highway Association feel that the time is now.

We sincerely hope that you will lead the way with the appropriations necessary for this economic endeavor.

Commentary and film

Thank you, gentlemen, for your kind attention, and I assure you that the construction of Big Horn Canyon Highway will be a very feasible project. Increased travel will generate a sizable income each year to the Crow Indians as concessionaires and their partners, our Government. A rough calculation of the gasoline tax alone would make a sizable return of about 40 cents per car.

This commentary shows that our future holds great promise with the full development of the recreation area. The influx of heavy travel and resulting income will cause the Cheyenne people, the Crow Indian Reservation, and all Big Horn County to be lifted from the status of a depressed area.

Early construction, beginning this year, of Big Horn Canyon Highway is an absolute necessity so that the many thousands of people may visit, vacation, and enjoy the majestic beauty of this area.

Gentlemen, you will be praised for your infinite wisdom by joining with us in seeing that this road is approved and funded with no further delay.

STATEMENT OF LAWRENCE KOEBBE

Hardin, Mont., is a small but active community in the Big Horn Economic Development District that was initiated August 1, 1968. It has been officially designated as the Growth Center of this district.

We are encouraged by the economic developments already in action on the Crow and Northern Cheyenne Indian Reservations, as well as their proposals set forth in their overall economic development plans.

Hardin, too, has taken an active role in this program. Responsible businesses, financial, and fraternal organizations have submitted their proposals for economic endeavors that will provide a more complete infrastructure to better serve the development district.

We heartily endorse the Big Horn Canyon Highway Association's proposal for a variety of reasons. One of the most important of these is the highways strategic location in regards to other tourism and recreational areas that lie within a 200-mile radius. I'm referring, of course, to the Black Hills of South Dakota—the Northern Cheyenne and Crow Reservations who plan extensive tourism and recreation development—and Yellowstone National Park. This new highway will provide easy access and will encourage travelers into this historical and scenic area in southern Montana. It will provide a means of getting to new hotels, motels and campgrounds, restaurants, marinas, and a multitude of other services that will lessen the present overcrowding of Yellowstone National Park during the peak summer season.

Tourism is an important industry in Montana and with the influx of tourists increasing yearly, we should plan now for in the very near future this industry will become a 12-month venture with activities geared to the seasons and the demands of those visiting our Treasure State.

As mayor of Hardin, I ask that you will make every effort to see that appropriations are set aside for development of this highway.

The Economic Development Administration has designated Hardin the growth center for both the Crow and Cheyenne Indian Reservations. More than 50 percent of the Crow Indians are consistantly unemployed, because farming and ranching are almost the only industries available to them.

The Crow Indian Tribe and the city of Hardin are interdependent. As one prospers, so does the other. We badly need another industry to stimulate our economy. Because the Crow Indian Tribe is the concessionaires for the magnificent Big Horn Canyon National Recreation Area, tourism seems the obvious solution. Completion of the proposed all-weather road connecting Lovell, Wyo., and Yellowtail Dam, Mont., along the west side of the Big Horn Lake would enable the Crow Indians to employ at least 300 people in recreation facilities alone. And this number would grow with the years. The Hardin community wants to help in this effort.

This highway would open more than 122,000 scenic acres for public enjoyment and would alleviate overcrowding in nearby Yellowstone and Grand Teton National Parks.

When the road is completed, an estimated one-half to 1 million tourists would visit the area within 3 to 5 years. This would boost the area's economy by $6 to $12 million per year, using the projected spending figure of $12 per year per person.

Wildlife abounds in the area. Elk, bear, wild horses, coyotes, badgers, squirrels, eagles, hawks, grouse, and pine hens await the nature-loving camper, hiker, and hunter.

Research in outdoor recreation and tourism indicates greatly increasing demand for water-based sports. The Big Horn Canyon National Recreation Area is abundantly qualified to meet this demand. The Big Horn Lake comprises 17,500 acres of water surface for public recreation: Boating, excellent fishing, water skiing, and swimming throughout the summer months and snowmobiling and ice fishing during the winter.

But all of this will be unavailable because it will be inaccessible until the highway is completed. As the map shows, the Big Horn Canyon National Recreation Area is near many highways leading from the populated areas of the United States: Interstates 90 and 94 from the East, Interstate 25 from the South, and Interstate 15 from the Southwest via West Yellowstone and Billings. U.S. Highways 212, 87, 10 and 14 also approach it. Thus, the recreation area now had good roads leading to it from the South and from the North—but they end abruptly at its northern and southern boundaries.

About roads leading up to but not into the area, it must be stated that due to the extremely rugged terrain, there will be a substantial period of time involved between initiation and completion of the access road. If this construction were to commence today, at least 5 years will have passed before through traffic from the dam itself to the Lovell connect would be a reality.

STATEMENT OF THE CITY OF POWELL

The city of Powell, lying halfway between Hardin in Montana, and Yellowstone Park in Wyoming, is vitally concerned with the plans for construction of the Big Horn Canyon highway connecting Interstate Highway 90 and Highway 14A into Yellowstone Park. We are aware of the costs estimated for the construction of this highway, however, we are also aware of the need of this connection between two of Wyoming's most interesting recreation areas. There just cannot be a letup in the development of the tourist facilities in the Big Horn Canyon Recreation Area with the ever-increasing impact of tourists coming into this area to see the wonders of Yellowstone, Teton, Glacier, and other important sights in the Rocky Mountain West.

Today there is a great deal of discussion, along with feasibility studies, to determine a road into Yellowstone Park during the fall and winter months to allow full utilization of the wilderness area for wintertime recreation. Currently there are funds being allocated by county, State, and Federal Government agencies to build a through highway from the Powell-Cody area through what is commonly known as Clarks Fork Canyon into Sunlight Basin, Cooke City, and the north gate of Yellowstone to make an all-weather route through Yellowstone.

Obviously, everyone is looking at a highway of all-weather construction on an all-weather grade from the Twin Cities area through the Blackhills into Yellowstone Park and beyond, into Utah, Idaho, Oregon, and Washington on the Pacific Coast.

The first step in this long-range plan of the Upper Missouri River Basin Recreation and conservation program was to tame the Big Horn River. Also within the scope of this project there must be adequate highways to fully utilize the capabilities of the area. We therefore request the National Park Service, the Bureau of Roads, the Department of the Interior, the Appropriations Committee of Congress, and Congress to take stock of these resources and act with expediency to fully develop the Big Horn Canyon Recreational area and its access highway from Hardin, Mont. to the Big Horn Canyon, Lovell, Wyo. and Yellowstone.

The economic conditions of Big Horn County in Wyo. and the Crow Indian Reservation to the east is such that new industry and new jobs must be found to cause the area to grow with that of the rest of the United States. This source of new jobs and greater income for the people of the area can begin with the completion of the entire Big Horn Recreation Area and the many concessions made available to the travelers of the United States, winter and summer. More new vocations will follow immediately thereafter, alleviating the poverty that does exist at this time.

The people of Powell, Wyo., solicit your support at this time for the necessary funds to complete a highway that can serve vacationers on a year-round basis from the Midwest to the Pacific Northwest through Hardin, Lovell, and Powell.

STATEMENT OF HAROLD G. STANTON

Mr. STANTON. My name is Harold G. Stanton, I am an attorney, and I represent the Crow Tribe of Indians of Montana as one of their legal counsel, my partner, Richard B. Hovland, being cocounsel. I am here today both as an interested citizens of the Big Horn County of Mont. and Wyo., and as one who is working for and with the Crow Indian people in their endeavors to better themselves.

It is a real pleasure for me to work with the Crow people, and I get a deep and abiding satisfaction in seeing them progress the way they are at the present time. They are literally pulling themselves up by their bootstraps, with a pervading sense of good-natured competition with the rest of the people in the area, while at the same time cooperating with projects that are for the good of the entire area. They are approaching the problems of poverty and racial differences in a healthy, self-help attitude, and are trying to develop their reservation to its greatest potential.

The Crow Tribe has embarked on a comprehensive tribal development of the tourist potential that they have, the real purpose of this development being to provide jobs to the Crow people in their home area of the type that they are naturally interested in. The Crow people will make perfect hosts for the traveling public when the Big Horn Canyon National Recreation Area is developed. They are going ahead with the development of the tourist facilities, and are using tribal money and land to match Federal money to provide the funds for this development. They are laying their future on the line with the progressive spirit of self-help that we all like to see. The tourist facilities which they are developing depend completely upon the Big Horn Cayon highway, since the tourists they will attract cannot get to the Crow facilities without this highway. The economic viability of the whole area is dependent upon this highway.

But this is not the entire story of this highway. It will serve the public by allowing access to this recreation area, thereby taking some of the pressure off of the facilities in the Yellowstone Park, which are now being used beyond their capacity and cannot provide the public with the quality recreational experience which they deserve.

With these things in mind, I add my voice to the others here in asking that you budget and appropriate the sum of $16 million to construct the Big Horn Highway along the beautiful Big Horn Canyon.

STATE OF MONTANA,
OFFICE OF THE GOVERNOR,
Helena, January 30, 1970.

Mr. EDISON REAL BIRD,
Chairman, Crow Tribal Business Council,
1414 Mystic Drive,
Billings, Mont.

DEAR MR. REAL BIRD: I have been informed that the Big Horn Development Council is proposing that a highway be constructed from Fort Smith, Mont. to Lovell, Wyo.

I want to compliment you and your associates in the Big Horn Development Council for the foresight you are showing. Such a highway will open access to the scenic and recreational areas of the Big Horn Canyon recreational area for the millions who annually visit Montana and Wyoming. It will also serve to provide new income and job opportunities for Indians and other residents of southcentral Montana and Wyoming.

My office and other State agencies stand ready to provide whatever assistance you may need in making the concept a reality.

Best personal regards,

Sincerely,

FORREST H. ANDERSON,
Governor of Montana.

MONTANA STATE HOUSE OF REPRESENTATIVES,
Billings, Mont., January 30, 1970.

Mr. HENRY RUEGAMER,
President,
Big Horn Canyon Highway Association,
Hardin, Mont.

DEAR MR. RUEGAMER: As a representative for Montana District No. 9, I have considered the potential of the Big Horn Canyon Highway project and heartily endorse the same. I also urge that a Billings-Yellowtail road be either included in the project or follow it immediately.

My major reasons for supporting the Big Horn project are as follows:

1. Yellowtail is a beautiful 67-mile long lake in the heart of the Montana-Wyoming tourist area.
2. Present access is at best totally inadequate and virtually impossible except by use of boat.
3. Construction of the road would have a positive economic impact on the 5,000 Crow Indians and would provide over 300 new jobs.
4. Tourist travel benefits to Montana communities including Hardin, Billings, Bridger and Pryor and to Wyoming communities including Sheridan, Lovell, Greybull, Powell, Cody, and Worland would greatly increase.
5. In this time of increasing national tourism, traffic to Yellowtail is decreasing.
6. Present use of Yellowtail is limited almost completely to people who own boats.
7. This road would open up hundreds of miles of new recreation area and thus relieve overcrowding in Yellowstone and Glacier National Parks.
8. It would provide needed access for Government officials such as conservation and Forest Service employees.
9. The dam was built as a multipurpose facility and access would increase the recreational purpose manyfold.
10. Billings, as the intersection of Interstates 90 and 94 and the largest population center in the four-State area, should have access through the inclusion of a Billings-Yellowtail road segment.
11. A Billings-Yellowtail road would give much needed access to the Crow Indian Reservation and would aid in the development of Pryor as a community and provide jobs for the Indians.
12. A feasibility and route study on the Billings-Yellowtail road has been completed so that construction could begin at the same time as the Big Horn project.

Sincerely yours,

HARRISON G. FAGG,
Montana Representative, District 9.

STATEMENT OF ELOISE WHITEBEAR PEASE

Miss PEASE. My name is Eloise Whitebear Pease. I reside near Lodge Grass, Mont., on the Crow Reservation and am a member of the Crow Tribe of Indians.

I want to thank the distinguished members of this committee for giving representatives of the Crow Tribe and others the opportunity to bring our problems here today. It is a rare privilege.

If I may have the indulgence of this committee for a few minutes I would like to review certain events.

Two-thirds of the Big Horn National Recreation Area lies within the boundary of the Crow Reservation and the damsite itself was until recently the treaty lands of the Crows.

For 50 years we had been pressured time and again to give up this area for development. But, it was not until the 1950's that we finally capitulated to the pleas of the Bureau of Indian Affairs and the Bureau of Reclamation, to the urgings of our non-Indian neighbors in the area, and even to the pleas of the congressional delegations of both the States of Montana and Wyoming.

Why did we yield and give up our treaty lands?

We were told these facts.

We were standing in the way of progress. Not only was the dam needed for power development, but it was to be a multipurpose dam. A dam that was to develop power—yes, but, also, a dam that was to benefit irrigation, flood control, fish and wildlife, and recreation. In fact in figuring cost justification 62 percent was allocated to power development but 38 percent was delegated to these other benefits.

Now, were we as Crow Indians to benefit? We had no huge industries, nor have we today that would benefit from the extra power. We had only minor flood problems that rarely occurred. We have not to this day benefited from irrigation derived from the dam. We had to give up a fish and wildlife area that was exclusively ours so the dam would be built. Only from recreational development could we benefit.

Then and today we are an economically distressed area. Our median income is approximately one-half that of the resident State median; 57 percent of our Indian families have incomes under $3,000; while only 21.4 percent of the Nation's families average under $3,000.

The overall economic development plan for the district in which we reside estimates that 485 jobs are needed for the current unemployment labor force. These job needs will increase proportionately within the next 10 years.

Only .006 percent of 1 percent of our children in the district ever reach college. The reasons for this are all the reasons that can be found in low-income poverty areas.

This is why we gave up our treaty lands. The tourist dollars and the resultant jobs are why, after 50 years, we consented to the construction of the dam.

Now it is there. In all its beauty the Big Horn National Recreational Area sits just as inaccessable as it was before the sparkling lake was created. Part of 38 percent of the taxpayers money developed this recreational area, and part of our treaty lands, and all of our dreams for a better future.

You hold the key, gentlemen. Please, turn it and let us out. Out to a world of beauty and development and economical betterment. Let us share this splendor with the Nation. Please, give us access roads to this area. Thank you.

CODY COUNTRY CHAMBER OF COMMERCE,
Cody, Wyo., January 29, 1970.

Hon. GALE MCGEE,
Hon. CLIFFORD HANSEN,
Senate Office Building, Washington, D.C.

Hon. JOHN WOLD,
House Office Building, Washington, D.C.

DEAR SENATOR MCGEE, SENATOR HANSEN, AND CONGRESSMAN WOLD: The Cody Country Chamber of Commerce wishes to enter into the records complete support of the proposed Fort Smith-Lovell road through the newly established Yellowtail Dam area and the Big Horn Canyon National Recreation Area.

This new road would be of inestimable value to the northern part of Wyoming and to the eastern portion of Montana. It would furnish access to the Yellowtail

Dam Lake and would open an outstandingly beautiful area to the public. Upon completion of the Clarks Fork Road, the Fort Smith-Lovell road would provide another entrance to Yellowstone National Park, one of our major tourist attractions.

Since water recreation is becoming increasingly popular, this proposed road would furnish an access from Interstate 90 to the Yellowtail region, and provide a further water recreation area for people who have been visiting Yellowstone National Park. Our visitors are interested in seeing the entire area and the proposed road would connect the Big Horn Canyon Recreation Area with Yellowstone National Park.

An additional advantage would be the creation of a new water level route from the north and east to Yellowstone National Park, giving our visitors a further opportunity to enter or leave Yellowstone Park without the necessity of traversing mountain ranges.

We appreciate your efforts on our behalf, and hope this road can be scheduled with the possibility of some appropriation being made for at least a start on the road.

Sincerely,

ERNEST J. GOPPERT, JR.,
President.

R. SAM ALLEN,
Chairman, Roads Committee.

STATEMENT BY GOV. STANLEY K. HATHAWAY OF WYOMING

The State of Wyoming strongly favors and endorses the proposal for the construction of a scenic highway along the western side of the Big Horn Canyon of the Big Horn National Recreation Area between Lovell, Wyo., and Hardin, Mont.

The tremendous recreation potential that this area offers the citizens of the United States cannot, in our judgment, be realized without the development of adequate roads which at the present time simply do not exist. The enjoyment of this magnificent scenic area and reservoir is at present limited almost exclusively to boat travel. Approximately 90 percent of the tourist and recreation visitors entering Wyoming travel by private automobile and the development of the proposed road would open new vistas for automobile-oriented travelers.

One of the special attractions of the area for visitors and residents alike is the Yellowtail Wildlife Habitat Unit, consisting of approximately 17,000 acres of land and water and extending from the Yellowtail reservoir up the Shoshone River to within 3 miles of Lovell and along the Big Horn River adjacent to the reservoir. The unit is managed primarily for upland game birds and waterfowl. The 15,000-acre public hunting area displays what is probably the finest natural bird habitat in Wyoming. Wildlife found on the unit include pheasant, chukar and Hungarian partridge, bob-white quail, sage grouse, sharp-tailed grouse, wild turkeys, Canada geese, mallards, teal and many other species of waterfowl along with mule deer and white-tailed deer. In addition, Yellowtail reservoir, itself beckons the angler with its excellent fishing for the rainbow, brown and mackinaw trout and for walleye pike.

With the centennial year of Yellowstone National Park, which is located in northwest Wyoming, coming up in 1972, a tremendous influx of visitors is anticipated. Since Yellowstone Park is situated only 100 or so miles from the Big Horn National Recreation Area, greater use of the latter by the public would help to relieve the visitor pressure on Yellowstone Park which consistently exceeds 2 million visitors per season and could be expected to take a quantum jump during the centennial year observance and subsequent years. With more than 3 million tourists recorded for Grand Teton National Park in 1969, these two national parks have almost reached the saturation level with regard to summer tourist visitation.

Construction of the proposed highway would also create the possibility of a circle tour of magnificent scenic vistas and points of historic interest between the cities of Lovell and Sheridan, Wyo., and Hardin, Mont. The Custer Battlefield National Monument is situated near Hardin, and in the Sheridan area are the sites of historic forts and battlegrounds of the Indian wars. U.S. Highway 14A crosses the Big Horn mountains between Sheridan and Lovell and provides spectacular scenic and recreation opportunities for travelers.

As overall director of the State planning for Wyoming, I want to point out that the construction of a highway along the western side of the Big Horn Canyon for the purpose of enlarging and enhancing the recreational benefits of the Big

Horn National Recreation Area would coalesce with and advance and strengthen comprehensive planning in the State of Wyoming and therefore carries my full endorsement. The proposal is also endorsed by the State planning coordinator for Wyoming.

Powell, Wyo., January 30, 1970.

Hon. JOHN WOLD,
U.S. Representative from Wyoming,
Longworth House Office Building, Washington, D.C.

DEAR MR. WOLD: The city of Powell is quite concerned and interested in the future development of this area. The proposed construction of the Big Horn Canyon Highway will be of inestimable help.

When completed, in conjunction with the Clarks Fork Highway, it will provide the all winter route into Yellowstone Park for a greater number of people, thereby increasing recreation facilities for the present as well as future generations. It will also open up greater possibility for the development of natural resources that are now either unknown or inaccessible.

What ever you can do in aiding and expediting this project will be greatly appreciated.

Sincerely,

RALPH A. SMITH, *Mayor.*

Mr. BIRD. This is a small part of it. We realize that this is a very unique situation. In 1958 the Yellowtail Dam was built in the Crow Reservation. It was an act by Congress whereby the Crow Tribe was given revenue in payment for the damsite and adjacent areas.

Since the dam is being built we have to utilize what potentials there are, so in 1967 we made a memorandum of agreement with the National Park Service whereby we became the master concessionaires of this recreation complex.

Mrs. HANSEN. Congratulations.

Mr. BIRD. This is a unique delegation, with my being chairman. Last time we were here I had people from Wyoming and Montana to support the Crow Tribe in the Big Horn Canyon Tribal Recreation Area.

I thank you for the time.

Mrs. HANSEN. Thank you, Congressman Melcher.

COAL RESEARCH

WITNESSES

DAVID GRANGER, AVCO CORPORATION
DR. RICHARD J. ROSA
DR. WILLIAM D. JACKSON

Mrs. HANSEN. Mr. David Granger of Avco Corp.

Mr. Melcher?

Mr. MELCHER. I have the pleasure of introducing Avco's people today. I will submit their very good background at this point.

I will introduce Dr. Rosa, Dr. Jackson, and Mr. Granger. You will have a description of the MHD process for your consideration.

Yesterday, on official time, I urged an increase in appropriations for research on magnetohydrodynamics.

I would like to present today two representatives of the Avco Everett Research Laboratory, Everett, Mass. The director of the Avco Everett Laboratory, Dr. Arthur Kantrowitz, appeared before

this subcommittee 2 years ago on March 26, 1968, to discuss MHD power generation and its important social and economic impact.

Today Dr. Richard J. Rosa and Dr. William D. Jackson will bring us up to date on the status of MHD power both in this country and abroad.

Dr. Richard Rosa first became involved with MHD as a doctoral student of Dr. Kantrowitz at Cornell University in the early fifties. He joined the Avco staff shortly after the laboratory was established in 1955 and since then has devoted practically all of his time to MHD research. It was Dr. Rosa who was in charge of the research project which in 1959 built the first MHD power generator to produce an appreciable amount of electric power. Dr. Rosa currently is director of Avco's MHD power generation program.

Dr. William Jackson also is an active member of the MHD power generation group at Avco Everett Research Laboratory. Like Dr. Rosa, he first became interested in MHD as a doctoral student—in his case at the University of Glasgow. In January of this year Dr. Jackson served as chairman of the sixth meeting of the International Liaison Group on MHD held in Paris, France, under the sponsorship of the European Nuclear Energy Agency and the International Atomic Energy Agency.

I would like to introduce Dr. Rosa.

Mrs. HANSEN. We will ask the gentlemen to summarize their statements.

Mr. GRANGER. Dr. Rosa will make the presentation, Madam Chairman.

(Dr. Rosa's statement follows:)

MHD ELECTRIC POWER GENERATION

INTRODUCTION

Included in the Department of Interior fiscal 1971 appropriations request are funds for the development of magnetohydrodynamics. Avco Everett Research Laboratory believes that this program is vitally important to this country.

Magnetohydrodynamic electric power generation, MHD for short, is a new method of generating electricity which promises:

(1) an increase of approximately 50 percent in thermal efficiency and substantial reductions in generating costs over present methods of generating electricity;

(2) better utilization of our coal reserves, especially in water-scarce areas;

(3) a technologically feasible and economically attractive method of removing almost all of the particulate matter and the nitrogen and sulfur pollutants before emission to the air, thus drastically reducing air pollution;

(4) elimination of the need for cooling water, thus resulting in no thermal pollution.

THE PRINCIPLE OF MHD AND ITS INCREASED EFFICIENCY

The current method of generating electricity in thermal power stations has not changed over the past 60 years and has reached the practical limits of its efficiency in converting the energy contained in the fuel to electricity. Conventional power generation involves a three-stage process. Steam is first generated, either by burning a fossil fuel or by nuclear fission. The steam is then expanded through a turbine. The turbine rotates copper conductors through a magnetic field and thereby generates electricity. Technological and economic factors limit this three-stage process to an efficiency of about 40 percent for fossil plants, 33 percent for present nuclear units, and 42 percent for advanced nuclear units.

Thus, conventional and nuclear powerplants convert much less than half the chemical or nuclear energy contained in the fuel into electric power. All the fuel energy not converted into electric power is delivered to the surroundings. Usually this waste heat is rejected in the condenser and delivered into rivers, lakes, and streams. The pressure of this enormous heat rejection is even now taxing the water-rich areas and promises to get much worse as power demands grow. In water-poor areas in the West the necessity for cooling water for heat rejection retards development, particularly those areas which are fuel-rich with coal deposits but which are water-poor, as is the case in much of the coal deposit areas of the West.

MHD electric power generation operates on the principle of burning fuel to obtain a very hot gas and passing a hot, electrically conducting gas directly through a magnetic field to generate electricity. MHD is inherently a one-stage high-temperature process which has evolved from aerospace and rocket technology. Basically, an MHD generator consists of a rocket-like combustion chamber and nozzle, a channel to contain the hot flowing gas and a high-performance superconducting magnet to provide the necessary magnetic field. Electrodes are imbedded in the walls of the channel to enable the generated electrical power to be supplied to electrical networks. Coal is expected to be the fuel for base-load electric generating installations.

Electricity is thus generated directly from the hot gas and this gives MHD its engineering advantages of simplicity and high temperature operation. It also means that MHD is inherently suited to large sizes and means that there are not hot, highly stressed rotating components in the generator itself.

Because its operating temperature is of the order of 5000° F., the efficiency for a base-load MHD powerplant is expected to approach 60 percent. This dramatic improvement in efficiency over that of conventional fossil fuel and nuclear plants, together with the inherent simplicity of MHD plants, will lead to a lowering of electricity generating costs and to conservation of our fuel resources. The comparative cost advantage of MHD is shown in the charts on page 8.

AIR POLLUTION CONTROL

MHD plants promise a drastic reduction in air pollution.

In air pollution control, coal-fired MHD power stations have an inherent advantage over conventional systems. In an MHD plant, combustion of the fuel occurs at very high temperatures and at high pressure, thus eliminating much of the unburned fuel in the combustion gases. Second, the combustion conditions associated with MHD power generation will permit the economic removal of much of the sulfur and oxides of nitrogen; the cost of extracting the harmful pollutants would be more than offset by the economic value of the chemical by-products. Third, the seed material injected to obtain electrical conductivity in the hot gas must be recovered for both economic and environmental reasons, and this will be done with electrostatic precipitators of very high efficiency (99.95 percent). These precipitators, in addition to removing the seed material, will also deal with the other particulate matter in the stack gas, particularly fly ash. Thus, the need for seed collection automatically ensures that the stack gas will be cleansed of particulate matter. This cleansing equipment is a natural part of the MHD powerplant and not a device added solely to satisfy the requirements for particulate emission.

A comparison of the stack emission from conventional steam power plants and MHD powerplants is shown on page 9.

NO THERMAL WATER POLLUTION

All powerplants must reject heat, but the amount of heat rejected drops rapidly with increasing plant efficiency. Steam-electric powerplants must reject heat to cooling water in order to condense the steam from the turbines. Nuclear plants are less efficient and discharge up to 50 percent more heat through their water-cooled condenser systems than do conventional fossil fueled power plants. The thermal pollution problem could, of course, be ameliorated by the use of cooling towers. However, such cooling towers are relatively expensive, huge in size, and require substantially more land and space at the plant site.

It is anticipated that MHD power generation at first will be combined with supplemental steam power generation. Because of their higher efficiencies, MHD-steam powerplants would need less than half the amount of cooling water required by conventional fossil fueled steam powerplants. Compared with present

nuclear powerplants the amount of cooling water would be reduced to less than one-fourth. Moreover, due to the basic nature of the MHD process, the need for a supplemental steam turbine can be entirely eliminated by using a supplemental gas turbine. Thus, MHD power systems can readily be designed which reject all heat into the atmosphere and none to water. Since no cooling water is necessary to operate these MHD plants, they can be located in water-poor but fuel-rich areas of the country, such as some of the coal-rich areas in the West, and so open up presently underdeveloped areas for power generation and industrialization. Economic development of such areas could reverse the flow of rural populations to the cities and help to solve the serious problems created by the present heavy urban concentrations of people and industry.

A comparison of cooling requirements for conventional, nuclear, and MHD powerplants is set forth on page 10.

FIRST DEVELOPMENT IN THE UNITED STATES

Early efforts to study MHD phenomena in the laboratory began at Cornell University almost 20 years ago under the direction of Dr. Arthur Kantrowitz, then professor of aeronautical engineering and engineering physics at Cornell University. Subsequently this work was transferred to the Avco Everett Research Laboratory; Dr. Kantrowitz is the director of the Avco Everett Research Laboratory. The MHD power generation principle was first demonstrated in 1959 at the Avco Everett Research Laboratory by Dr. Richard J. Rosa with the Mark I generator, which delivered 10 kilowatts of power. This success, together with system studies, led the Avco Corp. and a group of utilities, coordinated by the American Electric Power Service Corp., to engage in a joint program to undertake the first phase of the development of MHD generators for central-station application at an expenditure of about $10 million.

Concurrently, the Department of Defense supported the construction of a large demonstration generator to prove the ability of MHD to deliver large amounts of power for short periods of time, ranging from seconds to hours. This was the Mark V generator, which achieved a gross electrical output of 32 megawatts and provided power for its own magnetic field. Avco Everett has since built and tested a 20 megawatt LORHO pilot MHD generator for the low-density wind tunnel facility at the Arnold Engineering Development Center, Tullahoma, Tenn.

IMPRESSIVE FOREIGN TECHNOLOGY

While MHD was pioneered in the United States, it is now under development in leading industrial nations, notably the Soviet Union, Japan and the Federal Republic of Germany. In the case of the Soviet Union, the decision to embark on the development of this technology was made some years ago and a pilot plant is currently in the final stages of construction on the northern outskirts of Moscow. This plant, known as the U–25, will produce a total output of 75 megawatts and is expected to begin operation during 1970. In Japan, a small pilot version of an oil-fired MHD power plant is being constructed as a national project; and the Federal Republic of Germany has recently announced an expanded and accelerated MHD program.

BASE-LOAD DEVELOPMENT

The goal of MHD development is a prototype base-load plant incorporating the performance and pollution control features just described. To determine the future course of MHD development in the United States, a prestigious panel was appointed late in 1968 by the President's Science Advisor. This panel issued a report through the Office of Science and Technology supporting efforts to advance MHD and recommending a program, which includes government funding of about $2 million a year, to develop coal-fired generators. The energy policy staff of the Department of the Interior has also urged a vigorous MHD program.

The Department of the Interior has included in its fiscal 1971 appropriation request $400,000 for MHD development through its Office of Coal Research, and $300,000 through its Bureau of Mines. Development of MHD through the remaining required research and development and then through the design, construction and operation of a pilot plant is estimated to require approximately $60 million over an 8 year period. At the end of that time MHD development would be ready for the construction of a large prototype demonstration plant and its incorporation into a utility system.

BLACK-OUT PREVENTION

The avoidance of "blackouts" and "brownouts" is another contribution which MHD generators can make to electric network operation. Beginning in 1967, Avco Everett Research Laboratory and a number of New England utilities headed by the Boston Edison Co. have examined this emergency and peaking role for MHD with the objective of providing low-cost relief for reserve requirements. The exceedingly rapid startup capability of MHD generators makes them particularly suited for meeting emergency and peaking power needs. Avco's experience with the Mark V and LORHO-pilot experimental generators shows that MHD for this type of service can be developed immediately and could make important contributions to peaking and emergency power requirements within four years. A prototype MHD generator for this application would also serve as a clean-fuel prototype for a baseload plant. Its construction and successful operation would substantially accelerate the overall development of all MHD systems.

In December, 1969, Boston Edison Co., New England Electric System, New England Gas and Electric Association and Northeast Utilities, in cooperation with the Edison Electric Institute and the Avco Corporation, announced a 1-year program in which a detailed engineering and economic examination of emergency and peaking MHD generators will be carried out. This group has now been joined by the Consolidated Edison Co. This effort should be incorporated into the overall MHD development program.

CONCLUSION

MHD offers unique opportunities because it eliminates the steam turbine in generating electricity. The increased efficiency of MHD offers better utilization of our fuel resources and also results in less waste heat absorbed by the surroundings. The drastic reduction in air pollution and the lack of thermal pollution would be reasons enough to develop MHD. And with no water requirements, coal-fired MHD power plants could be located in underdeveloped areas that have abundant coal but lack the water resources to support a conventional power plant. The advantages to coal-rich water-scarce areas such as our Western States are apparent.

This Nation is faced at present with a rapidly increasing demand for electric energy which is fast outstripping the supply and is faced at the same time with increasing air and water pollution. The United States needs desperately to meet its national energy requirements and at the same time prevent damage to the environment. MHD offers the best promise of accomplishing these two purposes, the need to meet our expanding energy requirements and the need to prevent damage to our environment. A strong MHD development program should be funded, at least in the amount recommended by the Office of Science and Technology Report, $2 million dollars Federal funding annually to reach these objectives.

ESTIMATED ENERGY COST COMPARISON

	Developed MHD	Conventional steam	Nuclear (present)
Efficiency (percent)	60	40	33
Capital cost (per kilowatt)	$80	$140	$180
Cost per kilowatt-hour (mills)	3.34	4.95	5.65
Breakdown of production costs (mills per kilowatt-hour):			
Capital charges [1]	1.93	3.00	3.85
Fuel [2]	[2] 1.14	[2] 1.70	1.50
Operation and maintenance	0.25	0.25	[3] 0.30
Seed	0.02		
Total cost	3.34	4.95	5.65

[1] Capitalized at 15- and 80-percent plant capacity factor.
[2] Fuel cost with coal at $5 per ton.
[3] Includes also nuclear insurance.

COMPARISON OF STACK EMISSION FROM CONVENTIONAL STEAM POWERPLANTS AND MHD POWERPLANTS

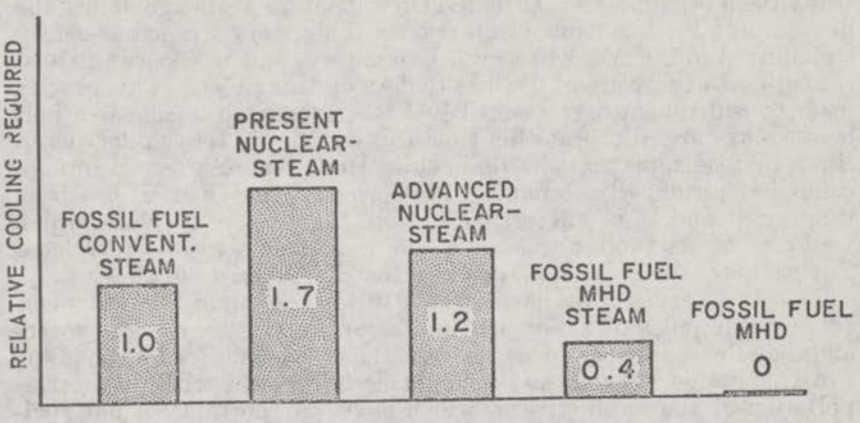
[Basis for comparison: Powerplant capacity, 1,000 MW; coal containing 3 percent sulfur burned with air]

[Pollutants emission in tons per day]

	Conventional steam	MHD
Particulate matter	[1] 33	[2] 3
Sulfur oxides (SO_2)	[3] 450	[4] 3
Nitrogen oxides (NO_x)	[3] 80	[5] 4

[1] Recommended dust emission control in accordance with ASME standard No. APS–1, November 1968.
[2] 99.9 percent efficient seed recovery and gas cleaning system.
[3] Emission factors from Public Health Service Publication No. 999–AP–42.
[4] 25 p.p.m. SO_2 in effluent gas from chemical recovery system.
[5] 50 p.p.m. NO_x in effluent gas from chemical recovery system.

COMPARISON OF COOLING AMONG THERMAL POWER PLANTS



MHD-STEAM POWER SYSTEM REDUCES COOLING WATER REQUIREMENTS TO:

40 percent of conventional steam power
25 percent of present nuclear power

MHD-GAS TURBINE POWER SYSTEM CAN ELIMINATE THE NEED FOR COOLING WATER.

Dr. ROSA. Thank you for this opportunity.

Magnetohydrodynamics is a rather pompous title for what it turns out to be, a rather common phenomenon, at least common if you include the universe as a whole rather than just the earth. It has to do with how ionized electrically conducted gases interact with a magnetic field. In these days, astronomers tell us that the universe is in fact mostly ionized gas. It is mostly permeated by a magnetic field which influences its behavior sometimes rather strikingly.

The early attempts to bring MHD phenomena down to earth and study them began at Cornell University about 20 years ago, under the direction of Prof. Arthur Canterwoods. This work was subsequently transferred to the Avco Research Laboratory, and in 1959 we gained the support of a group of utilities to develop this process. This process made considerable progress until 1966 when the project came to a halt because of our failure at this time to raise funds for a pilot plant. Since that time, progress has been slow. However, progress in foreign countries, principally Japan, West Germany, and Russia, has been very great and it is interesting to note that the pilot plant which we failed to get funds for 4 years ago nevertheless will be completed this year. It will be located, however, on the outskirts of Moscow.

This is a very simple device. It is little more than a piped place between the poles of a magnet, but it can handle very high powers and handle conditions which conventional systems cannot handle. For this reason it promises economic electric power with no thermal pollution of lakes and streams which is very important for our fuel-rich but water-poor Western States.

It is much superior to conventional equipment which add to pollution. It has the ability to start and stop with extreme rapidity which makes it ideal for emergency and peaking applications, which is to say for the prevention of brownouts and blackouts.

The cost of developing this MHD process through the stage of a prototype emergency peaking plant will be approximately $10 million and it will require approximately $60 million to develop it through the stage of a prototype coal-fired basalt plant.

I think you will agree this is a small price to pay for what it promises to an industry which, after all, must spend something like several billion dollars annually to meet the demands for new capacity and is an industry which is, after all, basic to all industrialized society.

Thank you.

Mrs. HANSEN. Thank you very much, Dr. Rosa.

BUREAU OF INDIAN AFFAIRS

WITNESSES

RAYMOND NAKAI, NAVAJO TRIBE OF WINDOW ROCK
NORMAN BOWMAN, NAVAJO TRIBE OF WINDOW ROCK
MISS ANNIE WAUNEKI

Mrs. HANSEN. Mr. Raymond Nakai, Navajo Tribe of Window Rock.

It is very nice to see you again, Mr. Nakai. I remember with great pleasure the visit to the Navajo Nation that Mr. Reifel and I had the privilege of making.

Mr. NAKAI. Wonderful. We are looking forward to seeing you on the Navajo Reservation again.

Mrs. HANSEN. We will again visit the reservation.

Mr. NAKAI. We are here on the Navajo Indian Rerservation project. This is the same reason we were here last spring. We were pleading with the committee and other Members of the Congress to——

Mrs. HANSEN. Additional funds were appropriated last year but the Bureau of the Budget placed them in reserve.

Mr. NAKAI. Not only that, but I believe some of the money that was given to the project was frozen, and I understand that this would be released. Still the funds are way below what is required to keep the project moving.

Of course, the project now is at a standstill, we might say. We needed additional funds to get the project back on the road so that we can get the project completed in time, which would mean, of course, jobs for the Navajo people. This is our most important need right now, to give these people some sort of jobs and income-producing jobs on Navajo.

As you well know, the unemployment rate is something like 30,000 Navajos unemployed. Still a good portion of the 30,000 are employable. We feel some of the unemployment could be absorbed by the Navajo irrigation projects and other types of industrial developments which we have going on. This is what we are here for, and any additional information that you might need, of course, Mr. Bowman can give. He is director of the resources division of the Navajo Tribe.

Mrs. HANSEN. I had the good fortune last year when I visited to attend your tribal council meeting in Window Rock and listen to the discussion by the various members on the problems and their needs. I think I learned more in that three-quarters of an hour at the council than I had ever learned before about the project.

I can assure you the committee has been deeply concerned about this project.

Mr. REIFEL. I know statements are being submitted for the record. It is a real honor for us to sit on this side of the table to welcome the distinguished chairman of the Navajo Tribe, Mr. Bowman, and equally important to have Annie Wauneki whose father was internationally known as a distinguished leader of the Indian tribe, and Annie herself is no less known.

There is not an Indian committee in the United States of any significance on which Annie does not serve.

Mrs. HANSEN. We are honored today to have you Miss Wauneki. We always like to see the distinguished women of America come before us.

I understand you have been awarded the Freedom Medal. We are very proud to have you.

Please insert in the record your statements.

(The statements follow:)

STATEMENT OF CHAIRMAN, NAVAJO TRIBAL COUNCIL BEFORE CONGRESSIONAL SUB-COMMITTEE

This is the second time, in as many years that I have appeared before you to request additional funding for the Navajo Indian irrigation project. Last year I submitted a statement reflecting briefly the background of this unfortunate project. I was impressed by your apparently sympathetic understanding and your warm reception. I reported to my people that I had never been more graciously received, and I expressed the belief that it was certain that you would seek to add to the program the modest increase that we so desperately needed.

Unfortunately, in your wisdom, you did not increase the appropriation 1 cent and as I predicted then, the project has practically ground to a halt, and it would appear that the Navajo Indian irrigation project has been abandoned.

Why then my appearance today? Merely the faint glimmer of hope that someone, somewhere may recognize the manifest unfairness of the Government's position, and seek to redress the wrong that has been visited on the Navajo people.

Let me lapse into history once more. This project, as you well know grew out of the determination of the Government to find a land-base for our people so that with the inevitable depletion of our mineral wealth, we might shift into an agrarian economy for the support of our burgeoning population. The philosophy of an agrarian economy was reflected in our treaty with the United States in 1868 in which the Government proposed to assist those Navajos who wished to engage in agricultural pursuits with seeds and other benefits for their support. The failure to initiate this program was due solely to the lack of water.

The Government's plan of a large irrigated area thus had appeal to the Navajos, and, after some debate, they agreed to go along with the subject. They even allocated certain valuable water rights to the Government to secure this project, and agreed also to share its precious water with a concurrent project—the San Juan Chama project which proposed to bring much needed water to the thirsty city of Albuquerque, N. Mex.

What has happened since the assent of the Navajo Tribe was given, is a sad story which I do not choose to relate, and which would not serve my people to chronicle here. Let me repeat only what I stressed last year that the project for the good people of Albuquerque is on schedule and has not suffiered a cut of 1 cent, while the Navajo Indian irrigation project has been funded fully only the first year of its life. Since then unfriendly persons in the Government have taken a delight to see how critically they can impair the program. In our tight economy, all facets of the Government have joined in the game until the project now lies doomed, possibly never to be revived.

I know that there is no need to point out to this committee that the American Indian is the ward of the United States—nor do I need to lecture you on the high standard of fiduciary relationship that exists between the United States as trustee and the Navajo Tribe as ward. Does this committee believe that the Government has fulfilled this responsibility in good faith?

Already the completion of the program may have been extended too long to be of any help to my people. At the present rate of progress, we are told to expect the first drop of water to be delivered to the reservation in 2007 A.D.—a far cry from the original date of 1976. Long before 2007, the Navajo Nation will be one vast Appalachia.

Recent checking with congressional leaders has revealed that this year there will be no appropriation of $20 million as originally earmarked for the project but $1,500,000 only will be spent—$500,000 for construction and $1 million to pay the overhead and salaries of those civil servants still employed on the project. Is it not ironic that the Government finances a $1 million overhead to handle $500,000 worth of construction?

I leave to your own good conscience the amount of increase that is needed to put this program back on schedule.

My failure last year to secure the modest sum which I requested has been a source of chagrin and embarrassment to me with my people, and had resulted in my uncomfortable appearance before you today.

How can I really impress this committee that my appeal today is not the routine appeal of a Government agency that desires to have its budget increased? How can I convince you that this is the very life blood of the Navajo Nation? How can I cause you to think, so that you will know that possibly the very economic existence of the Navajo Nation depends on your wisdom today? I am not trying to be dramatic but I have studied this problem from every angle and I know that unless a real concentrated effort is made by you who hold this Navajo Indian irrigation project in your hands that the ecoonmic dream of the Federal Government to provide an agrarian economy for the Navajo people will be no more, and we will be hard put to find the necessary economic sustenance to allow us to move forward shoulder to shoulder with our Anglo brethren.

Let me urge you to give serious consideration to your action today because it is critical. I am certain that you will use your best effort to see that justice is done to my people.

I regret my pessimistic attitude before you fine people. I appreciate the difficulty of your job and the hardline instruction you have received to "trim expenses to the bone." But you should be guided and considerate in your surgery to assure that the patient will not die.

RAYMOND NAKAI, CHAIRMAN, NAVAJO TRIBAL COUNCIL

The Navajo Tribe today is far from a position of economic self-sufficiency. We continue to search for every opportunity which will provide a better way of life for the 128,000 members of the tribe who live on and near the reservation.

Only within the last 10 years has an effort been made to have a seat available for every elementary schoolchild. Many high school students still attend school off-reservation. Of the 46,000 Navajo children in school, more than 20,000 are in boarding schools because facilities are not available or roads have not been built to make bus routes feasible for day school attendance.

Even within standards adopted by the Navajo Tribal Council, and they're much lower than you can imagine, only a small percentage of our families live in sound housing. The outlook for new housing starts this year is far from encouraging.

Roads necessary to serve our people are far from adequate. Best estimates of construction cost to meet present needs exceeds $200 million—and this doesn't take into account any future community, commercial, or industrial development.

Commercial and industrial development, by its very nature is a slow process. It is necessary that opportunities be created through negotiations with industry to relocate or to create new plants. This in turn will generate job opportunities for our unemployed people. Although an important factor in the economy, the number of new jobs generated is minimal when more than 2,000 persons annually enter an already crowded labor market.

Per capita income for 1970 is expected to be $831—a new high for us—but certainly not of such magnitude that malnutrition among our people will be eliminated.

In February this year more than 16,000 Navajo people were receiving general assistance grants from the Bureau of Indian Affairs, totaling $581,000 for the month. This represents an increase from $71,000 in the same month in 1969. Other social service grants have gone up, but not at the same rapid rate. Many of the social service recipients are employable.

Nearly 20,000 Navajos are ready, willing and able to work—but jobs are not available. Jobs then become important in our economy and the completion of the irrigation project means new job opportunities for thousands of Navajos.

It is a matter of record that the Navajo Tribal Council participated in good faith in the whole series of discussions and hearings leading to the passage of legislation authorizing the project—Public Law 87-483 (76 Stat. 96), approved by the President on June 13, 1962.

It is a matter of record that the Navajo Tribal Council took the necessary action to provide for concessions related to water rights.

It is a matter of record that the Navajo Tribal Council has, in the past, and currently continues to support plans essential for efficient operation of the project.

It is also a matter of record that while the Navajo Tribe continued to make plans, supported by a substantial outlay of tribal funds, necessary appropriations for construction as provided in the bill authorizing the project, have not been forthcoming. To many tribal people this lack of action is a serious breach of the agreements reached in the many long years of planning.

Today, when we should be actively engaged in the production, processing, and marketing of the first crops we still are years away from first water on the land and still further away from project completion. It is easy for Navajos to place blame for such conditions in the lap of the Federal Government.

Today, we dare not look back at broken promises or failures to meet obligations. We must move forward to completion of the irrigation project at the earliest possible date. The project has been determined to be feasible and economical. All that is necessary for completion of construction followed by needed production is adequate funding.

Orderly development of our human and natural resources must proceed without delay. A major element in our future is the completion of the Navajo Indian irrigation project on a timely schedule. Commitments for such a schedule must

necessarily come from Congress. Shall our hopes and dreams again be broken or may we now realize a funding schedule to permit rapid orderly project development.

MEMBERS OF THE NAVAJO TRIBAL COUNCIL, REPRESENTING THE NAVAJO PEOPLE

Distinguished Members of Congress: We Navajo Tribal Council representatives are highly honored to have the opportunity to discuss the health program needs of the Navajo people with you today.

Navajos have been interested in their health throughout their history, and in recent years have gradually accepted and used white man's medicine. We Navajos remember that only 15 years ago there were very few Anglo doctors helping our people, and many Navajos became sick and died unnecessarily each year. You, the Congress, have provided us with a good health program and we thank you—however, our level of health is still far below what it should be—and we come to ask you for additional help.

The Navajo people have been pleased with the good results of our Indian health program, and pleased that we have had the opportunity to work with the Indian Health Service people in our area and plan and evaluate the program together. Because of this relationship, we know much more needs to be done.

Two months ago the health committee and the advisory committee of the Navajo Tribal Council asked the Navajo Indian health service staff to prepare the annual health report and review it with both committees. Together we have spent many hours reviewing the program and the deficiencies that still exist, and the additions needed in the health program.

We feel that when you have heard our story, you will agree we need additional help, so that each year fewer and fewer Navajo infants, children and adults will become sick and die unneccessarily.

More than 120.000 Navajo Indians live on the large Navajo Reservation, an area larger than the State of West Virginia.

Life on the Navajo Reservation is hard. The temperature varies from being very hot to very cold. The Navajo people have poor housing and other poor living conditions.

The roads are bad, and after rain or snow, cannot be used.

Many Navajos do not have automobiles, and even riding horseback or using wagons, sick people cannot get medical care.

Navajo men and women have walked many miles, carrying their sick children to the hospitals, because there was no other way.

Many Navajos are without work and the average yearly income is about $300.

As I said, the health of the Navajo has improved over the past 15 years, but even now is about equal to that of the general population 25 years ago. Navajo life expectancy is 63 years, compared to 70.5 years for the general population of the United States.

Death rates of the Navajo people are much higher than those of other people in the United States.

Deaths from pneumonia are three and one-half times higher.
Deaths from diarrhea and intestinal infections are seven times higher.
Deaths from tuberculosis are three and one-half times higher.
Deaths of newborn babies are two and one-half times higher.
Deaths from meningitis are nine and one-half times higher.
And accident death rates are three times higher.

The death rate of Navajo infants is 42 for every 1,000 live births. This is two times higher than the infant death rate in the general population of the United States.

The Navajo people have many illnesses requiring hospital care and treatment, which are due to infectious diseases.

The Navajos have rates of
pneumonia,
gastrointestinal infections,
ear infections,
influenza,
throat infections,
rheumatic fever,
tuberculosis,
hepatitis,
measles,
and trachoma

which are very, very high—6 to 118 times the rates for these diseases in the general population of the United States.

Most all of the diseases and the deaths are related to the poor living conditions—poor sanitation—and the inability of the people to get all the medical care they need.

The health problems of mothers—and pregnant women—are also very high. Most women are unable to get care early in pregnancy because of poor transportation; also the crowded clinics keep many women from seeking early care.

Poor nutrition in all stages has been recognized among the Navajo Indians for years. Severe malnutrition has been found in Navajo infants and children, and much has been said about this over the past few years.

Nearly 15 per cent of all children admitted to the Tuba City Indian Hospital from 1963 to 1967 had some kind of malnutrition. During May, 1969 to November, 1969 an average of 16 new cases of malnutrition were diagnosed each month in Navajo hospitals and clinics.

There appear to be more and more mental health problems being diagnosed. The mental health experts tell us this is probably a true increase and the result of unemployment, cultural clash, geographic isolation, lack of education, the father unable to provide for his family. They tell us this may cause even the strong Navajo person to develop a feeling of hopelessness—and result in an excessive use of alcohol—cause the breaking up of families, child neglect and abuse.

What the experts tell us is probably true for we Navajos are seeing more alcoholics and other disturbed people now than ever before. In fact, alcoholism with all the things it does, is considered the No. 1 health problem of the Navajo people.

The dental problems of the Navaho people are very bad. At the present time the dental program is doing a pretty good job for the children but is doing almost nothing for adult Navajos. At the present time, only about 12 percent of the total dental health need is being met.

Housing is poor—46 percent of Navajo houses have only one room.

Only 21½ percent of the houses have running water to a sink, and only 15 percent of homes have flush toilets.

Only 7½ percent of the homes have bath facilities with hot and cold water.

Only 25½ percent of homes have electricity.

Only 20 percent of homes have food refrigerators.

Only 11½ percent of homes have central heating.

The average Navajo family income is about $1,500, much below the poverty level of $3,000.

Communication is sometimes very difficult for cultural, language and other barriers exist. Most of the Indian Health Service personnel who are not Navajo—about 50 percent—cannot speak Navajo, and above all cannot think Navajo. They must depend on a bilingual Navajo to interpret for them. Sometimes the interpreter is a Navajo nurse, however most times the interpreter has very little medical training, and misunderstanding occurs. At times, poor interpretation has had tragic results.

Over the past 7 years, more and more sick Navajo people have visited the hospitals and clinics requesting care.

> Hospital admissions have increased 21 percent.
>
> Outpatient visits have increased 39 percent over the past 7 years, and 103 percent over the past 10 years.

There is every reason to predict more and more Navajos will seek health services.

Unfortunately at the present time a saturation point is being reached. There is not enough health staff and not enough hospital and clinic space to provide good care to the Navajo people needing care.

The present hospital staff-to-bed ratio is only 1½ to 1 for all Navajo Indian hospitals. This is far below the minimal acceptable level of 2½ to 1, agreed on by experts, and far below the national average of 2¾ to 1.

A recent study we discussed showed that in 1962, total hospital staffing was below an acceptable level, and over the past 8 years this has become worse.

Recent CASH nursing studies in Navajo hospitals show severe lack of nurses, with a need of 370 more nursing positions.

At present, outpatient clinics are operating at 120 percent of their capacity.

These heavy workloads along with the shortage of doctors and other staff, result in only 3 to 5 minutes being available to examine patients in the clinic.

Many patients have to wait long periods—sometimes hours—in crowded waiting rooms.

The Indian Health Service has the responsibility to work with the Navajo Indian people to provide sanitary improvements to Indian houses. Since 1961, improvements have been made in 4,100 homes, and projects are now underway for another 900 homes.

There are still 13,500 Navajo families who do not have running water or proper toilets in their homes.

The Navajo people are very concerned about the intended program of all Public Law 86–121 funds going only to new housing projects. This would keep existing Navajo homes needing these improvements from being served.

Many home health services are needed by the Navajo people, and the public health nurse team provides this service as best they can. There is not enough public health nursing personnel.

There is a need for one public health nurse for every 1,250 Navajos, but there is only one for every 3,550, or only about one-third the number needed.

Also, at present the health education staff is less than one-half the minimum staff needed.

Because of the isolated areas where many Navajos live, it is necessary for health services to be brought to the people. These services are not being adequately provided at the clinics now.

The Navajo community health representatives are doing well and have increased the effectiveness of the field health team.

The mental health program has been in existence for 4 years and it has begun to solve the problems of providing good mental health service to the Navajo people.

Previously, many Indian mental patients were sent to off-reservation hospitals which were strange and confusing to them. No one spoke Navajo in those hospitals.

Now some of these patients can be treated in Navajo hospitals, and often they can be discharged in a much shorter time.

A mental health ward is planned for the Gallup Indian hospital and this will provide care for such patients from the entire reservation.

There are now 25,000 Navajo children attending boarding schools. Again the experts tell us that the experience many children have in these schools may result in emotional problems. The major difficulty is lack of staff caring for the children in the dormitories. The Navajo child frequently has no one he can turn to for comforting and counseling, as he could do if he were home with his parents.

The mental health team now know a good deal about the problem and how to solve it, but need additional funds.

By every means used to measure tuberculosis, the Navajos have 10 times the rate of tuberculosis found in the average U.S. population.

There are thousands of Navajos who have inactive tuberculosis and many of them have never been treated. They often become active cases years later.

Navajo schoolchildren still show evidence of infection with tuberculosis that is nine times the national average. However, there has been great improvement in the number of schoolchildren infected with tuberculosis over the past 20 years.

Ear disease in the Navajo begins in early childhood. Last year 2,928 infants, 4,460 children 1 to 4 years of age, and 2,751 children 5 to 9 years of age developed acute ear infections; and 1,587 in the same age group had chronic ear infections.

About 8 percent of all Navajo schoolchildren have chronic ear disease with perforation of the ear drum from previous infection of the ear.

About 500 Navajo children have ear operations every year to repair the perforations, yet about 1,600 children remain untreated.

It is estimated there are about 4,500 Navajo people who need physical therapy each year, and the persent Indian health service staff can treat only about 725, which is 16 percent.

The number of Navajos with venereal disease is very high. The rate of syphilis is six times higher than that of the general population of the United States, and gonorrhea is 10 times higher. During the past year 12 Navajo infants died because of syphilis. There is a staff of only six persons on the venereal disease control team.

There is much need for additional nutritional services on the Navajo Reservation. Skilled patient counseling is needed. However, only three of the six Navajo

hospitals have a dietitian on the staff and there are not enough other food service and dietetic staff.

In order to improve the health services provided to the Navajo people, additional staff is requested in all hospital departments and in the field health programs.

The additional staff we are requesting are staff who can be utilized now in the present Navajo hospitals and clinics, and in the field health program.

We need 179 positions in hospitals and 152 positions in field health. The present Navajo area Indian health service staff includes 63 percent Indian employees and 49 percent being Navajo Indians. The increased personnel would provide an additional 162 Navajos with jobs.

The increase in hospital staff would raise the ratio of employees to patients from the present 1½ to 1, to 2 to 1, still below the national average of 2¾ to 1.

The field health staff increase would improve the quality of care provided Navajo people in their own communities.

More staff is needed in the isolated areas but lack of living quarters makes this impossible at this time.

The community health representative program is doing a good job and we would like additional funds to allow the Navajo Tribe to hire 52 additional CHR's next year. We are also asking for an increase in funding for the CHR's, to allow them to travel as they should, and to be paid a better wage.

Increases in the budget are also needed for equipment, supplies, travel, motor vehicle rental, and others, to support the staff and to cover the increased costs due to inflation.

Increases in the maintenance and repair budget are requested.

All of these requested increases are shown in the document prepared for the Navajo Tribe by the Navajo area Indian health service, which I have here—and I will not take your time going over the details now.

The Navajo people again thank you for allowing us to present our health problems and the needs of our health program to you.

The Navajo people have suffered long, and we hope you will do your best to make it possible for more Navajo babies, children, and adults to have healthy, productive lives.

Approximately 120,000 Navajo Indians residing on the large Navajo Reservation of 25,000 square miles, an area larger than the State of West Virginia, are dependent on the Navajo area Indian health service for the provision of comprehensive health services.

Life on the Navajo Reservation is hard, with wide fluctuations in the temperature, and the Navajo people having inadequate housing and otherwise poor environmental conditions. The poor condition of the roads, often impassable after rain or snow, frequently hinders medical assistance. Due to the scarcity of vehicles and/or the road conditions, it can be a major effort for an ill person to obtain health services. Navajo men and women have walked many miles, carrying their sick children to a health facility, usually because there was no other way. The average yearly income per person is about $300, with the average family of five to six persons living in a one-room dwelling.

The health status of the Navajo Indians has improved over the past 15 years, but even now is comparable to that of the general population 20 to 25 years ago.

Because most of the Navajos live in isolated, small communities or camps and are subjected to the factors described above, many of the health services provided are brought out to the people by the health team. Unfortunately the need is much greater than the Indian Health Service's ability to provide, and this deficiency alone results in unnecessary deaths each year.

Comprehensive health services, limited by the available resources, are provided through six Navajo hospitals and five health centers where physicians and other health professionals are on call 24 hours a day. Health Services are also provided at 14 other Indian Health Service facilities, eight of which are adjacent to schools and open for nursing services daily; the remaining six are located in rural communities and services are provided at weekly or biweekly intervals by health teams. In addition the Indian Health Service maintains full-time nursing staff at nine BIA boarding school complexes, providing school health services daily, and provides intermittent health services such as nursing conferences, mobile dental services, physician services, optometric services, etc. at 63 other locations.

I. NAVAJO MORTALITY

Mortality rates of the Navajo population are much higher when compared with those of the general population of the United States for indicated diseases:

Accident death rates are 3.1 times higher.

Meningitis death rates are 9.4 times higher.

Gastroenteritis death rates are 6.9 times higher.

Diseases of the newborn death rates are 2.4 times higher.

Pneumonia death rates are 3.4 times higher, and

Tuberculosis death rates are 3.5 times higher than those of the general population of the United States.

The *Navajo infant death rate* per 1,000 live births is 42, or nearly two times higher than the United States all races infant death rate of 22.4.

The life expectancy at birth for Navajo Indians is 63.2 years as compared with 70.5 years for the general population of the United States.

II. NAVAJO MORBIDITY

The Navajo population has large numbers of episodes of illness requiring outpatient care and hospitalization which are due to infectious diseases and their complications. These diseases include gastroenteritis, pneumonia, influenza, streptococcus infections, rheumatic fever, tuberculosis, acute and chronic otitis media, hepatitis, trachoma, venereal diseases and common childhood communicable diseases.

The incidences of selected notifiable diseases follow, and are compared with the general population of the United States.

INCIDENCE OF SELECTED NOTIFIABLE DISEASES

Disease	Navajo incidence per 100,000 population	General population, United States, incidence per 100,000 population
Tuberculosis	175	23
Rheumatic fever	237	2
Streptococcus infection	7,861	229
Hepatitis	161	21
Measles	172	32
Gonorrhea	2,103	207
Syphilis	329	52
Pneumonia	4,697	(1)
Acute otitis media	13,611	(1)
Chronic otitis media	2,108	(1)
Gastroenteritis	9,583	(1)
Influenza	1,522	(1)
Trachoma	1,583	(1)

[1] Not reported.

High on the list of health problems are those infectious diseases associated with poor home conditions and the harsh physical environment, and where there is unsafe and poor supply of water, poor and crowded housing conditions, unsanitary waste disposal and lack of insect control. Improper food handling and lack of refrigeration contribute to the high incidence of gastro-intestinal disease.

Trachoma continues to be a problem and it is gradually being brought under control through the efforts of the Navajo trachoma control program.

Maternal health problems related to pregnancy—that is problems of mothers—are also high. Unfortunately most expectant mothers still receive care late in pregnancy. Transportation problems as well as the crowded clinics keep many women from seeking early prenatal care.

Nutrition

Poor nutrition in all its stages has been a recognized condition among the Navajo Indians for years. Studies as far back as 1958 showed that 10 percent of students returning to school in the autumn had levels of Vitamin C below normal. In 1960 the severest of malnutrition diseases, Kwashiorkor, was re-

ported in the medical literature from the Navajo Indian Hospital in Tuba City. A recent article in the October 1969 issue of the American Journal of Clinical Nutrition reported Protein and Calorie Malnutrition Among Preschool Navajo Indian Children, and covered a 5-year period of 1963–1967 inclusively. In the 5-year period of study there were 4,355 admissions to the pediatric service of children under 5 years of age. Of the total number, 616 had diagnoses of malnutrition. Forty-four had diagnoses of the severest of malnutrition, 15 had Kwashiorkor and 29 had Marasmus. Nearly 15 percent of all pediatric admissions during the time period 1963 through 1967 had some form of associated malnutrition. In addition, the height and weight of Headstart Navajo children from all over the reservation were below the Iowa-Boston norms. This is probably the end result of chronic calorie and protein malnutrition acting in synergism with repeated bacterial and viral infections, causing repeated episodes of gastroenteritis and respiratory infections and contributing to increased infant mortality.

More recent data from July, 1967 to April, 1968—676 children aged 0–4 years were discharged from the hospital and 13 had Marasmus, eight had Kwashiorkor, 54 had evidence of less severe malnutrition and 38 had Iron Deficient Anemia. During the period May 1969 through November 1969, an average of 16 new cases of malnutrition were diagnosed each month in the Navajo area outpatient departments.

Mental health

The effects of poverty, cultural clash, geographic isolation, unemployment, lack of education, degradation of the role of the father in the family, and an adverse physical environment all combine to develop in the Indian a frustration and sense of hopelessness against which he feels he must lash out as best he knows how. The results of this are seen in the form of excessive use of alcohol, suicide, violence, disintegration of the family, and child neglect and abuse. A child growing up in an atmosphere of hostility and/or neglect soon begins to fight back through the mechanisms of overt hostility, delinquency, truancy, or even worse, introversion and withdrawal.

Dental problems

Dental caries, periodontal disease, orthodontic conditions, missing teeth, comprise a major health problem affecting the Navajo Indian population. At the present time, the average child under 5 years of age has seven decayed teeth, while the average adult in the age group 25–34 has 7.1 decayed permanent teeth. The backlog of decayed teeth which require treatment at the present time is 481,236 teeth. At the same time, 9,588 persons require treatment of severe malocclusion, 16,524 persons require treatment for severe periodontal disease, and 51,000 teeth are now so bad as to require extraction. At the present time, the IHS dental program is approaching a fairly acceptable status of care for children, but is offering virtually no care for adults. At the present time only about 12 percent of the total dental health needs is being met.

III. HEALTH-RELATED PROBLEMS

In addition to the health problems discussed above, a number of related problems affect the health status of Indians and affect the delivery of health services. It is estimated there are about 20,000 Navajo homes.

A. *Housing.*—46 percent of Navajo houses consist of one room, and 78 percent of houses have 2 rooms or less.

1. *Sanitation.*—Only 21.4 percent of the houses have running water to a kitchen sink and only 14.8 percent of the homes have a flush toilet; only 7.5 percent of the homes have bath facilities with hot and cold water.

2. *Electricity.*—Only 25.6 percent of homes have electricity.

3. *Refrigeration.*—Only 19.7 percent of homes have refrigeration.

4. *Heating.*—Only 11.3 percent of homes have thermostatically controlled heat.

B. *Income.*—Average family income is estimated at $1,500 a year or about $300 per person.

C. *Communication.*—Deep cultural, linguistic, and psychological barriers, as well as geographic barriers exist. There is a serious communication barrier. The Indian Health Service physician cannot speak Navajo, and above all, he cannot think Navajo. Over 50 percent of the time he must depend on a bilingual Navajo

to interpret for him. Sometimes the interpreter is a Navajo nurse, however more frequently the interpreter has no medical background, and this level of interpretation leads to misunderstanding both for the physician and the Navajo patient. At times misinterpretation has had tragic results. The community health representative program is improving the communication problem, however there are insufficient numbers of Navajo community health representatives at the present time.

D. *Family planning.*—A responsibity of the Indian Health Service is to provide family planning information and services to Indian families in order to maintain and improve the health of the mother and child. Such services are provided in a program of family life education to help families plan their growth in keeping with their desires and economic resources.

IV. NAVAJO AREA INDIAN HEALTH SERVICE PROGRAM

The Navajo Area IHS is divided into eight service units or geographic areas, whose boundaries have been determined by the Navajo Indians' patterns of using the health facilities, the location of which reflects population densities, large school enrollment, paved roads, and the desires and need of the Navajo people for health services.

In conducting a comprehensive health services program for the Navajo people, a system for planning, implementing and evaluating the services provided has been developed.

Much improvement in the health status of the Navajo people has been accomplished over the past 15 years, and some of the initial health objectives have been realized, however there remain many deficiencies in the health program which must be corrected before the health status of the Navajo can reach a level equal to that of the general population of the United States.

For many years the Navajo people have demonstrated an active interest in their health program, and since 1937 the health committee of the Navajo Tribal Council has actively participated in the planning, implementation, and evaluation of the health program. The Indian Health Service with the concurrence of the Tribal Council has stimulated the formation of local health committees at the community level and some of these are active and functioning well.

In addition to participation by the health committee, individual delegates of the 74-member Navajo Tribal Council, the chairman and vice chairman are in continuous contact with the area and service unit staffs, discussing the health needs and programs.

In some communities the people do not have the economic abilty to travel and attend meetings as health committee members. At a recent meeting of the Tribal Council Health Committe and the Indian Health Service Area staff, a plan was devised that would enable community or chapter representatives to consolidate with the health committee and together form a health advisory board. This board would greatly increase the active participation of the Navaho people in the planning, implementation and evaluation of the Navaho area IHS program at all levels.

The new community health representative program has had a positive impact on the health of the Navaho people. The Navaho Indians who serve as community health representatives were chosen by the people of the communities where they work, received training by the Indian Health Service and are employees of the Navaho Tribe. The function of the trained community health representative is to serve as a member of the health team, serving the community, to effectively speak for the community and to secure community support for health programs. In this connection, the CHR's participate by:

(1) Making Navaho people aware of their health conditions and the availability of health services.

(2) Assisting families in doing things for themselves to improve and maintain their health.

(3) Conducting surveys and accumulating vital data.

(4) Interpreting to the families the environmental conditions that need attention for improving health and advising participation in planned programs.

(5) Referring individuals to professional health personnel and following up on these referrals to insure that the individuals are following prescribed instructions and keeping scheduled appointments.

(6) Assisting people who require emergency transportation for health services,

(7) Educating and advising communities and individuals on nonprofessional aspects of all phases of the health program.

A. HOSPITAL SERVICES—DIRECT CARE

General medical, surgical, pediatric, and obstetrical inpatient and outpatient care is provided in all 6 Navajo hospitals, and in the 4 large hospitals, specialists are available to provide services for the more complicated illnesses. Those patients requiring care beyond the expertise of IHS staff are provided indicated care through contractual arrangements with hospitals and physicians—within available funds.

Hospital work loads have increased steadily over the past 7 years during a period of time when no new hospital facilities were constructed, but one outpatient facility was built at Fort Wingate, and one at Greasewood.

Hospital admissions increased from 13,363 to 16.791, or 21 percent.

Outpatient visits increased from 216,956 to 301,419, or 38.9 percent.

Inpatient days increased from 157,909 to 163,380, or 3.4 percent.

Average daily patient load increased from 432.6 to 448, or 3.5 percent.

The percent occupancy in hospitals increased from 77.2 percent to 79.1 percent, or 2.4 percent.

The above data clearly demonstrate a tremendous increase in admissions and outpatient visits, and a substantial increase in inpatient days and average daily patient load.

There is every reason to predict that in view of past experience, and with the continuing increase in the Navaho population of 3 percent a year, and the increased acceptance of the health program, more and more Navaho people will seek health services, and work loads in hospitals, health centers, health stations and clinics will continue to increase. Unfortunately at the present time a saturation point is being reached because insufficient number of staff and insufficient facility space make it impossible to provide quality care to increasing numbers of patients.

The present hospital staff to bed ratio is only 1.5 to 1 for all Navaho area IHS hospitals, and this is far below the minimal acceptable level of 2.5 to 1 agreed on by experts, and even further below the national average of 2.8 to 1. It should be noted that included in the staff of IHS hospitals are physicians, maintenance personnel and others not included in the staff of private facilities, which makes the comparison even worse. A recent study showed total hospital staffing, and specifically nurse staffing, was in fiscal year 1962 below an acceptable level, and the tremendous work load increases and insufficient increases in hospital positions over the past 8 years, have resulted in an already bad situation becoming worse. The study also demonstrated that the reason hospital staffing was at an unacceptable level and has become worse, is not because NAIHS has not been cognizant of staffing deficiencies and the consequences, but is due primarily to the fact that positions repeatedly requested have not been authorized because of imposed budgetary constraints of Congress.

Recent CASH methodology nursing studies in three Navaho IHS hospitals revealed that:

The Gallup Hospital required an additional 84 nursing positions, the Fort Defiance Hospital required an additional 34 nursing positions, and the Shiprock Hospital required 36 additional nursing positions.

Although CASH studies have not been done in the other Navaho area hospitals, other nurse staffing studies strongly suggest similar deficiencies exist in all Navaho hospitals. Using the Commission on Administration of Hospital Services criteria, the Navaho area hospitals have a deficit of 373 nursing positions.

Outpatient work loads have increased 103 percent over the past 10 years. Discounting the effect of 3 additional outpatient facilities and expanded outpatient facilities at Gallup and Shiprock hospitals during this time, work loads increased at all other facilities about 40 percent. Presently from a structural standpoint, outpatient departments are operating at about 120 percent of capacity with some as high as 140 percent and others about 80 percent capacity.

These increasingly heavy work loads, along with the shortage of physicians and other supporting staff, result in only 3 to 5 minutes being available to examine outpatients who usually wait for long periods of time—sometimes hours, in crowded waiting rooms.

B. FIELD HEALTH SERVICES

1. *Sanitation.*—Lack of basic sanitary facilities, gross insanitary practices and inadequate understanding of modern health and sanitation in many Navaho homes and communities continue to exist despite increasing attention being given to these problems by the Navaho Tribe and the Navaho people. This, added to the other environmental conditions mentioned previously, is responsible for the high incidence of gastrointestinal and respiratory diseases.

The Environmental Health Services branch has the responsibility of inspecting 150 trading posts and cafes twice a year, however because of lack of personnel, inspections are being conducted only once a year. Comprehensive sanitation surveys should be provided to 48 BIA Boarding and Day Schools every 2 years, and food-handling inspections, every 6 months. Again, because of lack of staff, the comprehensive surveys are accomplished every 3 years.

Over the past 3 years an additional load of 102 ONEO Headstart schools has created a problem because many of the schools are located in buildings without proper food handling or sanitary facilities, and this has resulted in the demand for staff time which has compromised other program activities.

Other activities such as review of plans for new or renovated commercial establishments, surveillance of 55 community water and sewer systems, and 2,100 shallow well and springs, collection of water and milk samples, epidemiological investigations, et cetera, are not at an acceptable level of operation.

The sanitary facilities construction branch has the primary responsibility of working with the Navaho Indian people to provide sanitary facilities to Indian homes. Since 1961 the program has provided sanitary facilities to 4,100 homes and has projects either authorized or under construction to serve another 900 homes. This program has also constructed 2,050 shallow well and springs watering points in remote areas to make water available for families who must haul water for distances up to 5 or more miles.

Unfortunately there are still 13,500 Indian families who do not have running water or proper toilet facilities in their homes. The Navaho people are very concerned about the intended programing of all Public Law 86–121 funds to provide sanitary facility construction to only new housing projects which would preclude existing homes being served, as was possible in the past. This trend is unrealistic in meeting the sanitation needs of the Navaho people.

2. *Dental.*—Some dental problems were presented earlier and dental program deficiencies and manpower requirements follow.

Any delineation of deficiencies in the dental program must be made with consideration of what would constitute a realistic optimum program. This is true since dental disease, to a large extent, is not life-threatening, and for this reason not everyone afflicted even with serious dental problems will seek care, at least no more than for relief of pain.

The Dental Services Branch of IHS has therefore spent a great deal of time and effort in determining what is considered to be a realistic optimum program. This involves treatment to 59 percent of persons under age 20 and 46 percent of those age 20 plus, for an average of 53 percent of all ages. This delineation of deficiencies is made with this in mind. The condition as of fiscal year 1969 is summarized in the following table.

Category (desired condition)	Fiscal year 1969	Percent	Optimum
1. Persons examined and treated, under age 20	28,497	84	33,766
2. Persons examined and treated, age 20 and over	8,154	39	20,594
3. Persons receiving complete treatment, under age 20	13,778	40	33,766
4. Persons receiving complete treatment, age 20 and over	368	1	20,594
5. Persons having prosthetic requirements met	696	8.7	8,000
6. Persons receiving needed periodontal treatment	278	3	8,758

3. *Public health nursing.*—Home health services to the Navajo population are dependent largely upon the availability of public health nursing personnel.

The public health nurses working in field health services of IHS are involved in practically all the programs aimed at improving the major health and welfare problems of the Navajo people—among these programs are environmental health, mental health, health services for the handicapped and the aged—maternal and child health, chronic and communicable disease control, health teaching

and supervision and followup of referrals. Assignments run the gamut from clinical nursing to administration. The public health nurses especially carry on a comprehensive and diversified program: home visiting, hospital liaison, field clinics and conferences, school nursing and some classroom teaching.

Certain health problems and program areas are of major concern to the public health nurse and include:

High morbidity and mortality due to accidents.

Needs of the chronically ill and handicapped.

High morbidity among infants and young children and high infant mortality.

High morbidity among expectant mothers.

High experience of dental caries.

Poor nutritional status of the Indian population.

Community mental health problems.

Adverse physical environment, unsafe water and food handling, and inadequate waste disposal.

Communication of health information and understanding of good health practices.

The public health nurse makes her greatest contribution to improving the health level of the community by teaching good health practices to families in their own homes.

As described previously, the Navajo Reservation is a tremendous area and the majority of the homes are widely separated, and many are great distances from the public health nurses and other field staff base of operations. To further complicate the picture, the vehicles used by PHN's do not contain two-way radios, and with no other means of communication out in the field, many emergencies are not responded to as they should be, for the nurse has no way of being contacted.

Nursing staffing patterns developed for areas such as the Navajo Reservation, identify the need for one public health nurse per 1,250 population, one licensed practical nurse per each public health nurse, one clerk per two public health nurse, one chauffeur-interpreter per public health nurse, and one per each practical nurse in those locations where language problems necessitate an interpreter. At present there is one PHN per 3,530 population, or less than one-third the number needed. Similar criteria have been established for school nursing, clinic nurses, in field health centers and stations, public health nurse coordinators, and supportive staff.

At the present time on the Navajo Reservation, even with public health nursing staff being available, some could not be employed because of lack of housing, lack of office space, and lack of adequate vehicles.

In order to extend public health nursing service, the licensed practical nurse with field training is being utilized more and more. The team approach using the PHN as leader, the RN (school and clinic), LPN, driver-interpreter and CHR, is proving effective where adequate orientation and direction are available.

	Funded positions	Positions filled January 1970	Vacancies	Additional staff recommended
Public health nurse supervisors	12	12		2
Public health nurse staff	22	18	3	44
School nurses	23	22	2	4
Clinic nurses	7	6	1	3
Licensed practical nurse and nurses aid	27	25	2	51
Driver-interpreter	24	22	2	54
Clerks	23	22	1	14
Total	138	127	11	172

4. *Health Education.*—The health educators' contribution to the total health program is concerned with an organized approach to educational deficiencies related to specific diseases, as well as to those related to individual, family and community health behavior. The health educator moves among the people, traveling to meet and work with them in their local communities. He develops Indian participation, he supports the work of other health staff, he works with other groups to promote coordination of effort and community development.

At the present time, the health education staff of the NAIHS is less than one-half the minimum staff needed—only 15 established positions.

Housing for staff is also an important factor in four of the service units in need of health education staff. This becomes an important factor in the recruitment of qualified staff.

Needs for fiscal year 1971: Additional position with funding for health educators, three, GS-11; health education aids, two, GS-5; clerk typists, three, GS-3. This will bring the health education staff up to the level proposed to be reached in fiscal year 1971.

The additional staff requested will allow health education services to be established in a facility serving approximately 17,000 individuals; will allow these services to be increased and improved in two other facilities serving a total of approximately 18,000 individuals, and clerical support services for health educators in three IHS facilities. These additions will allow the strengthening of existing programs and the extension of efforts directed towards greatest need and priority.

5. *Field medical services.*—The field medical services program is the medical arm of the field health program. It is through the field medical services program that the health team develops close working relationships with the Indian people in their homes and communities. Leading health problems are: High infant and maternal mortality rates, high incidence of communicable diseases, increasing prevalence of chronic conditions, crippling conditions in children, accidents, mental health problems including alcoholism, nutritional deficiencies.

The isolation of the areas in which Navajo Indians live and the attendant transportation difficulties make it necessary for services to be made available within their communities.

A full range of health services is inadequately provided at health centers and health stations. In addition, specialty clinics are held both at these facilities and in schools and communities for immunizations, tuberculsosis and venereal disease casefinding, control of trachoma, diabetes, otitis media and other diseases, health education, environmental health and mental health services. Family planning consultation and services are provided under this program. Visits are made to homes and schools to provide preventive and curative medical services and education in good health principles and practices. Community health representatives extend and increase the effectiveness of professional health services in their capacity of on-the-scene assistance to the health team and at the same time serve as a communication bridge between the Indian people and the health staff. Demands for services have continued to increase as a result of better acceptance of care by the Indian people.

Certain aspects of the field medical services program are grossly inadequate. Tuberculosis and venereal disease casefinding is far below the level it should be, and these programs will be dealt with more specifically below. Otitis media, both acute and chronic, is a major health problem and the resources to deal with it are grossly inadequate and will also be dealt with specifically later.

C. OTHER COMPREHENSIVE HEALTH CARE PROGRAMS ENCOMPASSING FIELD AND HOSPITAL HEALTH SERVICES

Mental health

The mental health program of the Navaho Area has been in existence for 4 years. During this time we have begun to solve the problems of providing good psychiatric services to the Navaho people. We have developed programs that have shown the possibility of overcoming the barriers of language, cultural difference and mutual misunderstanding and prejudice.

The development of the mental health program to an adequate level is essential to raising the general health standards of the Indian people and to helping them to fulfill the potential worth of their society.

The mental health team work in a variety of ways. The most traditional techniques are outpatient and inpatient psychotherapy, usually rather brief. This approach has been useful in helping individuals directly and is also of benefit to their families and communities. It has proven feasible to treat non-English speaking patients through the use of skilled interpreters (and clinicians skilled in cooperating with an interpreter) and through the use of therapists who speak the patient's language.

The members of the mental health program also spend a good part of their time as consultants. They have been working with the other members of the

Indian Health Service in order to help them understand the psychological needs of our patients, and in order to prepare them to treat emotional as well as physical illness. Previously, many Indian psychiatric patients were sent to off-reservation hospitals, which were strange and confusing to them, where no one spoke their language, and the staff, no matter how well-qualified were frustrated in their efforts to be of help because of their inability to talk with the patient, and the unavailability of the patient's family. Most patients, in areas where there are mental health teams, can now be treated in our own facilities; often they can be discharged in a much shorter time, thus saving a costly and sometimes destructive hospitalization. A psychiatric inpatient service of 23 beds is planned for the Gallup Indian Medical Center, and this will provide care of severely disturbed people from the entire reservation.

Consultation is also provided to a wide variety of organizations outside Public Health Service. Mental health teams are working with tribal governments, welfare organizations, police departments, church groups, legal service groups, and, most importantly, with schools.

The boarding schools now attended by more than 25,000 Navaho children are of particular concern to us. Our experience, the work of the Senate Indian Education Committee, and research into the effect of separation of children from their parents, convince us that these schools present a major mental health danger. The schools seem to be necessary due to the economics and geography of reservation life, but as they are currently operated they produce, in the students, feelings of isolation, loneliness, depression, identity diffusion and self-doubt. The major practical difficulty is lack of staff caring for the children in the dormitories. There is rarely more than one staff member caring for every 60 children, and this ratio often rises to 1 to 120 or more. Mental health teams have been meeting with various staff members of the Bureau of Indian Affairs, Branch of Education, in order to work out ways in which to best use the personnel and facilities now available. They have conducted classes and held discussions on child development and child care; in several of the larger schools they have participated in setting up school health programs staffed by employees and students of the school. The mental health team is working with the BIA in operating a model dormitory program where much greater numbers of staff are available to care for the children, and where more training for child-care workers is available, in an attempt to demonstrate what can be done to improve boarding school conditions. It is our hope that this demonstration will result in improvements in the lives of all Indian boarding school students.

The Navajo mental health program includes three community mental health workers. These people are carefully selected and trained professionals, whose knowledge of Navajo language, culture and social organization makes them uniquely useful in work with our patients, their families, and with the groups with whom we consult. It is hoped that in the growth of the mental health program throughout the Indian Health Service, many more community mental health workers will be trained. The essential conditions for success in the use of these workers, are that they be people whose personality and previous experience already make them comfortable with patients and sensitive to their needs. These workers, too, must have a thorough knowledge of their own communities. Their training should be informal and as much "on-the-job" as possible. It should be accomplished in their home communities by the professional staff with whom they are gong to work. Incidentally, the Navajo mental health team has found that the mental health workers are as useful in training the non-Indian professional staff members as the professionals are in training the workers.

The establishment of the psychiatric ward in Gallup Indian Medical Center requires the appropriation of $187,000 and 16 positions which are listed in the proposed budget. If this amount were increased by $150,000 and approximately 10 positions, we would be able to provide increased care for many Navaho people who have a drinking problem.

In the entire area of the Navajo Reservation there are three psychiatrists, a psychologist, a mental health nurse and three mental health workers; also the director of the model dormitory program. There is also a psychologist, paid by the National Institute of Mental Health, working with us in Tuba City. His services will have to be terminated this July unless additional funds are appropriated for us to pay his salary and expenses. We now know a good deal about the extent of the problem and how to solve it, but will be unable to provide adequate services without additional funds. The proposed budget does not include

any of these needs except the psychiatric ward in the Gallup Hospital. In order to complete the job we should add the salary of the psychologist in Tuba City, and five additional mental health workers. The total cost of needed expansion including travel, supplies, equipment and other expenses is $126,000, none of which is in the President's budget.

Tuberculosis control

Tuberculosis has been a costly disease causing both extensive human misery and expensive programs for medical care. Nowhere does this remain more true today than in the U.S. Indian population, particularly in the largest tribe, the Navajo.

By every common statistic used to measure the burden of tuberculosis, the Navajo have 10 times the rate of tuberculosis found in the average U.S. population. And of course the "U.S. average" is just that. It is made up not only of low incidence areas—but of all of Appalachia, the Mexican border areas, the rural south and the black ghettos. Yet the Navajo rate is 10 times this average, which in the past 3 or 4 years has been 21 to 24 new active cases each year for each 100,000 people. There are about 120,000 Navajos; in 1968 there were 241 cases active plus another 617 inactive less than 2 years. This does not include the known thousands of Navajos, based on the 1957 Many Farms study, who have inactive TB. Many of them were never treated—and often become active again years later.

Among all U.S. schoolchildren, only 1 in 2,000 (0.05 percent) becomes infected with the tuberculosis bacillus each year. In the 1969–70 school year, about 1 in each 200 (0.45 percent) Navajo schoolchildren was a skin-test convertor, showing that he had been infected within the past year by contact with an active case of TB. This is nine times the national average. One of every four Navajos is infected with tuberculosis—three of every four adults over 30 years of age. Among Americans in general only 1 in 10 is infected. Once infected, a Navajo is 3 to 4 times as likely as the "average American" to become ill with active TB. All of these numbers tell the same story—the Navajo carries a tuberculosis burden 10 times bigger than his fellow Americans. Even death from TB is 3½ to 4 times as common; and this should be unheard of among the Indian people served by the comprehensive public health program of the Indian Health Service.

Some will argue that the reason for these tragic statistics lies in the greater susceptibility of the Indian to tuberculosis, or in his culture with the barriers of language, custom, and geographical isolation. Nobody can deny this—these are the reasons. But these problems can be overcome; they have been overcome within the past 15 years among the Alaska Natives. Between 1940 and 1955, an epidemic of tuberculosis raged among Alaska Natives that was among the worst ever studied in history. In 1968 there were no deaths from TB in Alaska. This amazing success against TB was in a group that had even more TB and at least as many cultural and geographic barriers as the Navajo. But now a Navajo child is four times as likely as an Eskimo child to become infected with TB in the next year. Yet only 20 years ago, the Eskimo infection rate was three times that of the Navajo.

How was this amazing victory over TB in Alaska won? Basically by two simple means. One was the recruitment of more manpower, especially Alaska Natives themselves. The second was the giving of the new but inexpensive TB medicines not only to those with active TB but also to those who were infected, but were not yet ill with "active" TB. By giving medicine (INH) to all those infected before they became ill with active TB, the disease was not transmitted on to their children. The medicine is inexpensive but it takes manpower and therefore money to go on this "overdue offensive" against TB among the Navajo. Some funds were provided by the State of Utah to hire a Navajo TB coordinator for the Utah part of the reservation and to conduct special TB detection and treatment clinics—and tuberculosis has been reduced markedly in that area. Solutions have been devised and demonstrated.

The tuberculosis control program in the Navajo Nation has, by some standards, been moderately successful—in a traditional sense.

Statistics for the Navajo show the progress that has been made in TB over the past 21 years, especially as this disease is related to Navajo schoolchildren.

TUBERCULOSIS INFECTION AMONG NAVAJO SCHOOLCHILDREN—21 YEARS OF PROGRESS

[Tuberculin reactors by three 5-year age groups]

	Age 5 to 9 years			Age 10 to 14 years			Age 15 to 19 years		
	Number tested	Positive	Percent	Number tested	Positive	Percent	Number tested	Positive	Percent
1948	1,187	428	35.2	1,305	694	53.2	164	104	63.4
1961	5,769	526	9.1	5,150	864	16.8	558	175	31.4
1967	6,907	391	5.6	6,036	415	6.7	1,016	176	17.3
1969	10,995	402	3.7	9,431	670	7.1	4,009	533	13.3

These figures show that there has been a tremendous drop in the number of schoolchildren who have been infected with tuberculosis. This is one of the most accurate ways of showing the tuberculosis health program for the Navajo people has been successful. Greater emphasis in casefinding, treatment, and followup should result in greater improvement in the future, if identified resources are forthcoming. Yet the tuberculosis control program has made absolutely no progress in closing the gap between the Navajo TB rate and the rate in the rest of the United States. Two decades ago, Navajo had 10 times as much TB as other Americans. Today, 20 years later, Navajo still have a rate 10 times as high. It is medically, morally, and economically inexcusable that no progress has been made in closing the gap in these 20 years since faster and far more effective treatment has been available. The inequality is made more tragic by the demonstration in Alaska that it is possible to close a "TB rate gap" even larger than among the Navajo. Navajos have recognized the enormous tuberculosis burden the tribe still carries, and have offered their money and manpower in a proposal to launch the overdue offensive against TB. This proposal is well detailed in project application No. 93064, "Navajo Indian Reservation tuberculosis control project," submitted by the Navajo Tribe in October 1968 to Community Health Services in Washington, D.C. (a division of HEW'S Health Services and Mental Health Administration). The major provisions of this project have been summarized elsewhere.

The project would provide $1,100,000 over a 5-year period; more than $214,000 of this amount would be contributed by the Navajo Tribe. This money would be used to build a home TB treatment program around a group of 16 Navajo paramedical workers who would receive special training in home health care with detailed emphasis on tuberculosis, enabling them to perform diagnostic tests and deliver medication to the individual Navajo patient. In this way a well-trained Navajo-speaking TB worker could insure the more complete and culturally considerate treatment of the many elderly—and young—patients. Even more than this, these medical workers would supervise the INH prophylactic treatment of many of the 25,000 Navajos who have already been infected by TB in past years. These two groups of people, the active TB cases and those infected but inactive, will be the focus of this overdue offensive—just as they were in the successful Alaska native campaign. In each of three isolated areas in Navajoland, two Navajo men are now working successfully in this type of tuberculosis control work. Many more are needed.

Unfortunately, Community Health Service has denied the grant funds to launch the TB control project—despite the universal recognition by all agencies involved (Navajos, Communicable Disease Center, Indian Health Service, Community Health Service) that tuberculosis is a major problem and that the project is a technically excellent approach to its defeat.

Because the Navajo tribe, the Indian Health Service, and the CDC believe that the proposal (No. 93064) rejected by C.H.S. contains the basic medical, cultural and economic strategy for the overdue TB offensive, we have again emphasized it in this presentation. Of course the program could begin by a commitment to half as many (8) field workers, if absolutely necessary. Other changes would be negotiated to meet funds available. Economically there is no more sound investment. Tuberculosis at present is extremely costly, not only in human terms but in cold cash. In fiscal 1969, the estimated annual expenses for Navajo tuberculosis control was $1,200,000—more than the total cost of the proposed 5-year project. Just to treat Navajo TB patients in the present Albuquerque PHS Hospital costs well over half a mlilion dollars annually. This is to say nothing about los of wages—and often jobs—by patients forced into long-term hos-

pitalization Presently the Field Health staffs spend thousands of hours per year per Service Unit doing TB investigation in families and schools. Many of these are expensive professional nurse and physician hours, which are far more costly and less effective than hours spent by our few Navajo paramedical workers. With 75 percent of the population over age 30 infected, there will be a horrendously expensive TB problem among Navajos for another 30 years—unless we go on the offensive toward tuberculosis eradication. The $250,000 requested for this offensive during its most costly year is trivial compared to this expenditure of more than five times this much each year for the present I.H.S. program.

But above these cold but convincing calculations stands an even more decisive development. This is an approach in which the Navajo people themselves would be involved with money and men—men who can do the job better than I.H.S. imports. The personnel section of the budget reveals that all of the new employees to be supported by this project would be Navajos hired by Navajos. Navajos are ready to go on the overdue offensive against tuberculosis.

Medical social services

A careful study of the social service program of the Navajo area IHS indicates that it is a very limited program. With some exceptions it can be compared to an "emergency room" service. Because the social work staff time is used primarily to deal with crisis situations, there is little time or opportunity to provide the continued or followup services that produce results. For example, there is very limited contact with Field Health; this means that the public health nurses and physicians are having to do social work. There are almost no referrals from CMC resources: social work involvement here could materially cut per diem costs. There is almost no followup of TB patients and almost no services to school health centers, and so forth.

Two of our service units, Chinle and Kayenta, have no social service staff at all; those that are staffed are largely staffed uneconomically. For example, except for Gallup and Fort Defiance, none of the service units provide secretarial help.

This is not only demoralizing but results in a very poor use of social work time. This is particularly wasteful since social workers generally train secretaries as aides when this is feasible.

If we were to provide adequate social services to our patient load, we would need a staff of 75 social workers (MSW's and Social Work Associates). It is doubtful we could reach that goal, but the contrast between what we need and what we have is striking. At present we have six MSW's and one vacancy, three Social Work Associates, and two social work associates in training; we also have two clerk-typists. Except for four commissioned officers, all staff is Navajo. The present staff of 14 provides only 19 percent of the staff of 75 needed.

Otitis media—actue and chronic

Otitis media, acute and chronic, is a disease associated with poverty and harsh living conditions. The Navajo Indians meet both criteria.

Data indicate that the disease begins in early childhood generally (see table I).

TABLE I.—PATIENTS IDENTIFIED DURING FISCAL YEAR 1969

	Acute	Chronic
Infants	2,928	123
1 to 4 years	4,460	389
5 to 9 years	2,751	1,075
Total	10,139	1,587

Infants under the age of 1 year show a high incidence of middle ear infections. We have no real data indicating the number which become chronic, smoldering infections leading to destruction of anatomical structures and deafness.

Sampling studies on the Navajo have shown that approximately 8 percent of school age children (6–18 years) have chronic otitis media with perforation of the tympanic membrane. Projects indicate that there are probably some 3,700 children with this condition.

In spite of a surgical program over the past 10 years there remains a backlog of 1,625 cases which require surgery. Hospitalization and surgery cost, per case, is estimated at $750. Travel and convalescent care are an additional $600 per case.

At this point in time Indian Health Service otolaryngologists (ear, nose, and throat specialists) at the Gallup Indian Medical Center are able to perform from 200 to 250 tympanoplasties (operations for surgical repair of ear drum) a year. Contract arrangements are available to handle an additional 250 cases a year.

Because of contract medical care fund limitations, the Navajo area IHS was able to care for only 208 cases in 1968, and 153 in 1969; the figures will probably be about the same this fiscal year.

In addition to the above, there is other otological surgery of a less expensive nature, such as myringotomy (incision of ear drum) for serous otitis media that has an incidence almost identical to chronic otitis media, approximately 1,500 cases a year.

A significant part of the rehabilitation of these children is the provision of hearing aids, instruction in care and use, as well as maintenance and repair of the aids.

Multiple sources must be utilized to provide the hearing aids. Presently, Navajo tribal welfare, State agencies, Bureau of Indian Affairs welfare, and USPHS, IHS resources are used to obtain hearing aids. At present the Navajo tribe has 60 requests for hearing aids. Indian Health Service has 20 children who require hearing aids.

A problem recognized in every service unit is the hearing aid equipment on the shelf. There is little expertise available to instruct the child in the use and adjustment of the instrument in daily activities. Simple repairs are difficult to obtain because service is distant. Often funds are not available to pay for repairs.

Consequently many aids are being underutilized. An estimate is that one-third to one-half of hearing aids are not used after 1 year.

Physical therapy

Physical therapy should be an important component in the community oriented comprehensive health program for the Navajo people. The philosophy, techniques and activities of physical therapy are directed toward assisting an individual to function in society at the highest level possible within his capacity. Physical therapy, through use of physical modalities, i.e., heat, light, water and exercise to accomplish its goal, is one of the few "modern medical services" that is readily adaptable and acceptable to the Navajo and his health concepts and beliefs. As such it can and should be a link to further develop a program to meet the health problems and needs of the Navajo people.

Health need: Physical therapy is directed toward the health problem of physical disability resulting from various disease processes. It seeks to eliminate or minimize the functional effects of disease processes at all levels of medicine, preventive, curative and rehabilitative. No effective method has yet been developed to measure the level of disability in a population. However, it is known that certain disease processes cause impairments which result in physical disability; disability that generally benefits from physical therapy services. For example, a cerebral vascular accident causes an impairment (hemiplegia) with resultant physical disability (limitation of function). Physical therapy can reduce the disability caused by a C.V.A. Therefore, by tabulating the number of certain diseases in a population, an estimate of disability and the need for physical therapy services can be made.

It is estimated there are 4,547 Navajo people who need physical therapy each year. With our present staff and program, we can treat only 723 Navajo people in need of physical therapy each year. The difference between the estimated cases needing physical therapy services and cases we have the ability to treat, shows we are meeting only 16 percent of the need.

Program needs are directly related to the health needs described above. Based on the experience at the Gallup Physical Therapy Clinic for the past 5 years

and at the Fort Defiance Hospital over the past 8 months, the following minimum staff equivalents can be made (assuming a basically equipped physical therapy section):

Staff	Patients per first year	ADPL
Trained aide [1]	150	10
Therapist	400	17
Therapist and aide	700	30

[1] ½ time under twice-weekly supervision by physical therapist.

Using the above formula applied to table 1, the following is a minimal staffing pattern for each service unit:

Service unit	*Staff*
Gallup	Two therapists and aide.
Fort Defiance	One therapist and aide.
Shiprock	One therapist and aide.
Tuba City	One therapist and aide.
Winslow	Aide (full-time).
Crownpoint	Aide (full-time).
Chinle	Aide (one-half time).
Kayenta	Aide (one-half time).
Total	Five therapists and six aides.

Additional staff of three physical therapists and four aides are required to meet the needs of the area. The staffing patterns assumed a basically equipped Physical Therapy Section.

At the present time three service units have such clinics—Gallup, Fort Defiance and Shiprock. Five additional clinics are needed.

Venereal disease control

The number of Navajos with venereal disease is exceedingly high with rate of syphilis being 329 per 100,000 population, and the rate of gonorrhea 2,103 per 100,000 population, rates which are six times and 10 times the rate for these diseases found in the general population of the United States.

During the past year, 12 Navajo infants died in the perinatal period (stillborn or newborn) because of syphilis.

Present venereal disease control efforts are directed exclusively to the control of syphilis. There is a staff of only six persons including one director, one secretary, and four field workers, on the venereal disease control team.

Only 80 percent of patients treated for syphilis in our facilities are able to be interviewed by the VD control field workers, when the acceptable level of interviews should be 95 to 99 percent. The field workers cannot handle the present workload.

There is need for at least two additional Navajo-speaking staff and two additional vehicles, and a tremendous need for educational programs directed at the young and the elderly non-English speaking Navajos.

There is a need for a central locating information bank for locating those people who move from place to place.

Nutritional Program

From 50 to 75 percent of all patients receiving IHS hospital and ambulatory care must follow medically prescribed diets. Skilled, often prolonged, patient counseling and guidance requiring familiarity with individual and tribal resources and customs are needed to accomplish this. Furthermore, all patients should receive careful counseling and guidance in normal diet as a preventive and maintenance health measure, also tailored to resources and customs. This is particularly needed for the childbearing years, infancy, and childhood, on a family-centered basis.

However, only three of the six IHS Navajo hospitals have a dietitian on the staff. And there are frequently too few ancillary dietetic staff, particularly at supervisory and aide levels, to permit a dietitian to extend and expand her professional skills and knowledge much beyond food services to bed patients.

Additional ancillary dietetic staff will permit dietitians to intensify their efforts to reach more patients directly and also indirectly through consultation and training of medical and paramedical staff in normal and clinical nutrition so as to enhance their skills in dealing with patients.

On the Navajo Reservation at the present time there are several ways by which improvement of the nutritional status of the Indian people is attempted. The Navajo Area Indian Health Service staff is involved in the following ways:

(*a*) *Commodity food distribution.*—This is a State-tribal program which distributes commodity foods to eligible families. IHS staff provides some education as to the proper utilization of these commodities.

(*b*) *Supplemental food distribution.*—Prescriptions for special supplemental foods are written by Indian Health Service physicians and nurses for families with infants, children up to 5 years of age, pregnant women, and women who recently had babies. These foods are distributed by a State-tribal program to the indicated high-risk families.

(*c*) *Premature infant feeding program.*—The Office of Navajo Economic Opportunity and the Indian Health Service cooperate in supplying infant prepackaged formula to all premature infants for their first year of life. Identification and distribution of the formula are accomplished in IHS facilities. ONEO bears the cost of the formula.

(*d*) *Nutrition education.*—As described above, nutrition education is provided to a limited degree in all Navajo area facilities and in communities.

(*e*) *Voluntary donations of food.*—Voluntary donations of food and/or funds are managed in one service unit, Tuba City. Identification of the needy, and distribution of food is performed by IHS personnel on a volunteer basis.

Justification for Increased Fiscal Year 1971 Resources

In order to combat the inadequacies and deficiencies now present in the Navajo area Indian health program it will be necessary to provide sizable staff increases in all hospital departments and in each of the field health programs.

The deficiencies in health care previously indicated are primarily the result of insufficient staff to render the quality of care that our employees have the expertise to provide, but because of the magnitude of services sought, they are precluded from utilizing the time for each patient that is required for even acceptable care. Other causes of the deficiencies result when the quality of care may have to be compromised due to inadequate or obsolete equipment and facilities. Many of the Indian people wait long hours in the outpatient waiting rooms of our hospitals before being seen, and in many cases leave before being seen rather than wait any longer. Studies made of this situation indicate that up to 8½ percent of the patients leave before being seen.

Fortunately the Indian Health Service has been able to attract individuals who are highly motivated and dedicated. Our experience vividly shows that it is usual for most of our personnel to put more and more effort into trying to meet the overwhelming workloads, however, it is a fact that even the most highly motivated and dedicated people reach a saturation point, and fatigue and frustration become apparent. As a result, we continue to lose many of these highly motivated, dedicated, well-trained, experienced personnel who usually have empathy and compassion for the Indian people they serve. Fortunately some highly valued staff are better able to adjust for a variety of reasons, and fight frustration and disillusionment; some make the adjustment because of hope for a better budget next year. Personnel freezes and budgetary constraints like those recently imposed, compound the problem.

The most frustrating and disillusioning fact of all these realities of our Indian Health Service lives is that it is the Indian people who suffer the severe consequences of the inadequacies of health services. It is their infants, their children, their fathers, mothers, brothers, and sisters who have higher mortality and morbidity rates than the national average.

The area cannot immediately combat the deficiencies caused by lack of adequate facilities but with increased financial support for staff, supporting expenses and equipment, many of the present deficiencies could be eliminated or at least minimized.

The additional staff requested, totaling 179 positions in hospital health and 152 positions in field health, represents only those additional employees who can be utilized to their full capacity in our present health facilities, and with the exception of the Gallup and Winslow service units, represent employees who can be provided Government housing or can be hired locally. Additional staff

could be utilized at our more isolated service units, but lack of adequate quarters to house the professional staff precludes our requesting them at this time. There are also some housing availability problems in Gallup and Winslow, however, we are assuming the employees requested for these two service units can find adequate living quarters. At this point we feel it appropriate to mention that our present staff areawide includes 63 percent Indian employees and 49 percent are Navajo. The increased personnel requested, if allowed, would on the basis of these percentages provide 162 Navajos with gainful employment and a total of 208 Indians could improve their economic status.

The hospital staff increases would raise the ratio of employees to patients from the present 1.5 to 1.9. This compares to the current 2.8 ratio enjoyed by non-Government hospitals, according to the American Hospital Association findings. The Gallup Indian Medical Center Service Unit indicates a need for approximately 100 additional employees. It should be noted that this facility in fiscal year 1970 made an initial start on the establishment of a mental health ward. Considering fund limitations this fiscal year, the ward has been operated only as a day-care ward and therefore is not fulfilling its ultimate mission. Consequently 39 of the positions requested for the Gallup service unit will be assigned to the mental health ward and to provide social workers and community health aids to initiate an alcoholism rehabilitation program in the Gallup vicinity. The need for this type of program has been identified and recognized for many years but very little has been done, primarily because of lack of proper facilities and trained personnel to render treatment, and the complete lack of personnel to work in the community, make home visits, and otherwise follow up on known alcoholics. Also included in the total hospital positions are eight positions in the dietetic department to strengthen the food service staff in the struggle against malnutrition.

The additional staff requested for field health operations is also needed to increase the quality of medical care rendered to the Navajo people and to provide medical care to many who are not now receiving care. The field health programs as previously described, provide a variety of health services to the Indian people, and considering the vast geographic area and lack of paved highways to most of the communities, they have been considerably understaffed in their efforts to bring these services to the people. Again, more staff would be desirable at the more isolated service units, but lack of adequate quarters precludes any additional requests at this time. The Community Health Representative program is making headway and has been accepted enthusiastically by the Navajo people. One of the problems at present is lack of resources to pay sufficient salary to retain the trained community health representatives and to completely pay for their extensive travel over large areas and extremely rough roads. Consequently we are asking for an increase to $10,000 per year per CHR to support this program, and are requesting funds to allow the Navajo Tribe to hire 52 additional CHR's in fiscal year 1971. This increase is computed only on a 6-month basis, assuming the hiring and training will be scheduled throughout the year. The additional 52 CHR's will allow one CHR per chapter which was the original goal desired by the Navajo people.

Included in the total field health position increases are two nutritionists to work in the field with others engaged in the struggle against malnutrition, and 50 employees to staff new construction to be completed by the fall of 1970 at Many Farms, Teec Nos Pos, Dilcon, Toyei and Sanostee. These positions are a "must" since the construction dollars are partially wasted if the health facility cannot be completely staffed to enable the Indian Health Service to provide all the services needed by the Indian people at those isolated locations.

Increases in expenses other than personnel and equipment, include communications, supplies, travel, motor vehicle rental, et cetera, and must be increased to adequately support the additional staff, allow for higher quality care, and to cover increased costs due to inflationary pressures. The increase requested in fiscal year 1971 (excepting maintenance and repair) is less than 10 percent over fiscal year 1970, and considering the continuing inflationary spiral, we feel the amount requested is minimal.

An increase of $110,000 is requested in the maintenance and repair program. The allowance for maintenance and repair has remained at approximately the same budgetary level for the past several years in spite of the fact that a number of clinics, quarters, and health centers have been constructed in the meantime. This expansion of facilities necessitates the stretching of the set dollar amount over all facilities a little thinner than the year before. At present the amount allowed provides only for the handling of day-to-day emergencies, and has per-

mitted no progress toward a sound and consistent preventive maintenance program. The increase requested would allow the initiation of a planned preventive maintenance program and allow a more adequate maintenance and repair program for all facilities in the area.

The Indian Health Service has for a number of years received funds to support a planned equipment replacement program. This has assisted considerably in improving our ability to keep essential medical equipment available for the use of our professional staff. However, there has been very little fund support to purchase additional equipment or noncapitalized equipment such as medical instruments, minor office equipment, et cetera.

In the fiscal year 1970 equipment allocation, no funds were provided for additiinal or noncapitalized equipment, and the funds for replacement, although extremely helpful, were not sufficient to completely satisfy needs.

Some examples of our equipment needs are:

An image intensifier to perform fluoroscopy examinations on radiology cases referred to Gallup, which is the major referral center for this area ($10,000.00).

Replacement of three old X-ray machines at Chinle, Fort Defiance and Kayenta ($90,000.00).

An automatic film processor and mobile X-ray unit for the Crownpoint Hospital ($13,000.00).

The urgent need for dictation and transcription equipment at all eight major facilities.

In addition to the items cited above, there has long been an urgent need for two-way radio communication between our various health facilities, and mobile units for field health workers and ambulances. This area has some very difficult and severe winters which create extreme hardships on the field staff in their attempts to provide health care to isolated Indian people. We have experienced numerous occasions where rapid radio communication for an ambulance or physician could have meant the difference between life and death. Further, we have experienced several cases where our field workers were stuck and stranded overnight due to the lack of communication.

A summary of the additional and replacement requirements for fiscal year 1971 is as follows:

Replacement	$293,000.00
Additional	162,000.00
	455,000.00
Two-way radio equipment	50,000.00
Total	505,000.00

The fiscal year 1970 budget allocation for indirect patient care allowed continuation of the same program as in fiscal year 1969. Although we received an increase in funds, we were unable to expand the program into other areas of medical need since the increase was offset by the continuing increased cost of medical care which is now averaging 12½ percent per annum.

The areas of need have been recognized for some time but lack of funding has precluded the area from proceeding into expanded programs.

A summary of our present fiscal year 1970 base plus additional needs is reflected below:

Migrant worker health program	$50,000.00
Alcoholism control	20,000.00
Physical rehabilitation	279,700.00
T.B. control	250,000.00
Mental Health (adolescent treatment)	250,000.00
Oral health	190,000.00
Otitis media	250,000.00
Adult eyeglasses	46,000.00
Total additional needs	1,335,700.00
Present program	1,700,000.00
Fiscal year 1971 request	3,035,700.00

In order to provide fully for the health care of the Navajo people in the years after fiscal year 1971, it will be necessary that favorable consideration be given to new facility construction. As previously indicated, additional personnel beyond

the fiscal year 1971 request are needed, particularly at the more isolated service units. However, we cannot utilize any further additions to our staff without new or remodeled hospitals and additional Government quarters suitable to attract the professional staff that will be needed.

The primary projects that the area and the Navajo people would like to see activated are summarized below in alphabetical order:

Construction projects

Chinle service unit:	
125-bed hospital—A/E employment, site adaptation of Tuba City Hospital plans	$325,000
Crownpoint service unit:	
Feasibility study and site evaluation for replacement 65-bed hospital	200,000
Fort Defiance service unit:	
Alterations and addition to existing hospital (design for fiscal year 1971)	45,000
Quarters (73) and site work	1,858,000
Gallup service unit:	
Alterations in kitchen and central oxygen supply	200,000
Kayenta service unit:	
Quarters (20)	400,000
Shiprock service unit:	
Feasibility study and evaluation for alteration or addition to existing hospital	150,000
Quarters (162)	3,892,000
Tuba City service unit:	
Design for replacement of existing hospital to 125-bed hospital A/E and quarters site work	600,000
Window Rock area office:	
Quarters (20) and site work	497,500

In conclusion there follows a summary of the area's total requests for additional funds in fiscal year 1971 above fiscal year 1970:

Hospital health (direct care) (179 positions)	$1,959,548
Field health (152 positions)	1,783,387
Contract medical care (indirect care)	1,335,700
Total increase requested	5,078,635

It is realized that an increase of this size, equaling 33 percent of the fiscal year 1970 base is a large amount to request in one fiscal year, however when you consider the following factors, the request is not excessive or unreasonable:

1. Continuing increase in workloads, particularly in the outpatient departments, and the likelihood of the increases to continue at a faster pace, due to the population increase, the impact of the community health representative program, and the construction of several outlying clinics and health centers which will bring the health services to many Indian people not now receiving care because of lack of transportation to more distant facilities, or for other reasons relating to the Navajo culture or the rugged environment in which they live.

2. The distribution of the total additional positions by service unit hospital departments and field health programs prevents a much more reasonable picture of where the services would be rendered as opposed to the consideration of a gross position increase totaling 331 positions without any detail. The attached tabulations reflect several breakdowns which provide additional insight as to the needed increases.

3. The health deficiencies heretofore indicated and the inability of the present staff to provide the highest quality of care the Indian people deserve due to the ever increasing demand by more and more Navajo people.

4. The increased staff would provide more continuity to the health program by reducing personnel turnover, particularly in the professional group, and by

so doing, increase quality of care by retaining experienced and dedicated personnel. We realize this is an intangible benefit, however it is a fact that during the last 2 or 3 years of extremely limited budgets, personnel ceilings, etcetera, the majority of the professional employees leaving the service did so, not because they weren't interested in the Indian health program, but because they were unable to do the kind of professional job their expertise qualified them for, or because they were forced to work many overtime hours, with or without pay, and became so tired and frustrated that without some hope of relief on the horizon, they felt impelled to leave. Exit interviews have indicated that many regi tered nurses and some of the 2-year physicians would have stayed on, had there been any indication of relief from fund restrictions and personnel freezes in the near future.

5. The Kiplinger business study of health care costs in 1968, exclusive of research and education, reflected that the average American received medical care costing $294 per annum. The same year the Navajo Indian people received medical care costing $180. Projecting this to fiscal year 1970 with an annual increase in medical care cost for the average American of at least 12½ percent equals $372 as opposed to the Navajo Indian people's ratio of $186. From this comparison it can readily be seen that more resources must be provided if the Indian health service and the Indian people can ever hope for their health status to equal that of the average population.

6. The additional cost of $5 million plus for fiscal year 1971 would actually be a more realistic increase for fiscal year 1972 since approval of an increase of 331 positions beginning July 1, 1970 would not be possible to achieve until later in fiscal year 1971. Consequently the amount requested for personal services for fiscal year 1971 could probably be reduced by 25 or 30 percent on the basis that it would take 4 to 6 months after July 1, 1970, to employ such a large number of additional personnel.

The Navajo area and the Navajo tribal representatives have attempted to be reasonable and practical in arriving at the foregoing budget recommendations, and cannot but emphasize that failure to allow sizable budget increases for Indian health care can only result in a deterioration of quality care for the Indian people and a decline in their health status as compared to the average American citizen.

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DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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HOSPITAL HEALTH SERVICES

	F.Y. 1970 BUDGET	PROPOSED INCREASES	F.Y. 1971 BUDGET
GALLUP			
Man Years	320.0	102.0	422.0
Salary & Benefits	$2,837,853	$792,026	$3,629,879
Equipment	18,235	147,565	165,800
All Other	616,017	59,080	675,097
TOTALS	$3,472,105	$998,671	$4,470,776
FT. DEFIANCE			
Man Years	171.0	6.0	177.0
Salary & Benefits	$1,410,975	$ 39,503	$1,450,478
Equipment	12,400	102,700	115,100
All Other	340,480	21,950	362,430
TOTALS	$1,763,855	$164,153	$1,928,008
CROWNPOINT			
Man Years	54.0	17.0	71.0
Salary & Benefits	$ 431,900	$115,010	$ 546,910
Equipment	7,590	14,010	21,600
All Other	132,250	8,400	140,650
TOTALS	$ 571,740	$137,420	$ 709,160
SHIPROCK			
Man Years	116.0	26.0	142.0
Salary & Benefits	$1,030,945	$190,210	$1,221,155
Equipment	10,250	26,150	36,400
All Other	310,420	19,575	329,995
TOTALS	$1,351,615	$235,935	$1,587,550
TUBA CITY			
Man Years	107.0	12.0	119.0
Salary & Benefits	$ 913,500	$ 86,949	$1,000,449
Equipment	5,900	21,400	27,300
All Other	247,940	16,175	264,115
TOTALS	$1,167,340	$124,524	$1,291,864

HOSPITAL HEALTH SERVICES

	F.Y. 1970 BUDGET	PROPOSED INCREASES	F.Y. 1971 BUDGET
WINSLOW			
Man Years	52.5	16.0	68.5
Salary & Benefits	$ 438,300	$123,730	$ 562,030
Equipment	8,000	(2,600)	5,400
All Other	100,480	6,650	107,130
TOTALS	$ 546,780	$127,780	$ 674,560
WINDOW ROCK			
Man Years	2.5	.5	3.0
Salary & Benefits	$ 37,800	$ 4,250	$ 42,050
Equipment	16,160	33,840	50,000
All Other	113,255	20,450	133,705
TOTALS	$ 167,215	$ 58,540	$ 225,755
LABORATORY TRAINING			
Man Years	5.0		5.0
Salary & Benefits	$ 65,100		$ 65,100
Equipment	3,000		3,000
All Other	13,150	$ 1,975	15,125
TOTALS	$ 81,250	$ 1,975	$ 83,225
TPN - SHIPROCK			
Man Years	4.0		4.0
Salary & Benefits	$ 32,200		$ 32,200
Equipment			
All Other	7,800	$ 550	8,350
TOTALS	$ 40,000	$ 550	$ 40,550
M & R			
Man Years			
Salary & Benefits			
Equipment			
All Other	$ 215,000	$110,000	$ 325,000
TOTALS	$ 215,000	$110,000	$ 325,000
GRAND TOTALS			
Man Years	832.0	179.5	1,011.5
Salary & Benefits	$7,198,573	$1,351,678	$8,550,251
Equipment	81,535	343,065	424,600
All Other	2,095,792	264,805	2,361,597
TOTALS	$9,376,900	$1,959,548	$11,336,448

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HOSPITAL HEALTH SERVICES
Position Totals by Category

CATEGORY	GALLUP	FT. DEFIANCE	CROWNPOINT	SHIPROCK	TUBA CITY	WINSLOW	TOTALS
Medical Officer	1	-	1	2	-	-	4
Nurse - Professional	20	1	2	4	1	5	33
Nurse - Sub-professional	9	4	4	2	3	-	22
Nutrition	3	-	2	5	-	1	11
Physical Therapy	-	-	-	1	1	-	2
Laboratory & X-ray	12	-	-	1	-	-	13
Maintenance	2	-	1	1	2	1	7
Housekeeping	-	-	1	6	1	-	8
Pharmacy	1	-	-	-	-	2	3
Social Services	1	-	-	-	1	-	2
Dental	-	-	2	-	-	-	2
All Other	14	1	4	4	3	7	33
Mental Health							
Medical Officers	2	-	-	-	-	-	2
Psychiatrist	1	-	-	-	-	-	1
Social Worker	2	-	-	-	-	-	2
Mental Health Spec.	3	-	-	-	-	-	3
Mental Health Aides	9	-	-	-	-	-	9
Nurse - Professional	7	-	-	-	-	-	7
Nurse - Sub-professional	4	-	-	-	-	-	4
All Other	11	-	-	-	-	-	11
Total Mental Health -	39	-	-	-	-	-	39
GRAND TOTALS	102	6	17	26	12	16	179

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GALLUP HOSPITAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
	Deputy Director CO	1	$19,752	$19,752
	Psychiatrist CO	1	10,800	10,800
	Pharmacist CO	1	10,800	10,800
	Psychiatric Social Wkr.CO	1	10,800	10,800
	General Medical Ofcr. CO	2	10,800	21,600
	Social Worker CO	1	7,000	7,000
GS- 12/1	Research & Evaluation Specialist	1	13,389	13,389
GS- 10/1	Group Treatment Specialist	1	10,252	10,252
GS- 9/1	Medical Technologist	2	9,320	18,640
GS- 9/1	Dietitian	2	9,320	18,640
GS- 9/1	Psychiatric Head Nurse	1	9,320	9,320
GS- 9/1	Registered Nurse	3	9,320	27,960
GS- 8/1	Occupational Therapist	1	8,449	8,449
GS- 7/7	Chief Microbiologist	1	9,169	9,169
GS- 7/1	Registered Nurses	24	7,639	183,336
GS- 6/1	Mental Health Worker	4	6,882	27,528
GS- 5/1	Licensed Practical Nurse	1	6,176	6,176
GS- 5/1	Social Worker Aide	1	6,176	6,176
GS- 5/1	Clerk	1	6,176	6,176
GS- 4/1	Ass't. Microbiologist	1	5,522	5,522
GS- 4/1	Licensed Practical Nurse	9	5,522	49,698
GS- 4/1	Lab. Ass't.	8	5,522	44,176
GS- 4/1	Mental Hlth.Therapy Aides	11	5,522	60,742
GS- 4/1	Community Alcoholism Wrkr.	5	5,522	27,610
GS- 4/1	Clerk	5	5,522	27,610
GS- 4/1	Interpreter	3	5,522	16,566
GS- 3/2	Clerk	1	2,515	2,515
GS- 3/1	Clerk	4	4,917	19,668
WB- 8	Maintenance	2	8,912	17,824
WB- 3	Laundry Worker	2	5,533	16,599
WB- 3	Food Service Worker	1	5,533	5,533
	TOTALS	102		$720,026

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FORT DEFIANCE HOSPITAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
GS- 7/1	Registered Nurse	1	$7,639	$7,639
GS- 5/1	Medical Records Librarian	1	6,176	6,176
GS- 4/1	Licensed Practical Nurse	2	5,522	11,044
GS- 4/1	Nursing Assistant	2	5,522	11,044
	TOTALS	6		$35,903

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CROWNPOINT HOSPITAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
	Medical Officer CO	1	$ 8,899	$ 8,899
	Dental Officer CO	1	8,899	8,899
GS- 7/1	Registered Nurse	2	7,639	15,278
GS- 3/1	Licensed Practical Nurses	2	4,917	9,834
GS- 3/1	Dental Assistant	1	4,917	4,917
GS- 3/1	Clerk	3	4,917	14,751
GS- 2/1	Nursing Assistant	2	4,360	8,720
GS-10/1	Dietitian	1	10,252	10,252
WB- 4	Chauffeur	1	6,406	6,406
WB- 3	Laborer Maintenance	1	5,533	5,533
WB- 3	Laborer Custodial	1	5,533	5,533
WB- 3	Food Service Worker	1	5,533	5,533
	TOTALS	17		$104,555

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SHIPROCK HOSPITAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
	Medical Officer CO	2	$10,800	$21,600
GS-11/1	Physical Therapist	1	11,233	11,233
GS- 7/1	Registered Nurse	4	7,639	30,556
GS- 5/1	Med. Rad. Tech.	1	6,176	6,176
GS- 3/1	Licensed Practical Nurse	2	4,917	9,834
GS- 3/1	Clerk	2	4,917	9,834
WB- 8	Head Cook	1	9,172	9,172
WB- 5	Assistant Cook	2	6,260	12,520
WB- 4	Warehouseman	2	5,907	11,814
WB- 4	Maintenance	1	5,907	5,907
WB- 3	Food Service Worker	2	5,533	11,066
WB- 3	Laborer Custodial	6	5,533	33,198
	TOTALS	26		$172,910

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TUBA CITY HOSPITAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
GS-11/1	Physical Therapist	1		$11,233
GS-11/1	Social Worker	1	$11,233	11,233
GS- 7/1	Registered Nurse	1	7,639	7,639
GS- 5/1	Nursing Assistant-OR	1	6,176	6,176
GS- 4/1	Licensed Practical Nurse	2	5,522	11,044
GS- 3/1	Clerk	3	4,917	14,751
WB- 4	Maintenance	1	5,907	5,907
WB- 3	Laborer Custodial	1	5,533	5,533
WB- 3	Laborer Maintenance	1	5,533	5,533
	TOTALS	12		$79,049

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WINSLOW HOSPITAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
	Pharmacist	1	$10,800	$10,800
GS-10/1	Dietitian	1	10,252	10,252
GS- 9/1	Ass't.Director of Nursing and Training	1	9,320	9,320
GS- 7/1	Registered Nurse Coordinator	1	7,639	7,639
GS- 7/1	Registered Nurse	3	7,639	22,917
GS- 4/1	Pharmacy Assistatn	1	5,522	5,522
GS- 4/1	General Service Clerk	1	5,522	5,522
GS- 4/1	Medical Records Clerk	1	5,522	5,522
GS- 3/1	Ward Clerk	4	4,917	19,668
WB- 8	Maintenance Man	1	8,912	8,912
WB- 4	Chauffeur	1	6,406	6,406
	TOTAL	16		$112,480

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EQUIPMENT BUDGET REQUIREMENT FY - 1971

	Non-Capitalized Equipment	*REPLACEMENT	Radio Equipment	FY-70 Replacement Needs NOT FUNDED	Additional Requirements	TOTAL
Hospital Health	$ 17,575	$ 103,386	$ 50,000	$ 107,861	$ 142,553	$ 421,375
Gallup	9,207	54,161	-0-	8,126	94,263	165,757
Ft. Defiance	4,889	28,757	-0-	66,690	14,732	115,068
Crownpoint	215	1,266	-0-	13,270	6,850	21,601
Shiprock	1,885	11,089	-0-	19,775	3,591	36,340
Tuba City	984	5,790	-0-	-0-	20,457	27,231
Winslow	395	2,323	-0-	-0-	2,660	5,378
Window Rock	-0-	-0-	50,000	-0-	-0-	50,000
Maintenance	$ 680	$ 3,999	$ -0-	$ -0-	$ -0-	$ 4,679
Navajo Area Office	$ 921	$ 5,420	$ -0-	$ -0-	$ -0-	$ 6,341
Field Health	$ 2,121	$ 12,472	$ -0-	$ 38,281	$ 19,255	$ 72,129
Sanitation	236	1,387	-0-	-0-	-0-	1,623
Dental	745	4,384	-0-	-0-	-0-	5,129
Health Education	65	381	-0-	-0-	-0-	446
Field Medical	1,075	6,320	-0-	38,281	19.255	64,931
TOTAL	$ 21,297	$ 125,277	$ 50,000	$ 146,142	$ 161,808	$ 504,524

*Requirements reported on Non-expendable Equipment Control Program Report 7/69 - Annual Equipment Budget Plan

FY-70 REPLACEMENT NEEDS NOT FUNDED
AND ADDITIONAL EQUIPMENT REQUIREMENTS

Gallup - Replacement

Cavitron	(1) ea.	$ 800
Vacuum Cleaner (HK)	(1) ea.	200
Multilith	(1) ea.	1,100
Tablet Counter	(1) ea.	2,175
Clinical Rotator	(1) ea.	142
Mettler Balance	(1) ea.	720
Vacuum Cleaner	(1) ea.	200
Autopsy Table	(1) ea.	2,303
Mistogen Tent	(1) ea.	488
	TOTAL	$8,128

Gallup - Additional

Image Intensifier	(1) ea.	10,000
Fetal Pulse Detector	"	1,090
Hobbs Vemonte Automatic Injector	"	4,000
Sitz Bath Chairs	"	200
External Pacemaker	"	365
Diluter for Photometer	"	250
Laproscope	"	532
Instrument Washer Sterilizer	"	5,090
Gas Sterilizer	"	3,000
Ex Culdoscope	"	500
EKG Machine	"	800
Infusion Pump	"	549
Microgasometer	"	395
Heat Lamp	"	135
Dish Cart	"	860
Electric Typewriter	"	463
IMI Continuous Oxygen Monitor	"	990
Bircher Hyfrecator	"	157
Instrument Cleaner	"	446
Facial Nerve Stimulator	"	397
Vacuum Cleaner	"	200
Carts for Dietary	"	136
Diluter	"	275
Cradle Warmer	"	1,870
Supply Cart	"	135
Floor Scrubber	"	300
Fat Fryer	"	396
Heavy Duty Cart	"	173
Work Table	"	144

FY-70 ADDITIONAL EQUIPMENT REQUIREMENTS - Page 2

Gallup-Additional

Parts Bin	(1) ea.	603
Waring Blender	"	295
Spectrophotometer	"	1,675
Pediatric Stretcher (OR)	"	250
Isolette Air Shields	"	1,050
Blades for Retractor	"	150
Standing Table	"	245
Refractometer	"	195
Laryngoscope Holder	"	115
OB/GYN Counseling Films and Nark IV Projector	"	1,000
Pediatric Bird Respirator	"	549
Contra-Angle Burr	"	143
Radiosurg-Coles, & accessories	"	385
Wall model Cavolite	(3) ea.	405
Frig. Cryo-Applicator	(1) ea.	1,750
Suction/Vacuum urrette	"	1,500
Earoxometer	"	1,800
Ped-a-Crib	"	500
Hemo Clip Set	"	140
Electronic Thermometer	"	295
Bone Engine	"	383
Pediatric Peak Flometer	"	200
IBM Recorder/Transcriber	"	600
Microscope	"	2,500
Observer Tube	"	485
Treatment and Diagnostic Unit	"	660
Dissected Skull	"	165
Pediatric Respirator	"	2,000
Circoelectric Bed	"	1,452
Transisterized Retinal Detatchment Unit	"	485
Stapes Instruments	"	234
Cabinet, Cavitron	"	899.50
Otis Urethrotome, straight	"	162
Mira Oxygen Analyzer	(2) ea.	365
Right Angle Examining Telescope	(1) ea.	130
IBM Combination Units	"	2,970
Amnihook	"	250
Ultra sound Diagnostic Unit	"	20,000
Portable Audiometric Examniation Rm.	"	5,000
Pharyngoscope	"	155
Developer, Automatic	"	1,100
Pan-O-Rex	"	5,200
Collins Spriometer	"	300
Fat Filter	"	480
Thermoelectric Center	"	645
IVAC 400 Infusion Pump	"	549
TOTAL		$ 94,262.50

FY-70 REPLACEMENT EQUIPMENT - Page 3

Ft. Defiance - Replacement

Oven	(1) ea.	2,300
Food Mixer	"	550
Floor Scrubber	"	400
Food Slicer	"	600
Ditto Machine	"	900
Mimeograph Machine	"	900
Sewing Machine	"	600
IBM Electric Typewriter	"	500
X-ray Unit	"	47,000
Trunnion Kettle	"	700
Dental Console Unit	(6) ea.	8,000
Pharmacy Electric Type	(2) ea.	1,200
Computer Colorimeter	(1) ea.	700
Laboratory Sink	"	250
4-wheel Stretcher	"	600
Refrigerators	(9) ea.	1,300
Syringe Destroyer	(1) ea.	190
		66,690

Ft. Defiance - Additional

Infusion Pump	(1) ea.	500
Cribs	(6) ea.	1,500
Indirect Opthamoscope	(1) ea.	400
Appalanation	"	200
Phoropter	"	2,000
Infant Laryngoscope	"	187.
Recovery Bed	"	375
Linen Hampers	(6) ea.	645
Cold Mist Nebulizer	(2) ea.	200
Portable Water Analysis Kit	(1) ea.	375
Coulter Counter/Hematology	"	7,000
Automatic Pipetter	"	260
Prothrombin Timer	"	340
Autodilutor	"	300
Thermotic Drainage Pump	"	450
	TOTAL	$ 14,732

FY - 70 REPLACEMENT EQUIPMENT - PAGE 4

Crownpoint - Replacement

Film Processor	(1) ea.		8,140
Mobile X-ray Unit	"		5,130
		TOTAL	$ 13,270

Crownpoint - Additional

Dictating Equipment			412.50
Typewriter	(2) ea.		864.
Dischwaster	(1) ea.		229
Recovery Bed	"		280
Laminar Flow Hood	"		660
Croupette	"		185
Traction Frame	"		120
Medi-Stsion	"		1,514
Cap-Tab Counter	"		2,060
Prothrombin-Time Instrument	"		525
		TOTAL	$ 6,850.50

Shiprock - Replacement

Tray Cart	(1) ea.		1,675
Ice Maker	"		1,100
Tablet Counter	"		2,000
x-ray table	"		15,000
		TOTAL	19,775

Shiprock - Additional

IBM Dictating Unit	(1) ea.		650
Liquid Viewer	"		260
Microscope	"		439
Calculator	"		560
Grid Cassettee	"		184
Mimeograph	"		650
Water Dispenser	"		300
Audiometer	"		548
		TOTAL	$ 3,591

FY - 70 REPLACEMENT EQUIPMENT - PAGE 5

Tuba City - Additional

Trailer	(1) ea.	4,500
Laminar Flow Hood	"	800
Tractor	"	13,500
Scrubber, Floor	"	699
Polisher, Floor	"	958
	TOTAL	$ 20,457

Winslow - Additional

Dental Stool	(1) ea.	550
Cart	"	100
Dictating Equipment	"	1,600
Dictating Unit (Field Health)	"	410
	TOTAL	$ 2,660

Kayenta - Replacement

Microscope	(1) ea.	800
Mimeograph	"	525
EKG	"	695
Cassettes	(3) ea.	114.
Audiometer	(1) ea.	347.50
Saw Bench	"	300
Emergency Room Light	"	500
Dental Chair	"	1,500
Table Exam.	"	2,000
X-ray Machine	"	21,000
	TOTAL	$ 27,781.50

Kayenta - Additional

Refrigerator	(1) ea.	1,800
Pharmacy Tablet	"	1,800
Prescription Balance	"	300
Label Printing Machine	"	1,500
Generator	"	3,500
NON-CAP REQUIRED - Kayenta		700
	TOTAL	$ 9,600

FY - 70 REPLACEMENT REQUIREMENT - Page 6

Chinle - Replacement

Microscope,	(1) ea.	850
Sterilizer	"	9,000
Refrigerator	"	650
	TOTAL	10,500

Chinle - Additional

Bilogical Refrigerator	(2) ea.	3,550
Lathe	(1) ea.	900
Labeling Machine	"	300
Roof Ventilator	"	390
Steel Storage Bldg.	"	130
Window Cooler	"	175
Steam Cleaner	"	375
Calculator	"	500
Incinerator	"	2,400
Ultrasonic Cleaner	"	175
Ceiling Light	(2) ea.	700
Ney Surveyor	(1) ea.	250
Dental Cabinet	"	600
	TOTAL	$ 10,355

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FIELD HEALTH SERVICES

	F.Y. 1970 BUDGET	PROPOSED INCREASES	F.Y. 1971 BUDGET
SANITATION			
Man Years	50.0	25.0	75.0
Salary & Benefits	$ 479,900	$160,400	$ 640,300
Equipment	9,500	(7,900)	1,600
All Other	118,875	5,025	123,900
TOTALS	$ 608,275	$157,525	$ 765,800
DENTAL			
Man Years	57.0	18.0	75.0
Salary & Benefits	505,350	142,900	648,250
Equipment	3,300	1,800	5,100
All Other	48,803	9,947	58,750
TOTALS	$ 557,453	$154,647	$ 712,100
PUBLIC HEALTH NURSING			
Man Years	63.0	24.0	87.0
Salary & Benefits	$ 540,900	$163,200	$ 704,100
Equipment	2,600	(2,600)	0
All Other	56,765	3,935	60,700
TOTALS	$ 600,265	$164,535	$ 764,800
HEALTH EDUCATION			
Man Years	14.0	8.0	22.0
Salary & Benefits	$ 156,500	$ 70,400	$ 226,900
Equipment	1,700	(1,200)	500
All Other	24,100	1,500	25,600
TOTALS	$ 182,300	$ 70,700	$ 253,000
FIELD MEDICAL SERVICES			
Man Years	131.0	74.0	205.0
Salary & Benefits	$1,124,740	$542,300	$1,667,040
Equipment	13,700	51,300	65,000
All Other	464,945	27,480	492,425
TOTALS	$1,603,385	$621,080	$2,224,465

Page - 2 FIELD HEALTH SERVICES

	F.Y. 1970 BUDGET	PROPOSED INCREASES	F.Y. 1971 BUDGET
PLAGUE			
Man Years	10.0		10.0
Salary & Benefits	$ 44,800	$ 2,200	$ 47,000
Equipment			
All Other	13,200	1,000	14,200
TOTALS	$ 58,000	$ 3,200	$ 61,200
TRACHOMA			
Man Years	13.0		13.0
Salary & Benefits	$ 121,400	$ 6,000	$ 127,400
Equipment			
All Other	16,600	1,500	18,100
TOTALS	$ 138,000	$ 7,500	$ 145,500
MENTAL HEALTH			
Man Years	8.0	3.0	11.0
Salary & Benefits	$ 75,100	$ 29,600	$ 104,700
Equipment			
All Other	39,900	2,700	42,600
TOTALS	$ 115,000	$ 32,300	$ 147,300
FAMILY PLANNING			
Man Years			
Salary & Benefits			
Equipment			
All Other	$ 9,000	$ 600	$ 9,600
TOTALS	$ 9,000	$ 600	$ 9,600
CHR			
Man Years			
Salary & Benefits			
Equipment			
All Other	$ 328,700	$571,300	$ 900,000
TOTALS	$ 328,700	$571,300	$ 900,000
GRAND TOTALS			
Man Years	346.0	152.0	498.0
Salary & Benefits	$3,048,690	$1,117,000	$4,165,690
Equipment	30,800	41,400	72,200
All Other	1,120,888	624,987	1,745,875
TOTALS	$4,200,378	$1,783,387	$5,983,765

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DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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FIELD HEALTH SERVICES
Position Totals by Category

CATEGORY	SAN	DENTAL	PHN	HE	FMS	TOTALS
Engineer	2	-	-	-	-	2
Sanitarian	4	-	-	-	-	4
Sanitarian Aids	19	-	-	-	-	19
Dental	-	18	-	-	-	18
Nurse - Professional	-	-	4	-	10	14
Nurse - Sub-professional	-	-	10	-	10	20
Health Education	-	-	-	5	-	5
Medical Officer	-	-	-	-	4	4
Nutrition	-	-	-	-	2	2
Laboratory & X-ray	-	-	-	-	2	2
Maintenance	-	-	-	-	3	3
Housekeeping	-	-	-	-	8	8
Pharmacy	-	-	-	-	5	5
Social Services	-	-	-	-	8	8
Phsychiatrist	-	-	-	-	1	1
All Other	-	-	10	3	24	37
GRAND TOTALS	25	18	24	8	77	152

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ENVIRONMENTAL HEALTH
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Gallup				
O-3 + 2	Sanitarian	1	$7,524	$ 7,524
GS - 4/1	Engr. or San. Aid	4	5,522	22,088
Ft. Defiance				
O-3 + 2	Sanitarian	1	7,524	7,524
GS - 4/1	Engr. or San. Aid	2	5,522	11,044
Crownpoint				
GS - 4/1	Engr. or San. Aid	2	5,522	11,044
Shiprock				
O-3 + 2	Sanitarian	1	7,524	7,524
GS - 4/1	Engr. or San. Aid	4	5,522	22,088
Tuba City				
GS - 4/1	Engr. or San. Aid	1	5,522	5,522
Winslow				
GS - 4/1	Engr. or San. Aid	2	5,522	11,044
Window Rock				
O-2 - 2	Engineer	1	5,396	5,396
O-3 + 2	Sanitarian	1	7,524	7,524
Chinle				
	Engineer	1	5,396	5,396
GS - 4/1	Engr. or San. Aid	2	5,522	11,044
Kayenta				
GS - 4/1	Engr. or San. Aid	2	5,522	11,044
	TOTALS	25		$145,806

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DENTAL
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Gallup				
	Dental Officer CO	1	$10,778	$10,778
GS - 4/1	Dental Assistant	1	5,522	5,522
Ft. Defiance				
GS - 4/1	Dental Assistant (Greasewood)	1	5,522	5,522
Crownpoint				
GS - 4/1	Dental Assistant	1	5,522	5,522
Shiprock (Sanostee)				
O-3 + 4	Dental Officer	1	10,699	10,699
GS - 4/1	Dental Assistant	1	5,522	5,522
Tuba City				
GS - 4/1	Dental Assistant (Kaibeto)	1	5,522	5,522
Winslow (Dilcon & Toyei)				
O- 3 + 4	Dental Officer	2	10,699	21,398
GS - 4/1	Dental Assistant	2	5,522	11,044
Window Rock				
Chinle (Many Farms)				
O-3 + 4	Dental Officer	2	10,699	21,398
GS - 4/1	Dental Assistant	4	5,522	22,088
Kayenta				
GS - 3/1	Dental Assistant	1	4,917	4,917
	TOTALS	18		$129,932

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PUBLIC HEALTH NURSING
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Gallup				
GS - 9	Public Health Nurse	2	$9,320	$18,640
WB - 5	Driver Interpreter	2	5,533	11,066
GS - 4/1	LPNs	4	5,522	22,088
GS - 3/1	Clerk-Typist	2	4,917	9,834
Ft. Defiance				
WB - 4/3	Chauffeur-Interpreter	1	6,406	6,406
Crownpoint				
GS - 9/1	Public Health Nurse	1	9,320	9,320
WB - 4/3	Chauffeur-Interpreter	1	6,406	6,406
GS - 4/1	LPNs	3	5,522	16,566
Shiprock				
Tuba City				
GS - 4/1	LPNs	1	5,522	5,522
Winslow				
Window Rock				
Chinle				
GS - 3/1	Clerk-Typist	1	4,917	4,917
WB - 4/3	Chauffeur-Interpreter	1	6,406	6,406
GS - 9/1	PHN (Many Farms)	1	9,320	9,320
GS - 3/1	Clerk-Typist	1	4,917	4,917
Kayenta				
WB - 4	Chauffeur-Interpreter	1	5,907	5,907
GS - 4/1	LPNs	2	5,522	11,044
	TOTALS	24		$148,359

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HEALTH EDUCATION
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Gallup				
GS - 11/1	Health Educator	1	$11,233	$11,233
GS - 6/1	Health Education Aide	1	6,882	6,882
GS - 4/1	Clerk-Typist	1	5,522	5,522
Ft. Defiance				
Crownpoint				
GS - 11/1	Health Educator	1	11,233	11,233
Shiprock				
GS - 4/1	Clerk-Typist	1	5,522	5,522
Tuba City				
GS - 4/1	Clerk-Typist	1	5,522	5,522
Winslow				
GS - 6/1	Health Educator Aide	1	6,882	6,882
Window Rock				
Chinle				
Kayenta				
GS - 11/1	Health Educator	1	11,233	11,233
	TOTALS	8		$64,029

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FIELD MEDICAL SERVICES
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Gallup				
GS - 7/1	Registered Nurse	1	$ 7,139	$ 7,139
GS - 5/1	Field Worker - TB	1	6,176	6,176
GS - 5/1	Clerk	1	6,176	6,176
WB - 3	Laborer Custodial	1	5,533	5,533
GS - 11/1	Social Worker	1	11,233	11,233
GS - 5/1	Nutritional Aide	1	6,176	6,176
Ft. Defiance				
GS - 3/1	Clerk-Typist	1	4,917	4,917
Crownpoint				
GS - 7/1	Registered Nurse	1	7,639	7,639
GS - 5/1	Case Worker - TB	1	6,176	6,176
GS - 3/1	LPN	1	4,917	4,917
GS - 3/1	Clerk-Typist	2	4,917	9,834
WB - 4/3	Chauffeur-Interpreter	1	6,406	6,406
Tuba City				
GS - 5/1	Social Worker Trainee	1	6,176	6,176
GS - 3/1	Clerk-Typist	1	4,917	4,917
GS - 4/1	LPN	1	5,522	5,522
Winslow				
GS - 3/1	Clerk-Typist	2	4,917	9,834
GS - 3/1	Medical Aide	1	4,917	4,917
Window Rock				
Chinle				
WB - 9/1	Maintenance Man	1	7,717	7,717
	Medical Officer C.O.	1	10,778	10,778
GS - 7/1	Registered Nurse	1	7,639	7,639
GS - 5/1	Medical Records Suprv.	1	6,176	6,176
Shiprock				
GS - 11/1	Nutritionist	1	11,233	11,233
GS - 3/1	Clerk-Typist	1	4,917	4,917

Page 2 FIELD MEDICAL SERVICES

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Chinle (cont.)				
GS - 4/1	Pharmacy Assistant	1	$ 5,522	$ 5,522
GS - 4/1	Nursing Assistant	1	5,522	5,522
GS - 3/1	Clerk-Typist	2	4,917	9,834
WB - 4	Laborer Custodial	1	5,907	5,907
Kayenta				
	Medical Officer CO	1	10,800	10,800
GS - 11/1	Social Worker	1	11,233	11,233
GS - 9/1	Pharmacist	1	9,320	9,320
GS - 4/1	Administrative Ass't.	1	5,522	5,522
GS - 4/1	LPN	1	5,522	5,522
GS - 3/1	Clerk-Typist	2	4,917	9,834
WB - 9/1	Maintenance Man	1	7,717	7,717
Chinle (Many Farms)				
O-3 + 4	Medical Officer	1	10,687	10,687
GS - 8/1	Registered Nurse	3	8,449	25,347
GS - 11/1	Social Worker	1	11,233	11,233
O-2 - 2	Pharmacist	1	5,396	5,396
GS - 4/1	Pharmacist Assistant	1	5,522	5,522
GS - 5/1	Administrative Clerk	1	6,176	6,176
GS - 7/1	Lab - X-ray Technician	2	7,639	15,278
GS - 6/1	Medical Records Suprv.	1	6,882	6,882
GS - 4/1	Medical Records Clerk	1	5,522	5,522
GS - 4/1	Nursing Assistant	2	5,522	11,044
WB - 3/1	Laborer Custodial	2	5,533	11,066
WB - 4/1	Chauffeur-Interpreter	1	5,907	5,907
WB - 9/1	Maintenance Man	1	7,717	7,717
Shiprock (Teec Nos Pos)				
O-3 + 4	Medical Officer	1	10,687	10,687
O-2 - 2	Pharmacist	1	5,396	5,396
GS - 4/1	LPN	1	5,522	5,522
GS - 3/1	Clerk-Typist	1	4,917	4,917
WB - 3/1	Laborer Custodial	1	5,533	5,533
GS - 8/1	Registered Nurse	1	8,449	8,449
Shiprock (Sanostee)				
GS - 9/1	School Nurse	1	9,320	9,320
GS - 4/1	LPN	1	5,522	5,522
GS - 3/1	Clerk-Typist	1	4,917	4,917
WB - 3/1	Laborer Custodial	1	5,533	5,533

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GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Winslow (Dilcon)				
GS - 9/1	School Nurse	1	$ 9,320	$ 9,320
GS - 4/1	LPN	1	5,522	5,522
GS - 3/1	Clerk-Typist	1	4,917	4,917
WB - 3/1	Laborer Custodial	1	5,533	5,533
Winslow (Toyei)				
GS - 9/1	School Nurse	1	9,320	9,320
GS - 4/1	LPN	1	5,522	5,522
GS - 3/1	Clerk-Typist	1	4,917	4,917
WB - 3/1	Laborer Custodial	1	5,533	5,533
	TOTALS	74		$493,038

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MENTAL HEALTH
Detail of Positions

GRADE	TITLE	NUMBER	AMOUNT	TOTAL
Gallup				
Ft. Defiance				
Crownpoint				
Shiprock				
Tuba City				
Winslow				
Window Rock				
GS - 13/1	Psychiatrist	1	$15,812	$15,812
GS - 4/1	Clerk-Typist	2	5,522	11,044
Chinle				
Kayenta				
	TOTALS	3		$26,856

Mrs. HANSEN. Miss Wauneki.

Mr. NAKAI. Mr. Bowman might want to recap something after Miss Wauneki makes her statement.

Miss WAUNEKI. Thank you, Madam Chairman and Mr. Reifel.

I think we are all here in behalf of our own Navajo problems. Since the time is short, Madam Chairman, and you have my statement here which contains quite a few pages, I shall submit it. We are requesting additional funds to operate our Indian Health Services, which are operated by the Public Health Service, as you know.

I have an outlined statement here. To make it as brief as I can——

Mrs. HANSEN. Miss Wauneki, during the hearings on the Indian Health Service the committee discussed the problems of their limited medical staff and nursing service. We made it very plain that we did not think the personnel ceilings should be imposed on a program that involved people and their welfare.

Miss WAUNEKI. It involves the health of the Navajo Indians as well as the children. For some reason or another, maybe there was a wise decision made by Congress to limit the budget, but to our way of thinking the service has gone backwards rather than forwards. We are looking to have more funds made available so it will move forward.

For instance, we need an additional staff of 179 positions in the hospital health services and 152 positions in field health.

The lack of personnel and the lack of funds is causing the health services of the Navajo area to go backwards. We are here trying to give our ideas as Indians that we need additional funds to run our operation in these hospitals.

Of course, it will show in the statement here which I hope you will read carefully about the problems we have.

One of the major concerns that we have had for several years now is why there is no construction funds put in the budget. We need a new hospital of 125 beds which has been requested for several years, and the planning money has been made available but it is not released to get the program going. We need a new hospital in these two places outlined in my statement, and one also at Shiprock. The waiting rooms are completely overcrowded. You might recall them.

Mrs. HANSEN. Yes, I do.

Miss WAUNEKI. You can see facilities are being used. Now what will we do with those things sitting here, no improvements at all, no staff at all, and we are very much upset about it. That is the reason we are here.

I hope you can read this statement that I have given you here.

Mrs. HANSEN. It is an excellent statement.

Miss WAUNEKI. See what can come of this.

Another mistake—I don't know whether I shall call it a mistake or not—there is a resolution we have passed by the advisory committee. You have a copy of that resolution, too. The reason we passed this resolution is that we have found that sanitation facilities under Public Law 86–121, which was very favorable at the beginning, and it has been in the past, recently I understand the officials of HEW have made it a policy and a ruling that these moneys that will be made available in this particular year will serve only the new housing area, which means we have some new housing programs on the Navajo Reservation and these sanitation facilities will be made available only

to that particular new housing project. We are very much in disagreement with that. How about the facilities that need to go here in about 13,500 homes which still need these facilities? I don't think the authorities should restrict it to a particular housing program only. We still need this program to improve the individual homes where the water will be piped in. This is for the reason of good health. This is another problem that needs to be looked into.

I think it is appropriate to know that in 1970 the Navajo Tribe supported this program with some $8 million. These are contributions to improve our own sanitation.

Mrs. HANSEN. The funds were from the Navajo Nation?

Miss WAUNEKI. Yes. This is another area that needs to be looked into. This is of considerable concern to us.

Then I will also outline another very favorable program that we have seen for the first time, and I think it is very effective. Mr. Nakai also feels it is effective, and this is a project which has been created in the past year. It is called community health representative. It is made up of Indian tribes. We have about 52 Navajos who are learning and are being trained under the direction and authority of the Indian health group. This is to take an interest and take part in the local communities of the health problems that we have, and the program is so effective that the Navajos really like the program.

Yet the budget is so limited, also on that particular group, that we are asking over $10,000 for that particular group. This is called participation, a Federal program which has been introduced on Indian reservations, such as the Navajo Reservation. This is to get the Indians to participate and take an interest in their own problems, such as health and education. We hope you will look into this thoroughly and see what you can do to make additional funds available for these programs.

Mrs. HANSEN. Thank you very much. You have made a great contribution. You have an excellent statement and an excellent resolution.

One of the best weeks I have ever had was spent with the Navajo people.

Miss WAUNEKI. What are we to do with the construction of facilities?

Mrs. HANSEN. The construction cut back seriously effects many programs.

If you don't have proper facilities it affects the lives of people. That is how serious it is.

Miss WAUNEKI. It is very serious.

Mrs. HANSEN. Off the record.

(Discussion held off the record.)

Mrs. HANSEN. Mr. Bowman?

Mr. BOWMAN. I would like to emphasize that unless the Navajo Indian irrigation project is funded according to what the schedule was, I think the realization of the completion of the project would be in 2007 when some of us will not be around to see it accomplished.

I am Norman L. Bowman representing the Navaho Tribe. The Navajo Tribes is most appreciative of the opportunity to appear before this committee in behalf of the Navajo Indian irrigation project.

As you are aware the construction of the project has lagged far behind the schedule that anticipated the delivery of water to the first

block of land in 1970. It now seems that the earliest delivery date could be about 1978. The project was authorized in 1962 and is only about 16 percent complete.

The Navajo Tribe is particularly interested in the development of this project. The construction phase of the project will provide job opportunity for some 100 to 140 Navajos who usually fill about 21 percent of the construction jobs.

Upon completion the Navajo Indian irrigation project will generate some 8,800 jobs with an annual payroll from all phases of agriculture estimated at $42 million. The expanded agricultural industry will produce over 13,000 nonagricultural jobs with an annual payroll of some $19 million. When all industries affected by the Navajo Indian irrigation project are included, the San Juan Basin economy should be increased by approximately $86 million per year.

Some of the actions taken by the Tribe in anticipation of delivery of water to the land are as follows:

(1) The Tribe relinquished certain apparent rights to waters of the San Juan River in exchange for construction of the project and the relatively small amount of water needed to operate it.

(2) The Tribe is conducting a small irrigated farming operation near Shiprock, N. Mex., as a pilot program to determine the best methods and techniques for operation of the large Navaho Indian irrigation project.

(3) The Tribe is in the process of establishing a firm plan of operation for the Navajo Agricultural Products Industry, a Tribal Enterprise which will regulate the farming operations on the project and make it successful.

(4) The tribe made available to the State of New Mexico, lands to be included within the project and located on the Navajo Reservation, for the site of an agricultural experimental station which has been in operation for 2 years.

The Tribe accepted the exchange of water rights for the Navajo Indian irrigation project in good faith and believed that the Government's part of the agreement would be conducted in the same manner. The continued delay in the construction of the project has led the Tribe to question the good faith of the Government.

Accordingly, the Tribe requests consideration of funding for fiscal year 1971 in the amount of 8.3 million dollars. This sum would provide for the construction of Cutter Dam ($1,000,000), Tunnels 3 and 3A ($5,300,000) and Tunnel 4 and the Kutz and Armenta Siphons ($2,000,000).

This 8.3 million dollars together with the 3.4 million dollars appropriated for fiscal year 1970 and frozen to this time will put the project back on schedule so that with appropriate funds during the coming years the goal of water to the first block of approximately 10,000 acres can be realized no later than 1978.

Mrs. HANSEN. Thank you very much.

STATEMENT OF MRS. MARTHA FAIR

Mrs. HANSEN. Next we have a statement from Mrs. Martha Fair. (Statement of Mrs. Martha Fair follows:)

STATEMENT OF MRS. MARTHA FAIR, IN SUPPORT OF APPROPRIATIONS FOR LAND ACQUISITION AND DEVELOPMENT

A part of the curriculum in teaching elementary school children in Gary, Ind., requires that I teach a unit called Indiana history. Every year for 12 years, I've asked myself if I am truly a fraud as I teach that Indiana is famous for her sand dunes and lake shore at the "Crossroads of America."

Both of my children were born in Gary. We traveled 20 miles 1 day so that they could enjoy a beach and some hills while they were small. We also maintained a YMCA membership so that they could still swim when our schedule wouldn't allow for an all-day 40-mile trip. My concern has always been for the thousands of people who do not have transportation or money for annual trips or YMCA memberships. What do the parents of urban children do when they cannot send them to Wisconsin for summer camp?

Presently, Lake Michigan as a recreational resource, does not exist for too many of Gary's children. They might as well live in Gary, Kans. as to live in Gary, Ind., as the lake is virtually inaccessible to the citizenry. For northwest Indiana residents, Lake Michigan is obscured by miles and miles of steel mills except for a small strip of sand called Marquette Park beach, a 2 mile strip of beach serving well over 200,000 people.

Persons, such as your committee, who are involved with preserving our environment and conserving our natural resources are faced with some long-range concerns. A major concern must be for the urban children of today, who have no knowledge of nature's wonders. "New City" plans call for an abundance of glass and concrete structures. Where will these children see wooded areas and wide open spaces? How can we expect these children to show great enthusiasm for conservation programs? Any such feelings will be as remote as feelings about space travel is today—only experienced by a specialist: an astronaut. Some concern must be given to the development of an ecstatic feeling for nature as it involves the life pattern of behavior of the human being. No such concern is necessary in areas where a child is surrounded by the beauty of our land. But, our urban child must develop this sense of rapture by mingling with nature. Urban children must have a place adjacent to their urban setting where they can feel the sand between their toes, watch waves wash away sand castles, hike through wooded dunes, roll down sandy dunes, and camp out and watch nature cover herself in a safe blanket of darkness.

It is my strong conviction that the curriculum in my school is only as good as it relates to life experiences that do or will confront the child. If the child's experiences include only congested streets, crumbling sidewalks, tons of garbage, and industrial smog, to what end do I undertake a unit on the conservation of our natural resources?

We need funds appropriated for the purchase and development of land as a park in the Indiana Dunes National Lakeshore.

INDIAN DUNES

WITNESS

HELEN WILDERMUTH

Mrs. HANSEN. Miss Helen Wildermuth.

Miss WILDERMUTH. This is my first such appearance and I am intimidated, impressed and honored.

Mrs. HANSEN. We are honored to have you.

Congressman Madden, a very distinguished member of the Rules Committee, appeared yesterday and said you would be here. He wanted to extend his apologies for not being able to attend.

Miss WILDERMUTH. It would be difficult to say which beautification

or conservation was the most challenging assignment in that part of the world but I have been more immersed in conservation matters in recent months. I have been a volunteer for the city administration in these areas for the last year. In this capacity and in this context I have become aware of some aspects of the environmental crisis that were not so obvious to me before. I have become acutely aware by greater association with residents of the inner city with regard to the effect of the deprivation in their lives of any kind of regular contact with unspoiled nature.

When people are consigned to the ghetto and a totally urban environment they are completely cut off from nature and from their natural origins. It has a destructive effect on their sense of personal identification, their relationships with their fellow beings. I think it definitely results in different forms of abhorrent behavior.

Also, I have noticed a polarization of the races on the environmental issue. I think if we are to find solutions to that problem there will have to be desirable ways discovered to bring ghetto blacks in to allow them the experience of being with nature.

Although the Indiana Dunes National Lakeshore would serve people of all races in every stratem of society, it will represent the first significant facility of its kind readily available to hundreds of thousands of urban black people in the Calumet and the Chicago metropolitan region.

Mrs. HANSEN. This committee has always thought that everybody was entitled to their share of good environment in America.

Miss WILDERMUTH. I don't mean to be so exclusive in addressing just this aspect of the problem but there are others who will represent the broader spectrum. I think this is a point of view that is not often heard of or understood. We need all the adherents to the environmental cause that we can get. We are losing this important segment of the battle.

Mr. REIFEL. Thank you very much, Miss Wildermuth. I appreciate your taking the time to come here.

Miss WILDERMUTH. I appreciate the opportunity.

Mr. REIFEL. It takes a good deal of time, energy, and money to even come here from Gary. We want you to know we appreciate it. You are doing it in the interest of our country and our people.

Miss WILDERMUTH. Indeed I am.

LAND AND WATER CONSERVATION

WITNESS

RUSSELL TOBEY, DIRECTOR OF STATE PARKS IN NEW HAMPSHIRE

Mr. REIFEL. Roger Crowley?

Mr. RUSSELL TOBEY. Mr. Crowley could not be here. I am the director of State parks in New Hampshire.

Mr. REIFEL. We are very glad to have you.

Would you submit your statement for the record?

Mr. TOBEY. Very well, sir.

(The statement follows:)

STATEMENT OF R. J. CROWLEY, JR.

Mr. Chairman and distinguished members of the Senate Committee on Land and Water Conservation, I fully realize what busy people you are. I want you to know how very much I appreciate this opportunity of appearing before you. I will not waste your time but come directly to the point.

My name is Roger J. Crowley. I am presently, and have been for the past 3 years, the commissioner of the department of resources and economic development for the State of New Hampshire. I formerly served as director of aeronautics for the State of New Hampshire. Before that, I served as an officer of the U.S. Navy for 25 years, retiring with the rank of captain in 1962.

New Hampshire, as you know, is a recreation-oriented State. In fact, tourism is our second largest industry, generating some $300 million annually. That is about one-half the total amount of wages paid by all manufacturing in the State, to give you a comparison.

In this age of pollution and concern for the environment, New Hampshire remains relatively unspoiled; and every year tens of thousands of city dwellers come to our State in search of peace and recreation.

We in New Hampshire feel strongly that we have an obligation to ourselves and to our visitors to maintain high standards of environmental quality and to improve and refine our many recreational facilities.

The Bureau of Outdoor Recreation over the past several years has been of tremendous assistance in helping us move toward those goals.

And allow me to state here and now that I strongly support that portion of the budget of the Department of the Interior requesting $357 million for the BOR for fiscal 1971. The investments which BOR is making in outdoor recreational facilities will serve the American people for generations to come and they are extremely worthwhile.

However, gentlemen—and this is the point of my appearance before you today—there presently appears to be in the criteria established by the BOR a narrow and restrictive clause which seems to me to frustrate some of the main objectives of the program and which is, at this moment, causing serious problems for the State of New Hampshire.

The situation in a nutshell is this. The State of New Hampshire is presently engaged in a joint project with the BOR to improve facilities for skiers at Cannon Mountain in Franconia State Park, site of Profile Lake and the Old Man of the Mountain.

In winter this area, which is the largest skiing facility in the State, handles between 3,000 and 4,000 skiers a day. It is providing outdoor recreation on a massive scale.

Last year the BOR contributed close to a quarter-million dollars to install snow-making equipment on Cannon Mountain, thereby insuring even more intensive use by skiers.

As a result, base station facilities at the so-called Peabody Slope area have become overtaxed and wholly inadequate to handle the increasing volume of users.

The Peabody base station cafeteria, for example, has seating capacity for only 150 people at a sitting, while the ski slope itself may be catering to as many as 4,000. This has led to impossible congestion.

Last year, the State of New Hampshire applied for a project amendment to the BOR to provide for the construction of an additional shelter to the Peabody base station. This was intended not as any elaborate expansion but a simple, functional, and practical building addition to provide shelter in the first instance and minimum restaurant facilities in the second.

In New Hampshire, as you may know, we do not necessarily have gentle winters and even the hardiest skier requires food and shelter occasionally.

The BOR appeared in principle to agree with this project. It approved approximately $7,000 for architectural plans and some $70,000 for construction. The New Hampshire general court, however, appeared to feel that the plans were inadequate and it appropriated $175,000 which it asked the BOR to meet with matching funds.

It had every reason to believe that the structure proposed would meet BOR criteria since the BOR had already approved a project of $125,000 for a similar extension to the summit station on the top of Cannon Mountain which serves the identical purpose of providing food and shelter to skiers before they zoom down the slopes.

On last February 19, however, we were informed by the BOR that a new interpretation of the ground rules would bar their participation in the building construction proposed on the basis that it was not related to outdoor recreation.

This interpretation, if it remains the BOR. position, will very seriously jeopardize the Cannon Mountain facility; and my purpose in being here today is to ask you gentlemen, with all due respect, that you examine the criteria established by BOR. with a view to clarifying, or amendng existing laws so that the larger objectives of the BOR. program can be fully met.

Clearly, facilities for food and shelter must be an integral part of a winter outdoor recreational activity such as skiing. BOR. is helping to provide for these necessities on the summit of Cannon Mountain as I have pointed out; but for reasons that seem obscure to us, it declines to do so at the base of the mountain.

I would like to emphasize, in conclusion, that Cannon Mountain and Mount Sunapee, both -tate-operated ski facilities, between them generate a revenue of well over a million dollars annually, which in turn assists the State in defraying most of the cost of maintaining a State park system comprised of 30 additional non self-supporting parks and a dozen or so wayside areas and historical sites. That is why the issue is so important to us.

I thank you kindly for listening, and I will be glad to try to answer any questions.

Mr. TOBEY. Mr. Crowley is commissioner of the New Hampshire Department of Resources and I am in the division of parks which is part of that department.

Mr. Crowley states strongly his support of that portion of the budget of the Department of the Interior requesting $357 million for the Bureau of Outdoor Recreation during fiscal 1971. The investments which the Bureau is making in outdoor recreational facilities will serve the American people for generations to come and they are extremely worthwhile.

Gentlemen, I heartily add my support to that statement.

The point of this appearance today has to do with regard to the established criteria of the Bureau of Recreation and a narrow and restrictive clause which seems to me to frustrate some of the main objectives of the program. It has particular application to a situation in New Hampshire which is rather critical.

The rest of Mr. Crowley's statement follows and I shall not read it at this point.

Mr. REIFEL. Thank you very much. Certainly we will bring this to the attention of the Department.

Mr. TOBEY. If I may add a postscript, and I hope you will understand it. This is not the first time that the judgment of the Bureau of Outdoor Recreation has changed the rules during the ball game. We have appropriation from the legislature which lasted for 3 years, and during that 3-year period they changed the rules and our legislation becomes ineffective.

Mr. REIFEL. We appreciate your appearance.

FOREST SERVICE RESEARCH PROGRAMS

WITNESS

PAUL G. NYSTROM, MANAGER, WASHINGTON FIELD SERVICE, AMERICAN PLYWOOD ASSOCIATION

Mr. REIFEL (presiding). Mr. Paul G. Nystrom, Manager of the Washington Field Service of the American Plywood Association.

Mr. NYSTROM. Mr. Chairman and members of the committee, my name is Paul Nystrom.

I am manager of the Washington field office of the American Plywood Association which is headquartered in Tacoma, Wash. My association conducts joint programs of research, promotion, and quality control for 83 member companies which produce structural plywood in 138 plants located in the Western and Southern States.

The need for improved design methods for housing systems has been presented by Mr. Penoyar in behalf of the Wood Technical Committee. I am appearing before you to underscore the importance the American Plywood Association attaches to this matter. Because we are convinced the development of efficient design procedures is a basic key to achieving the Nation's housing goals, we believe we have a further responsibility to individually request your support of an intensification of Forest Service research programs in this area generally, and, in particular, to urge that you appropriate the funds required to construct adequate structural testing facilities at the U.S. Forest Products Laboratory at Madison, Wis.

Thank you.

Mr. REIFEL. Thank you, Mr. Nystrom. Were it not for the procedural situation in the House, Mrs. Hansen, the very able chairman of this subcommittee, would have been glad to have welcomed you as a witness. We appreciate your contribution.

FOREST SERVICE RESEARCH PROGRAMS

WITNESS

WILLIAM PENOYAR REPRESENTING THE WOOD TECHNICAL COMMITTEE

Mr. REIFEL. Mr. William Penoyar is the next witness.

Mr. PENOYAR. My name is William Penoyar, from Tacoma, Wash.

I am appearing before you today in behalf of the Wood Technical Committee, a special technical advisory and coordinating committee comprised of representatives from wood products industry organizations involved in the development of standards and use recommendations for softwood lumber and plywood.

Represented on the committee are the Western Wood Products Association, the American Plywood Association, the Southern Pine Inspection Bureau, the West Coast Lumber Inspection Bureau, and the National Forest Products Association, whose combined memberships account for more than 80 percent of the lumber and plywood manufactured in the United States today.

The purposes of the committee are to seek continued refinement of valid technical data on the properties of wood species utilized in the manufacture of whole-wood products, to encourage improvements in structural design methods and criteria which affect the utilization of such products, and to establish liaison with other organizations and agencies involved in technical matters dealing with the use of whole-wood products.

On behalf of this committee, I wish to call to your special attention a major technical information gap in the area of housing research—a gap which we believe is holding back the efficient use of the Nation's timber resources, and is a serious obstacle to achieving more economical housing.

The Nation's housing needs have been well publicized and the members of the Appropriations Committee certainly are fully aware of the complexities of the problem. The effects of high interest rates on housing starts, the skyrocketing costs of land and labor, the need for an adequate timber supply, and the need for innovative building concepts have been given much consideration in recent years.

Overlooked, we believe, is a major deficiency in the basic methods and procedures that are actually used to design light-frame structures, such as one- and two-family housing units and garden apartments. In this era of great technological progress in which significant advances are being made in the fields of aerospace, transportation, and communication, and in which many technnically sophisticated new products are being developed, the house is still being designed on the same old piece-by-piece or stick-by-stick basis.

For example, floors are designed on the assumption that the lumber joists or framing members alone resist the static and dynamic loads applied to the floor in actual use. In designing this way, the effects of other structural elements in and adjacent to the system such as plywood subflooring, finish flooring, interior wall partitions, exterior walls and roofs, are not taken into account. Yet it is known that these elements interact and together influence performance.

Tests of full-size roof, wall, and floor assemblies, and tests of entire houses have shown that the present simple methods of design significantly underestimate actual performance capabilities and do not adequately relate to those physical characteristics which affect human comfort and determine homeowner acceptance.

Archaic and unrealistic methods of designing light frame structures continue to be used because of the lack of comprehensive and systematic quantitative information on how the properties of the individual elements or components, and their method of assembly, affect the in-place performance of typical housing systems. If this information gap is filled, houses can be immediately designed to provide assured satisfactory performance at minimum cost, and new assembly and construction concepts can be fully exploited. Experimentation with new housing systems and construction methods certainly is desirable, but more significant progress can be achieved now by development of improved design methods.

The research program at the Forest Products Laboratory includes some projects which are concerned with developing more efficient basic methods of designing light-frame construction systems. The total public interest, we believe, requires that this specific work be intensified, and assigned the highest priority. The problem is urgent. Solutions are needed now!

The wood products industry, collectively, has and is spending millions of dollars to develop more refined information on its products and to develop new methods of using these products to provide better and more economical shelter. The industry has the full technical expertise and marketing knowledge required to immediately convert basic knowledge into improved and practical building products and systems. What is needed now are the basic tools; namely, more precise and efficient design methods through which light-frame systems could be developed to any level of specified performance. These basic design tools, which would be used by many different members of the wood

products and construction industries, must be recognized as authoritative if they are to be of value. Therefore we believe the development of such design tools can best be done by a public agency.

The vast amount of technical information developed by the Forest Products Laboratory in the past 60 years has had a vital role in making it possible for the Nation's timber resources to be used effectively in meeting the needs of the people of the United States. The results of the basic engineering and related research programs of the laboratory continue to be a major factor in the successful development of more and better wood products. Thus the Forest Service is seen as the agency which can most efficiently and rapidly fill the critical need for the basic design tools which are essential requisites for more efficient light-frame construction systems. We urge your strong support and approval of the Forest Service program in this area.

The present testing facilities of the Forest Products Laboratory are not adequate to carry out the type of full-scale testing of entire roof, wall, and floor systems that is required if improved design methods are to be quickly and fully developed. This need was recognized in 1966 when Congress appropriated $180,000 in architectural planning funds for expanding and modernizing the laboratory's facilities for wood utilization research including the construction of a new structural laboratory addition. This planning has been completed, but no action has been taken to fund the program in the past 4 years. Yet the housing problem continues to grow more acute. The cost of the structural laboratory is estimated to be $1,500,000. In view of the importance of this facility in developing more realistic and efficient design methods, we urge that you appropriate the funds now so that construction of the structural laboratory can start at the earliest possible date.

We believe that the development of these design criteria must be prepared by a public agency, namely, the U.S. Forest Products Laboratory of Madison. Unfortunately, they lack the adequate facilities at the present time and they must have a structural testing laboratory built as soon as possible if this work is to be completed. We therefore request that you include $1.5 million in this year's appropriation specifically earmarked for construction of the additions so urgently needed. We sincerely believe this appropriation would be the most significant step that could be taken to meet the country's ever-increasing demands for adequate economical housing and provide a greatly improved environment for millions of Americans.

Thank you.

Mrs. HANSEN. Thank you.

INDIAN HEALTH SERVICE

WITNESS

DR. CARL MUSCHENHEIM, CHAIRMAN, NATIONAL COMMITTEE ON INDIAN HEALTH OF THE ASSOCIATION ON AMERICAN INDIAN AFFAIRS, INC.

Mrs. HANSEN. Dr. Carl Muschenheim, Chairman, National Committee on Indian Health of the Association on American Indian Affairs, Inc.

Dr. MUSCHENHEIM. Madam Chairman and members of the committee, I thank you for the opportunity to appear, I will submit my prepared statement.

(The statement follows:)

STATEMENT OF CARL MUSCHENHEIM, M.D.

Mr. Chairman and members of the subcommittee, my name is Carl Muschenheim. I am a practicing physician and clinical professor of medicine at Cornell University Medical College.

I wish first of all to thank you for the opportunity to appear on behalf of the Association on American Indian Affairs and its National Committee on Indian Health.

The Association on American Indian Affairs is a national voluntary organization founded in 1922 to assist American Indians and Alaska Natives in their efforts to achieve economic and social equality with other American communities. Its National Committee on Indian Health has as its particular concern the physical and mental health of the native peoples and actively encourages the development of programs serving to promote an optimal level of health and well-being among them.

In recent years our association has appeared before committees of the Congress in support of such measures as the transfer of health services from the Bureau of Indian Affairs to the Public Health Service in 1955; Public Law 86-121, the Indian Sanitation Facilities Act; the establishment of a preventive mental health program beginning with a pilot project at Pine Ridge, S. Dak., during fiscal year 1966, and in Alaska in fiscal year 1967; the initiation of a 5-year comprehensive trachoma control program, also in fiscal year 1967; and an increased annual appropriation for the construction of sanitation facilities in the fiscal years 1967-1970.

Once again we wish to congratulate the subcommittee on its pioneer action in bringing into being the preventive mental health programs, for having established the much needed trachoma control program and for the regular and substantial increases which it has appropriated for sanitary construction.

In appearing before the subcommittee today to comment on the budget request of the Indian Health Service for the fiscal year 1971, I wish to emphasize in particular the deficiency in appropriations for construction of sanitation facilities and the gravity of the problems of middle ear disease among American Indians.

SANITATION CONSTRUCTION

Comment

The appropriations request for fiscal year 1971 includes $17,950,000 for the construction of sanitation facilities. Of this amount, $16,500,000 is for sanitation projects to serve approximately 7,100 units of new or improved housing. This compares favorably with the $13,130,000 requested for new housing in fiscal year 1970 and should enable the sanitation program to keep pace with the greatly accelerated Indian housing program.

However, the fiscal year 1971 request provides for only $1 million to serve existing housing units—specifically the homes of 450 California Indian families. In the prior fiscal year, $3,775,000 was budgeted for projects to serve existing dwellings. This sharp curtailment of the regular sanitation construction program threatens to undermine the Indian Health Service's general program of disease prevention and will doom thousands of Indian families who will not be served by new housing to continued exposure to extremely hazardous health conditions.

There are identified needs for sanitation construction relative to existing housing that amount to no less than $108 million. In Alaska these needs total $43 million. On the Navajo Reservation there are at least 10,000 homes lacking sanitation.

The proposed budget makes no provision whatever (outside of California) for continuous operation of the program that was begun in 1959 to correct deficiencies in water supply and sanitation for existing housing. In the 10 years that have passed, construction has lagged to the extent that only $58 million has been expended in the regular program and there are still countless Indian homes which lack the most rudimentary sanitation facilities, as well as entire Indian communities which lack adequate and safe water supplies.

Identification of needed projects

We have ascertained that a total of 31 projects have been applied for by Indian communities, some of which has already waited 2 or 3 years. All of these are urgently needed and will not be superseded or made unnecessary by any planned new housing. A list of these projects is attached hereto. In addition to the construction funds required to carry out these projects, there will be a need for $1,104,000 to provide the Indian Health Service with the funds needed to hire the personnel necessary to get the job done.

Recommendation

When Public Law 86–121 was enacted in 1959 it was envisioned that the grave deficiencies in water supply and human waste disposal facilities would be to a large extent corrected within a decade, even within 5 or 6 years. In view of the failure to meet this goal, owing entirely to lack of adequate funding, it is particularly disturbing to find that the original program is about to come to a standstill.

It is urgently recommended, therefore, that additional funds be budgeted so that at least the above-mentioned projects can be undertaken without further delay.

It is estimated that an additional $7,814,000 is needed in fiscal year 1971 for these purposes.

OTITIS MEDIA

Comment

In March last year Dr. Kurt W. Deuschle, chairman of the department of community medicine, Mount Sinai School of Medicine, appeared before this subcommittee on behalf of the Association on American Indian Affairs to recommend an appropriation of $500,000 for the creation of an otology program within the Indian Health Service. We were deeply disappointed that no action was taken on this request, in view of the tragic human consequences of middle ear disease and its great prevalence among American Indians.

The passage of the year has shown the problem is, if anything, even larger than it appeared to be then; and budgetary limitations have enabled the Indian Health Service, even with material aid from several voluntary groups, to attack the problems in only a piecemeal fashion.

The Indian Health Service reports that in every year since 1961 middle ear disease has been the first or second leading notifiable disease. In 1968 there were a total of 36,470 cases of otitis media reported.

Children are hardest hit by this disease. Of the total cases of middle ear disease noted above, 21 percent were children under 1 year of age and 59 percent were in children under 5 years of age.

Children crippled by partial-to-complete deafness tend to learn more slowly and may exhibit social, psychological, and behavioral abnormalities. They are regularly observed to be insecure, withdrawn, and unable to learn at an acceptable rate.

The extent of the problem of hearing difficulties in Indian schools is staggering. At the Pierre Boarding School in South Dakota 33 percent of the students were found to have hearing abnormality. A recent study of Alaska native schoolchildren in Bethel showed that 53 percent of the males and 39 percent of the females have a hearing loss of 26 decibels or more. On the Navajo Reservation there is estimated that there are 4,000 children with some conductive deafness due to chronic otitis media and an unknown number with nerve deafness. A survey conducted at the Chemawa School in Oregon in 1968 revealed 20 percent of the 850 students had some hearing impairment.

It can be shown that the cost for welfare support for those disabled by middle ear disease far exceeds the cost of a comprehensive prevention and treatment program.

Recommendation

The Indian Health Service in its excellent report, "Middle Ear Disease Among the American Indian and Alaska Native," provides a survey of its program requirements to combat middle ear disease through prevention and treatment and through the provision of restorative surgery and rehabilitation.

We urge the adoption of this special program, one that is similar to the trachoma control program which was established in 1967 and has proven itself very effective.

We recommend that the subcommittee appropriate for fiscal year 1971 a sum of no less than $1 million and no more than $2 million for a separately funded preventive and remedial program on otitis media; and further that it be anticipated that the sums equal to the larger amount will be needed for an additional 4 or 5 years.

GENERAL COMMENTS

Analysis of the 1971 appropriations request indicates a program activity budget for the Indian Health Service in the amount of $113,217,000, representing a net program decrease of $598,328 after allowance for mandatory pay increases and other statutorily required costs.

Despite the great strides made by the Indian Health Service since 1955, the persisting high morbidity and mortality rates do not warrant a leveling off of program activities. We would hope that substantial annual increases can continue until such time as the health of the American Indians and Alaska natives is brought into line with that of the population as a whole.

Recommendations

The Association on American Indian Affairs respectfully submits the following summary recommendations to this subcommittee:

1. Appropriation of a $10 million increment for fiscal year 1971 for program activities, to provide for an otitis media program, for the training and employment of 200 new community health representatives, and for other purposes.

2. A supplemental appropriation of $7,814,000 for sanitation construction for existing housing.

We believe these recommendations to be fully justified in view of the prevailing health conditions among American Indian and Alaska native citizens.

Reservation	Community or district	County and State	Type of facility	Number of homes		Estimated Federal cost
				Full	Partial	
ABERDEEN						
Cheyenne River	Promise, PH. II	Ziebach, S. Dak	Individual water and waste	10		$45,000
Winnebago	Winnebago	Thurston, Nebr	Community water and sewerage	260		660,000
Wisconsin-Winnebago	Wisconsin-Winnebago, PH. II	Wood, Sauk, Juneau, Wis	Individual water and waste	61		211,000
Total						916,000
ALBUQUERQUE						
Laguna	Old Laguna, PH. II	Valencia, N. Mex	Community water and sewerage		112	385,000
Jemez	Jemez	Sandoval, N. Mex	Water and waste improvements		310	165,000
Santa Domingo	Rural	do	Community water and individual waste	50		143,000
Total						693,000
ANCHORAGE						
Alaska Native	Kotzebue, PH. IV	Alaska	Community water and sewerage		350	500,000
Do	Mountain Village	do	do	70		704,000
Total						1,204,000
BILLINGS						
Wind River	Arapahoe, PH. III	Freemont, Wyo	Individual water and waste	93		260,000
Crow	Rural	Big Horn, Mont	Individual water and waste (cleanup)	60		120,000
Blackfeet	do	Pondera and Glacier	Maintenance project		900	30,000
Fort Peck	do	Valley and Roosevelt County, Mont.	Individual water and waste (cleanup)	50	50	230,000
Total						640,000
WINDOW ROCK						
Navajo	Scattered locations	Arizona, New Mexico, Utah	Well and spring development		150	100,000
Do	do	do	Bathroom facilities		200	180,000
Do	do	do	Water systems and individual waste	100		400,000
Do	do	do	Privies		700	55,000
Do	Utah Strip	San Juan, Utah	Community water and individual waste	40		100,000
Do	Red Rock	Apache, Ariz	do	50		150,000
Do	Dennehotso	Arizona	do	60		220,000
Total						1,205,000

OKLAHOMA CITY					
Oklahoma Area	Rural water districts	Oklahoma	Community water and individual waste	50	154,000
Cherokee	Marble City	do	Individual water and waste	45	148,000
Creeks	Okemah	do	do	49	162,000
Cherokees (East Band)	Paint Town	North Carolina	do	140	231,000
Total					695,000
PHOENIX					
Ft. Apache	White River, PH. II	Apache, Ariz	Community water and sewerage	150	400,000
Gila River	Gila Crossing, PH. II	Maricopa, Ariz	Community water and individual waste	160	275,000
Walker River	Walker River	Mineral Lyon Church, Nev	Individual water and waste	50	150,000
Gila River	Rural	Pinal, Maricopa, Ariz	Water system improvements	200	100,000
Total					925,000
PORTLAND					
Umatilla	Rural	Umatilla, Oreg	Individual water and waste	56	105,000
Fort Hall	do	Bingham, Idaho	do	120	246,000
Jamestown	Village	Clallam, Wash	Community water and individual waste	10	24,000
Nez Perce	Rural	Nez Perce, Idaho	Individual water and waste	20	57,000
Total					432,000
Total all projects					6,710,000

Dr. MUSCHENHEIM. Ours is a national volunteer organization. I also represent the National Committee on Indian Health.

My purpose in appearing is to comment on the budget request for the Indian Health Service for fiscal year 1971. In doing so, I should like to emphasize in particular certain deficiencies, namely those for the construction of the sanitary facility and also on the gravity of the problems of middle ear disease.

I would like to take this opportunity also, if I may, to present for your consideration some background information which has been published within the last year and a half regarding environmental diseases which were considered in depth at a conference sponsored by our committee several years ago.

The appropriation request includes an item of nearly $18 million for the construction of sanitation facilities. The greatest amount of this, $16.5 millon, is for sanitation projects to serve new housing which is being constructed and this compares favorably with the last fiscal year. However, the request provides only $1 million for sanitation construction in connection with existing housing and all of this is specifically for California.

In the prior year, $3,775,000 was budgeted for existing dwellings so that this virtually eliminates the continuance of the program in connection with existing housing.

There are, however, identified needs for santation construction in this relationship of no less than $108 million, of which $43 million are in Alaska. And on the Navajo Reservation there are at least 10,000 homes, which will not be replaced in the foreseeable future, which lack sanitation.

The proposed budget makes no provision for these identified needs, of which I have submitted a list, which is attached to the statement I have submitted. These are of projects that have been requested and are ready to go, except for the lack of funding. These total $6,700,000 plus $1 million which would be required for service for personnel.

We would respectfully recommend, therefore, that in view of the failure to meet the goal which was set 10 years ago when Public Law 86–121 was passed, and it was then envisaged that these needs would all be met within a decade—hopefully within 5 or 6 years—so we would recommend that an additional $7,814,000 for fiscal 1971 could be considered for the purpose I have mentioned.

The other matter on which I would like to comment specifically, if I may take another minute or two, is the problem of otitis media in the Indian population and the Alaska native population.

Dr. Curt Deuschle testified last year, after having made a survey of the problem, and recommended a special program, an otology program and a special appropriation of $500,000. We are deeply disap-

pointed no action was taken at that time and subsequent evidence indicates that this problem is even greater than it was thought at that time.

Dr. Deuschle did not submit the report which he made to the association on his survey but I would like to take this opportunity to submit it at this time.

The Indian Health Service itself has surveyed this problem and has made some recommendations, I believe to this committee, for a special program.

We would recommend that the subcommittee appropriate, or that the Congress appropriate no less than $1 million for fiscal 1971 and anticipate a need for between $1 million and $2 million—probably $2 million a year for at least 5 years in a special preventive and remedial program for otitis. The needs are given in greater detail in the statement which I have submitted.

Finally, we would respectfully recommend a total appropriation increment of $10 million for program activities which would include the otitis media program, as well as a supplemental appropriation for sanitation construction of nearly $8 million.

Thank you very much.

Mrs. HANSEN. Thank you so much.

Mr. REIFEL. I want to commend Dr. Muschenheim for the tremendous contribution you have made to the welfare of the American Indian. I think it was through your concern and interest that we have had many things cleared up.

Mrs. HANSEN. We always look forward to your appearance.

HELIUM RESEARCH CENTER

WITNESSES

JOHN S. STIFF, CITY MANAGER, CITY OF AMARILLO, TEX.
ERNEST STROUD, MAYOR, CITY OF AMARILLO, TEX.

Mrs. HANSEN. John Stiff, City Manager of Amarillo, Tex.

Mr. STIFF. I speak today in behalf of the city of Amarillo. I would like to introduce Mayor Stroud of Amarillo.

Mr. Chairman, and members of the committee, I would like to thank you for the opportunity of appearing before you this date in regard to the Helium Research Center of the Bureau of Mines which is located in Amarillo, Tex. As all of you are aware, Amarillo is also known as the helium capital of the world.

My appearance is brought about by the fact that on February 17, 1970, the Department of the Interior advised me that the Helium Research Center would be closed at the end of fiscal year 1970. It has

taken many years and cost millions of dollars to put together the expertise which is now located at the Helium Center. It appears to me to be false economy to cease this entire operation and research center when there is such a need for research in the world today.

My first recommendation is to give every consideration to funding this operation for fiscal year 1971 in order to continue improving our knowledge on helium to discover new uses for helium. If the committee cannot see its way to complete funding, I would recommend a second consideration to you.

The second recommendation is to establish a gradual phase-out over a 3-year period and transfer all activities to West Texas State University. We in Amarillo feel that West Texas State University is a part of Amarillo even though it is located in Canyon, Tex., which is about 14 miles from Amarillo.

In order to accomplish the gradual phase-out of the Helium Center of the Bureau of Mines in Amarillo, it would be necessary for this committee to recommend funding this activity in the amount of $840,000 for the fiscal year 1971. Additional funding would be necessary and I hereby request this committee to go on record in favoring appropriations of $480,000 for fiscal year 1972 and $250,000 for fiscal year 1973.

With the approval of the above funding, West Texas State University would fund the additional amount needed to keep the research activities together.

All present projects under way in the Helium Research Center are related to helium production, helium utilization and conservation. Should the Department of the Interior suddenly cut off the funding of this activity, it would seriously jeopardize the total conservation effort.

Our Federal Government is giving much attention to work pertaining to environmental programs and the expertise available in the scientists presently employed at the Helium Research Center could make great contributions to the solution of problems of environment.

Should this committee see fit to approve the gradual phase-out of the Helium Research activity, I have the commitment of West Texas State University that they will accomplish the following items:

1. The university has already obtained sufficient funding to expand the Killgore Research Center to the necessary sizes to accomplish the housing of all activities now conducted at the Helium Research Center.

2. They will accept the transfer of all of the personnel principally employed in research at the Helium Center.

3. They will assume the necessary responsibility to partially fund this activity for the next 3 fiscal years and will assume complete funding responsibility for the 4th year.

May I express my thanks to you all for allowing me to appear before you this date and to sincerely request that every consideration be given to either recommendation No. 1 or recommendation No. 2 which I have set forth to you this date. Being an employee of Government, I appreciate economy as much as you, but in my opinion, the acceptance of either of these recommendations will result in a savings to our Federal Government by not wasting the talent we have collected, but transferring it to another location for continued research.

We hope to be able to present a solution and not a problem.

As you will recall, on February 17, 1970, it was announced by the Bureau of Mines, Department of the Interior, that the helium research activity located in Amarillo, Tex., would cease operation at the end of this fiscal year. We in Amarillo very definitely believe the helium research is an important activity. We would like to see it maintained and continued. It has made many contributions to our country, not only in space, but the underwater study presently going on.

We would sincerely request you to consider funding it for this fiscal year. In the past it has cost approximately $1,300,000 a year. In case you do not see fit to fund it this year entirely, we have an ultimate solution which we would like for you to consider. Our ultimate solution is, we would like to gradually phase it out over a period of 3 years, commencing with fiscal year 1971. We would like to propose that we transfer the helium research activity to West Texas State University.

For the first year it was transferred it would still be necessary for you to recommend funding it in the amount of $840,000. The second year the cost to you for funding would be reduced to $480,000. The third and final year we would like for you to recommend funding at an amount of $250,000, at which time the entire cost of the operation of that research unit would be assumed by West Texas State University.

Mrs. HANSEN. Do you know if authorizing legislation is necessary for this transfer?

Mr. STIFF. We have been assured by the president of the university that they are funded and can do it in that manner, but they cannot do it the first year.

Mrs. HANSEN. Do you have to have a congressional act to provide a transfer of the helium research to West Texas?

Mr. STIFF. I am sorry, I don't know, Madam Chairman. If you could approve the gradual phase-out by transferring to West Texas,

it would keep research going on helium. It would also enable not only you but us to allow 53 research people to stay together. We have spent many years and dollars to put a team of this type together. We hate to see a team broken up immediately on July 1st of this year.

We respectfully request each of you this date to give careful consideration, if you cannot fund it in its entirety, to at least giving us a gradual phase-out for the benefit of the Federal Government and, last but not least, Amarillo, Tex.

We appreciate the opportunity of being with you.

Mrs. HANSEN. Thank you very much. We will talk to the Chairman of the full commitee, Mr. Mahon, about the question of authorization, which will go to the Committee of Interior and Insular Affairs.

PUYALLUP INDIAN TRIBE

WITNESS

CHIEF SATIACUM OF THE PUYALLUP INDIAN TRIBE IN THE STATE OF WASHINGTON

Mrs. HANSEN. Chief Satiacum of the Puyallup Indian Tribe.

Chief SATIACUM. Dear Madam Chairman, I am Chief Satiacum of the Puyallup Indian Tribe in the State of Washington, and I speak also for a number of other organizations.

I also represent the Intercollegiate American Indian Students Association of Washington State, Survival of American Indians (SAI), Foundation of American Indian Rights (FAIR), and the Puyallup Indian Fisheries Council. My trip to Washington, D.C., is sponsored by the Washington State Council of Churches, particularly the Episcopalian and Presbyterian divisions.

I am appearing before you today with regard to the restrictions and cuts that have been placed upon the Bureau of Commercial Fisheries appropriation, also with regards to better educational opportunities for the American Indian people.

The Indian groups that I represent are deeply concerned over the cuts that have been made, especially with regard to fisheries research. The scientists who have been available to us in limited numbers to assist Indians in managing their fisheries resources, have provided a very important step to the Indians to enable them to properly manage these resources.

We are further perturbed that fish that are nurtured in our streams and lakes are being taken in increasing numbers by foreign nationals. We urge that the U.S. fisheries extension be seaward to the edge of the Continental Shelf. We concur with any steps that will protect our fish when they are feeding in the ocean.

The assistance that Congress has given to a number of the Indian groups, such as the Quinaults with their fish hatchery, we urge that

this aid be extended to other Indian people with consideration to the Puget Sound area that all people will be able to enjoy the fish resource.

The flood water controlled by the Mud Mountain Dam on the White River could be made better use of by the storage of this water for a controlled flow for downstream fishing benefits.

With regard to Indian education, we feel that the funding at present is not adequate and many of our Indian people are being denied the opportunities that education has to offer. We feel that with the major number of Indian people living in the northwest area (with Alaska) that more consideration must be given to the needs of this area.

The establishment of a multieducational facility for the Indian people to be located in Seattle, Wash., with the idea of utilizing the other universities in this area. Consideration for the urban dwelling Indians' needs attention, as these people constitute at least 50 percent of all Indians.

At the present time, there are several Indian tribes not being recognized by the Federal Government. We feel this is negligence on the part of the Secretary of Interior and we urge that action be taken for recognition of these people—for it has been declared under the "Universal Declaration of Human Rights" on December 10, 1948, some 48 nations agreed that nobody should be deprived of his nationality (article 15).

With regard to Indian resources and recognition, we are presently working to establish an American Indian Game and Fisheries Commission. It will be composed of members of those American Indian tribes whose hunting and fishing rights have been recognized and accorded to those tribes by treaty. When this Commission has been established we urge that it be recognized by Congress and be vested with the authority and means to enforce the high legal obligation established by treaty. The purpose of this Commission is finally to give the American Indian a voice in the conservation and use of their traditional and most elemental resources—the creatures of the land and water. To date the Indians have no voice on the State level in this matter of the use of game and fish. In fact, the State has chosen to ignore Indian rights despite Federal court rulings declaring that white sportsmen and commercial fishermen must share resources with treaty Indians. For decade upon decade the words of the National Government, whether executive, legislative, or judicial branch, have been hollow despite the generous assurances—for Indians there is neither law nor order in this land. The harvest of promises of good faith are blown away with the chaff in the threshing and only the hard kernel of deceit remains.

I wish to thank your committee, Madam Chairman, for the deep human interest that you have always shown in the problems connected with the education and welfare of the American Indian people.

Mrs. HANSEN. Thank you very much.

Do you feel that Indian scholarship funds should be increased?

Chief SATIACUM. I believe so. This is one of our great concerns.

Since the meeting in Portland, the funding for the Indians hasn't been enough to even maintain the Indians in school who were already registered; some have already dropped out.

Mrs. HANSEN. There are not enough graduate students.

Have you ever had a response on the subject of the hatchery investigation on the Puyallup?

Chief SATIACUM. We have had just the one meeting. Just one meeting. I ran into him and spoke to him on the street and he told me at the time that the Puyallup water system was pretty well polluted and he felt that possibly we couldn't get a hatchery on there. I told him that maybe the State is committing a fraud against the people by maintaining a couple of hatcheries on there now. If we take that stand, maybe we should do away with the hatcheries that they have there.

I was talking with a sportsman, commercial fisherman, with regard to the Puyallup water system, like the Mud Mountain Dam and the White River. This is the greatest reproduction area for silver salmon. When they don't control this dam or the water, flood control it, it just plain wipes out the silver run. This is our biggest problem right now.

Mrs. HANSEN. I understand. I lived at Buckley for several years. Thank you very much.

INDIANA DUNES

WITNESS

MRS. JACK TROY, PRESIDENT, SAVE THE DUNES COUNCIL, INC.

Mrs. HANSEN. Mrs. Jack Troy, President of the "Save the Dunes Council."

Mrs. TROY. I have appeared before members of this committee for several years in support of funds for the Indiana Dunes National Lakeshore and wish to thank you for your generosity in considering and granting appropriations for this important project.

Twenty-three million dollars has already been designated in cash or advance contract purchase and will be spent by June of this year for land acquisition. The maximum funding under the terms of the bill authorizing the lakeshore in 1966 is 27.9 million dollars. The administration is requesting the balance of this amount, 4.9 million dollars, in new funding, which hopefully would complete the land acquisition program. Escalation of land costs since 1966 may necessitate some additional funds next year. The local staff of the National Park Service responsible for the land acquisition have been competent, courteous and highly effective in carrying out their program.

This lakeshore is unique in the National Park system in its proximity to a crowded urban and industrial area. It is adjacent to Gary, Ind., is 1-hour's distance from Chicago, is alongside the largest steel complex in the Nation. Ten million people live within a 100-mile radius of the park, with a prediction of doubling in the next 10 years.

The recreational needs and pressures in this area are enormous. In the 20 years I have lived in this region I have seen a continuous deterioration of the quality of life here, with more dirt, more grime, more blight, more noise, loss of open space to asphalt and buildings. The area has been made almost unlivable by man's carelessness and destructiveness.

What remains of the dunes area in the way of beach, dunes, woodlands and other natural beauty content makes a remarkable haven and an oasis for retreat. It seems to us indispensable.

It is therefore most urgent that development funds be appropriated now for the 1971 fiscal year for facilities in the west beach area so that the Lakeshore Park may be made available for public use and enjoyment as quickly as possible.

The Department of the Interior informs us that it is postponing the request for $1.3 million for initial construction of roads, parking areas, bathhouses, picnic sites until 1972. In a letter dated January 23, 1970, the National Park Service indicates the reason for postponement of requests for development funds is President Nixon's cutback in Federal construction activity as general fiscal restraints. However, since then the administration has eased its prohibition on Federal construction.

May we, therefore, urge that the $1.3 million be appropriated now for fiscal 1971 as a first step in the funding of the $8-million 5-year development plan for the west beach area which is designated as an intensive public use beach.

The need for recreational facilities in this region is critical. There are mounting urban tensions in neighboring communities. This park is not in a remote, desolate part of our country. Competitive demands for use of the land and the beautiful shoreline are continuous and usually of a nature threatening to human recreation. The wonderful potential of the lakeshore of beach development has been greatly diminished. There is very little beach still suitable for swimming. A skull and crossbones adorn many of the lake beaches in South Chicago, Hammond, Whiting areas, and the Indiana Harbor-East Chicago heavily industrial complex has never permitted public use of the lakeshore.

It is imperative that recreational development planning and construction of the Indiana Dunes National Lakeshore be speeded up in response to public demands and needs. Threats to the recreational use and encroachments on this small park continue and mount in persistent and shocking ways. I cite some of the major examples.

Last year we expressed our concern over the South Shore Railroad plans for a 26-acre, 800-car freight yard to be built within the park boundaries. After a year's efforts by conservationists and the assistance of Senator Bayh, the freight yard was moved out of the park.

The year before saw more than 100 acres of land within the park rezoned for industry.

This year, right now in fact, 40 acres within park boundaries not voluntarily sold to the park and under condemnation proceedings by the National Park Service, is being sandmined. We are told and confused by the information given us that the Interior Committee does not permit a filing of a "declaration of taking" in such a situation.

This seems to mean that the National Park Service has no legal protective rights over this property.

The threat of a major jetport facility proposed to be adjacent to the Lakeshore Park with SST's going out over the lake, remains the greatest potential hazard to the Indiana Dunes National Lakeshore.

Another concern is that there will be inadequate screening of the Bethlehem Steel Company's landfill, immediately bordering the park. Request was made for a planted 150-foot dune ridge to shield the objectionable view of blast furnaces and scrap heaps from park visitors along the shore.

Pinhook Bog, a part of the national lakeshore, important for ecological study, has been contaminated by the leaching into the water from piles of salt stored nearby by the Tollway Commission. The commission has not responded to requests to move the storage location to a less harmful spot.

Another continuing worry has been the proposal for widening U.S. 12 to a four-lane divided industrial highway bisecting the Indiana Dunes National Lakeshore. This threat remains unresolved.

Northern Indiana Public Service Co. is expanding two of their utility plants located at either end of the park. This will add to the air and water contributed by their several plants already located along the shore. This same company received a 75-acre easement in the park shortly before the lakeshore bill was approved by Congress. Now they are requesting an additional 10 acres of the park for their utility purposes.

Longtime opponents of the lakeshore park have recently filed suit in Federal court challenging the legality of the park. These are the same people who oppose appropriations for the park each year and then complain about appraisals of the National Park Service for land acquisition being too low.

Many of the serious threats to the lakeshore can be nullified or diminished by completing the land purchase, early development of the recreational facilities, and formal dedication and establishment of the Indiana Dunes National Lakeshore. The park cannot be protected until the land within its boundaries is fully purchased. The National Park Service has stated its reluctance to formally give the park official status until some development has occurred.

We therefore again stress the importance of development funds for 1971 so the area can be made available for public use and enjoyment as quickly as possible. Official recognition of the park as an entity of the national park system will, we hope, discourage the continued attacks upon its integrity.

We think Congress must be quite aware of and responsive to the public's urgent demands that we preserve what remains to us of areas so richly endowed with unique qualities such as those of the Indiana Dunes. April 22 has been called Earth Day and the byword is "Give the earth a chance." We plead "Give the dunes a chance."

Even though Lakeshore Park is not open to the public, thousands of people do come and use it, so I would make a special plea for the full funding of administration money for ranges, for protection of the area.

I would like to stress the fact that this park is a small area and a fragile area next to a large urban area and the pressures and encroachments on this park are just almost too numerous to mention.

As an example, I think I have told you previously that land within the park area has been rezoned for industry. There is a threat of a jetport next to the park. There is an expansion planned for a utility plant, a huge utility plant at this end and at this end. (Indicating.) There is a landfill here, which will have upon it two huge smokestacks, a steel-making facility and a scrap-metal heap. These are the kinds of things that are happening to the area.

Another utility plant is requesting additional acreage within the park boundary for a rail line and so forth.

I just wish to stress that it is extremely urgent to buy this park, particularly, as quickly as possible; have it dedicated and turned over to the public.

I would like to say that April 22 has been called Earth Day and the byword is "Give the earth a chance," and we would like to give the dunes a chance. Thank you very much.

Mrs. HANSEN. Thank you.

LAND AND WATER CONSERVATION FUND

WITNESS

LEWIS L. THOMPSON, RECREATION PLANNER, REPRESENTING JOSEPH H. COLE, DIRECTOR OF THE DEPARTMENT OF RECREATION

Mrs. HANSEN. Mr. Lewis L. Thompson, representing Mr. Cole, Director of the Department of Recreation, District of Columbia Government.

Mr. THOMPSON. Thank you very much. I am a recreation planner and I will talk about the Federal grants to the Department of Irrigation and the Department of Housing and Urban Development.

I am pleased to appear before this committee in support of the Department of the Interior's fiscal 1971 budget now before your committee.

The Land and Water Conservation Fund grants since its inception have greatly strengthened and improved urban and State outdoor recreation opportunities for millions of our citizens.

The District of Columbia would not have been able to install many of their playgrounds had it not been for their grants. In many instances they have funded almost 90 percent of all of our facilities. The Nation's Capital, as recipient of these grants, has been able to improve both the quality and quantity of its outdoor recreation programs for the citizens and members of—and many visitors to our Nation's Capital.

We, therefore, give our full support to getting the maximum appropriation of $357.4 million for the Land and Water Conservation Fund grant for allocation to the States for park and recreation areas. Anything less than full funding in our judgment would be detrimental to the State's efforts in carrying out its essential programs.

Mrs. HANSEN. Thank you.

Mr. THOMPSON. Thank you.

WITNESS

DR. RICHARD W. HALE, ACTING CHAIRMAN, MASSACHUSETTS HISTORICAL COMMISSION AND PRESIDENT, NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION LIAISON OFFICERS

Mrs. HANSEN. Dr. Richard Hale, Acting Chairman, Massachusetts Historical Commission and President of the National Conference of State Historical Preservation Liaison Officers.

(Dr. Hale's prepared statement follows:)

STATEMENT OF DR. RICHARD W. HALE

Madam Chairman and members of the committee, my name is Richard Hale and I appear before you in a dual capacity. I have been designated by the secretary of the Commonwealth, John F. X. Davoren, to act for him as chairman of the Massachusetts Historical Commission. Besides that, I have been elected president of the National Conference of State Historical Preservation Liaison Officers. Thus I can speak for the historic preservation needs not only of Massachusetts but also of the 49 other States of the five territories which may benefit from the National Historic Preservation Act.

Mr. Latimer, of Texas, has already presented to you the needs of the States, fully and ably. However, one important point should be added to his testimony. The question is sometimes raised, whether the States will match the proposed sum of $6,119,000. Within the past week I have telephoned to all the directors of the national conference whom I could reach. These represent 14 of the 50 States. These 14 States alone can match this grant more than twice over.

Such has been the stimulus already given to State, local, and private action by the mere existence of the National Historic Preservation Act and its program. This should more than guarantee the full use of the proposed grant by all of the States and territories.

Thank you for letting me appear. May I hope, in the name of Massachusetts and the 54 other States and territories that you will see fit to approve the appropriation suggested in the budget.

Dr. HALE. Thank you.

My colleague, Mr. Lattimer, has already appeared, I believe.

Mrs. HANSEN. That is right.

Dr. HALE. Last week I telephoned the 14 liaison officers who are directors of the national conference. Those 14 States can match it twice over so that any fear anybody might have that the States won't come through and the preservation money to be spent, it will not be spent on capital improvements, and private agencies carrying the maintenance, is not justified. We can more than match it. It will not be a Federal burden.

Mrs. HANSEN. I would like to commend your State and the States on the east coast for the attention they have given to historic preservation. Your sites are well marked. A person like myself, who has had an eastern background and whose people went west and then returned to the east, is particularly interested in where our history began.

Dr. HALE. May I reply to this, Madam Chairman? I spent half an hour of my telephone call with Mr. Rodin in Washington. Washington, I think, is a model for doing this. They have discovered how to make historic signs for $15 instead of $150, which I think is good.

Mrs. HANSEN. Did they tell you how they do it?

Dr. HALE. Very simple. You know that you can frequently make a plate with which you can print which is made out of aluminum. You

then make a second plate. There is $7.50 for each and you have a perfectly good sign instead of spending $150 for bronze.

Mrs. HANSEN. The State of Washington is very proud of what they have done. We are sorry that sometimes we were too late to save many of our interesting historical sites. I spent many years in the State legislature. Olympia is a very interesting old city and it is rather sad to see the number of very distinguished and beautiful houses that vanished in the wake of our own State construction program.

Thank you so much.

INDIANA DUNES

WITNESS

CARL KREKELER, PROFESSOR OF BIOLOGY, VALPARAISO UNIVERSITY, VALPARAISO, IND.

Mrs. HANSEN. Prof. Carl Krekeler, Professor of Biology, Valparaiso University. We are pleased to have you.

(Professor Krekeler's prepared statement follows:)

STATEMENT OF CARL H. KREKELER

The Indiana Dunes are known to ecologists throughout the world. The studies of this area by Cowles and Shelford at the turn of the century describing the succession of plant and animal communities are now classics. Students of ecology, field biology, and natural history come by the hundreds from all parts of Indiana and surrounding States each year on field trips to study this unique area. Here, as in few other places in the world, succession of natural communities is so conspicuous as to be almost diagrammatic. Moreover there is an unusually great diversity of plant and animal species here due to the facts that many different communities are in close proximity and that in the unusual habitats found here several species are at the limits of their range.

Those of us who teach field courses at institutions in the vicinity of the Indiana Dunes consider ourselves fortunately located indeed. We were, moreover, well pleased with the legislation of 1966 creating the Indiana Dunes National Lakeshore. It may have come later and provided for fewer features of ecological interest than some of us had hoped for. It did, however, seem to provide assurance for the preservation of unique natural features as well as to provide for recreational facilities and economic growth of northwestern Indiana.

Unfortunately, while land for the national lakeshore was being purchased the last few years as permitted by appropriations, numerous attempts have been made to thwart and modify the intent of the 1966 legislation. Well known are the attempts of the South Shore Railroad to build a freight yard within the Lakeshore boundaries and the rezoning of acreage within the lakeshore boundaries for industry. Presently under consideration are plans for widening U.S. 12 to serve as a major through highway rather than as a scenic road—at the expense of many acres within the lakeshore boundaries. Less well known are the mining of sand and the wanton destruction of vegetation by individual property owners, including some whose property is under condemnation proceedings.

The Indiana Dunes National Lakeshore is clearly designed to provide recreational space for the millions of people in its vicinity. Because of the great need for such space thousands of people have already begun to use national lakeshore property. This is happening even though access roads and parking spaces are not developed and bathhouse and toilet facilities are not available. Nor is there control over use or policing of the area. Under these circumstances types of activities are taking place which are surely not consistent with National Park Service policies. Swimmers by the thousands are without supervision. Car and foot traffic is uncontrolled and native vegetation is completely unprotected. Most serious is a rash of dune-buggy driving and racing. As a result there is a rapid deterioration of the natural features in these heavy use areas—features in relation to which the recreational facilities would be designed under ordinary circumstances.

In my estimation three things need to be done as soon as possible so that the rich natural heritage of the Indiana Dunes can be preserved from continued erosion by commercial interests and deterioration by uncontrolled recreational activities. (1) The full appropriation of $4,900,000 for the purchase of land for the national lakeshore should be approved. (2) An appropriation of $1,300,000 being considered for the development of the West Beach Recreational Area should be approved. (3) The Indiana Dunes National Lakeshore should be formally dedicated, provided with a superintendent and staff, and have appropriate signs informing the public of its existence placed on all roads crossing its boundary lines.

This committee's direct concern is with the first two of these matters. In reference to them it seems clear from the events of the last few years that any further delays in purchasing of land will lead to further encroachment of commercial interests. Moreover it appears that further development of the national lakeshore is being held up until property acquisition is relatively complete. That development which is most urgently needed is in the West Beach area which is most heavily used because of the nearby population concentration. My plea to you is that these appropriations be approved so that the third step can be taken quickly. Only when there is control by a local superintendent and a staff sympathetic to the valuable natural resources and recreational opportunities of the Indiana Dunes National Lakeshore will there be efficient protection against erosions as have occurred the last years.

Please accept my gratitude for this opportunity to appear before you.

Mr. KREKELER. I am professor of biology at Valparaiso University, Carl Krekeler. Our institution is located just 15 miles from the Indiana Dunes. When we came to Indiana 23 years ago, we had heard a great deal about the Indiana Dunes and we are pleased to go there for swimming, for hiking on the trails and so forth, and have asked many questions about the Dunes since that time. As a matter of fact, my field of biology has changed more from indoor biology to outdoor biology and I found it to be a very attractive place personally, but I found out how really important the Indiana Dunes really are.

As you look through almost any biology book these days, whether in high school or in college, and certainly through any ecology books, you find the Indiana Dunes mentioned and used to illustrate a basic ecological principle of succession and it is really a very famous area.

We have used it as our outdoor laboratory at the university for 20 years. I, myself, personally, and I know there are people from all over the State of Indiana, but not only Indiana but Illinois, Michigan, Ohio, and hundreds of miles around, who come to the Indiana Dunes because of the unique natural history situatiton that you have there, not only in ecological studies, but in terms of field study of both plant and animal communities because of the great diversity of organisms that we have there.

So, we consider ourselves particularly fortunate in being so closely located to this place.

Of course, we were overjoyed when in 1966 this area was set aside as a national lakeshore. Unfortunately our hopes were that at that time the differences between the interests of wildlife—preservation, if you wish—and commercial interests and recreation had somehow been resolved and that we would have a facility here which would be amply available to these several interests.

We have found out, however, in the last few years that there are people who are still fighting the battle and are attempting to move in on the areas that have been set aside as the lakeshore. It has been pointed out here by others that you have had industrial encroachments in the area. There is under consideration an attempt to build a four-

lane highway to the national lakeshore and so on and, of course, we are disturbed by that sort of thing.

I have served as a naturalist in the Indiana Park System for a number of years and I understand the value of places of this sort, not only for the study of wildlife, but also for recreational purposes, and we know that this is a very valuable recreational area, as other members here will also testify.

Unfortunately, the recreational uses that have been made in the last few years, as this has become lakeshore property, are uncontrolled and are damaging some of the natural resources that are present here. It seems to me, therefore, it is extremely important that the appropriations that are under consideration here—appropriations to complete the purchase of land that is within the national lakeshore boundaries—and appropriations for the development of recreational facilities, particularly in the West Beach area, should be approved, and I would therefore respectfully request your serious attention to this request.

Mrs. HANSEN. Thank you very much.

INDIANA DUNES

WITNESS

MARK RESHKIN, REPRESENTING NORTHWEST INDIANA CONSERVATION EDUCATION ASSOCIATION

Mrs. HANSEN. Mr. Mark Reshkin representing the Northwest Indiana Conservation Education Association.

Mr. RESHKIN. Thank you. My name is Mark Reshkin and I represent the Northwest Indiana Conservation Education Association. I will try to be very brief and not say what others have said before.

(Mr. Reshkin's prepared statement follows:)

The Indiana Dunes National Lakeshore is the cornerstone of open-space development for northwest Indiana. This area at the southern tip of Lake Michigan (locally referred to as the Calumet Region) is among the most rapidly growing industrialized areas of the Nation. An ever-accelerating rise in population, phenomenal industrial growth (primarily basic steel manufacturing), a new deepwater lakeport (Port of Indiana), and the possible location of the third major Chicago area jet airport in its confines, all combine to exert extreme pressures for development in the remaining open space. Purchase of the remaining properties for inclusion in the lakeshore and development of park service programs are the first steps towards securing adequate open natural and recreational areas for this growing industrial community.

It is readily apparent that much of this environment was modified by man soon after his arrival. Man drained the marshes, hauled the sand from the dunes to Chicago for use as fill for that city, and in many other ways greatly modified this landscape. The effect of man's modification of this environment was minimal until the middle third of the 20th century. The state of development has been reached where much of the landscape of northwest Indiana is being utilized. A finite amount of open space remains. How are we going to use this open space? What kind of open-space requirements are needed for northwest Indiana with its rapidly expanding population and growing economy? In short what is our land-use policy.

At most 10 years remain in which to institute a sound land-use policy. After that it will be too late. Consider the net effect of the existing programs and the ambitious proposals for land use and redevelopment briefly discussed below:

(1) The Indiana Dunes National Lakeshore: More than 5,000 acres of land are currently being acquired for a major national park in northern Porter County. This national lakeshore preserves famous ecological sites and retains for the future citizens of the Midwest at least a portion of the lakeshore. Any

efforts to decrease the size of this lakeshore should be questioned seriously in light of the future population predicted for this area and the open-space requirements that such a population will generate.

(2) Redevelopment of the Little Calumet River Valley for flood control and recreation: The U.S. Army Corps of Engineers is in the process of evaluating the redevelopment proposal for the Little Calumet River Valley in both Illinois and Indiana.

(3) The Deep River-Turkey Creek Watershed Program: An extensive area drained by these tributaries of the Little Calumet River is being considered for flood control and recreational development by the Water Conservancy Districts in Lake and Porter Counties.

(4) Lake County Park System: Thirty-three sites are under consideration as potential parts of the Lake County Park System.

(5) A major airport in northwest Indiana: The site for the development of a major jetport in northwest Indiana should be considered in the light of the open-space programs described above. It seems inconceivable that a major jetport be located adjacent to the Dunes National Lakeshore in northern Porter County.

(6) South Lake Michigan Proposal: A proposal is under consideration by the University of Chicago Urban Affairs Center concerning the development of a series of islands from 71st Street in Chicago to the Dunes National Lakeshore. This proposal advocates the development of a causeway and lock system connecting each of the islands. This would create a major lagoonal area in the cul du sac at the south end of Lake Michigan. It is proposed that the water level in this lagoonal area be kept lower than that in the major portion of the lake. This would allow for the flushing of the south end of the lake and the development of higher water quality in that body. Another intriguing aspect of this proposal is the possibility of regaining a lakeshore. This proposal at first appearance might seem to be daydreaming, however, such proposals and developments must be considered if there is to be an environment in northwest Indiana that will bring people into a region where the quality of life is an important consideration.

The picture for land use in northwest Indiana is not bleak. We can learn from our past mistakes and we can develop a land-use policy that can make this a better environment in which to live. We are at an optimum population and size such that effective redevelopment of our environment is possible. We must recognize that we have little time remaining to commit ourselves to a sound policy and active program so that the Calumet region can become a showplace among the industrial communities of the world.

Full purchase of land for the national lakeshore and implementtion of park service programs represent the first and most tangible steps toward this outdoor policy. The lakeshore is the only open-space development that is near reality. It leads the way and will prove to the populace how important this aspect of the environment is to an industrial community.

As a professor of geology at Indiana University Northwest, I have taken hundreds of students through the lakeshore confines to show them the classic shoreline features of present and ancestral Lake Michigan. Nowhere else along the Great Lakes are such features so well developed. These features are in danger of destruction. They are being destroyed rapidly beyond the margins of the lakeshore and in areas within the lakeshore limits, unpurchased properties are being sand-mined and subjected to various kinds of development. I personally feel it is imperative that the remaining outstanding lakeshore properties be purchased before they are adversely affected. I wholeheartedly support the request for $4,900,000 for land purchases.

I further and respectively suggest the subcommittee's positive consideration of a request for $1,300,000 for development of the West Beach facilities including bath houses, beach facilities, policing and so on. This is the year the Port of Indiana will be dedicated. It would be most appropriate if some lakeshore development could be accomplished and dedication of the lakeshore could also occur this year. Creation of both entities, park and port, are so intimately linked: what more fitting way to enter the decade of the seventies than to initiate the Indiana Dunes National Lakeshore and the Port of Indiana, side by side, in environmental harmony.

Thank you for the opportunity to appear before this committee.

Mr. RESHKIN. My organization also supports the $4.9 million for purchase of the remaining outstanding properties for the lakeshore and $1.3 million to begin some development.

As a geologist at Indiana University, I have been taking students to this area for 6 or 7 years and it is of value for its scientific merit in this area. Almost any major textbook in my field of geomorphology alludes to Indiana Dunes as the classic shoreline feature development area in the Great Lakes area.

The Indiana Dunes National Lakeshore represents the cornerstone of an open-space policy for this rapidly industrializing area. There isn't anything else. A State park. It isn't very much. Here is an area where 600,000 people live now just in northwest Indiana. There are, of course, millions of people in Chicago. By 1985 we will have over one million people in this area. The largest steelmill is in Gary. The next largest mill, which will be larger than that mill, is Bethlehem Steel.

This area is going to industrialize very rapidly and we have got to get some open space. This is the cornerstone to it.

There are many other projects and they are being considered, but I don't think they will really receive favorable treatment or consideration until people see what can be done at the lakeshore. These people don't know about what a lakeshore can be, especially the people who are going to benefit most, and these are the inner-city people, and we are talking about an area that is going to be, in good part, innercity.

This area is fragile. These materials can be shoveled away and they are being shoveled away. Right now there is sand mining taking place where the two ancient shorelines now exist, one 9,000 years old; one 12,000 years old. We can't let it happen. I would hope that we could have some appropriation for development and even dedication of the park. This is the year the Port of Indiana will be dedicated. Of course, this was a compromise, a port and park. I would love to see the port and the park dedicated at the same time and maybe in the decade of the seventies we can have some harmony between the environment and industrial growth.

Thank you very much.

Mrs. HANSEN. Thank you very much.

INDIANA DUNES

WITNESS

MRS. DOROTHY POTUCEK, MEMBER, HAMMOND TEACHERS ASSOCIATION, HAMMOND, IND.

Mrs. HANSEN. Mrs. Dorothy Potucek.

(Mrs. Potucek's prepared statement follows:)

I would like to thank the members of this subcommittee for giving me the opportunity to speak in support of adequate appropriations for the development of the Indiana Dunes National Lakeshore. My name is Dorothy Potucek and I am here to speak on behalf of the Hammond Teachers' Association of Hammond, Ind. This association supports me in my requests for the necessary funds for the full development of the lakeshore.

During the past 8 years I have made four trips to Washington seeking support of the Congress for the creation of the Indiana Dunes National Lakeshore and then for appropriation of funds to make the lakeshore a reality. There are members of the Save the Dunes Council who have made many more trips than I, which proves that there are concerned people in our section of the country determined to see this particular project developed and completed.

We have never lacked the support of the general public but there were those who felt we faced insurmountable odds in combating the industrial interests in the area. Some of these same people felt we have lost the battle as they

have yet to see visible signs of a national lakeshore. These negative views were spurred on by apathy as well as difficulty in getting information to the public via the news media. Today conservation has become a popular cause, mainly due to interest developed in the subject by our young people. The word ecology has replaced confrontation as to "where the action is".

Now, rarely does a day go by when you don't see at least one article in the newspaper on the conservation of one resource or another. The many T-V Specials also attest to the great interest that is developing in the science of ecology. I only lament the fact that this new interest had not been developed earlier—perhaps 8 years ago. I personally feel that if it had developed earlier the national lakeshore would now be developed and in use, as well as being larger than its proposed acreage.

Why has this great interest in conservation and ecology developed? By the relization of an imminent danger to the human race through the self-destruction of its own supporting environment is my answer to the question. I personally feel that this realization has been brought about partially through the efforts of educators. However, having been in the field of education for the past 20 years I can fully attest to the frustrations a teacher feels in not being able to do an adequate job due to a lack of materials as well as not having resource people and study areas available.

It is very simple for a superintendent in charge of curriculum to send out a directive that all elementary and general science teachers must teach a unit on conservation and/or ecology. Then the scramble for materials begins. Usually the resourceful teacher is able to develop an adequate unit of study. However, how much more meaningful would the study be if it didn't end with the use of books, magazines, slides, filmstrips, and a few classroom experiments but was carried out into the field where what was taught to the students in the classroom could actually be sensed and visualized; where questions can be asked of a person who specialized in the subject. This is where my interests lie, and this is what I hope will be developed at the Indiana Dunes National Lakeshore—a nature study resource center.

Possibly by describing my own school situation I can help you to understand more fully why a nature study center is needed. I work in a new building designed especially for the students who attend. It is called a middle school, developed to handle grades six, seven, and eight. It is very well equipped, fully staffed, but overcrowded. This doesn't sound too bad. The problem is its location. Let this statement not be misleading. The school is readily accessible to the students it serves. However, the immediate surrounding area is not conductive to the study of the balance of nature. The school is bounded on the north by factories and a railroad switching yard; on the west by urban renewal; on the south by a polluted and dying river; and on the east by a large warehouse complex. It is easy to teach the students about the mistakes man has made concerning his environment by studying the immediate area, but where can a student see a balanced nature in operation? Nowhere in our city or in our neighboring cities is this phenomena available. The dunes is our only resource.

The major portion of this testimony thus far has been on the need to develop in the lakeshore a nature study center to aid in the teaching of environmental education. By no means do I want to slight the need for more recreational areas closely accessible to this highly industrialized Northwest portion of Indiana. This need is obvious and not even debatable.

From previously attended hearings I was given the impression that the national lakeshore and the Port of Indiana were more or less to be developed simultaneously due to a compromise worked out between the conservationists and the industrialists. This summer the Port of Indiana is to be dedicated. My question is: When will the Indiana Dunes National Lakeshore be developed enough to be dedicated and put to use?

I know that there are many demands on limited funds that have been allocated for use by the Department of the Interior. I sincerely hope that the subcommittee will support the spending of the requested monies to help make the lakeshore more of a reality than it presently is.

Mrs. POTUCEK. I thank you for this opportunity to come here and speak. I will try to summarize what I have to say.

I am a member of the Hammond Teachers Association of Hammond, Ind. They support me in my request for a full development of the lakeshore.

You have just listened to two professors on the college level. I am more or less concerned with youngsters at an earlier age. I have had the experience of trying to teach conservation or ecology at a much younger level. The problem is finding materials, and they are very hard to find. And also trying to show youngsters some aspects of conservation or some aspects of the study of ecology.

I have taken groups out to the dunes many times. To see the youngsters respond to the open area and to be able to take what they have learned in the classroom and apply it to an open area has always been gratifying to me.

Now, to make it more meaningful, I would like to just take time to read this one paragraph I have in here which describes the kind of school that I work in and why we actually have to have some place where we can take these students and show them the outdoors.

Possibly by describing my own school situation I can help you to understand more fully why a nature study center is needed. I work in a new building designed especially for the students who attend. It is called a middle school, developed to handle grades six, seven, and eight. It is very well equipped, fully staffed, but overcrowded. This doesn't sound too bad. The problem is its location. Let this statement not be misleading. The school is readily accessible to the students it serves. However, the immediate surrounding area is not conducive to the study of the balance of nature. The school is bounded on the north by factories and a railroad switching yard; on the west by urban renewal; on the south by a polluted and dying river; and on the east by a large warehouse complex. It is easy to teach the students about the mistakes man has made concerning his environment by studying the immediate area, but where can a student see a balanced nature in operation? Nowhere in our city or in our neighboring cities is this phenomena available. The dunes is our only resource.

I feel if we had stressed this in education years ago we wouldn't have the problems that we have now.

Mrs. HANSEN. Coming from a Western State with a lot of space, I have always felt deeply sympathetic to the problems of teachers and students in the crowded urban areas.

Thank you.

INDIANA DUNES

WITNESS

MRS. IRENE M. READ, CHESTERTON, IND.

Mrs. HANSEN. Mrs. Irene M. Read, Chesterton, Ind.

Mrs. READ. I am Mrs. Irene M. Read of Mt. Rt. Box 505, Chesterton, Ind. My home is within the authorized boundaries of the Indiana Dunes National Lakeshore.

My husband brought me out to the Indiana Dunes in the early 1920's and we were privileged to know, enjoy, and live in this unique

region. I support these appropriations so that my grandchildren, now also growing up in the dunes, will be able to have the same benefits. Without the park, the remaining dunes will certainly be destroyed by industrial, commercial, or dense residential developments.

I wish to express my appreciation for this opportunity to support appropriations for the Indiana Dunes National Lakeshore. This is the first time I have testified before a congressional committee, but I have sent many letters in support of the park.

To the west of my home, a landowner who has long opposed the park, has cut the trees and is sand mining the dunes in an apparent effort to destroy the area for park purposes. Another landowner has filed a suit to stop the purchase of land because (as he claims) his land could be sold for more money if the area were industrialized. We are in repeated zoning battles to prevent rezoning of nearby residential land to industrial classification in an attempt to gouge the Government out of more money or to delay establishment of the park. All this, mind you, has occured within the authorized park boundaries. While not a majority, there remains a group of people still fighting the park.

The purpose of all this is to gain time in the hopes that the bill introduced by my Congressman, Mr. Landgrebe, will pass and our area will be dropped out of the park.

I realize that the Landgrebe bill is not the subject of these hearings, but opposition to appropriations is related to the Landgrebe bill.

But while park opponents are trying to get richer, what about the serious financial consequences I would face if they succeed? I sold my house to the National Park Service with a leaseback, and I had hoped to spend the rest of my life there. As a part of the park, future generations would be able to enjoy our area as I have. If the Landgrebe bill succeeds, I would have to buy back my house at public auction. I would have to bid against the land speculators and I simply can't afford it. Neither could all the other people who have already sold or are about to.

What about the vacant land next to me now owned by the National Park Service? If it were dropped out of the park, it could become the site of a gas station, hamburger stand or junkyard. Local zoning has been no protection.

The only way to resolve the problem is to appropriate funds to purchase the rest of the park property. I am not asking for myself since I have been paid for my own property, but to assure ultimate establishment of the park. It is also necessary to start making the park useable to the public and I ask this committee to appropriate development funds for the West Beach section.

In closing, I wish to add that most of my friends and neighbors in the dunes area are in favor of the park and have supported its establishment. In fact, those who are outside of the park boundaries wish that their property had been included, as the Indiana Dunes National Lakeshore benefits those of us who live there now and those who will walk the trails and use the beaches in years to come.

Mrs. HANSEN. Thank you very much.

Open Lands Project

WITNESS

GUNNAR A. PETERSON, EXECUTIVE DIRECTOR, OPEN LANDS PROJECT

Mrs. Hansen. Mr. Gunnar A. Peterson, Executive Director, Open Lands Project.

Mr. Peterson. My name is Gunnar A. Peterson. I live at 18420 Dixie Highway in Homewood, Ill. I appear in behalf of the Open Lands Project of Chicago of which I am the executive director. The Open Lands Project is a private conservation and environmental planning organization devoted to the preservation of remaining areas of great natural beauty; the development of public parks, the promotion of public and private action against air and water pollution; the promotion of environmental education for adults and youth; and, the development of a program of land advocacy to conserve privately held open space.

As a coordinating agency for citizen groups surrounding Lake Michigan, the Open Lands Project conducts in informative conferences on the problems facing the lake, and in conjunction with governmental, industrial, and citizen groups is seeking solutions.

Our interest in the whole problem of recreation and conservation in the Chicago area led us to support the concept of a national lakeshore and, in this regard, we testified in 1966 and again a year ago. At that time, we pointed out the unique problem the Chicago area faces in regard to open space. We are here now to emphasize that the problem not only continues but is becoming more and more pressing. We hope you can make a favorable decision in light of the knowledge of this problem in the Chicago area.

The Bureau of the Census' population estimate for the standard consolidated area comprising Chicago and northwestern Indiana, as of July 1, 1968, was 7,423,600, and all indications point to continued increase to an estimated 9 million by 1980 (see table 1). All but a small part of this area lies within 50 miles of the national lakeshore. More and more people are crowded into our cities, and the demographers predict even more compaction. At the same time, all segments of our population are demanding recreational facilities. A key element is the family seeking recreation as a family unit in unscheduled, informal activities: Camping, a place to swim, hike, or fish in a natural setting. At the very time the demand is increasing, access to suitable outdoor facilities is becoming more and more difficult. The competition for open space, especially in the metropolitan regions, is well known. Prices for real estate are continually rising; acquisition of choice land for commercial and industrial development is removing 3,000 acres a day, a million acres a year from our national land resources.

We face a unique problem in the Chicago area since all available land is usable for development purposes. The availability of land for public recreation purposes is perhaps more difficult here than for almost any other area of the Nation. As pointed out in report 21 of the ORRRC, the 60-mile area surrounding Chicago lags behind San Francisco/Oakland, Detroit, Boston, New York/Philadelphia, and Los Angeles.

The addition of the national lakeshore will help in this regard provided all of the areas are included. (See table 2.)

With the increasing concern for the environment, we consider recreation and open space among the integral parts of that environment. We are long past the day when the needs of urban, suburban, and rural dwellers for parks, open space, and open water can be considered a "frill." No longer is the choice between a lunchbox and a picnic basket. We must have both for the total well-being of our citizens.

As evidenced by statements of ecologists, there is growing recognition of man's interdependence with nature and the basic biological need that has developed over his thousands of years of achievement in close proximity to things natural. We have every reason to believe that we cannot for long separate man from contact with open land and open water without in some way limiting his development. We need to continue the availability of this contact since it may be well a key factor in man's total well-being.

At the national lakeshore, the acquisition program is important, the development of programs of environmental interpretation is crucial, and the continued protection of the dunes resource is basic.

TABLE 1.—POPULATION IN COUNTIES COMPRISING CHICAGO-NORTHWESTERN INDIANA STANDARD CONSOLIDATED AREA, 1960, WITH POPULATION PROJECTIONS FOR 1980

State and county	1960 [1]	1980 [2]
Illinois:		
Cook	5,129,725	5,976,000
Du Page	313,459	686,000
Kane	208,246	324,000
Lake	293,656	544,000
McHenry	84,210	156,000
Will	191,617	274,000
Indiana:		
Lake	513,269	[3] 800,000
Porter	60,279	223,000

[1] 1960 figures: U.S. Census, 1960.
[2] Projections for Illinois: Northeastern Illinois Metropolitan Planning Commission, 1965.
[3] Projections for Indiana: Purdue—Calumet Foundation, 1964.

TABLE 2.—PUBLIC RECREATION ACREAGE PER 1,000 PERSONS: 6 LARGEST U.S. METROPOLITAN AREAS

Metropolitan area	Acres	Acres per thousand persons
Chicago:		
Federal		
State	16,170	2.2
County and municipal	70,800	9.4
Total	86,970	11.6
San Francisco—Oakland:		
Federal	493	.1
State	39,125	10.2
County and municipal	35,940	9.3
Total	75,558	19.6
Detroit:		
Federal	14	
State	60,912	11.9
Metropolitan, county and municipal	33,509	6.5
Total	94,435	18.4
Boston:		
Federal	14	
State	81,710	14.7
County and municipal	16,323	2.9
Total	98,047	17.6
New York—Philadelphia:		
Federal	1,806	.1
State	273,593	12.1
County and municipal	112,522	5.0
Total	387,921	17.2
Los Angeles:		
Federal	1,249,657	163.4
State	5,493	.7
County and municipal	28,652	3.7
Total	1,283,802	167.8

Source: Report No. 21, Outdoor Recreation Resources Review Commission.

Mrs. HANSEN. Thank you very much.

The committee has received the following statements and letters regarding items in the bill. We will insert them in the record at this point.

STATEMENT OF CONGRESSMAN JOHN S. WOLD

Madame Chairman, I ask that excerpts of a letter from Wyoming's State Forester, Mr. Carl E. Johnson, relating to the Clarke-McNary or cooperative fire control program be printed in the record of your hearings as an indication of my State's position on this important issue.

1. Costs of personnel, equipment, operation, and maintenance, continue to increase in order to maintain present levels of protection.

2. State and private funds for forest protection have increasesd from $63,778,950 in 1965 to $84,618,871 in 1969, a 33 percent increase. The Federal appropriation in 1965 was $11,848,002 and in 1969 $14,396,000, an increase of 22 percent. Total funds for 1969 forest protection was $99,014,871, consisting of State, county, and private, $84,618,871; and Federal, $14,396,000; or 85 percent State and 15 percent Federal. The Clarke-McNary section 2 law was actually based on a 50–50 sharing arrangement.

3. Daily, ecologists, preservationists, and conservationists are reminding everyone of the local and national environmental problems. They include the forested areas in which they state everyone has an interest. They also state that most forest areas should be enjoyed by the masses to one degree or another.

4. It is necessary to realize that trees play an extremely important and basic part in the total environment. Trees and other green plants produce one-third of the earth's oxygen. They are a purifier of polluted air, act as a filter for water supply, and are a soil stabilizer. They greatly influence the climate of an area. It is important that trees be kept in their most vigorous and healthy condition.

5. Trees are basic to outdoor recreation.

6. Protection of the forests is basic to the protection of a healthy environment.

7. The majority of the forest land in the United States is in private ownership (72 percent), State (6 percent), and Federal (22 percent). In the Rocky Mountains, one out of three forested areas is in State or private ownership.

Even with these facts it seems the Federal programs being proposed to improve or enhance environmental quality have overlooked forests and forest lands. There are programs designed to clean up the environment, as well as to protect air and water quality, but none of the present programs apparently are written to protect and enhance these vital forest and nonforest watershed lands. They are old, well-established programs and have suffered from a great deal of neglect by Congress.

I would urge your support for the restoration of the $2 million as well as seek to bring the CM2 program to its full authorized funding of $20 million.

It is also important that the cooperative forestry programs that assist in the management of the forests be adequately funded. They are as follows:

Tree planting	$313,000
Forest management and processing	4,950,000
General forestry assistance	2,207,000

We must prepare now to meet the ever-increasing demands that are being placed on the shrinking forest land base. Through these programs we should be able to meet the future needs of this country for many years.

I hope you will provide your support to these vital programs that are long range in nature and have such an impact on the future of Wyoming and the Nation.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., April 15, 1970.

MRS. JULIA B. HANSEN,
Chairman, Subcommittee on the Interior, Appropriations Committee,
The Capitol, Washington, D.C.

DEAR MRS. HANSEN: As the enclosed letter indicates, Mr. Litch of the Federation of Conservationists, wishes his communication to me to be made a part of the Hearing Record.

I would be most grateful for your cooperation in this regard.

Cordially yours,

FRANK THOMPSON, Jr.

Hon. FRANK J. THOMPSON,
U.S. House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE THOMPSON: We are writing to place the full support of the Federation of Conservationists, United Societies, Inc. (FOCUS), behind a proposal for a new research program for the U.S. Forest Service dealing with the effects of trees and forests on the human environment and with municipal watersheds problems in the densely populated areas of the northeast.

This research program would be located at Princeton, N.J. and would be done in cooperation with the Princeton University, the Stony Brook-Millstone Watersheds Association, and other agencies and organizations in New Jersey.

FOCUS is pleased to see that this research program on environment is being sought. It is critically needed, if we are ever going to realize fully the potential benefits of the trees and forests of the populous areas of the Northeast. Also if we are to retain and improve the environment we certainly must learn much more about the effects of trees on air temperature, noise, and pollution, and the effect of trees and forests on water production and quality from multiple-use city or municipal watersheds.

Fifty percent of the densely populated coastal strip of the Northeast is forested. Let us try to keep this balance, and let us find out how we can enjoy the benefits of the amenities, esthetics, and water from these forests to the fullest.

Funds for this new Forest Service research program are not in the current bill for next year's budget. So, would you please give your support to this request for increasing the Forest Service research budget by $350,000 annually starting next fiscal year?

Also, will you please enter this letter in the printed record of the subcommittee hearings for the Forest Service? Thank you.

Sincerely yours,

FEDERATION OF CONSERVATIONISTS, UNITED STATES (FOCUS),
ROBERT B. LITCH, *Executive Secretary.*

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., March 26, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, Interior Subcommittee,
Appropriations Committee,
Washington, D.C.

DEAR MADAM CHAIRMAN: Enclosed are copies of correspondence which I have had from the State of Oregon Forester and from the Western Council Lumber and Sawmill Workers relative to Forest Service research projects. I am in full support of the recommendations that they have made regarding these projects and am forwarding them to you for your information.

Sincerely,

EDITH GREEN.

MARCH 9, 1970.

Hon. EDITH GREEN,
U.S. House of Representatives,
Washington, D.C.

DEAR CONGRESSWOMAN GREEN: You know of my longstanding regard for the importance of forestry research, and I know well that you share this view. Accordingly, as appropriation hearings for Forest Service research are approaching, I want to outline my views on some key items concerning the Northwest, that, in my opinion, deserve serious attention and action.

The need to increase productivity of Oregon forests, while concurrently protecting and improving the quality of our valuable forest environment, is accelerating rapidly. This situation convinces me that we must invest more heavily in research if the landowners in Oregon and throughout the Nation are to have

the technology needed to apply the limited funds available for forest protection and management most effectively.

The President's budget for the Forest Service proposes strengthening two research projects headquartered in Portland, Oreg.

One of these is $85,000 for that part of the nationwide forest survey project which covers the forests of Oregon, Washington, and California. The forest survey is the only source of authoritative data on our timber resources that covers all ownerships, both public and private. It provides the basic information on forest areas, timber volumes, tree growth, timber cut and loss from fire, insects, and diseases. This kind of information is essential to intelligent planning of forestry operations. But the survey needs to be intensified. We need to know, for example, the amount of sound wood left in the slash or cutover areas. We need better information on the distribution of the 4-billion board feet of natural mortality occurring annually in Oregon's forests before we can develop programs for preventing this loss and for salvaging and using more of it.

An increase of $30,000 is budgeted for strengthening forest economics research, also headquartered in Portland. The future productivity of Oregon's forests depends in large degree upon how wisely we invest in them now. And intensified economics research must provide the guidance so urgently needed by public forestry agencies as well as industrial and private owners to insure optimum returns from investments in forest protection, improvement, and management.

So I vigorously support both the budget proposals relating to Forest Service research in Oregon.

I know you are familiar with the strategic importance of the research in forest protection, tree genetics, timber culture and watershed management at the Corvallis Forestry Sciences Laboratory. Here in Oregon, and for much of the West, this is a major source of technology to which we look for guidance of our main forestry action programs.

Strengthening of the work at Corvallis is urgently needed in two respects.

First, an increase in operating funds is needed to speed up the high-priority research now underway. For example, the scientists working on tree improvement should be moving ahead more rapidly in developing the new genetics outplanting tract just obtained during the past year. Another example of current Corvallis work needing a much stronger push now is the coordinated timber culture—forest fertilization—watershed protection project on the South Umpqua Experimental Forest. Still another is the high-priority research on biological controls for forest insects and diseases.

The second big need at Corvallis is to expand laboratory facilities so that promising new, high-priority studies in timber culture and environmental protection can get started as soon as possible. I understand that the $500,000 approved by the Congress for Corvallis construction last year has not yet been made available to the Forest Service. With everything else ready for positive action it is especially urgent that the funds already appropriated for this structure be cleared for use at an early date.

I deeply appreciate your concern and great help in providing for the proper care of our natural resources. I know you realize too, that if any feasible way can be found to stimulate activities of the Corvallis forestry researchers, this surely will be a timely step to progress.

Would you please arrange to have these recommendations included in the record.

Sincerely yours,

J. E. SCHROEDER,
State Forester.

MARCH 4, 1970.

HON. EDITH GREEN.
Rayburn House Office Building,
Washington, D.C.

DEAR CONGRESSWOMEN GREEN: I am writing for the Western Council of Lumber and Sawmill Workers to reaffirm our strong and continuing interest in this Nation's forest resources. They provide timber, pure water, wildlife, health-

giving recreation and an attractive environment for living to a rapidly expanding population.

Very much greater demands on our forests are sure to come in the future. During the past year, the anticipated upsurge in homebuilding has not come as quickly as most Americans would like. But this has only added to the accumulating backlog of demand for forest products inevitable in the near future.

Actually, the need is greater than ever to develop new and better methods of timber growing and protection through research.

With this situation in mind, I have been studying the provisions for forestry research in the budget for the U.S. Forest Service recently sent to the Congress.

Increases are proposed in several high-priority research projects that are in the Northwest. These include the forest survey project ($85,000) headquartered here in Portland and covering the States of Oregon, Washington, California, Alaska and Hawaii; the closely related work in forest economics research ($30,000); and Douglas fir culture research ($28,000) at Olympia, Wash.

All of these programs are highly important to our members, to the Northwest and to the Nation, and I ask that you give them your vigorous support.

The forest survey conducted by the U.S. Forest Service provides the only complete inventory of the status, the potentials and the needs of our forests. Members of the timber industry, individual forest owners and Government timber agencies all depend on the survey to provide basic timber resource intelligence for planning their operations; the strengthening proposed for this activity is a high priority need.

Forest economics research is the essential project that develops techniques for determining the cost effectiveness of various forest management practices. Timberland managers, both private and public, operate with limited funds, and they desperately need improved analytical techniques that will show just which combination of investments in timber growing, protection and development practices will yield the greatest returns. For these reasons, strengthened forest economics research is an essential step to getting better management measures actually applied on the land.

The Douglas fir culture research project is headquartered at Olympia, Wash., but its work extends over and benefits western Washington, western Oregon and northern California. This project is studying and developing intensive cultural practices, such as thinning, and fertilization, to increase the growth and quality of Douglas fir projects—by far the most important species of timber tree in the West, and a major source of the wood industries' raw material. The $28,000 proposed for strengthening this work will help fill a high priority need in western forestry research.

Last year I wrote to you about the exceptionally important and unique forestry research underway at the U.S. Forest Service Corvallis Forestry Science Laboratory. This is the center for tree genetics research which is developing faster growing and higher quality timber trees for increased future timber supply.

Scientists at the Corvallis Laboratory are also devising safer and more efficient controls of our troublesome forest insects and forest diseases which cause some 3 billion board feet of timber loss each year in the Northwest. This research is our greatest hope for preventing much costly timber loss and thereby increasing the sustainable level of useful timber harvest.

Our members are also deeply interested in the Watershed Management Research at the Corvallis Laboratory. We recognize that the pressures for more timber could bring intolerable damage to our invaluable watershed lands. We greatly need more timber, but the need to protect our vital water supplies is even greater. The forest watershed research at Corvallis must be strengthened to make sure we do protect our watersheds adequately while pushing to increase timber harvest.

These three vital research programs at the Corvallis Forestry Sciences Laboratory should be strengthened with an additional funding of $300,000 starting next fiscal year.

Members of the Western Council were greatly encouraged last year when the Congress appropriated $500,000 to begin building phase II of the Corvallis Laboratory on a stage-construction basis. We are deeply concerned, however, that these funds have not been made available to the Forest Service so that they can get this high priority construction moving.

We in the Western Council shall appreciate greatly your help in responding to the high priority research needs described above. Will you please arrange to include a copy of my letter in the record of the Forest Service appropriations hearings.

Sincerely yours,

WESTERN COUNCIL, LUMBER AND SAWMILL WORKERS.
HUGH ALLEN, *Executive Secretary.*

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., April 16, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, Interior Subcommittee, House Appropriations Committee,
U.S. Capitol, Washington, D.C.

DEAR MADAM CHAIRMAN: You will find enclosed a letter from the dean of the School of Forest Resources at North Carolina State University. Dr. Preston makes several significant points which relate to the effect of the McIntire-Stennis appropriation in North Carolina. I hope that you will be able to include his comments in your committee's records during hearings on the Department of the Interior budget. Perhaps this information on the importance of the program in one State implies similar significance across the country.

With appreciation for your consideration, I am,

Sincerely,

NICK GALIFIANAKIS.

NORTH CAROLINA STATE UNIVERSITY AT RALEIGH,
SCHOOL OF FOREST RESOURCES,
March 16, 1970.

Hon. NICK GALIFIANAKIS,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN GALIFIANAKIS: From earlier correspondence I know of your interest in the McIntire-Stennis cooperative forestry research program (Public Law 87-788) and your understanding of what this program means to North Carolina. This letter is to request your support for the fiscal year 1971 appropriation.

The 1970 fiscal year McIntire-Stennis appropriation is $3,785,000 with $119,316 coming to North Carolina. We are gratified that the President's budget calls for an increase of $627,000 for fiscal year 1971 which would bring the total appropriation to $4,412,000. The Association of State College & University Forestry Research Organizations (ASCUFRO), in order to meet the goals set forth in the 1967 national program of research for forestry, is requesting a further increase to bring the total appropriation for fiscal year 1971 to $5,685,000. I trust you can strongly support the President's budget figure and hopefully the larger ASCUFRO request.

North Carolina needs strong programs in forestry research and education. Only three Western States have forest-based economies as large as does North Carolina. Nearly two-thirds of North Carolina's land area, some 20 million acres, is in trees and 92 percent of this is privately owned. These forests grow under a wide range of climatic conditions and contain more commercial species of trees than are found in any other State. Industry, based on this forest resource, produces goods valued at nearly $2 billion annually and provides some 100,000 jobs or about 20 percent of North Carolina's industrial employment.

Under separate cover, I am sending you a copy of Forestry Research Progress in 1968, which summarizes the impressive achievements to date of the McIntire-Stennis program.

Sincerely,

R. J. PRESTON, *Dean.*

DEPARTMENT OF NATURAL RESOURCES,
Olympia, Wash., March 9, 1970.

Hon. JULIA BUTLER HANSEN,
House of Representatives, Longworth House Office Building,
Washington, D.C.

DEAR JULIA: The President's proposed budget for fiscal year 1971 includes several recommendations supporting research projects of the Forest Service Experiment Station in the Pacific Northwest. I'm enclosing a short statement reporting on the significance of these projects and several others which need to be strengthened or initiated now.

As you know, past research completed by the Experiment Station has contributed greatly to increased forest production and a better forest environment in the Northwest. But, as timber growing and harvesting intensify and recreational uses rapidly increase, improved techniques are needed to apply new forest land management practices safely and economically. People are becoming more aware of the effect of timber production on other benefits derived from forest land. Public concern for environmental impacts is having explosive impacts.

I know you are personally familiar with the role of research in solving forest management problems through development of new knowledge and understanding. Therefore, your consideration of these projects and assistance in supporting them will be deeply appreciated.

Please include this letter and my enclosed statement in the record of the Appropriation Committee hearings.

Sincerely yours,

BERT L. COLE,
Commissioner of Public Lands.

STATEMENT BY BERT L. COLE, COMMISSIONER OF PUBLIC LANDS, STATE OF WASHINGTON

DOUGLAS-FIR CULTURE AT OLYMPIA

The small increase of $25,000 made available last year for research on Douglas-fir culture at the Forestry Sciences Laboratory, Olympia, Wash., has been put to immediate use to bolster high-priority research. Scientists working on this program have Federal responsibility for increasing yields of Douglas fir through study of growing stock control, site improvement, and final harvest techniques for prompt and efficient stand renewal.

Wide application of better cultural practices is in the crawl stage for lack of adequate exploration and testing. An outstanding example is the practice of forest fertilization which is in its infancy in the West, but growing rapidly. It has been estimated that within 5 years, 40,000 to 50,000 tons of fertilizer will be applied each year to more than a quarter of a million acres of forest land in the Northwest. Scattered small-scale tests have demonstrated that growth responses are possible on most soils through application of fertilizers. Wood volume increases appear to average about 30 percent during a 5- to 7-year period following application and individual results register from 0 to 100 percent change in increment. With increased use of fertilizers anticipated, technical information and guidelines for their effective applicaton are urgently needed.

I strongly support the modest increase of $28,000 proposed in the President's budget for intensive Douglas-fir culture at Olympia in fiscal year 1971. As I pointed out to your committee last year, full activation of Douglas-fir silviculture research will require an increase of $160,000 a year. The $28,000 is needed now to provide initial technical information needed by private, State, and Federal forest land managers.

FOREST SURVEY AND FOREST ECONOMICS RESEARCH

These two closely related research activities based at Portland, but serving both Washington and Oregon, deserve strong support.

The forest survey project is charged with making periodic inventory and comprehensive analysis of changes in timber resources and forest land use. A new analysis and report on forest resources of the Olympic Peninsula is now at the printers; similar studies of the Puget Sound counties and an overall Washington

State summary are now being prepared. The budget proposal to increase forest survey funding in the Northwest by $85,000 is much needed to expedite these reports and to make possible additional analyses to show where timber resources most require rebuilding and where, when, and how they can be managed to support a greater output of products for the benefit of consumers and improved employment for dependent communities.

The budget proposes to strengthen forest economics research in the Northwest by a modest $30,000. The Douglas-fir supply study, which the station, in cooperation with the administrative branch of the Forest Service, completed last year, showed great variation in financial returns on forestry investments in the Northwest. The analysis illustrates how various practices such as accelerated regeneration, precommercial thinning, commercial thinning, salvage logging, etc., can be accurately rated by priority classes for application. Such economic analyses are essential to show how and where public and private timber dollars can be spent to best advantage to increase timber production.

RESEARCH TO PROTECT AND IMPROVE THE FOREST ENVIRONMENT

Today we are increasingly concerned with forest management practices impacts on the forest environment. Use of new timber harvest systems, fertilizers, and other forest chemicals, expansion in forest recreation and in roadbuilding are materially changing the tree-water-wildlife-people relationships. To cope with these interrelated activities, I urge that the Forest Service greatly strengthen its forest environment research.

Comprehensive research on residue disposal, water quality protection, and wildlife relationships are among those projected in the new Forest Service research program for the Seventies. The Service has an exceptionally fine start on this work, most of which is headquartered in Seattle, in cooperation with the University of Washington; in Olympia with the Washington State Department of Natural Resources; and at Corvallis, Oreg., with Oregon State University.

I am detailing below several situations that are particularly sensitive at this time in the timber production-forest environment relationship.

FOREST RESIDUES RESEARCH AT SEATTLE

Public awareness of air pollution is focusing increasingly unfavorable attention on burning in general and emphasizing logging slash disposal—the residues left after harvesting timber. The smoke created by burning is esthetically offensive, its source is obvious, and the public is highly concerned about it.

This concern lends new urgency to an old problem—what to do about the great quantities of slash for residues left behind following logging.

There are about 3.5 million tons of solid wood now left in the woods annually in Washington and Oregon to rot or to be burned following logging. A high percentage of it is burned at a cost of about $7.5 million each year.

Of course, the best approach to the forest residue problem is to find economical ways to extract and use the wood. It is estimated that the volume of wood chips this material would produce exceeds current Japanese log export purchases from the United States by about three times. If manufactured in the Pacific Northwest, the products would be worth about $250 million annually.

The Pacific Northwest Force and Range Experiment Station has analyzed the forest residue problem and is starting multidisciplinary research that would (1) develop salvage systems and procedures for economical extraction and use of wood now going to waste, (2) determine the impacts of residues and their disposal on environmental quality, and (3) determine the need and justifiable cost of slash disposal as a fire protection measure.

The Pacific Northwest station is reorganizing its research to accommodate this urgent area of investigation. Some research will be done by the experiment station's existing staff and other investigations through contracts with universities, such as the College of Forest Resources, University of Washington, which has a strong forest fire science program as a result of Forest Service participation.

An additional $100,000 is needed to push ahead in fiscal year 1971. The potential exists for a multimillion-dollar payoff annually for the States of Washington and Oregon, in addition to reducing the undesirable impacts of logging slash on the environment.

DWARF MISTLETOE RESEARCH

Dwarf mistletoes are a major cause of disease loss in Western forests. In Washington and Oregon forests alone they reduce timber productivity by almost a billion board feet each year. Research is needed to find out how best to prevent this loss of valuable and much needed timber.

The Forest Service has just developed a westernwide, integrated program of research and development on dwarf mistletoes, but it is not adequately funded. The Washington-Oregon part of the research program, which would be headquartered at the Pacific Northwest Forest and Range Experiment Station, urgently needs an additional $50,000 in fiscal year 1971.

FOREST RECREATION RESEARCH AT SEATTLE

Use of our forests by recreationists is increasing tremendously, both in volume and in variety. Meeting the demands of concentrated recreation users, such as car campers and ski area customers and such proliferating dispersed users as wilderness hikers and riders creates new problems in integrating forest recreation and timber production. The Forest Service study of vandalism and other destructive behavior in Washington's forest campgrounds is uncovering promising leads for reducing the damage to recreation installations and minimizing the recreational hazards. Station researchers, working with University of Washington scientists, should redouble their work on the important social and human aspects of recreation use. An increase of $100,000 is urgently needed for this work next fiscal year.

FACILITIES FOR FORESTRY RESEARCH

Several years ago Congress financed construction of the Forestry Sciences Laboratory, that was dedicated in April 1968 at Olympia, Wash., to provide specialized research facilities. The Washington State Department of Natural Resources provided the site for this structure under lease to the Forest Service. These facilities have increased the output of the Forest Service and Bureau of Sports Fisheries and Wildlife scientists developing technology required to efficiently grow Douglas fir and to protect trees from animal damage.

During the past 6 years, Federal financing has strengthened cooperative research programs at the University of Washington. Results from this investment have provided valuable returns to the State of Washington, the Northwest, and to the Nation. Balloon logging has been brought from an idea to a going operation in a remarkably short time. The basis for much greater advancements in all forms of aerial logging technology, such as skylines, has been well established. Working together, the Forest Service and the University of Washington have developed, in just a few years, an outstanding new center of forest fire science and of outdoor recreation research and instruction at Seattle. Similarly, joint progress has been made in the development of more efficient timber construction and forest products utilization technology.

The administrative branch of the Forest Service has assigned engineering trainees to assist the forest engineering researchers so the results of research at Seattle are being promptly applied in the field.

While good progress is achieved, efficiency will increase when adequate facilities are available. Two scientists are quartered at the University of Washington in overcrowded College of Forest Resources space. Remaining researchers occupy inadequate, below standard, rented space near the campus.

A Seattle Forestry Sciences Laboratory is needed to expedite research accomplishments. Two years ago the General Services Administration assigned an outstanding site on Sand Point Way to the Forest Service for this much needed facility. It's all ready for use.

I am familiar with this administration's current restrictions on Federal construction. I urge, however, prompt allocation of $120,000 to permit preparation of detailed plans and specifications for such a structure. I urge that the funds required for this purpose be provided in the Forest Service budget for fiscal year 1971.

FOREST TREE SEED RESEARCH

An increasing proportion of lands logged and lands burned by accidental fires are being reforested with nursery-grown trees or by seeding. Throughout the Nation millions of dollars of private, State, and Federal funds are spent annu-

ally to develop genetically superior seed and to collect the best seed available from natural stands. It is ironic that so little is invested in studying seed that costs so much to produce. Only one full-time U.S. Forest Service scientist in the United States is assigned to forest tree seed investigation.

Information obtained now can pay tremendous dividends on today's investments as well as future expenditures. I recommend $50,000 be appropriated for initiating a seed research program at the Pacific Northwest Forest and Range Experiment Station.

PRINCETON, N.J., *April 6, 1970.*

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, U.S. House of Representatives, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: As you know, the State of New Jersey is located in the heart of the heavily populated Northeast where man's natural environment is seriously threatened by technology, pollution, and even directly by man himself.

As a founder of the Stony Brook-Millstone Watersheds Association, I have been close to problems of the environment. And to me, key elements in our environment are trees and forests—and open space in general. As our population expands and construction of buildings and highways continues, too often our trees and open space are not given full consideration. Consequently, we are gradually losing the tree cover and the many esthetics, amenities, and other benefits which trees provide.

I am concerned about all of these benefits, but the production of high-quality water from our streams especially concerns me. Trees or forest-covered watersheds normally produce clean, clear water devoid of sediment and other pollutants. And the 2 million acres of municipal forested watersheds in the Northeast have been doing a good job of producing quality water. However, pressures are building for higher production of water by manipulation of the tree cover; and pressures for use of these watersheds for recreation are especially critical. As these areas come under greater and greater demand, how do we go about managing these watersheds to produce greater yields of water? And how much and what types of recreation and other land uses can they tolerate and still maintain the quality of the water?

The U.S. Forest Service has some of the answers to municipal watershed management problems, but much more information is needed if we are to be able to properly plan and manage municipal watersheds. Also, we know very little about the effects of trees and forests directly on the human environment: for example, how much do trees lower the air temperature, reduce the noise level, and purify the air? And how do these benefits from trees vary by species, age, and arrangement of trees in urban-suburban areas?

A new program of research on these amenities and watershed problems has been proposed for the Forest Service at Princeton, N.J. And I wish to add my support and that of the Stony Brook Millstone Watersheds Association to this program. The watersheds association has already agreed to furnish land for research facilities and studies, and we plan to cooperate closely with the Forest Service on research and to follow up on action programs. We in the association believe that this research program will in the long run greatly benefit the people of New Jersey and people throughout the densely populated megalopolis.

An appropriation of $350,000 annually will be needed to finance the Forest Service program. And since it is not now in the budget for next fiscal year, I would like to ask for your support and consideration in seeing that it is added to the Forest Service budget by your subcommittee.

And would you please enter this letter in the subcommittee hearings on Forest Service budget. Thank you.

Sincerely yours,

DAVID H. MCALPIN,
Honorary Chairman and Former Trustee of the Stony Brook-Millstone Watersheds Association.

STATEMENT BY MR. DAVE JAMES, VICE PRESIDENT, PUBLIC AFFAIRS, SIMPSON TIMBER CO., SEATTLE, WASH.

During my review of Federal budget proposals for fiscal year 1971, I noted several modest increases for strengthening research by the Forest Service in the Northwest. These included $28,000 for intensive culture of Douglas fir at Olympia, $85,000 for forest survey work and $30,000 for forest economic research at Portland. All deserve vigorous support.

The studies at Olympia are especially essential to developing improved ways to grow future crops of Douglas fir in Oregon and Washington. This tree represents the biggest economic base in the Pacific Northwest. It is the primary supplier of raw materials for an industry which annually pumps $3 billion into jobs and products of the area.

The forest survey is the only source of information for all ownerships on the extent, growth, mortality, and rate of harvest of timber resources. An example of its important work is a new report on timber resources of the Olympic Peninsula to be released within a few weeks.

You are familiar with the report on the Douglas-fir supply study in which forest survey and forest economics researchers participated with National Forest Administration and analysts. This report emphasized the critical balance between supply and demand of timber in western Washington and Oregon over the next several decades, and clarified some of the remedial measures possible. Such economics research is increasingly needed to show the feasibility of forest management practices like fertilization, conversion of hardwood to conifer stands, and intensified protection. Additional work of this kind is essential to guide both public and private land managers as we push harder to meet future timber needs.

Forest Service research reveals a startling gap in the Pacific Northwest station's program in the area of logging slash, now called forest residues. An estimated 3.5 million tons of solid wood (limbs, tops and breakage) are left in the woods each year in western Washington and Oregon to rot or be disposed of by burning. If, through research, ways could be found to extract and use this wood, multiple benefits would accrue. Part of the $7.5 million spent each year in Washington and Oregon to burn slash might be applied to residue extraction and manufacture, resulting in additional jobs and income for people. In turn, public reaction would be favorable because of the reduction of slash burning and the attendant hazard of air pollution.

The Forest Service researchers at Seattle are working on this problem to the extent of their resources in cooperation with scientists at the University of Washington and with others in both Washington and Oregon. But an increase of $100,000 is urgently needed to speed progress on wood residues research now.

We strongly favor these proposed increases in forestry research, and shall appreciate your careful consideration and continued support of this high-priority work.

FEDERATION OF CONSERVATIONISTS,
UNITED SOCIETIES, INC. (FOCUS),
April 7, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Interior Department, Washington, D.C.

DEAR REPRESENTATIVE HANSEN: We are writing to place the full support of the Federation of Conservationists, United Societies, Inc. (FOCUS), behind a proposal for a new research program for the U.S. Forest Service dealing with the effects of trees and forests on the human environment and with municipal watersheds problems in the densely populated areas of the Northeast.

This research program would be located at Princeton, N.J. and would be done in cooperation with the Princeton University, the Stony Brook-Millstone Watersheds Association, and other agencies and organizations in New Jersey.

FOCUS is pleased to see that this research program on environment is being sought. It is critically needed, if we are ever going to realize fully the potential benefits of the trees and forests of the populous areas of the Northeast. Also if we are to retain and improve the environment we certainly must learn much more about the effects of trees on air temperature, noise, and pollution, and

the effect of trees and forests on water production and quality from multiple-use city or municipal watersheds.

Fifty percent of densely populated coastal strip of the Northeast is forested. Let us try to keep this balance, and let us find out how we can enjoy the benefits of the amenities, asthetics, and water from these forests to the fullest.

Funds for this new Forest Service research program are not in the current bill for next year's budget. So, would you please give your support to this request for increasing the Forest Service research budget by $350,000 annually starting next fiscal year?

Also, will you please enter this letter in the printed record of the subcommittee hearings for the Forest Service? Thank you.

Sincerely yours,

FEDERATION OF CONSERVATIONISTS, UNITED SOCIETIES (FOCUS),
ROBERT B. LITCH, *Executive Secretary.*

STATE OF NEW HAMPSHIRE,
DEPARTMENT OF RESOURCES AND ECONOMIC DEVELOPMENT,
DIVISION OF RESOURCES DEVELOPMENT,
Concord, N.H., March 10, 1970.

HON. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: It is my understanding that appropriation for the Forestry Sciences Laboratory for the U.S. Forest Service at Durham, N.H. is not in the regular budget, and under the present Federal budget situation, I can understand why it was not included.

However, as State Forester of New Hampshire, I would like to emphasize the importance of the Forest Service Laboratory and their research program of forest resource managers and to the future of the forest environment here in the Northeast. I only ask you to give the Durham laboratory careful consideration—especially if budget problems improve somewhat in the near future. Dr. Harry Keener, Dean of the College of Agriculture at the University of New Hampshire, has informed me that the present estimate of the cost of constructing the laboratory is $1,100,000. Site studies have already been accomplished and plans are in a state of readiness.

The Forest Service currently has 14 scientists and a supporting staff at Durham, N.H. They are conducting research on five forestry problems which are vital to developing the forest resources of New Hampshire and adjoining States. These problems include: a genetics project to develop a white pine that is resistant to the white pine weevil; a water project aimed at effecting higher water yields and better quality water from forested watersheds; a timber production project to grow high-quality northern hardwoods; a project on tree diseases aimed at minimizing degrading disease factors in the production of high quality hardwoods; and a new program of recreation research which will assist the recreation managers and interpreneurs in planning and developing timely and apropriatee outdoor recreation facilities.

At present, the Forest Service scientists are literally crammed into a small building that formerly served as a store in Durham. They have made good progress on their various problems—as evidenced by results of a birch symposium held last summer by the Forest Service and the University of New Hampshire. However, much of the research needed now and in the future requires adequate laboratory facilities which are now lacking.

So again I ask you to give careful consideration to the construction of the Forest Service Laboratory at Durham. Would you kindly have this letter printed in the record of the subcommittee hearings on the Forest Service budget.

Sincerely yours,

THEODORE NATTI, *Director.*

STATEMENT OF STEWART M. BRANDBORG, EXECUTIVE DIRECTOR OF THE WILDERNESS SOCIETY

Madame Chairman, I am Stewart M. Brandborg, executive director of the Wilderness Society, a national nonprofit citizens' conservation organization, with headquarters at 729 15th Street NW., Washington, D.C. With a membership of

nearly 60,000, the society's long-time, broad purpose is to increase the knowledge and appreciation of wilderness, wherever found, and to see established enduring policies and programs for its protection and appropriate use.

The Wilderness Society wishes to associate itself with the other conservation organizations (particularly the National Wildlife Federation and the Sierra Club) which have testified before this subcommittee in support of budget requests of the Department of the Interior and related agencies, including the U.S. Forest Service, for fiscal year 1971.

We wish to call particular attention to those parts of the appropriation requests which have a direct bearing on the Federal Government's urgent task of maintaining and enhancing this country's natural resources, of providing the basis of healthful outdoor recreation, and protecting the public's irreplaceable open space from exploitation and unwise use. This is all a part of what conservation is all about. The crisis in environment and pollution which is on everyone's mind these days has brought about a fresh awareness on the part of Americans everywhere of their own vital need for an adequate resource of wild, unspoiled country, to be enjoyed by the public now in a way that will not impair its future wilderness value.

The tools we have available for acquisition of new parks, wildlife areas, and outdoor recreation lands are sound, but the monies allotted for these programs should be increased substantially. Specifically, we urge that the Land and Water Conservation Fund be increased to a level of $300 million per year to permit the expenditures necessary for these purposes in the area where need is the most urgent, in and near our crowded urban areas.

Foresighted investment in such land acquisitions will benefit the large numbers of people who, as they begin to prosper (as a result in part of other measures adopted by Congress), will add to the national demand for more places to breathe, stretch and feel the influences of the natural world.

Therefore, the Wilderness Society is encouraged to see that the administration is seeking full funding of the Land and Water Conservation Fund to help finance State recreation programs as well as the Federal acquisitions. We shall gladly testify in support of an expanded fund whenever the committee desires to hear public testimony.

With regard to the budget proposals for the Interior Department agencies and for the Forest Service, the Wilderness Society would like to make the following comments:

BUREAU OF SPORT FISHERIES

The Bureau of Sport Fisheries and Wildlife has historically been concerned with the environment and we are pleased to see that their budget request for this year reflects that concern. The Wilderness Society supports this request in its entirety, and wishes to draw the attention of the committee to certain items of special concern:

First, we are pleased to see expansion of the Bureau's wilderness review program, which under the wilderness law must be completed by 1974; the Bureau still has more than 45 wilderness studies comprising some 25 million acres to complete within this timetable. We are happy to see they are asking for an additional $150,000 to get on with this effort.

This agency has done an outstanding job thus far in reviews of wilderness potential within the National Wildlife refuges, but as we understand it, due to insufficient funds and shortage of personnel, the Bureau has concentrated on smaller, less controversial refuges. Now the Bureau is confronted with a situation where the study of large multipurpose refuges and ranges in the West and Alaska must be completed prior to September 1974. Detailed field studies leading to recommendations at public hearings will require an accelerated effort by the agency, and the need for more funds than apparently the Bureau realizes. The Wilderness Society strongly recommends that at least $350,000 in additional funds be appropriated for the wilderness study effort of the Bureau of Sport Fisheries and Wildlife. Otherwise the mandatory time schedule of the Wilderness Act may not be met.

This year we note that the Bureau expects to open nine new wildlife refuges and expand facilities at seven fish hatcheries and two fish research laboratories. We believe these are desirable steps toward environmental protection. Creation of the Rachel Carson institute for environmental studies which will expand studies of pesticides will, we expect, produce substantial benefits for the environment. We recognize the public uses of the Bureau's facilities are growing rapidly and we believe it is imperative to upgrade public use and wilderness interpreta-

tion programs for the educational benefit of the visiting public. We would think the $260,000 required is a minimal amount, and that at least $750,000 should be allotted for this vital effort.

The protection of the fish and wildlife environment in Alaska is of special concern to The Wilderness Society because it is so much a wild area and has great potential for wilderness preservation. We strongly support the expansion of monitoring and special study functions by the BSFW to contribute to a realistic view of the impact of impending oil development in that State.

The Bureau's scheduled program for joint development of the estuaries with the States and local governments, should provide a substantial contribution to environmental preservation as it relates to commercial fisheries as well as to natural areas. This program deserves full support by public funds.

The Wilderness Society joins the National Wildlife Federation and the Sierra Club in supporting the entire budget presentation for the Bureau of Sport Fisheries and Wildlife.

BUREAU OF LAND MANAGEMENT

The Wilderness Society supports Bureau of Land Management budget requests and urges particular attention to the needs of the Alaska region where a difficult, technically demanding job must be done by the Bureau's land managers to safeguard the public lands now under massive attack by over-eager developers. To point up the possibility of sound, conservation-minded planning for the State as a whole, we call the Committee's attention to the Wrangell Mountains National Scenic Area proposal. Here is a carefully worked-out plan for "zoning" 10 million acres, tying together the transportation, communication, community development, agriculture, wildlife, recreation, and industrial needs of the area. There is no way to bypass this kind of prudent management for Alaska as a whole—for what is done by our public land agencies there has an overpowering impact on the future of the State. We implore the Congress and this committee to see to it that there will be adequate funds for pre-study and surveillance over any future Alaskan development affecting the great public land resource. For this reason, we are advocating an increase in Bureau of Land Management funding.

The Bureau of Land Management functions relating to range management, soil and watershed improvements, and range improvements must not be neglected, and we urge that the Bureau be encouraged to increase grazing fees to bring a fair return for the profitable use of these lands by the livestock industry.

Fire protection on BLM lands and the proper management of freewheeling recreationists in certain desert and beach areas are important parts of the Bureau's budget for which The Wilderness Society would support increased funding. There is need for long-range planning for ever-increasing recreation use, and such planning should include classifications ranging from the heavily traveled campgrounds with all the amenities, to primitive areas where elaborate developments are prohibited but which are available for access on foot or by horseback.

THE NATIONAL PARK SERVICE

The Wilderness Society is especially concerned at this time with certain operations of the National Park Service and we wish to lend our support in favor of adequate appropriations therefor.

We have long been concerned about the unsatisfactory situation caused by the presence of privately owned property within the boundaries of national parks and monuments. There is only one sure way of eliminating the problems of inholdings and that is for the Government to buy the properties. We urge that the full sum requested by the National Park Service for fiscal 1971 for this purpose be approved by the committee. (It is our understanding that this item is officially presented within the Bureau of Outdoor Recreation budget request.)

Likewise we are concerned that the National Park Service be funded sufficiently to carry on the full program of wilderness review studies required by the Wilderness Act, master planning studies and studies of new park areas. Insufficient funding has seriously retarded the Park Service in its efforts to comply with the congressional mandate of the Wilderness Act. We urge the committee to appropriate the full amount requested by the Park Service for 1971 for these purposes.

Finally, we would request that the committee give most favorable consideration to approving the full amount sought by the National Park Service for the normal management and operation of the national parks and monuments. It is

especially essential that the interpretive programs of the Service—by which programs the millions of city-dwelling Americans who visit the parks annually are given the opportunity to understand and to more fully enjoy the natural beauties and environment of the parks—be fully appropriated for. Too many Americans come to our national parks each year without knowing how to enrich their lives by opening their eyes and ears to the wonders of a forest, a flowing stream, the flight of a bird, the call of a wild animal. The park service is especially fitted to give to millions of Americans some personal understanding of the meaning and the need of a healthful, pleasing environment for man to live in.

U.S. FOREST SERVICE

The forest service has performed well in the task of meeting the schedule of wilderness review hearings, and the Society strongly supports the budget requests for purposes of field study and preparation of recommendations for wilderness designation, conduct of public hearings and the follow-up investigations that are sometimes necessary.

With regard to the other items is the forest service appropriations request, The Wilderness Society is in agreement with the testimony presented to this subcommittee by the National Wildlife Federation, in which it was pointed out that wildlife habitat research and forest recreation research stood in need of increased funding to balance the long-time overemphasis on commercial timber production in national forest lands.

Madam Chairman, I must reiterate the fact that I am sure you well know—that our Nation's priorities have apparently shifted. The American people are now demanding that attention be paid to environmental quality. It is no longer taken for granted, but is seen by people everywhere as the true basis of our survival as a species.

This recognition of priority must be followed up by government action in the most positive way, that is by apportioning the national budget to assist it wherever possible. Otherwise we stand to lose the impetus of public interest that will help us fulfill our promises of a new environmental conscience.

Thank you for the privilege of presenting the views of the Wilderness Society.

STATE OF NEW YORK,
CONSERVATION DEPARTMENT,
Albany, N.Y., March 18, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: I am writing this letter to you in support of the recreation research program of the U.S. Forest Service at Syracuse, N.Y.

In my position here in New York State, I am responsible for State parks and outdoor recreation programs. So, I am well aware of the importance of outdoor recreation and its impact on the forest environment.

In recent years, New York launched a number of outdoor recreation projects aimed at providing easy access to recreation facilities throughout the State. For example, in 1960 and 1962, a bond issue authorized $100 million for acquiring land for recreation. And, in 1965, another bond was issued for $200 million to develop public land for recreation.

However, we have learned that the optimum allocation of land and capital resources for recreation requires sound research information on the need or demand for such recreation. This includes research on the human aspects of recreation in the forest environment as well as our own research activities which concentrate on recreation at intensively developed facilities.

We need to have the answers to such problems as: What type of recreation is needed? What factors affect the participation of recreationists? And, how do we predict future demand and the information for planning and providing outdoor recreation?

A forest service project on outdoor recreation at Syracuse, N.Y., is conducting research on the above problems for a 14-State region in the Northeast. This research has the cooperation of the New York State College of Forestry, and the results have been invaluable to the development of forest recreation programs in New York and the Northeast.

My concern is that the current research effort in recreation is not large enough to meet the needs for planning and developing forest recreation programs and facilities. The College of Forestry has recommended that the appropriation for the forest service should be increased $250,000 next year for strengthening recreation research at the Syracuse project.

I fully support this recommendation, and I would like to ask that my statement be printed in the record of the subcommittee hearings for the forest service. I hope that you will give this recommendation your full consideration and support.

Sincerely yours,

WILBUR E. WRIGHT,
Administrator for Parks and Outdoor Recreation.

STATEMENT OF ARTHUR M. ROBERTS FOR WESTERN FORESTRY & CONSERVATION ASSOCIATION

Mrs. Hansen and gentlemen, Western Forestry and Conservation Association has, since 1909, been active in the promotion of the practice of forestry and the development of forest conservation on all forest land in the western United States and western Canada. This association counts in its subscribing membership forest landowners, large and small, of the western United States, private and Provincial forest land ownerships in western Canada and seeks to bring about cooperation among Federal, State, Provincial, and private forest agencies.

The membership of Western Forestry and Conservation Association is vitally concerned about the need for increasing research to achieve the twin goals of obtaining maximum production of forest resources, while at the same time improving quality of the forest environment.

Forestry research has not kept pace with research in other fields. Total expenditures for research in the United States were recently estimated at 2.7 percent of our gross national product. But investments in forestry research amount to only about one-third of 1 percent of the gross national product value contributed by forest industries. Therefore, funds for forestry research are at only one-eighth of the average level for all research. This would indicate that from the research standpoint, forestry does not benefit from research and technology to the extent that other activities in the economy do.

For this reason, I am respectfully submitting this statement for the association, requesting your support of specific research projects of the U.S. Forest Service in the West.

They are listed in three categories. First, those for which increases have been requested in the President's budget; second, those which are vital if we are to keep pace with our research needs but for which no increase has been recommended; and third, as a separate budgetary item, the Corvallis Forestry Sciences Laboratory.

PROJECTS THE BUDGET PROPOSES TO STRENGTHEN

Forest Survey

Increases are proposed this year—$85,000 for the forest survey headquartered at Portland and $53,000 for forest survey at Ogden. These would provide for strengthening the forest survey at a time when it is most vitally needed.

The President's Timber Task Force estimate that a 30-percent increase in softwood timber harvest must be accomplished in the next 10 years if national housing goals are to be met without prohibitive increases in forest-products prices. The forest survey is the sole source of information of the capability of forest lands in all ownerships to meet these national needs. No forestry organization, whether public or private, can do business without an accurate, timely picture of its raw-material inventory, particularly if that inventory is being influenced by complex factors including variations of growth and mortality from year to year, changing land use, and values that for some species in some places have doubled and tripled in the last decade.

The timber-inventory statistics now available are not detailed enough to take proper account of all the factors that must be considered in timber supply planning. Potential high-yield areas, for example, that should be intensively managed have not been so identified. The statistics do not take account of the impacts of other uses, unstable land situations, and other physical factors upon timber-yield potentials in some areas. To get the kind of information needed

will require development of improved classifications of data and substantially intensified inventories by forest survey.

At the 60th Western Forestry Conference in Spokane in December, 1969, a number of pertinent resolutions were approved. They are applicable in several places in the following statement and will be quoted where they apply.

RESOLUTION—EVALUATION SURVEYS ON TREE MORTALITY AND GROWTH LOSS

Western Forestry and Conservation Association recommends that the Federal, State and private forestry organizations modify their detection and evaluation surveys so as to obtain in-place volumetric data on timber mortality and growth loss by cause. Information should be obtained on endemic as well as epidemic impacts. Data and procedures for adequately determining the status and trend of insect populations should be developed. The association urges that the above-named agencies move as soon as possible to organize, coordinate, and implement this critically needed effort.

Forest Economics Research

In a time of high interest rates and limited capital resources, we must allocate private or public funds only after careful economic analyses of alternative forestry treatments on the various productivity classes of forest lands with which we work. We have a particular need for analyses—and analytical techniques—that properly reflect the long-term nature of timber growing and the long-term outlook for greatly increased demand on natural resources for both commodity and environmental uses. We have great need for economic planning techniques that take more complete account of social and environmental considerations as well as guiding timber-growing investments into areas and activities producing highest yields.

The budget increases proposed—$42,000 at Berkeley, $50,000 at Ogden, and $30,000 at Portland—will enable economics research to move ahead on a time schedule more nearly associated with the needs of the resource manager. These increases are strongly favored.

Timber-culture research

The budget recommends increases for timber-culture research at Olympia, Wash., $28,000, and at Boise, Idaho, $29,000. We support these increases and comments as follows:

Research on Douglas fir culture at Olympia, Wash., is recommended for an increase of $28,000. The Olympia-based project is the only one assigned specific responsibility for research on Douglas fir—the most important timber tree in the West. The project provides biological information necessary to improve the efficiency of growing Douglas fir as a timber crop. The proposed increase would be used on studies of tree spacing, control of growing stock, and fertilization to increase wood production. The benefits from this investment would indeed be sizable.

RESOLUTION—MAXIMIZED WOOD PRODUCTION

Western Forestry and Conservation Association urges prompt implementation of research and action programs needed to maximize production from forest land, including reforestation of idle acres with genetically superior stock, reclamation of brushfields, improved plantation and stand management, and better harvesting and marketing systems.

Douglas fir Regeneration Research, Boise, Idaho.—An increase of $29,000 is proposed for this research. Interior Douglas fir forests occupy nearly 10 million acres of commercial forest land in the northern Rocky Mountains. Douglas fir makes up more of the annual cut in this area than any other species. The Douglas fir resource totals 74 billion board-feet in the northern Rocky Mountains. Using a stumpage value of $30 per thousand board-feet, this standing timber is worth over $2 billion on the stump.

Despite the value of interior Douglas fir forests, very little research has been done on their culture and management. The most critical need managers have is to know how to regenerate interior Douglas fir promptly and efficiently, in order to perpetuate stands of this species.

The proposed increase would be used for research to identify situations where regeneration failures occur, to determine causes of failure, and to develop methods to insure prompt and adequate regeneration after cutting.

Timber measurements research

The budget includes $29,000 for this important work at Moscow, Idaho. The rapid increase since World War II in the timber business resulting in full allowable cut on most working circles and the consequent trend toward intensive management of commercial forest land of all ownerships have created a great need for better ways for:

(1) Inventorying forest land and timber resources.

(2) Estimating volumes of trees and tree products.

(3) Measuring, predicting, and interpreting the effects of management practices on timber-growing stocks.

The Forest Service's timber measurements research unit at Moscow, Idaho, has made significant contributions toward meeting these needs, but it badly needs to be expanded to provide the necessary mensuration guides, tools, and techniques to forest land managers in the northern Rocky Mountains. The proposed increase would be used for this purpose.

The amount of $31,000 is recommended for Fort Collins, Colo., to develop computerized decisionmaking and planning procedures of nationwide value in forestland management. These procedures will provide tools that will:

(1) Extract the maximum amount of information from inventory and other data.

(2) Provide up-to-date computation of allowable cut, growing stock, and other measure of timber supply and how it may be improved.

(3) Provide probable outcomes of multiple-use management alternatives for quick response to changing needs.

Watershed management research

The $40,000 item in the President's fiscal year 1971 budget for Forest Service *Watershed Management Research at Juneau, Alaska* will strengthen timber harvesting-stream environment investigations. Recently research by the forest service shows that timber harvest, as conducted on the study areas in southeast Alaska, can be done without substantial change in stream habitat used by spawning pink and chum salmon. Timber harvest and the attendant roadbuilding and ground disturbance did, on occasion, contribute sediment to the measured streams and water temperatures did increase. However, the magnitude, frequency, and timing of these occurrences, when related to the life cycle of the two salmon species, appear to have no detrimental effect on either.

More extensive measurements of water temperature and sediment amounts and their effect upon the stream habitat are badly needed. Both fish and trees are renewable resources, and research can point the way to the use of both to the detriment of neither.

The budget also recommends an increase of *$35,000 for Watershed Management Research at Boise, Idaho.* Important resources occur in the forests of the 15,000-square-mile Batholith area of central Idaho and adjacent Montana. Use of these resources is highly important to the many adjacent and included communities and to the economy of the State of Idaho. But use poses some difficult land-management problems. Soils, derived from the Batholith granites, are highly erodible and the slopes characteristically steep. Under certain conditions logging and roadbuilding have resulted in sedimentation of streams and damage to anadromous fisheries habitat.

To be able to use the important resources in this huge area, without damage to the watersheds and fisheries resources, we must learn more about the many environments in the Batholith, and develop quicker and more effective methods, using vegetation and other means for stabilizing soil disturbance resulting from road construction and other activities. The proposed budget increase will assist in moving ahead with needed research.

IMPORTANT PROJECTS IN NEED OF FINANCING BEYOND BUDGETED AMOUNTS

Forest residues research

One of the most serious problems of western forestry and related urban environments is disposal of the residues, commonly called slash, following logging and other forestry operations. Unless something is done with them, these materials represent a staggering waste of wood, an extreme forest fire hazard, and an eyesore that arouses public indignation.

The problem is westernwide. In the dense Pacific Northwest forests where the volume of residues left after forestry operations is very high, about 3.5 million

tons of sound wood are now left in the woods each year because, with present technology, it cannot be removed and used economically. Much of the residue is now burned, at an estimated cost of $7.5 million, to lessen fire danger, and hasten establishment of a new forest. Smoke from the burning is regarded by many as contributing to air pollution. But manufactured into products, the sound residues would yield products in the United States worth an estimated $250 million. Converted to chips, it could supply the Japanese demand three times over.

The Forest Service has prepared an analysis of the residue problem, which offers tremendous opportunities for its solution through a research and development program. The research would:

(1) Determine salvage systems and economic incentives conducive to maximum use of the residues.

(2) Evaluate the impacts of residues and their disposal on the environment.

(3) Develop more efficient and safe practices for disposing of those residues not usable for wood products.

Western Forestry and Conservation Association strongly urges increases in the budget for the Forest Service's Pacific Northwest Forest and Range Experiment Station in fiscal year 1971 to speed this vitally important work. Constructive findings would have prompt and wide application and would stimulate an advance toward the twin goals of increasing productivity of our forests and, at the same time, safeguarding the forest environment.

Western dwarf mistletoes

Dwarf mistletoes attack the principal conifer forests of western United States, reducing the potential of an enormous forest resource comprising about 85 percent of the softwood volume in the Nation. Eleven of the 12 species of dwarf mistletoes in the United States are found in the West. The combined impact of these parasitic plants on forest productivity, in the form of mortality and growth loss, is in excess of 3.2 billion board feet annually. In addition, the dwarf mistletoes impose an impact on other multiple-use values, especially recreation and scenic values. Solution of this problem requires greatly accelerated research and development.

A westernwide, integrated program for research and development on the dwarf mistletoes was prepared last year by the Forest Service, but no funding has been provided. The program is very comprehensive and well planned. It requires research and development inputs from the Pacific Northwest, Pacific Southwest, Intermountain, and Rocky Mountain Forest and Range Experiment Stations. Activation of the coordinated program would require an increase of $300,000 to the Forest Service disease research budget. The Association strongly urges your consideration of this opportunity to prevent the great wood volume being lost, while at the same time improving the ecology and aesthetics of our western forests.

RESOLUTION

Western Forestry and Conservation Association is concerned about the serious impact of dwarf mistletoes on the productivity of western forests. Several decades of research and control projects suggest that dwarf mistletoes can be controlled economically. The Association strongly urges a coordinated, westernwide program to develop and apply effective control procedures for integration into western forest management practices.

Timber and environmental research at Corvallis, Oregon

The purpose of the research at the Corvallis Forestry Sciences Laboratory is to build technology required to increase the Northwest's timber supply while simultaneously protecting and improving the forest environment.

Research units at the Laboratory are developing techniques that have wide applicability. Included in this category is the research on developing biological control of forest insects and diseases. Recent restrictions on use of chemical pesticides emphasizes the importance of strengthening this work now.

Related to the research on insects and diseases is that on pesticides and other forest chemical residues in forest insects and diseases. Recent restrictions on use of chemical pesticides emphasizes the importance of strengthennig this work now.

Corvallis is also headquarters for a major research effort on developing genetically superior forest trees. Results here to date indicate that increased timber yields of 10 to 30 percent may be obtained by applying the science of genetics to

forest trees. The need for increased timber yields as well as for an aesthetically pleasing forest focuses urgency on speeding development of this technology as rapidly as possible.

Western Forestry and Conservation Association urges a substantial increase in fiscal year 1971 so that this obviously high-priority research at Corvallis can move ahead more nearly in line with the need.

RESOLUTION—CORVALLIS FOREST CHEMICAL AERIAL APPLICATION RESEARCH

Western Forestry and Conservation Association commends the Forest Service for initiating a new research and development unit at Corvallis to improve aerial applications of insecticides. The Association recommends that this effort be expanded as soon as possible to a full-scale research and development team equipped to solve application problems of the broad spectrum of forest chemicals needed by forest managers to protect and increase productivity of forests of the West.

RESOLUTION—DDT AND OTHER CHLORINATED HYDROCARBON USE

Western Forestry and Conservation Association restates its longstanding policy that pesticides and other forestry chemicals be applied with great care and only when actually needed. Until effective and safer alternatives are developed and proven, the Association urges that DDT and other chlorinated hydrocarbons be retained for use under strict professional supervision and control. The Association recognizes that public safety and the integrity of the environment are paramount in the use of such chemicals.

Multiple-use management research, Flagstaff

A sizeable appropriation increase for multiple-use evaluations of forest watershed management practices in Arizona is urged. Management practices are being tested on watersheds and evaluated in terms of effects on water yield, sediment production, timber, forage, wildlife habitat, aesthetics, and recreaton opportunities. Preliminary results indicate that streamflow from pine forests can be increased significantly.

Watershed management research, Moscow, Idaho

Utilization of the tremendously valuable resources common to the 10-million-acre Batholith area is of major economic importance at regional and State levels, and locally to at least 38 directly dependent rural communities. Anticipated damage resulting from resource development and utilization, including timber, has already resulted in moratoriums on planned activities and can be expected to result in other similar efforts.

Expansion of this research is needed, particularly in connection with the Batholith program on timber harvesting methods and patterns, and location and design of roads on rate of snowmelt, transmission of water to streams, water quality and stream temperatures. Results would have wide and immediate application.

Construction of research facilities

Construction of additional facilities is badly needed at Moscow, Idaho. The first phase, completed n 1963, has for more than 2 years been overcrowded and laboratory and greenhouse space inadequate. Congress appropriated funds for planning the $620,000 second phase of the laboratory in fiscal year 1968 and plans are now complete. The Forest Service also has plans in hand for a $180,000 specialized greenhouse facility.

Management of redwood lands, Arcata, California

Public concern for problems of managing land and environment in the Redwood region of California continues to grow. This area is rich in, and highly productive of water, recreation and scenic values, fishing and hunting as well as commercial timber. But many parts of the region have fragile soil/geologic complexes. Mismanagement can lead to impairment of productivity and to environmental degradation.

The management of redwood forests, whether they be in parks or commercial ownership, requires a thorough ecological understanding of the total environment. The complex dynamic interrelationship of trees, minor plants, and animals is disrupted by timber harvesting, recreational use, and natural factors such as floods and fires. The research program must include the study of the total

environment to provide the ecological basis for intelligent protection and culture of the forests for a wide variety of functions.

Development of research effort by the Forest Service in the Redwood region is proceeding as rapidly as present resources permit. A substantial increase is needed to step up progress on these extremely important problems.

Alaskan fires

The fire season of 1969 was one of the worst in recent years in Alaska. Public concern demands that considerable research be devoted to the study of the problems involved in this unfortunate situation. The tremendous areas covered by fire in a bad year like 1969 and the terrific costs involved in fire control make it necessary to research the entire Alaskan fire prevention, control and damage situation. Funds for this research should be appropriated without delay.

RESOLUTION—ALASKAN FIRE RESEARCH

On the basis of the recent disastrous fire season in Alaska, Western Forestry and Conservation Association urges the governmental research agencies to undertake an adequate program of research in Alaska's interior region to evaluate the effects of fire within that environment and to determine levels and systems of protection needed.

Research on western bark beetles

Bark beetles continue to kill enormous volumes of valuable sawtimber throughout the West. For example, it is estimated that annual mortality of western white pine in Idaho and Montana is at least 200 million board feet annually, caused principally by the mountain pine beetle. The stumpage value alone of this loss is estimated to be more than $2.5 million. Equally serious is the mountain pine beetle outbreak in southeastern Idaho and western Wyoming that has necessitated control expenditures of over $6 million since 1960, and is not yet controlled. In 1968, the Douglas fir beetle killed an estimated billion board feet of high-quality sawtimber in western Oregon and Washington. Other epidemics exist in most of the western States, exacting high tolls of timber and creating serious problems in commercial and recreation forests alike.

The present Forest Service research program on the bark beetle problem in the West is grossly inadequate. The association strongly urges greatly stepped-up efforts at the Forest Experiment Stations at Moscow, Idaho; Corvallis, Oreg.; Berkeley, Calif.; and Fort Collins, Colo. The association recommends that the appropriations committee ask the Forest Service to specify their budget needs, and then move to appropriate it at this session of the Congress.

Research on tree-defoliating insects

Tree-defoliating insects are a serious threat to northern Rocky Mountain forests. One of these, the larch casebearer, first made its appearance in northern Idaho in June 1957. Since then it has raced through valuable western larch stands of northern Idaho, western Montana, and eastern Washington. Now nearly all larch forests in this region are heavily infested. The major impact to date is a serious growth loss, but actual killing of larch trees is occurring also.

Another defoliating insect, the spruce budworm, has infested over 7 million acres in northern Idaho and Montana since 1948. Unfortunately this insect attacks some of the most important tree species: Douglas fir, grand fir, Engelmann spruce, white fir, and subalpine fir. In the period 1952 through 1968, over 6.4 million acres of forests in the northern Rocky Mountains were sprayed at an average cost of just over $1 per acre. During these outbreaks growth losses have been tremendous and large numbers of trees have been killed.

To protect northern Rocky Mountain forests against defoliating insects, such as larch casebearer and spruce budworm, we must know more about how these insects behave, the relation of tree and stand conditions to attack, tolerable damage levels, and possibilities of effective methods of control. Acceleration of research on the larch casebearer at the Forest Service's Forestry Sciences Laboratory at Moscow, Idaho is especially urgent.

PHASE II CONSTRUCTION OF THE CORVALLIS FORESTRY SCIENCES LABORATORY

Last year the association strongly urged construction of the vitally needed addition to the Corvallis Forestry Sciences Laboratory. The Congress took action by appropriating $500,000 to get the building started, but the funds have not been made available to the Forest Service and construction has been delayed.

There are many examples of high-priority research at the Corvallis Laboratory where the Pacific Northwest Forest and Range Experiment Station has assembled an outstanding staff of scientists. These researchers are seriously hampered in their work, however, by:

(1) Lack of operating funds to stimulate progress and output from existing high-priority studies.

(2) Lack of expanded laboratory facilities to get started on new highly promising studies and projects.

Both of these deficiencies must be corrected at the earliest possible opportunity if the Northwest is to realize its key goals of increased timber production and a better forest environment.

The detailed architectural plans for the construction have been completed since 1967. The lack of action since has resulted in loss of valuable time needed to solve the critical problems this facility was designed to relieve—the related problems of timber supply and protection of the forest environment. It has also resulted in much higher estimated costs for this facility which will in all likelihood continue to accelerate.

Revised phase II construction costs including the $500,000 already appropriated are revised for 1970–71

Laboratory service building	$500,000
East laboratory wing	1,300,000
West laboratory wing	1,650,000
North laboratory wing	500,000
Insectary, greenhouse and site development	500,000
Total	4,450,000

Western Forestry and Conservation Association again asks recognition by the Congress of the extreme need to complete this key installation so vital to the people and the communities that use and depend on both the products and the environment of the forests of America.

I appreciate very much the opportunity to present this statement and ask that it be included in the record of the appropriations hearings.

Mrs. Hansen and gentlemen, Western Forestry and Conservation Association has, since 1909, been active in the promotion of the practice of forestry and the development of forest conservation on all forest land in the Western United States and Western Canada. This promotion has taken the form of working with all forest landowners in the achievement of sound forest practices and objectives. This Association counts in its subscribing membership private forest landowners, large and small, of the Western United States and private and Provincial forest land ownerships in Western Canada. Its participating membership includes foresters and forest land managers from all forest land ownerships in the West, including representation from forest schools and other related agencies.

Western Forestry and Conservation Association wishes again to place before your committee an earnest plea for additional money to be used in the cooperative fire control program of the U.S. Forest Service. At the annual Western Forestry Conference of the association, held in Spokane on December 3–5, 1969, the following pertinent resolution was adopted by the membership:

RESOLUTION—CM–2 FUNDS

The needs for appropriation of the full authorized amount under the Clarke-McNary Act, section 2, continues to be critical. Western Forestry and Conservation Association urges that the full authorization of Clarke-McNary Act, section 2, funds be appropriated.

The public benefit deriving from protection from fire on private forest land has long been acknowledged. It was first recognized in the Weeks Forest Purchase Act of 1911, but was really accepted with the passage of the Clarke-McNary Act in 1924. After small but very important beginnings, the authorization under the Clarke-NcNary Act was increased by the 81st Congress to $20 million under the provisions of Public Law 392 on October 26, 1949.

Under this act the appropriation was to be increased in orderly steps of $2 million annually from the fiscal year 1950 figure of $9 million until the full authorization was reached in 1955, where it would level off. It has not worked out like this, the 1969 fiscal year appropriation having reached only $14.396

million. Although this $14.396 million was the amount requested in the budget request for fiscal year 1970, the Congress saw fit to increase the appropriation to $16.396 million which has now all been made available. The fiscal year 1971 Budget, which you are now considering, does not, however, reflect the increase from $14.396 million and the budgetary request remains at that figure.

The reasons for the increase to the amount of the authorization are more valid today than they were in 1949, and certainly as valid as they were in 1969. Present growth in the population of the United States places increasing demands on the forest land assets of the Nation, both public and private. Many of these demands are focused on the use of State and private forest land holdings. Nationwide, these holdings total over 60 percent of the entire forest-land area—56 percent being in private ownership and 5 percent in State holdings. Statistics indicate how much use the general public makes of private forest lands in the several areas of watershed, game production and hunting, other types of recreation including driving and hiking, to say nothing of the contribution of some 70 percent of the forest products harvested annually which are available to the national economy.

Some of the States have assumed the public responsibility for forest land protection from fire which has been neglected by the Federal failure to budget and appropriate in this area. Others have not. The situation is becoming more and more difficult as costs increase due to inflationary trends and more sophisticated, but much more expensive, fire-control methods and implements are developed. Labor conditions also contribute to rising costs. As costs have risen, naturally the Federal percentage of the expenditure has become proportionately smaller, since the appropriation has remained practically constant in the last two decades. This has resulted in the Federal share of the almost $100 million total-protection bill on State and private lands being contributed to on a ratio of 15 or 16 cents on the dollar of total expenditure.

In 1958, a study of the relationship of State, Federal and private financial responsibilities in the protection of State and private forest lands was undertaken by the Battelle Institute for the U.S. Forest Service with C–M[2] financing. The report of that study indicated that the State and private share in the financial picture in private forest land protection should be in the area of 41 to 60 percent, with the private share at least 16 percent of the total-protection cost. Conversely, the Federal share should be in the area of 59 to 40 percent. Whether these findings have any validity is open to conjecture, but certainly they do indicate a wide divergence between what the study found and what we are doing today.

For these reasons, Western Forestry and Conservation Association urges the appropriation of $20 million or up to the present authorization. We further recommend that research be carried on in an effort to determine more scientifically what the public stake really is in the protection of private forest land from fire.

PRINCETON UNIVERSITY,
Princeton, N.J., April 3, 1970.

HON. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, U.S. House of Representatives, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: Many at Princeton University are deeply concerned about the quality of man's environment and what can be done to improve it. Whereas this feeling has been greatly stimulated by the increasing awareness of our population growth and the resulting decay of our cities, the ever-more-serious pollution of our air and water, the wasteful exploitation of our natural resources, and the dangerous and rising levels of noise. As a consequence, various new courses and research activities on these and related issues are underway at Princeton. Interdepartmental as well as department teaching and research activities now involve undergraduate and graduate students as well as faculty.

On March 5 and 6, the university sponsored a large conference of national and local political figures, industrialists, faculty members, and students on "Ecology and Politics in America's Environmental Crisis." Among others participating were Secretary Hickel, Senator Henry M. Jackson, and Richard J. Sullivan, Director of the Division of Clean Air and Water of the New Jersey State Department of Health. I feel that we had an excellent conference and that important proposals for research and action were made.

I write to you now to urge action on some of these issues. More specifically, I ask your support of a proposal for the U.S. Forest Service to set up a new project at Princeton to conduct research on the urban forest environment.

I am enthusiastic about the great potential of this project. It is aimed at learning more about the effects of trees and forests on the human environment. Specific areas include: How do trees and forests reduce air pollution? What is the effect of trees on air temperature and humidity? How do trees aid in noise abatement? How should trees and forest vegetation be manipulated to improve water production and quality? And how much recreation use of municipal watersheds can be tolerated?

The forest service research program seems not only to meet the interest of our area, but it has implications vital to all of the densely populated areas of the Northeast. It complements research and teaching plans of both Princeton University and the Stony Brook-Millstone Watersheds Association. Numerous conservation and ecological projects have already been initiated in New Jersey by the Watersheds Association, and it plans to cooperate with the Forest Service and the university on investigations involving the relationship of water pollution with trees and forests.

The research program proposed for the Forest Service will require an appropriation of $350,000 annually, and it is not listed in the Forest Service budget for fiscal year 1971. However, I hope you will be able to support this program and get it placed in the budget during the Appropriation Subcommittee hearings for the Forest Service.

Sincerely,

ROBERT F. GOHEEN.

PRINCETON, N.J., *April 2, 1970.*

HON. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, U.S. House of Representatives, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: I am writing to you in support of a new research program on urban forest environment which has been proposed for the U.S. Forest Service. Would you please see that this letter is entered in the record of the House subcommittee hearings for the forest service?

As you probably know, the natural environment in the densely populated "Megalopolis" of the Northeast is being slowly destroyed by a combination of cultural changes. And although about half of the land area in that region still enjoys trees and forests, there is an urgent need for a comprehensive consideration of the effects of trees on the human environment and actions taken to reserve and more fully utilize the remaining resources. In short, I do not believe that we are giving sufficient attention to trees and open space to attain the greatest benefits in the way of the amenities, aesthetics, and water.

The amenities derived from trees in particular have long been neglected. For example, we know that trees serve as air conditioners in cooling air temperature; trees absorb polluted air and give off air rich in oxygen; trees screen solid pollutants from the air; trees reduce noise; and trees clothe municipal watersheds—protecting the soil and effecting a yield of high quality water. However, our knowledge of how much benefit trees provide and how these benefits can be improved by planning and management is still largely wanting.

The new research program proposed for the forest service at Princeton, N.J. is aimed precisely at finding the answers to the problems listed above. And I feel that Princeton is an ideal location for a program of this type. It is in the center of the densely populated east coast region, in close proximity to big city and suburban areas which usually create forest environmental problems.

Princeton University plans to work closely with the forest service on these research problems, and the university will provide an ideal atmosphere for such research. The Stony Brook-Millstone Watersheds Association is headquartered in the same area, and has likewise offered close cooperation on research with the forest service. The association has also offered land for research facilities and studies. Because of the association's background in action programs on watershed projects in northern New Jersey, its contributions will be extremely helpful. Other universities and organizations in New Jersey have also indicated a desire to support and work with the new research program.

This new research program will require an annual appropriation of $350,000 for the forest service. It is my understanding that this program is not in the

budget for next fiscal year. I hope, therefore, that your subcommittee will be able to add it to the forest service budget.

Sincerely yours,

THOMAS P. COOK,
General Counsel, Stony Brook-Millstone Watersheds Association.

THE COMMONWEALTH OF MASSACHUSETTS,
UNIVERSITY OF MASSACHUSETTS,
Amherst, April 7, 1970.

Hon. JULIA BUTLER HANSEN,
Cannon House Office Building,
Washington, D.C.

DEAR MRS. HANSEN: Last year I wrote you, and also submitted a statement at the public hearing held by your Subcommittee on Appropriations for Interior and Related Agencies, recommending that the President's budget for fiscal 1970 be increased by $325,000 in support of new forest service research to study the problems of environmental forestry in densely populated urbanized areas, the research to be undertaken as a joint endeavor with the Department of Forestry and Wildlife Management and other resource departments here at the University of Massachusetts. The objective was to establish on the University campus a branch unit of the Northeastern Forest Experiment Station which would carry out research, and indirectly to help train student specialists in this phase of forestery, in cooperation with the university, a mechanism that is widely employed by the forest service to accomplish its research mission. The funds being sought would provide a basic team of six or seven scientists plus a supporting technical and clerical staff.

Because my recommendation of a year ago came to naught, I am now back a second time to again urge that your committee give this request favorable consideration. Even though, as was the case last year, no provision is made for this project in the President's 1971 budget, it is nevertheless a timely proposal in keeping with the current emphasis on environmental problems and the President's commitment to stepping up activity to solve them. I am certain from repeated conversations with the Forest Service that it desires to proceed with such a program, and will do so as soon as funds become available.

I have also discussed this matter with Congressman Conte and with legislative aids in Congressman Boland's Office and Senator Brooke's. In all cases the reaction was favorable. Congressman Conte has already written you, both a year ago and recently, in support of the proposal. I am not sure whether the others have taken similar action.

To refresh your memory I have attached excerpts from the statement submitted by me to your subcommittee last year. Although not the complete statement, this section describes the heart of the proposal as it relates to the kinds of studies to be undertaken as funds and staff become available, some parts to be performed by the forest service, others by the university.

Any steps your subcommittee can take to increase the forest service budget for this new research concerning these problems of urban-oriented forestry will serve a very real need and would launch a pioneering program.

Because I shall be unable to attend your hearing next week I am sending this letter instead.

Sincerely yours,

ARNOLD D. RHODES, *Department Head.*

A Proposed Program of Research, To Be Undertaken Cooperatively By the U.S. Forest Service and the University of Massachusetts, To Study the Biological, Environmental, and Social Problems Involving Forest-and-People Relationships in Densely Populated Urbanized Areas.

In view of the importance of trees, parks, and forests in heavily populated areas, and because of the unusual problems peculiar to the culture of trees in a special situation of this nature, it is proposed that a program of research be undertaken beamed specifically at these difficulties, a program which could well be called research in urban environmental forestry.

In general terms, investigations would be concerned with the role of forests, parks, greenbelts, and other aggregations of trees and related vegetation in an urban-suburban environment plus the adjacent more rural lands that are tributary to and serve the urban complex. The primary objective would be to study the interactions between these forested or otherwise tree-associated open-space areas and the needs of and problems created by the cities and their expansion into the bordering countryside. Specific subjects that need study would include among others the following:

1. Problems peculiar to the establishment and culture of trees and forests in a densely populated region—problems such as the effects of air pollutants, salting of streets and highways, trampling of soil, injury arising from excavation for construction, pruning of branches and trimming of crowns, vandalism, and the like.

2. The role played by trees and forests in environmental improvement: the removal of dust, pollen and other air pollutants, the abatement of noise, the improvement of landscape aesthetics, and the modification of microclimate in streets and parks and around buildings where people live, work, and spend their leisure time.

3. The testing and production of new plant materials to better serve the purposes just enumerated—through the selection of genetically superior strains of existing plants, and by hybridization to develop new materials.

4. Land-use changes concerned with the urban fringe where the city is pushing into surrounding relatively undeveloped areas—the rate and pattern of such encroachment and its effect on land values, taxation, and the economic fate of existing rural and forest-based enterprises.

5. Analysis of the relationship between forested open space and developed space. What is the desirable "mix" of housing, business areas, and open space; and what are the desirable patterns of their interspersion?

6. Alternative methods by which open space can be maintained in competition with the demand for its use in other ways—through public purchase, lease agreements, easements, land trusts, tax relief, zoning restrictions, or other special arrangements and mechanisms.

7. Public-opinion studies to determine what the urban-suburban dweller knows about environmental problems generally, what he thinks about open space and landscape, aesthetics, how he reacts to different open-space situations, what he wants in outdoor recreation, what he is willing to pay for such amenities.

8. Problems of the core-city resident, and especially of the ghetto. How can the forest and open space outside but near the city be made to serve his needs for recreation and release from the pressure and constraints of life in the streets?

9. Conflicts, and methods for their resolution, arising from the multi-purpose use of forested open space for recreation, domestic water supply, wildlife, and the production of wood.

These are examples of the kinds of questions that the proposed program would seek to answer; and, although economic considerations would receive appropriate attention, major emphasis would be given also to the role of trees, forests, and open space generally as producers of social values.

RECOMMENDATIONS

The University of Massachusetts recommends that the Northeastern Forest Experiment Station of the Forest Service, U.S. Department of Agriculture, establish a research program that will seek to solve the problems outlined above. It is further recommended that this program be located on the university campus in Amherst, Mass. Amherst is well situated geographically to serve as a focal point for research in urban environmental forestry. It is readily accessible to the urban-suburban complex typical in the Northeast and offers abundant opportunities for rapid solutions to the research problems outlined above. The university is well prepared to cooperate in the proposed research endeavor through the extension and redirection of work already underway at that institution in forestry, wildlife management, landscape architecture, park management, planning, resource economics, and environmental science.

The university would contribute to and participate in this proposed research by: (*a*) Assisting in the formulation of a joint program and in the selection of important specific research problems; (*b*) providing, within its means, laboratories, offices, computer services, utilities, and similar facilities for Forest Service scientists assigned to Amherst; and (*c*) allocating funds and assigning university specialists and graduate students to the research project.

This combined Forest Service-university approach will assure success in research requiring many disciplines and a wide variety of facilities. By working cooperatively together more can be accomplished than by the two proceeding separately. The joint effort should produce a "center of excellence" for research in this new field to which municipalities will look for assistance, students will come for an education, and agencies, foundations, and industry will turn as an outlet for research funds.

The cost of the Forest Service share of this joint research program would be $325,000 and will require an addition of this amount to its annual budget. This additional appropriation would provide for the salaries and other program costs for seven scientists and a supporting staff.

PENNSYLVANIA STATE CHAMBER OF COMMERCE,
HARRISBURG, PA., *March 24, 1970.*

Congresswoman JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, House Office Building, Washington, D.C.

DEAR MRS. HANSEN: I would like to present a recommendation in support of increased appropriations for the U.S. Forest Service's research program on black cherry timber. However, I will not be able to attend the public hearings of your subcommittee. Therefore, will you please enter the statement that I have enclosed in the printed record of your hearings on Forest Service appropriations?

As you will note, I am requesting that your subcommittee add $335,000 to the Forest Service budget to expand its research program on black cherry at Warren, Pa. Thank you for your consideration.

Very truly yours,

N. C. TUTTLE,
Chairman, Forest Resources Committee.

STATEMENT OF NORMAN C. TUTTLE

Chairman Hansen, members of the House Subcommittee on Appropriations for the Department of Interior and Related Agencies. My name is Norman C. Tuttle and I represent the forest industries of Pennsylvania as chairman of the Forest Resources Committee of the Pennsylvania Chamber of Commerce. I am grateful to you for giving me the opportunity to submit this statement and present my recommendations for strengthening the Forest Service research program in black cherry and associated hardwoods at Warren, Pa.

The hardwood forests of the Allegheny Plateau are outstanding. Acre for acre they return more dollars and more social benefits than any other hardwood forests in the country. The plateau supports practically 100 percent of the high-value black cherry commercial timber in the United States.

Large black cherry logs are used to make paneling, veneer, and high-quality furniture. Small logs from the tops of large trees, or small trees that are removed in thinnings, make excellent pulp for paper products. In addition to yielding high grade products, the species is valuable because it is well-formed, straight-grained, and grows rapidly, so that it is possible to grow mature trees in much less time than oaks, ash, maples, and other associated hardwoods. Cherry is a mainstay for some 1,500 wood products plants in Pennsylvania and surrounding States. It is the main species that landowners depend on to yield an economic return from forest management. Thus it is vitally important to the timber industries, and hence to the economic well-being of the people of the Allegheny Plateau, that this renewable, natural resource be maintained.

Other problems have developed in protecting and caring for existing young forests. In contrast to many other timber species, little research has been conducted in black cherry, and the knowledge necessary for intensive culture and management of cherry is lacking. We do not know the basic relationships of nutrient-soils-fertilization necessary to improve growth, nor the basic relationships between numbers of trees per acre and growth rates, nor the cultural methods for treating young cherry stands for improved quality. This information is essential to scientific management and sustained yield.

Additionally, despite the well intentioned but emotional and zealous appeals to Members of Congress by well organized conservation groups decrying clear-cutting as an acceptable practice to regenerate new stands of certain species,

we have much scientific and practical evidence that cherry and certain other species will not reproduce under a selection method of cutting. The development of clearcutting has been a big help, especially where advance reproduction exists. In fact, the little knowledge presently available suggests that clearcutting is the only way to reproduce new stands of these valuable intolerant species and happens to be the only method of cutting that provides adequate food for deer.

Thus we face a real threat of shortages of this valuable wood in the future—a threat that can only be avoided by a vigorous research program leading to intensified management of the black cherry resource.

The Forest Service is currently engaged in a small program of forestry research on the Allegheny Plateau. Three scientists and a very small supporting staff are housed in a new laboratory constructed in 1964 near Warren, Pa. This laboratory was built to accommodate the much larger staff of specialists needed to solve the problems I have described, but the increased program has never been funded, except for a small increase of $25,000 last year. We are grateful for this increase, for it shows that our problems are being recognized. But even with the increase, the present program is totally inadequate in terms of the problems that must be solved and the values at stake.

Therefore, I request your support for an addition of $335,000 to the Forest Service budget for full funding of the necessary research program in black cherry at Warren, Pa. This amount will provide for specialists such as physiologists, mensurationists, soil scientists, and other scientists for research on timber management, animal damage, ecological relationships, and environmental protection, as well as an adequate supporting staff of field assistants nd technical aids.

I would like to again express my appreciation to you for giving me the opportunity to meet with you. I know that you will give every possible consideration to my request that the $335,000 needed for a full program of research on black cherry at Warren, Pa., be added to the Forest Service appropriations for next year.

Thank you.

STATEMENT OF FRED LUIGART, PRESIDENT, KENTUCKY COAL ASSOCIATION

Madame Chairman, members of the House Subcommittee on Appropriations for the Department of Interior and Related Agencies, I am Fred Luigart, president of the Kentucky Coal Association. I appreciate your kindness in permitting me to appear before you today.

As representative of the mining industry in Kentucky, I am deeply concerned about the future of mining in that section of the State. And I am interested in seeing that mining and reclamation in this mountainous region are accomplished according to the best scientific methods available.

Eastern Kentucky and the entire Appalachian Mountain Area have beautiful landscapes and some of the most esthetic streams in the country. At the same time the rich coal reserves in the Appalachians are important to the economy, and even more important to the needs of the Nation. For example, by 1980, it is estimated that coal production will have to double to meet the demand for electric power—mostly from surface mining.

However, some of the coal reserves in the mountains are on steep slopes where current surface mining and reclamation methods are not as well suited to the problems as they should be. The contour stripping method now used creates problems in protecting and maintaining the forest environment. The overburden from stripping may slide or erode, thereby polluting the streams with sediment and toxic chemical materials

So, the continuation of surface mining in the mountains will depend upon the development of new steep-slope mining and reclamation techniques. And I believe the Forest Service can help both the mining industry and the State reclamation agencies by providing research information, as they have been doing at Berea during the past 8 years.

The Berea project has a team of five scientists trained in engineering, hydrology, soil chemistry, forestry, ecology, and range conservation. This project has been making good progress. Results of their research are used by the State in developing surface mining laws, and by the mining operators as guides for reclamation. We feel fortunate in having the Berea research program in Kentucky, and we are grateful for the fine work they have been doing.

However, the remaining coal reserves are found on steeper and steeper slopes, and the most difficult research lies ahead. We would like to see the Forest Service effort strengthened in the areas of engineering and hydrology research—to enable them to develop more effective placement of the overburden during mining and for reclaiming spoil materials after mining. This expansion in research will be costly, but it is vital to the economy, power needs, and the environment.

We recommend adding an appropriation of $250,000 to the Forest Service budget for strengthening research at Berea on mining and reclamation problems. And I urge you to give strong consideration to the critical need for this research program.

STATE OF NEW HAMPSHIRE,
Concord, March 18, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: The lack of appropriations in the regular budget for the planned Forestry Sciences Laboratory for the U.S. Forest Service at Durham, N.H., is a matter of concern to all of us here in New Hampshire and in the Northeast. I can understand the restrictions in the present Federal budget for such a facility but I would like to seek your careful consideration of this laboratory, particularly if budget problems improve somewhat in the early future. Commissioner, Department of Resources and Economic Development, Roger J. Crowley, Jr., and director, Division of Resources Development, Theodore Natti, have informed me that the present estimate of cost for the laboratory is $1,100,000. I understand that planning studies have been completed including the acquisition of the site.

With a large percentage of our land area covered by forest growth, work being carried out by Forest Service scientists who would be associated with the Forestry Sciences Laboratory is very vital in maintaining and improving the environmental quality of the Northeast. This is an opinion shared by my fellow New England Governors.

Currently the forest research areas include white pine improvement through genetics; improvement of quantity and quality yields of water from forested watersheds; timber improvement in high quality northern hardwoods; minimizing degrading disease factors in production of high quality hardwoods; and recreation research which will assist outdoor recreation managers and planners in developing appropriate outdoor recreation facilities.

I strongly support the planned Forestry Sciences Laboratory at Durham, N.H., and ask for your careful consideration at the subcommittee budget hearings for the U.S. Forest Service. Would you kindly have this letter printed in the record of the subcommittee hearing.

Sincerely yours,

WALTER PETERSON, *Governor.*

WASHINGTON STATE UNIVERSITY,
Pullman, Wash., March 24, 1970.

Hon. JULIA BUTLER HANSEN,
Longworth House Office Building,
Washington, D.C.

DEAR REPRESENTATIVE: The McIntire-Stennis program of forest research is currently being reviewed, to determine the desired level of funding for fiscal year 1971. I urge you to very seriously consider and adopt the proposal being made by Dr. James S. Bethel, president of our research organization, at the hearings. He is asking for an appropriation of $5,685,000 to help get this important research program back on the schedule visualized by the Congress when the M–S bill was originally passed.

I'm sure I don't have to tell you of the significance of the forest industry and lands to the people of Washington, and of the United States. The demand for various uses of these lands, including timber production, forage production, water production, wildlife and recreation, are rapidly expanding to the extent that we must have more answers to both physical and sociological questions before land use, environmental, and pollution problems can be properly dealt with.

I appreciate very much your continued support of conservation legislation, and even more your personal dedication to the welfare of our State and Nation.

Sincerely,

GRANT A. HARRIS, *Chairman.*

NORTHWEST FOREST PEST ACTION COUNCIL,
Seattle, Wash., March 9, 1970.

Hon. JULIA BUTLER HANSEN
House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: As chairman of the Northwest Forest Pest Action Council, I am writing to ask your support in upcoming appropriation hearings for increased research on protection of our forests from destructive insects and diseases. Rapidly accelerating demands for wood production and protection of the forest environment focuses more than ever before on the need to increase investments in research on pest problems.

This Council has served for more than 20 years to coordinate research, surveys, and action programs on these pests which annually kill or destroy growth of some 4 billion board feet of forest in Oregon and almost 3 billion feet in Washington. Too few people realize that these amounts represent almost half as much wood volume as is harvested in the two States each year.

The council has thoroughly studied the insect and disease problems of the Pacific Northwest and, at its annual meeting last October 10, passed several resolutions recommending actions toward their solution. Resolutions 1, 7, 8, 9, and 11 are directly concerned with research needs, and copies of them are attached for your reference. I strongly urge your support of them at the hearings for U.S. Forest Service appropriations for fiscal year 1971.

ADDITION TO CORVALLIS FORESTRY SCIENCES LABORATORY

The Council has written you previously about the delay in constructing phase II of this Forest Service laboratory, which is the headquarters of six forest insect and disease research projects of the Pacific Northwest forest and range experiment station. The laboratory also houses research on forest genetics, water quality, forest management, and the impacts of chemicals on the forest environment. The laboratory is occupied to capacity, and much of the research is housed in improvised quarters on and off the Oregon State University campus.

The present laboratory wing was constructed in 1962. In 1966, $170,000 was appropriated to plan a second phase; the detailed plans have been completed for nearly 3 years. The Congress last year appropriated $500,000 to make a start on construction, but to date the funds have not been released to start building.

The primary thrust of the insect and disease research at the laboratory is to develop biological and silvicultural controls for these pests. Important findings and leads have been developed. Some parts of the work could be effectively speeded up by increased funds for operations and contracting; other phases are being held up by lack of expanded facilities. The council urges your support in appropriating the funds to proceed, both with construction of this laboratory, as well as with increased operating funds so that available facilities can be used more efficiently.

DWARF MISTLETOES

These parasites constitute the foremost cause of disease loss in Oregon and Washington forests, reducing wood productivity by almost a billion board feet annually, and damaging the esthetics of recreation areas. Preliminary research indicates that proper forest management practices may materially reduce these losses. But greatly expanded fundamental and applied research is needed to develop prescriptions for use by forest managers.

The Forest Service has developed a westernwide, integrated program of research and development on the dwarf mistletoes program. A major part of the investigative program is to be conducted in Oregon and Washington, but funding is needed. Fifty thousand dollars should be appropriated is fiscal year 1971 for this work at the Pacific Northwest Forest and range experiment station.

BARK BEETLES

The council reaffirms its position that research on bark beetle problems in Oregon and Washington should be greatly increased. These insects kill more trees in commercial and recreation forests than any other pests. Surveys completed in the fall of 1969 showed epidemic outbreaks on 980,000 acres in Oregon and Washington. Widespread tree killing is taking place in Douglas fir, ponderosa pine, lodgepole pine, white pine, and true fir forests in both eastern and western portions of the two States.

The long-term answer for the intensively managed forest of the future will require a thorough understanding of the ecological factors that influence the fluctuations of beetle populations. Research to date indicates that beetle outbreaks can be reduced to acceptable levels. Some of the promising areas of investigation are use of synthesized beetle attractants, silvicultural techniques, manipulation of parasites and predators, and breeding resistant strains of trees. The council recommends that these kinds of research be greatly strengthened. An increase of $40,000 to the present Forest Service program of the two States would permit significant progress.

BIOLOGICAL CONTROL OF ROOT DISEASES

Root diseases are an increasingly serious problem as Northwest forests are converted from old growth to young stands. One of these diseases, *Poria weirii*, causes more than 170 million board feet annual loss to coastal Douglas fir forest alone; it causes serious but unmeasured losses to several other important tree species. Recent research results from Forest Service pathologists is very promising that damage by the disease can be greatly minimized by altering the tree species composition of forests—a form of biological control.

Research on root diseases of forest trees needs to be greatly intensified and expanded. The Forest Service research budget for this work in Oregon and Washington should be increased by $50,000 in fiscal year 1971.

BALSAM WOOLLY APHID

I called to your attention last year the widespread destruction being caused by this imported European pest to Northwest commercial and recreation forests. Several billion board feet of true-fir timber have been killed and recreation values have deteriorated on nearly 3 million acres in Orgeon and Washington. In 1969, the insect was found for the first time on the Olympic Peninsula, very close to Olympic National Park.

The pest action council recently has analyzed this problem and concludes that effective control can be developed only through an intensive program of basic research. Present research on the problem is less than one scientist man-year annually. The recommended new program would greatly increase this effort and would cost $200,000 annually for approximately 10 years, depending on research progress. It should be funded and coordinated by the Forest Service, but many of the studies would be conducted by universities under contract arrangements.

The council urges your support for funding this research on a pest problem that is greatly reducing the productivity and altering the ecology of our forest environment.

The pest action council appreciates your longstanding support of forestry problems, and asks that you give careful consideration and vigorous endorsement to the above items in the upcoming hearings. Please arrange to have this statement entered in the record of the appropriation hearings.

Sincerely,

WILLIAM H. LARSON, *Chairman.*

ERNEST L. KOLBE, CONSULTING FORESTER,
Wilsonville, Oreg., March 6, 1970.

HON. WENDELL WYATT,
House of Representatives,
Washington, D.C.

DEAR MR. WYATT: Hearings on Federal appropriations for fiscal year 1971 are approaching, so I am writing you again about a matter that I know concerns you as deeply as it does me. I refer to the continued delay in strengthening the high-priority research underway at the Forestry Sciences Laboratory at Corvallis.

Appropriation of $500,000 by the last Congress, due mainly to your efforts, indicated we were at last going to make a start toward enlarging this critically needed facility. But, as you know, these funds have not been made available, and the appropriation year is rapidly running out. To me, it seems extremely desirable to take early action on this facility so important to the welfare of the Pacific Northwest and to our nation. We need desperately to increase our wood supplies, and all the other benefits from the forest.

I would like to review for the record some of the important research that needs to be stepped up at the Corvallis Forestry Sciences Laboratory.

Much of the emphasis at the laboratory is on developing safe, effective, biological methods, instead of chemical, for controlling insects which kill more than three billion board feet of timber annually in Oregon and Washington. Insect parasities, predators, and viruses show promise for control, as do scientific breeding of resistant trees, use of synthesized attractants, and care of the forest itself so its trees are less susceptible to insect attack.

I cite just two serious foreign insect invaders of our northwestern forests—the European pine shoot moth and the balsam woolly aphid—that are extremely worrisome because no practical controls are yet known for these pests. I am urging the researchers at the Corvallis laboratory to accelerate the development of practical curbs for these destructive insects. The research scientists are making every effort to do so, but these are far from adequate.

Expansion of the forest disease research at Corvallis is urgently needed, also. Dwarf mistletoes reduce timber growth in Oregon and Washington by nearly a billion board feet each year. There are good leads for controlling mistletoes, through forest practices, but they need to be refined and developed into practical use. Likewise, there is strong indication that root rots, which are especially destructive in Douglas fir forests, can be controlled by special techniques under study. These areas of research show promise of large payoffs, but the pace of progress must be speeded up.

Another highly productive project at Corvallis is that assigned to developing genetically superior trees. The possibilities of increasing wood production as well as esthetically pleasing forests by applying the science of genetics to trees have been demonstrated to be great. A valuable new genetics out-planting site near Corvallis has been obtained just this year; increased operating funds for this tract need to be obtained as soon as possible so that improved trees can be developed for northwestern forests without delay.

Another project at the Corvallis laboratory that needs strengthening is that concerned with protecting and managing our timbered watersheds, and improving water quality. This research group should speed up its studies on the effects of logging, roadbuilding, fertilization, brush control, and forest spraying on the quality of water originating from forest watersheds. The present research on these problems at Corvallis is only well started in comparison to that needed.

I could cite many examples of high-priority research at the Corvallis laboratory where the Pacific Northwest Forest and Range Experiment Station has assembled an outstanding staff of scientists. These researchers are seriously hampered in their work, however, by (1) lack of operating funds to stimulate progress and output from existing high-priority studies, and (2) lack of expanded laboratory facilities to get started on new highly promising studies and projects.

Both these deficiencies must be corrected at the earliest possible opportunity if the Northwest is to realize its key goals of increased timber production and a better forest environment.

America today is in a race with time to renew and protect our natural resources—the very basis of our hope for the future.

I recognize the tremendous competition for priority on the tax dollar. But I recognize too that there is no moratorium on the pests that are depleting our forests, nor on the need for accelerated research results to better protect and to improve the forest in all respects.

I wish to thank you again for the vigorous support you have so consistently given northwest forestry, and forest research specifically, and shall greatly appreciate whatever further action you deem is most advisable at this time. Please let me know if I can be helpful in providing additional information for the upcoming hearings on Forest Service appropriations. I am not in a position to travel to Washington on this but can dig out local facts that you may need.

Cordial regards.

Sincerely,

ERNEST L. KOLBE,
Consulting Forester.

P.S.—I am sending copies of this letter to various members of the Oregon Forest Practice Committee and the Northwest Forest Pest Action Council who have strongly supported the research at the Corvallis Forestry Sciences Laboratory.

H. E. Morgan, Jr., Society of American Foresters, Economics and Policy Division—Miami

I've been asked to talk today about the comparative advantages of growing trees in various areas. Before discussing comparisons, however, we should look at the various incentives which lead to tree growing as a commercial activity.

Actually, according to C. Northcote Parkinson, the world's first display of incentive involved a tree. Genesis describes the situation, which as you know, involved a serpent, Eve, Adam, and the harvesting of a forest product—in this case, the fruit rather than the tree itself.

Parkinson finds here "a pattern of incentives which has since been improved in only one respect." Adam and Eve, he says, were tempted into disobedience by the prospect of—

Food and shelter.
Beauty.
Knowledge.
Sex.
Misconduct.

The same incentives, he points out, could have led them to many other activities, most of them less disastrous in their effect. Only one common incentive is missing in the list, he says. Having no neighbors, the original couple could not be motivated by the prospect of "status." They probably were the last of our race to be completely lacking in status consciousness.

Food and shelter is still a strong motivation for individuals, and consequently, industry and our business are still very closely related. We can honestly say that beauty and the search for knowledge are strong factors and growing in importance. Most of us are probably concerned about the industry's present "status," or public image. Despite some of the things we read and hear today, the prospect of "misconduct" does not motivate too many of us at our age and affiliation with an established society. The relationship between sex and tree farming is somewhat remote. Tree breeding just isn't that exciting.

The incentive mix involved in owning, leasing, or managing timberlands is as varied as the industry. They may include incentives perceived by Adam and Eve. Unfortunately, the present profusion of incentives is too often perceived by the public as confusion. I often wonder why professionals have so many different approaches to similar problems, so different in fact that they are not recognized by many as responsive to the problems. We can comprehend our varied approaches to management of timber only if we understand these differences:

1. Providing an "insurance policy" to protect fiber-manufacturing facilities.
2. Merely holding timber and land for capital appreciation.
3. Maximizing pulpwood production, or sawtimber production, or a realm of combinations.
4. Banking temporarily surplus funds in marketable assets.
5. Simply owning a piece of the world—for esthetic value, recreation, or pride of ownership.
6. Managing the forest to maximize the present value of the net cash flow.

All of these are valid objectives, resulting from valid incentives. The objective chosen, of course, affects the ways, and the intensities of the forest management program, and it may affect the choice of region. Today, I would like to discuss tree growing as it pertains, primarily, to my own company and its objectives.

In this discussion, I am going to have to limit myself to Weyerhaeuser Company's tree growing experience in the regions in which we're involved. I recognize, as you should, that a number of other companies, some with broader experience than ours in certain areas, could make similar comparisons.

Weyerhaeuser owns in fee approximately 5.6 million acres of timberlands in the United States, almost equally divided between the Pacific Northwest and the South. Our involvement in British Columbia is primarily through a 7.5 million acre pulp harvesting agreement with the Provincial government.

We have a great deal of material which research and experience have provided pertaining to tree growing on our Western ownerships, and on our Southern lands in North Carolina, Mississippi, and Alabama, which finally led to the formulation of our High Yield Forest programs. Our recent acquisition of Dierks Forests in Arkansas and Oklahoma is included in the ownership total of 5.6 million acres, and we are studying and planning to maximize the potential of the Dierks land.

British Columbia, however, presents us with a different situation, as it does for industrial forestry in general. The Provincial government owns almost all of the commercial forest lands in that booming Province. The Province is pressing for greater utilization, and while it has recognized and taken substantial action toward intensive management, it is still at the stage of developing plans for the future.

I have mentioned Weyerhaeuser's High Yield Forestry. Before beginning a comparison of the advantages of the two great U.S. tree growing areas, I should mention something of our program's objectives, and some of the inputs.

Basically, we determined about 4 years ago that we needed to reformulate our forestry programs with the objective of maximizing the present value of net cash flows while maintaining a sustained yield operating posture.

Our first step was the adoption of a method of wood measurement which permitted effective raw material cost accounting. Neither the cord, nor Scribner, nor any other board-foot measure provided the answer. We determined that the cunit—100 cubic feet—provided it. The combination of finite factors—cubic volume, weight, and specific gravity—makes cunit measurement an invaluable tool.

An illustration of accuracy might be provided in comparing a thin log with a log slice. According to Scribner, they have identical volumes, while in cubic measure the true volume of the thin log is almost twice that of the other! A comparison of two logs in Scribner might indicate that one has only 53 percent of the volume of the other, when actually, they are identical in chippable volume.

Some people have seen the outcome of the inconsistent Scribner scale as nothing more than an overrun at a sawmill or unpredictable recovery at a pulp mill or plywood plant, and this discrepancy has sometimes been regarded as an advantage; but for years, Scribner scale, along with Doyle scale and the cord, has prevented effective raw-material cost accounting and has caused the handling of small logs to appear unprofitable when the opposite may have been the case. The old problems associated with biased measures of the board foot and cord scales have become untenable as not only the fiber, but also the lumber and plywood segments of the forest industries move rapidly towards a smaller-log economy.

Once Weyerhaeuser firmly grasped its forest-management objective, and became armed with a consistent and meaningful unit of measure, it soon became apparent that the traditional forest-management practices we had been following were no longer appropriate.

In the past, we tried to ration out our old-growth as long as possible in order to let our second-growth forests build up to the point where they would support a relatively even flow of sawtimber-size material at about the same average level of cut. This form of management is still widely practiced elsewhere, and there is nothing wrong with it providing it fits your objectives. However, that basic philosophy is wrong because the forest is running the company, and we want the company to run the forest. That traditional forest management is wasteful, too, because it does not utilize all that the forest is capable of producing.

Our new approach was to develop a plan with a specific goal—a target forest, if you will. Our understanding of the interrelationships of timber growth and financial management provided the basis for designing specific types of vigorous young future forests which will meet our corporate objectives. We then tested alternative interim management plans that would achieve these "target forests."

Obviously, our financial objectives had to take into account the market projections for forest products. Prior to development of our new program, we asked the Stanford Research Institute to project world markets through 1985 and beyond. The basic outline is known to all of you—an average annual increase in world demand for all wood products of nearly 3 percent, an increasing ratio of fiber versus solid-wood demand, and a relatively static world wood basket.

Our own Forest Research Center then provided us with basic knowledge about what our forests can do. With new yield tables, for both natural and intensively managed stands, we can predict thinning and harvest volumes for any acre, of any productive capacity, for any number of trees per acre, of any age—for as far into the future as we may reasonably choose.

Our own experimentation with fertilization, combined with the experience of others in this country and in Europe, enabled us to predict the affect of fertilization. Our own, and other thinning experience allowed us to add the effect of various levels of precommercial and commercial thinning to our yield tables.

Gains from genetic improvement have not been predicted nor included in the projections yet in the West, but we have included this in our southern manage-

ment plans. The South is 10 years or more advanced in this area, and we are using improved seed from our seed orchard at Plymouth, N.C.

These factors in various combinations have permitted us to forecast yields from various management intensities—with increases, in some cases, of well over 100 percent and averaging overall 33 percent over our former plan.

However, it must be remembered that our objective was not merely the maximum stimulation of growth. It was the determination of optimum management intensities, to achieve financial objectives. The word optimum is much bandied about today, but little understood. It does not mean the best, the fastest, or the most of anything. It means achieving the proper balance among conflicting forces. The optimum speed of a car is not the fastest it can go, but its most satisfactory speed in traffic—the speed which will get you there on time with safety, and with reasonable gas consumption and wear and tear.

To introduce a financial perspective to our planning, we had to consider the relationship of annual harvest and growth to total timber inventory. Timber inventory is invested capital, and timber harvest is the return on that investment. We used this concept to determine financial rotation ages for each site and management intensity for our target forests. The blending of our production possibilities, with adjustments in rotation ages matched against financial goals, permitted us to make the computer simulations to determine the basic management plan for each of our operating areas. From each computer run we get—

1. A harvest plan.
2. Log mix by species and grade.
3. Log diameter trends.
4. Required management activities.
5. Financial statements and present value calculations.

The best plan is chosen for each area, and the sum of these plans is the high yield forest. As conditions change, and as new information becomes available as research programs mature, the computer inputs are changed, and our management plans are adjusted to reflect these changes, balanced against the actions already taken. Let me give you some figures to establish perspective on the differences in action since our company began evaluating investments in managing and growing timber; on a similar basis, to converting plants and other enterprises which must compete for investment opportunity.

In 1966 we did no fertilization. In 1967 we fertilized 1,500 acres; in 1968, 14,900 acres; in 1969 we are fertilizing 69,700 acres (more than we originally projected). In 1975 we expect to fertilize 108,600 acres.

By 1980 we will have thinned 500,000 acres and salvaged about 3.5 billion board feet from potential decay.

In 1967 we planted 13,217 acres and seeded 41,673; this year we planted 47,460 acres and seeded 40,250. In 1972 we will plant 104,239 acres and seed only 15,000. Work also is underway to rehabilitate 200,000 poorly stocked and 200,000 nonstocked acres. A basic requirement of the high yield forest plan is rapid regeneration—within 1 year after logging.

Weyerhaeuser Company's major holdings in the West and South make it of critical interest to us to examine closely the comparative advantages of the two great timber-producing regions. That examination is a very complex task. The investment decisions made are guided by careful comparisons.

In both regions, once the financial standards were set, the ultimate constraints were biological. The two major factors are: Existing inventories and growth potential.

In the South, our inventories are predominately second-growth stands.

In the West, our inventories are still dominated by old-growth stands carrying higher volumes per acre and larger trees.

The relative productivity of our southern and western timberlands also has an important bearing on our target-forest-rotation ages and harvest levels, and on our interim period harvest and management plans.

Let us compare the growth characteristics of loblolly pine with Douglas fir on medium sites.

A striking characteristic of southern pine is its rapid growth in height during the yearly years. Compared to the height growth of Douglas fir, loblolly pine will grow more rapidly during the first 20 years, after which its annual height growth declines sharply. Douglas-fir height growth, while initially slower, is more sustained and at a later age, Douglas fir will overtake loblolly pine.

Another significant comparison is the diameter growth of the two species. Loblolly pine exhibits broad juvenile growth rings in a tree segment taken at stump height. Douglas-fir on the other hand, does not exhibit rapid initial diameter growth.

These differences in height and diameter growth are deceptive in terms of cubic volume growth. Despite the fact that loblolly pine trees are taller than Douglas fir trees until age 52, the volume per acre of loblolly pine drops below that of Douglas fir at age 32. This occurs because Douglas fir grows with a smaller crown and can tolerate more trees on an acre. The cubic volume in these additional trees more than compensates for the slower growth rate of the individual trees.

In general, the South is relatively flat, and forestry operations are more easily mechanized. In the West, we will always have to contend with steep slopes, rock outcrops, and we have had to deal with large stumps which at times seem just as permanent. The southern topography results in more site uniformity in a given area, and makes it easier to define and prescribe management activities for large operating units.

In the South, we will continue to make our summer-winter logging plans reflect the need to cold-deck logs from our wet bottom lands to keep mills operating during the winter and spring. Similar summer-winter logging problems arise in the West due to heavy snows at the higher elevations. The resultant inventory management requires more working capital to insure continuous year-round operations.

Political factors are important to tree growing, and are somewhat different in the South and West. The factors I'll consider today are: (1) Ownership patterns, (2) taxes, (3) regulations, (4) land withdrawals, and (5) public influences.

In the South, timberland is predominately privately owned, with many small landowners actively engaged in forest management. Many of the large industrial holdings are made up of many scattered and intermingled small tracts.

In the West, Federal agencies dominate the timberland ownership pattern. This leads directly to the importance of our next political factor—timberland taxation. Timber and land taxation is important.

These taxes on timber and timberland can be, and are by far the largest direct cost item in the forest manager's budget. Taxes compounded over a full rotation can become astronomical, and can—and have in many instances—precluded the holding and growing of timber. Taxes are not only the largest cost, but the most uncertain.

Taxes, rather than rapacity, were largely responsible for the bad old days of "cut and run." It is often forgotten that many companies were exploring sustained yield programs by the turn of the century. Long before the great move from the North Central States to the Pacific Northwest, studies were made of the feasibility of holding and reforesting lands in those States. All of the studies were negative, for one main reason—confiscatory tax rates did not permit economic holding of regenerating forest lands. The same tax situation prevailed in the South and in the West through the first third of this century. It was public and legislative recognition of the relationship between taxation and forest depletion which made tree farming possible to time to stabilize the western industry and to rebuild the southern forest products industry.

Today, we are in danger of the old cycle repeating itself. The lessons so painfully learned in the 1920's, 1930's and early 1940's are being forgotten. Taxing procedures are reverting, and the landowner who attempts to apply sound management with business decisions to his forests is once again being penalized. There must be a crash program, primarily educational in this area, before it is too late.

It is essential that land be assessed on present use rather than the "highest possible" use basis which is still a legal requirement in many States.

Public regulations and marketing restrictions directly affect our costs of doing business and can make one region more favorable than another.

The growing sentiment for protectionism versus free trade provides another, more serious danger for the western forest owner.

Land withdrawals are our next factor. Urbanization, as well as preservationist pressure, is growing in both areas. Public land has taken the brunt of the preservationist withdrawals, but private lands are not immune, as witnessed by the Redwood National Parks. Numerous other examples can be cited. The South is

increasingly feeling this kind of pressure as scenic rivers bills, parkway, recreation, reservoir and other public projects are proposed.

The South, however, has managed to keep ahead of such pressure to date. From 1953 to 1963, its commercial forest area actually increased by 4 percent as abandoned farms were converted into forests. In Washington and Oregon, we saw an increase of 1.6 percent in the commercial forest area during the same period.

Public influence, the last political factor I'll discuss today, has been with us for a long time, and is of major importance in the formulation of our management plans. Most of the public is amenable to intensive forestry at present, since trees have become accepted as an agricultural crop. Uncontrolled or vengeful burning is lessening.

In the West, public influence is very great. Recreation is a major and growing industry. The strongest preservationist demands I've cited earlier are also here. Topography, and our need to clearcut and burn our Douglas fir stands make the public acutely aware of what we're doing.

We must achieve urban understanding of just what it is that we are doing, and of the impact that our activities have on the life of the urban dweller—indeed, upon the ability of the cities to survive. The emotional reaction of the crowded urban resident to the forest is entirely understandable. Even at great distance, it provides him with a sense of peace, with the knowledge that the earth in its natural state, and the chance for solitude, survive. Too many urban dwellers, highly motivated toward responsibility to society and economically secure, the forest, and nature in general, have taken on almost mystical qualities; and, when they refer to the forest, they refer to the forest primeval.

The economic and social contribution of the products of the working forest are little understood. More important, there is little recognition of the fact that the working, or growing, forest is essential to the continuance of urban life itself.

The population explosion, and the industrial revolution, have together begun to reverse the eons-old process by which our atmospheric oxygen has developed from plant photosynthesis. Society today is increasing carbon dioxide levels in the atmosphere, while at the same time removing vast acreages of land from photosynthetic activity. On land, forests are by far the largest contributors to this activity. The old-growth forest operates at a low rate of photosynthetic activity. The forest which contribute the most of the reduction in the carbon dioxide level of the atmosphere and the increase in the level of oxygen, are the young and growing forests.

And, of course, the vigorously growing, intensively managed forest provides a wholesome outdoor environment, increased mass recreation opportunities, and greater wildlife production than does the old-growth forest. Intensification of forest management, rather than more extensive restriction or preservation, will have to be society's choice if it determines its directions after a rational examination of broad social needs. We have the responsibility to insure that society has the awareness of the information necessary to make a rational choice.

The final set of factors we'll discuss today are economic factors. In a very real sense, economics summarizes and puts values on most of the other factors we have already covered.

The most striking economic comparison between the South and the West is their proximity to markets. The South is much closer, both geographically and coastwise to the large East Coast and European markets. The West, as previously noted, is nearer the smaller, but faster growing West Coast and Asian markets. For instance, we project Japan's GNP to continue growing at an annual rate of 12 percent through 1980. Good forest land should lie idle in neither region from lack of market opportunties. Only our management intensities and utilization standards will be affected. Improved transportation technology has, and will continue, to reduce the competitive advantage any one region has in a given market.

In the South, Weyerhaeuser buys logs and pulpwood from farm woodlots and other small, private ownerships. We have successful tree farm family programs underway in the South and West.

Labor costs and productivity are the next economic factors on my list. Both are lower in the South than in the West. In both regions, labor costs are increasing rapidly, and we must mechanize wherever possible to keep productivity commensurate with costs. This is essential if wood is to maintain most of its traditional markets and move into new ones.

Specific management costs vary considerably between the South and the West, and within each region.

In the South, our road construction costs run to about $16,000 per section; in the West, they are about $80,000. Logging costs at present are lower in the West because of the higher volumes per acre in old-growth. In the "target forest" stage of the future, our experience indicates the South will have a slight advantage in similar stands because of easier topography and more mechanized operations.

Regeneration costs are also lower in the South, because of better adaptability to mechanization and the relative lack of animal damage.

The South also has the edge in most, but not all, rehabilitation costs. Draining and bedding costs are a cost factor experienced primarily in the South.

Thinnings, both precommercial and commerical, are also cheaper in the South. Again, these activities are new to the West, and we are aggressively looking for a better mousetrap.

The next two items on the list, spraying and fertilization, also average out cheaper in the South. In the South, we can modify agricultural equipment for ground application.

The South is also much more favorable in respect to taxes.

Now before I close, I would like to express a few thoughts on a subject very dear to my heart—environmental concern.

A few minutes ago, we compared public influence in the South and West and mentioned the impact of the preservationist philosophy. Here, I think, we should remember that public influence can help us, as well as hinder. You may have heard of the visitor to the country who noticed a farmer in the field, having trouble with his horse, which would start, move forward for a few feet, stop, move forward, and stop again. The visitor called, "Is your horse sick, Mister?"

"Not as I know of."

"Is he balky?"

"No, just hard of hearing. He's afraid I'll say whoa and he won't catch it, so he stops once in a while to listen."

Some of us in timber management have been acting the same way. We see our way clear, we know we are going in the right direction, and we know what we are doing is productive for society—but we seem at times to have lost our self-confidence. We have not really looked at the public, and the public interest, we have listened only—and nervously—to the loudest nearby voice.

That voice, in recent years, has been the voice of a minority group, the preservationists. Motivated by sincere and valid concern, they have identified their own interest alone with that of the public to the exclusion of other valid uses which are essential to the public interest. Because they have been the most vocal, both Government and industry have been overreacting to them.

In the long run, the most serious of the preservationist influences has been a growing public acceptance of their feeling that large trees are beautiful; that second-growth is somehow inferior esthetically, and that it is somehow immoral to cut a tree. As we know, the lush, managed second-growth forest often is esthetically superior to the old-growth forest, which can be downright ugly. We know—but we have not yet communicated that fact.

Recreationist demand is going to have continually increasing impact upon forestry, with greater recognition of compatible recreation and forestry, particularly in woodlands near urban areas. The beginnings of this trend already are apparent. This shift will require more use of access roads. It will involve increasing fire, safety and road damage risks for the tree-grower. More camping and trail facilities will be sought and vandalism and litter will increase with greater recreational use. As our costs rise, we will have to look much more closely at recreation-for-pay, as an addition to, or in substitution for, our present free-recreation programs on most private timberlands.

Compatible mass recreation is obviously more in the interest of the public and industry than condemnation for wilderness—and, in the long run, the mass recreationists surely will have greater political clout. It is in our interest to cooperate with them wherever possible and to strengthen our own practice of multiple use. Meanwhile, however, it would be most premature to discount the power of the preservationist movement. Its erosion is predictable, but it will become more shrill as the erosion first becomes noticeable. The preservationists are crying with great commitment and great intensity: "There will never be any more wilderness, so me must preserve all we can get now." They have gotten quite a bit already. More than 16 million acres of productive forest land has been withdrawn from timber utilization through statute or administrative regulation to date. Present proposals include 262 single-use withdrawals totaling more than 2.5 million acres of commercial forest land.

We must see that the public recognizes and equates fiber growth with housing goals. As Congressman Wendell Wyatt said, "The ghetto child is as much entitled to use of the tree, for a decent roof, as the rich man is to pack into an untouched scenic wilderness."

This is the day of the TV generation.

As S. I. Hayakawa says, "We have raised a generation taught, in half-hour television segments, a falsely simplistic technique of problem-solving. One-step, one-word, 30-minute solutions are demanded, and those imbued with this view do not tolerate the notion that change requires time, thought, and hard work."

As Vietnam and the draft recede as the prime issues for the young activists, who will be next affected by this new problem-solving technique? We will. Dr. Leo Cherne, executive director of the Research Institute of America, quoted recently in the Christian Science Monitor, predicts that the next great campus issue will be the environment: pollution and esthetics. The next wave of marches and demonstrations may well be directed not at the Pentagon, but at us.

There are no easy solutions to environmental problems.

I have digressed somewhat from my original topic—the comparison of regional advantages. As we ran through the comparisons, it became obvious that there are certain regional advantages, but they must be weighed by the forest investor to suit his own financial and market needs, and to match his own incentives.

Perhaps you could bear with me while I restate some of my main points:

1. Forest management objectives differ with individual companies, and forestry approaches are tailored to these objectives.

2. High yield forestry is Weyerhauser Co.'s approach based on financial criteria.

3. From a regional standpoint, the South has an advantage on costs. Growth is similar, while markets are different but have offsetting advantages.

4. Environmental pressures will grow and accelerate nationwide, but more dramatically in the South as its level of concern catches up with the rest of the country.

5. The industry and the forestry profession must develop a positive approach and tell recreationists the story of multiple-use forestry. It's primarily a challenge—and an opportunity—for communication.

From the standpoint of natural beauty, the old-growth forest and the "almost mature" young forest share many common values. Once the trees grow tall and crown closure is complete, the main difference in the total environment is the absence of extremely large-diameter trees.

We must help people to understand that a clear-cut area under intensive forest management is the beginning of the cycle and represents the birth process of a new forest. True, it is an untidy process, but so is human birth which results in a beautiful living child. Yes, the birth of a forest is a messy process, and is unsightly for a short time, but it is soon replaced by a vigorous growing stand of young, healthy, beautiful trees. As forestry intensifies, the period in which it is unsightly greatly diminishes. Human birth takes place in the privacy of the delivery room. Unfortunately, the birth of a forest takes place in public view, and unless there is widespread recognition that it is a necessary act, that it is done for a good public and social purpose, that it will be replaced by an intensely managed and beautiful stand of timber, it will continue to be an object of public criticism and reaction.

We must recognize that we have a responsibility to express our opinions to the public, a public that will need housing and pulp and paper products as well as an enjoyment of the esthetics and recreational opportunities that the young, growing forest can provide.

I would like to close with a thought that may or may not have a relevance to the subjects discussed here today. You may judge. There is a concept described in Zen Buddhism as the allegory of Indra's Net:

"There is an endless net of threads throughout the universe. The horizontal threads are in space, the vertical threads are in time. At every crossing of threads is an individual, and every individual is a crystal bead. The great light of Absolute Being illuminates and penetrates every crystal bead; but also, every crystal bead reflects not only the light from every other crystal in the net—but also every reflection of every reflection throughout the universe.

"Thus we learn that we live in all other beings, all other things—and that they live in us. Our lives are richer—and more filled with obligations—than we ever knew before."

INTERNATIONAL PAPER CO.,
South Glens Falls, N.Y., February 17, 1970.

Hon. JULIA B. HANSEN,
Chairman, House Subcommittee on Appropriations for Department of Interior and Related Agencies, House Office Building, Washington, D.C.

DEAR MRS. HANSEN: The President's budget as presented includes an increase of $435,000 in funds to be used for the forest survey. We ask your support in sustaining this increase.

The forest survey generates the basic forest-inventory figures used to guide National, State and local policy and management of our forest resources. It is vital information for Government, industry and the general public.

The forest resource changes as a result of changing standards of fiber utilization, impact of fires, insects and diseases and public recreational use. We must keep current with these changes. Past levels of appropriations have *not* been adequate to keep to a satisfactory remeasurement cycle. Some States have had to wait over 15 years for remeasurement. This is much too long to meet today's needs. The cycle should be no longer than 10 years.

May we emphasize that the forest survey is basic data for the development of new industry. New industry generates new sources of tax funds. We don't have the information but the survey may actually be making money for the Federal Government.

Private industry and the States cooperate with the survey putting additional funds, manpower and aerial photography into this very worthwhile effort.

Sincerely yours,

JAMES B. CARLAW.

COMMONWEALTH OF KENTUCKY,
DEPARTMENT OF COMMERCE,
Frankfort, February 13, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for Department of Interior and Related Agencies, United States House of Representatives, Washington, D.C.

DEAR MADAM CHAIRMAN: It is my understanding that the President's budget for the fiscal year 1971 recommends an increase of $435,000 to the forest service to speed up and intensify the forest survey, and that hearings on this phase of the budget will be held by your committee in the near future. This letter is offered in support of the President's recommended increase.

The Kentucky Department of Commerce has the responsibility for industrial and economic growth of our State. Because commercial forests cover nearly one-half of Kentucky, we consider the development of wood-based industries to be vital to our economy. For the past 10 years, we have had a Wood Products Development Division within our department, to give emphasis to this important resource.

As a result, we have had more than $130 million of capital investment in new and expanded wood industries in this period, and more is coming. The demand for fiber grades of wood, of which we have large surpluses, has multiplied. Much of this increased demand comes from the lands of farmers and other small owners.

The forest survey, last done here in 1962, provided inventory and growth data which is essential to decisionmaking by industry executives. It is important that this important research function be augmented.

Sincerely,

PAUL W. GRUBBS, *Commissioner.*

NORTHWEST FOREST PEST ACTION COUNCIL,
Seattle, Wash., March 9, 1970

Hon. WENDELL WYATT,
House of Representatives,
Washington, D.C.

DEAR MR. WYATT: As Chairman of the Northwest Forest Pest Action Council, I am writing to ask your support in upcoming appropriation hearings for increased research on protection of our forests from destructive insects and disease. Rapidly accelerating demands for wood production and protection of the forest

environment focuses more than ever before on the need to increase investments in research on pest problems.

This council has served for more than 20 years to coordinate research, surveys, and action programs on these pests which annually kill or destroy growth of some 4 billion board feet of forest in Oregon and almost 3 billion feet in Washington. Too few people realize that these amounts represent almost half as much wood volume as is harvested in the two States each year.

The council has thoroughly studied the insect and disease problems of the Pacific Northwest and, at its annual meeting last October 10, passed several resolutions recommending actions toward their solution. Resolutions 1, 7, 8, 9, and 11 are directly concerned with research needs, and copies of them are attached for your reference, I strongly urge your support of them at the hearings for U.S. Forest Service appropriations for fiscal year 1971.

ADDITION TO CORVALLIS FORESTRY SCIENCES LABORATORY

The council has written you previously about the delay in constructing Phase II of this Forest Service laboratory, which is the headquarters of six forest insect and disease research projects of the Pacific Northwest Forest and Range Experiment Station. The laboratory also houses research on forest genetics, water quality, forest management, and the impacts of chemicals on the forest environment. The laboratory is occupied to capacity, and much of the research is housed in improvised quarters on and off the Oregon State University campus.

The present laboratory wing was constructed in 1962. In 1966, $170,000 was appropriated to plan a second phase; the detailed plans have been completed for nearly 3 years. The Congress last year appropriated $500,000 to make a start on construction, but to date the funds have not been released to start building.

The primary thrust of the insect and disease research at the laboratory is to develop biological and silvicultural controls for these pests. Important findings and leads have been developed. Some parts of the work could be effectively speeded up by increased funds for operations and contracting; other phases are being held up by lack of expanded facilities. The council urges your support in appropriating the funds to proceed, both with construction of this laboratory, as well as with increased operating funds so that available facilities can be used more efficiently.

DWARF MISTLETOES

These parasites constitute the foremost cause of disease loss in Oregon and Washington forests, reducing wood productivity by almost a billion board feet annually, and damaging the esthetics of recreation areas. Preliminary research indicates that proper forest-management practices may materially reduce these losses. But greatly expanded fundamental and applied research is needed to develop prescriptions for use by forest managers.

The forest service has developed a westernwide, integrated program of research and development on the dwarf mistletoes program. A major part of the investigative program is to be conducted in Oregon and Washington, but funding is needed. Fifty thousand dollars should be approriated in fiscal year 1971 for this work at the Pacific Northwest Forest and Range Experiment Station.

BARK BEETLES

The council reaffirms its position that research on bark beetle problems in Oregon and Washington should be greatly increased. These insects kill more trees in commercial and recreational forests than any other pests. Surveys completed in the fall of 1969 showed epidemic outbreaks on 980,000 acres in Oregon and Washington. Widespread tree killing is taking place in Douglas fir, ponderosa pine, lodgepole pine, white pine, and true fir forests in both eastern and western portions of the two States.

The long-term answer for the intensively managed forest of the future will require a thorough understanding of the ecological factors that influence the fluctuations of beetle populations. Research to date indicates that beetle outbreaks can be reduced to acceptable levels. Some of the promising areas of investigation are use of synthesized beetle attractants, silvicultural techniques, manipulation of parasites and predators, and breeding resistant strains of trees. The council recommends that these kinds of research be greatly strengthened. An increase of $40,000 to the present forest service program of the two States would permit significant progress.

BIOLOGICAL CONTROL OF ROOT DISEASES

Root diseases are an increasingly serious problem as Northwest forests are converted from old-growth to young stands. One of these diseases, *Poria weirii*, causes more than 170 million board feet annual loss to coastal Douglas fir forest alone; it causes serious but unmeasured losses to several other important tree species. Recent research results from forest service pathologists is very promising that damage by the disease can be greatly minimized by altering the tree species composition of forests—a form of biological control.

Research on root diseases of forest trees needs to be greatly intensified and expanded. The forest service research budget for this work in Oregon and Washington should be increased by $50,000 in fiscal year 1971.

BALSAM WOOLLY APHID

I called to your attention last year the widespread destruction being caused by this imported European pest to Northwest commercial and recreation forests. Several billion board feet of true-fir timber have been killed and recreation values have deteriorated on nearly 3 million acres in Oregon and Washington. In 1969, the insect was found for the first time on the Olympic Peninsula, very close to Olympic National Park.

The Pest Action Council recently has analyzed this problem and concludes that effective control can be developed only through an intensive program of basic research. Present research on the problem is less than one scientist man-year annually. The recommended new program would greatly increase this effort and would cost $200,000 annually for approximately 10 years, depending on research progress. It should be funded and coordinated by the forest service, but many of the studies would be conducted by universities under contract arrangements.

The council urges your support for funding this research on a pest problem that is greatly reducing the productivity and altering the ecology of our forest environment.

The Pest Action Council appreciates your longstanding support of forestry problems, and asks that you give careful consideration and vigorous endorsement to the above items in the upcoming hearings. Please arrange to have this statement entered in the record of the appropriation hearings.

Sincerely,

WILLIAM H. LARSON, *Chairman.*

NEW HAMPSHIRE FARM BUREAU FEDERATION,
Concord, N.H., March 16, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: On behalf of the New Hampshire Farm Bureau, I would like to ask your support for the U.S. Forest Service Laboratory at Durham, N.H.

A study was authorized by the U.S. Congress 2 years ago for a U.S. Forest Service forest science laboratory at the University of New Hampshire. Plans have been completed and funding for the construction of the building is now being sought. This has been in the works for many years and has continued to receive the full support of all forest resource people. This station would consolidate white pine research programs, Northern hardwood research programs, forest genetics activities, and watershed research programs. These activities now are staffed by 25 scientists and other staff operating out of completely inadequate and scattered quarters. With New Hampshire's timber resources alone being valued at an estimated $180 million the estimated $1,100,000 cost of this facility certainly is an excellent investment. This station will serve the entire Northeast and its construction here in New Hampshire would indeed be a great asset.

Our Farm Bureau Forestry Advisory Committee recommended to our Policy Development Committee that this facility be approved. Our House of Delegates adopted the following resolution at our annual meeting last November:

FOREST SCIENCE LABORATORY AT DURHAM

"The New Hampshire Farm Bureau Federation urges support for Federal funding of the proposed Northeast Forest Experiment Station Research Laboratory to be located at the University of New Hampshire."

I realize that the Federal budget picture currently is not very promising for construction items. We feel, however, that we have a high priority need for this facility so we hope that you will give it strong consideration.

Kindly place this letter in the printed record of the subcommittee hearings for the forest service.

Sincerely,

G. ALLEN HOLMES, *President.*

FORESTRY DEPARTMENT,
OFFICE OF STATE FORESTER,
Salem, Oreg., March 9, 1970.

Hon. WENDELL WYATT,
U.S. House of Representatives,
Washington, D.C.

DEAR WENDELL: You know of my longstanding regard for the importance of forestry research—and I know well that you share this view. Accordingly, as appropriation hearings for forest service research are approaching, I want to outline my views on some key items concerning the Northwest, that, in my opinion, deserve serious attention and action.

The need to increase productivity of Oregon forests, while concurrently protecting and improving the quality of our valuable forest environment, is accelerating rapidly. This situation convinces me that we must invest more heavily in research if the landowners in Oregon and throughout the Nation are to have the technology needed to apply the limited funds available for forest protection and management most effectively.

The President's budget for the forest service proposes strengthening two research projects headquartered in Portland, Oreg.

One of these is $85,000 for that part of the nationwide forest survey project which covers the forests of Oregon, Washington and California. The forest survey is the only source of authoritative data on our timber resources that covers all ownerships, both public and private. It provides the basic information on forest areas, timber volumes, tree growth, timber cut and loss from fire, insects and diseases. This kind of information is essential to intelligent planning of forestry operations. But the survey needs to be intensified. We need to know, for example, the amount of sound wood left in the slash on cutover areas. We need better information on the distribution of the 4-billion board feet of natural mortality occurring annually in Oregon's forests before we can develop programs for preventing this loss and for salvaging and using more of it.

An increase of $30,000 is budgeted for strengthening forest economics research, also headquartered in Portland. The future productivity of Oregon's forests depends in large degree upon how wisely we invest in them now. And intensified economics research must provide the guidance so urgently needed by public forestry agencies as well as industrial and private owners to insure optimum returns from investments in forest protection, improvement, and management.

So I vigorously support both of the budget proposals relating to forest service research in Oregon.

I know you are familiar with the strategic importance of the research in forest protection, tree genetics, timber culture and watershed management at the Corvallis Forestry Sciences Laboratory. Here in Oregon, and for much of the West, this is a major source of technology to which we look for guidance of our main forestry action programs.

Strengthening of the work at Corvallis is urgently needed in two respects.

First, an increase in operating funds is needed to speed up the high-priority research now underway. For example, the scientists working on tree improvement should be moving ahead more rapidly in developing the new genetics outplanting tract just obtained during the past year. Another example of current Corvallis work needing a much stronger push now is the coordinated timber culture—forest fertilization—watershed protection project on the South Umpqua Experimental Forest. Still another is the high-priority research on biological controls for forest insects and diseases.

The second big need at Corvallis is to expand laboratory facilities so that promising new, high-priority studies in timber culture and environmental protection can get started as soon as possible. I understand that the $500,000 approved by the Congress for Corvallis construction last year, with your skillful help, has not yet been made available to the forest service. With everything else ready for positive action it is especially urgent that the funds already appropriated for this structure be cleared for use at an early date.

I deeply appreciate your concern and great help in providing for the proper care of our natural resources. I know you realize too, that if any feasible way can be found to stimulate activities of the Corvallis forestry researchers, this surely will be a timely step to progress.

Would you please arrange to have these recommendations included in the record.

Sincerely yours,

J. E. SCHROEDER,
State Forester.

WASHINGTON FOREST PROTECTION ASSOCIATION,
Seattle, Wash., March 10, 1970.

Hon. JULIA BUTLER HANSEN,
House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: The executive committee of the Washington Forest Protection Association of which I am president, has directed that I write you concerning the need for strengthening forestry research in the Pacific Northwest. We in the association have long known and appreciated your support of all aspects of forestry. With rapidly accelerating need to increase both wood production and quality of our forest environment, it is particularly critical now that research be stepped up to produce the knowledge and technology required.

The association specifically calls to your attention two items now in the President's budget for the forest service's Pacific Northwest Forest and Range Experiment Station, and another item of equal importance that is not in the budget but we hope you can arrange to include.

FOREST SURVEY

The President's budget includes $85,000 for the forest survey in the Pacific Northwest. Studies by this unit have revealed that, despite possible intensifications of forest management, withdrawals of forest land for nontimber uses may sharply affect the ability of Washington to maintain jobs in the forest industries and offset declines in aerospace activity. Estimating the size of the gap in timber supply and our ability to fill it requires intensified study. Particularly needed are analyses of the amount of logging residue that can economically be recovered in various market situations. Assessment of the feasibility of utilizing the 2 billion board feet of timber that dies annually in Washington forests is also needed. The forest survey is the only group that conducts forest resource inventories and analyses for all forest lands in the State.

FOREST ECONOMICS RESEARCH

There is a substantial need for additional research on many aspects of forest protection. The economics research group at the Pacific Northwest Forest and Range Experiment Station developed the first estimates of the economic feasibility of dwarf mistletoe control, showing that control efforts can be very attractive public investments. Similar work is needed to guide expenditures on other diseases and insect pests. The budgeted increase of $30,000 would stimulate such research, plus economic studies of fire preparedness and control. Studies of this type are greatly needed to show the extent to which expenditures for forest protection are justified.

There is a new, very urgent area of economic research which we believe this station should undertake. This is to establish the value to our Nation of the annual growth on commercial forests. In addition to the necessity for wood for homebuilding, we are faced with the necessity for increasing employment. We know that each unit of wood which is grown produces much employment in the economic stream. This economic activity must be evaluated and compared with

alternative uses of forest lands. It is only with such knowledge that we can intelligently allocate forest lands. We need to know whether this economic activity will justify raising powerlines so that forests can be grown under them, or whether the lost forest production in these transmission rights-of-way justifies more expensive onsite cooling of atomic power plants so they can be placed closer to the source of power demand. We need to measure the relative values of recreation and wood production. All of these matters enter consideration of public water impoundment projects.

FOREST RESIDUE RESEARCH

An item that needs to be added to the budget is funding to support a research and development program on forest residues. About 40 million tons of these materials, commonly called logging slash, are now left on the ground following timber harvest in Oregon and Washington, because with present methods, they can't be brought to the mill at a profit. Unless disposed of, the slash is a serious fire hazard, so much of it is burned—at a cost of some $7.5 million annually. However, there is growing resistance to this practice because of the public's concern about air pollution.

Use of the residues would be the best solution to the many-sided slash problem. The sound wood in the two States, if converted into manufactured products would be worth an estimated $250 million, and go far to providing badly needed woods and mill employment. But economical methods of making this conversion need to be developed.

The Pacific Northwest Forest and Range Experiment Station is reorganizing its program so as to get at least a start on studying this problem. The station's objectives will be to (1) develop salvage systems for extracting and processing forest residues; (2) evaluate the impacts of residues and their disposal on environmental quality; and (3) develop new and more efficient ways of disposing of those residues not useful for wood products, but which are problems to the forest manager and the public.

The Forest Service is to be commended for starting research on this huge problem, but additional funding to the extent of $100,000 annually is needed to make the necessary progress on recovering a resource now going to waste, to provide additional output and employment in the wood industry, and to reduce undesirable impacts of slash on the environment.

We deeply appreciate your long dedication to the great forest industry of our State and your continuing support of the work of our association. Will you please arrange to have this letter included in the record of the appropriate hearings?

Yours very truly,

GARRETT EDDY, *President.*

CROWN ZELLERBACH CORP.,
Portland, Oreg., February 25, 1970.

Hon. WENDELL WYATT,
Congress of the United States,
House Office Building, Washington, D.C.

DEAR WENDELL: I know you are well aware of the importance of forests to the economy and well-being of Oregon and the Northwest. Now there is great need to produce more wood products, and, at the same time, to better protect and to improve our increasingly valued forest environment.

If, as a nation, we are to succeed in meeting both of these high priority goals at a time of understandable budget constraints, we must develop forestry technologies far more efficient than we have today. For these reasons I am writing to you about the level of our efforts in forestry research.

I am interested to learn that the President's budget for fiscal year 1971 proposes an increase of about 2½ percent for Forest Service research nationally. In view of increasing costs, this means that forestry research will be financed to perform at a slightly lower level than during the present year. Actually the research effort should be substantially strengthened.

Several increases proposed in the forest research budget apply specifically to work in the Northwest. Two of these, the forest survey ($85,000) and forest economics research ($30,000) are headquartered here in Portland. As you know, these projects are charged with periodically reviewing the timber situation county by county, covering all ownerships, reporting timber growth and drain, summarizing the areas susceptible to intensive forest management in terms of potential productivity and present conditions, and rating these analyses in terms

of cost effectiveness. Forestry planners in the public agencies as well as in industry urgently need such economic guidance in developing plans for investing in timber growing, protection, mortality salvage, and utilization.

Another modest increase ($28,000) is proposed to be applied to the Forest Service's intensive timber culture project, which is focusing attention on the Douglas-fir forest—the most important timber species in the world. Although headquartered at Olympia, Wash., the project is conducting research both in Washington and Oregon, including important studies in the Umpqua and McKenzie River areas. Timber growers urgently need the detailed information on forest soil chemistry, growth response of fertilized trees, and the combined effects of fertilizing and such other practices as thinning and genetic improvement on timber output that this work is producing.

For these reasons, I vigorously support the proposed increase for Douglas-fir culture research at Olympia. In fact, an investment of several times the amount proposed here would be highly desirable to speed the development of efficient timber growing prescriptions.

I want to call attention to other high priority forest research needs that I do not find provided for in the President's budget.

STRENGTHEN CORVALLIS LABORATORY RESEARCH PROGRAM

As you know, one of the most important research centers of the Forest Service is at Corvallis, Oreg., in cooperation with Oregon State University. Objectives of the work there are focused on increasing the timber supply and improving the forest environment.

The tree genetics project at Corvallis has been outstandingly productive. Within a relatively few years it has developed a new system of progressive tree improvement that is already being applied on 2 million acres of industrial and publicly owned forests. My own company is an active participant in this highly productive program. This project has recently obtained a new genetics outplanting test site near Corvallis which should be developed without delay. To do so will require increased financing.

Another timber-oriented project at Corvallis is that for the mixed conifer forests of western Oregon and Washington. These forests occur in upper elevations of the Cascade Range and in other zones west to the Pacific Ocean and make up 10 percent of the Nation's softwood timber supply. They also include the major forest recreation areas of the Pacific Northwest and supply water to all the major population centers in the region.

Also at the Corvallis Laboratory, is the very high priority work on development of biological controls of destructive forest insects, which kill more than 3 billion board feet of sawtimber annually in Oregon and Washington. Scientists at the laboratory have developed exceptionally valuable apporaches for using parasites, predators, pathogens, and sex attractants—in place of chemicals—for controlling these pests.

Expansion of the forest disease research program at Corvallis, particularly that on dwarf mistletoes, is urgently needed. Dwarf mistletoes infect most of our major tree species and reduce timber production in Oregon and Washington by almost 1 billion board feet each year. Research is needed to find out how to prevent this loss of much-needed timber.

Another program at the Corvallis Laboratory that much needs strengthening is that concerned with safeguarding and improving water quality. Ways of preventing adverse effects of roadbuilding, logging, brush control, fertilization, and forest spraying simply must be developed without further delay. Operations concerned with managing and using forests for timber production must continue, but at the same time, the streams, soil, and the esthetics of the land must be protected. The present research on these problems is highly promising but seriously under-financed.

Unless the proposed budget is amended, all of these extremely important activities at Corvallis will have to operate for a third consecutive year without benefit of any financial strengthening. In view of the obvious high priority of this work, I urge an increase of $270,000 to push its progress at this time.

Construct phase II of the Corvallis Forestry Sciences Laboratory.—I have written you previously about my longstanding concern over the delay in constructing phase II of the Corvallis Laboratory as originally planned and projected. As you know, the present laboratory wing was completed in 1962. The Congress appropriated $170,000 in 1966 to plan a second phase; the detailed plans have been completed for almost 3 years. Last year Congress appropriated

$500,000 to get started on this construction, but the funds have not yet been made available to proceed.

With the rapidly increasing demands for all the products of our forests—wood, water, recreation, wildlife—we must increase our investment in research to find better ways of producing all these invaluable products and services from the forest.

I deeply appreciate your understanding of the importance of forestry research to the future well-being of America, and ask your careful consideration and support of the great needs and opportunities here in the Northwest. Will you please arrange to have my letter included in the record of the appropriations hearings.

Cordially,

Vice President,
Northwest Timber Operations.

STATEMENT OF M. E. SALSBURY

The Watershed Fire Council of southern California is a citizens' advisory group composed of appointed and elected citizens who represent 12 million people residing in the eight counties of this region. The council was organized in 1954 for the specific purpose of planning a concerted program in cooperation with Federal, State, county, and city agencies for the protection of the vital forest watersheds of this region and for the prevention of forest fires.

Four national forests, the Angeles, Cleveland, Los Padres, and San Bernardino, are located in this area where forest fires are most prevalent. The weather and atmospheric conditions which characterize southern California are the major contributing factors to the high rate of fire incidents in forest areas, resulting in the loss of valuable watershed year after year. The combination of long periods of drought, hot desert winds, and low humidity pose a yearlong threat to the continued productivity and flood protection afforded by the national forests as well as to the health, safety and welfare of the citizens residing within these areas.

The disastrous sequence of forest fire followed by floods originating on these steep mountain slopes is well known. The disastrous experiences following the rains of a year ago, falling on fire denuded slopes above the developed valley communities are still fresh in the memories of the affected citizens and the congressional committees who heard the testimony and saw at first hand the terrible havoc that can result when upstream forest watersheds are destroyed by fire.

An all too typical example of the problem is illustrated by the canyon fire of August 1968 in the San Gabriel watershed in the Angeles National Forest. Burning a gross acreage of 19,975 acres, the canyon blaze totally destroyed the protective forest cover on the extremely steep, highly erodable mountain watersheds of the national forest.

In addition to suppression costs of $900,000, the canyon fire destroyed improvements valued at $324,000. Damage to the watershed itself which will require upwards of 50 years to recover, exceeded $4,500,000. During the fire control action, nine forest firefighters were killed, 14 injured, and two helicopters ($340,000) were destroyed.

Following the fire, the winter storms of late January eroded the fire-blackened slopes at rates up to 100,000 cubic yards of soil per square mile, sending mud-laden flood flows into the developed areas downstream. Hardest hit was the community of Glendora where 45 homes were completely destroyed and 131 others partially buried in mud. Damage to public and private property in this small city alone amounted to $4 million. This same specter of forest fire followed by flood is faced for the greater part of each year by every valley city, community, farm and citrus grove that fronts along the steep mountain slopes of the national forests in southern California. Last year it was Glendora, in 1967 it was Santa Ana and Banning, and in previous years Santa Barbara, San Bernardino, Pasadena, Santa Paul, et cetera. Few cities have escaped the scourge of upstream forest fires and the burden of flood disasters. The need for fully adequate protection of the national forest watersheds increases directly with the growing national importance of southern California to the Nation.

Each year since 1954, the Watershed Fire Council has presented to Congress a program explaining the need for increased funds for fire protection in these four national forests. Since 1956, when the population of southern California

was 7 million, the Congress has provided modest increases in appropriations for forest fire control; however, these have not been adequate to keep up with the expanding nature of the fire problem and the sharply increased costs of forest fire control. This condition is reflected by the intolerable rate of loss to life and property that continues. Loss of life to forest fire in the four southern California national forests exceeds that of all of the rest of the national forests in the United States combined.

Although some progress is being made in reducing the percentage of forest fires reaching 100 acres or more, which last year were held to 11, or 3.2 percent of the 344 forest fires that did occur; the probability of greater losses to both natural resources and private property is increasing each year. There are now 12 million citizens residing in southern California; in 10 years the population is projected to exceed 16 million.

The best estimates of needs, based on scientific fire planning, to obtain better control of this growing problem indicates the U.S. Forest Service would need about double the presently budgeted funds for forest fire prevention and control by 1972. These southern California needs were included in the program for development of the national forests transmitted to the Congress in 1961.

In 1968 these fire plans were carefully reviewed and modified to incorporate new technological developments with the objective of minimizing costs to meet the required management objective of reducing the area of forest watershed destroyed by fire annually to 1,500 acres, or less, per year. This in turn would require reducing the number of fires reaching 100 acres or more before control to less than one percent compared to the current 3.2 percent. To do this will require stepping up the number and strength of initial attack stations with a concurrent vigorous program of fuel hazard reduction and improved fire road and trail access. Our review of these plans shows the following items where the southern California deficiencies are most critical:

1. Maintenance, operating and equipping the forest fire-control organization requires an additional $5,390,219 annually.

2. Fuel treatment portion of the above program needs to be increased by $558,486 annually.

3. Building programs for adequate housing and fire equipment storage need an additional annual average of $1,203,335 through fiscal year 1972.

4. Fire road and trail construction will require an additional annual average of $7,722,678 to meet the minimum fire control access needs.

These needs are real and urgent. They are submitted to you, not only for the protection of the irreplacable natural resources of the national forests, the lives and property of our citizens; but also in the interest of much needed economy to all levels of government. The "best" of forest fire that was ever fought was the one that was prevented from having started; the next "best" was the one that was controlled promptly and its small size. An almost direct parallel exists with flood control. Flood prevention, by utilizing the forest to capture, store, and regulate storm runoff, where storm conditions permit, is far less costly than emergency disaster actions after the fact.

Accordingly, we urgently petition your favorable and prompt action on the following:

1. Increase the appropriation of funds in the 1970–71 fiscal year budget for fire protection and maintenance of the four national forests in southern California by a minimum of $3,578,000 as the first step in a 2-year program to eliminate the present fire plan deficiency of $7,152,000 by 1972; and.

2. Appropriate the necessary funds to enable the critically needed fire road and trail construction program for the national forests in southern California to go forward at an annual level of $7.7 million through fiscal year 1972.

WESTERN COUNCIL, LUMBER AND SAWMILL WORKERS,
Portland, Oreg., March 4, 1970.

Hon. JULIA BUTLER HANSEN,
Cannon House Office Building,
Washington, D.C.

DEAR CONGRESSWOMAN HANSEN: I am writing for the Western Council of Lumber and Sawmill Workers to reaffirm our strong and continuing interest in this Nation's forest resources. They provide timber, pure water, wildlife, health-

giving recreation, and an attractive environment for living to a rapidly expanding population.

Very much greater demands on our forests are sure to come in the future. During the past year the anticipated upsurge in homebuilding has not come as quickly as most Americans would like. But this has only added to the accumulating backlog of demand for forest products inevitable in the near future.

Actually, the need is greater than ever to develop new and better methods of timber growing and protection through research.

With this situation in mind, I have been studying the provisions for forestry research in the budget for the U.S. Forest Service recently sent to the Congress.

Increases are proposed in several high priority research projects that are in the Northwest. These include the forest survey project ($85,000) headquartered here in Portland and covering the States of Oregon, Washington, California, Alaska, and Hawaii; the closely related work in forest economics research ($30,000); and Douglas fir culture research ($28,000) at Olympia, Wash.

All of these programs are highly important to our members, to the Northwest and to the Nation, and I ask that you give them your vigorous support.

The forest survey conducted by the U.S. Forest Service provides the only complete inventory of the status, the potentials, and the needs of our forests. Members of the timber industry, individual forest owners, and government timber agencies all depend on the survey to provide basic timber resource intelligence for planning their operations; the strengthening proposed for this activity is a high-priority need.

Forest economics research is the essential project that develops techniques for determining the cost effectiveness of various forest management practices. Timberland managers, both private and public, operate with limited funds, and they desperately need improved analytical techniques that will show just which combination of investments in timber growing, protection, and development practices will yield the greatest returns. For these reasons, strengthened forest economics research is an essential step to getting better management measures actually applied on the land.

The Douglas fir culture research project is headquartered at Olympia, Wash., but its work extends over and benefits western Washington, western Oregon, and northern California. This project is studying and developing intensive cultural practices, such as thinning and fertilization, to increase the growth and quality of Douglas fir forests—by far the most important species of timber tree in the West, and a major source of the wood industries' raw material. The $28,000 proposed for strengthening this work will help fill a high-priority need in western forestry research.

Members of the council are greatly concerned with opportunities for maintaining and improving enjoyable and livable outdor environments as well as forests to supply timber for jobs. Thus, we urge renewed efforts to obtain additional forest environment research in our Northwest.

An outstanding example of properly oriented environmental research is that in outdoor recreation by the U.S. Forest Service in cooperation with the University of Washington at Seattle. The council urges a much stronger recreation research effort to keep pace with the mounting pressures on the 18 million acres of recreation land in the State of Washington, 81 percent of which is in forests and outstanding natural areas. Washington, like other States, is faced with steadily increasing demands for outdoor recreation while the supply remains relatively constant. The recently published summary of Washington's statewide outdoor recreation and open space plan showed a total of approximately 350 million activity occasions during the period of April 1967 to March 1968. Out-of-State visitors seeking outdoor recreation have increased from 3¾ million in 1964 to almost 5 million in 1969. We urgently need to develop a sound understanding of the impact of recreation use on other uses of forest lands and ways and means to correlate competing forest uses.

The social and human aspects of recreation use of forests have too long been neglected. In particular, more research is needed on vandalism and other undesirable behavior in Washington's campgrounds. Recent Forest Service and University of Washington research shows promise for controlling such behavior and opportunities to improve attitudes toward littering and damage to recreation facilities. This work should be greatly strengthened. An increase of $100,000 is urgently needed for vital work on the future demands and human uses of our increasingly valuable forest recreation resources.

I call to your attention an important new need that relates to the Forest Service environmental research program on forest residues headquartered in

Seattle, and operated in cooperation with the University of Washington. The researchers at Seattle have recently analyzed this problem of "logging slash," and we agree with their conclusions that these materials are a serious fire hazard, an obstacle to intensive forest management, and an eyesore to all, whether burned or just abandoned. Practical systems must be developed for converting much of the 3.2 million tons of sound wood residues created annually by logging in Washington and Oregon to useful wood products.

The Forest Service is commended for adjusting available resources to at least get a start on this hugh problem. But a larger effort is needed to (*a*) recover values now being lost, (*b*) provide increased employment in the forest industry, and (c) reduce undesirable impacts of this slash on the environment. We strongly urge appropriation of $100,000 to the Forest Service to speed up this very high priority work.

We, in the Western Council, shall appreciate greatly your help in providing for the high priority research needs I have described above. Will you please arrange to include a copy of my letter in the record of the Forest Service appropriations hearings.

Sincerely yours,

HUGH ALLEN, *Executive Secretary.*

UNIVERSITY OF NEW HAMPHIRE,
Durham, N. H., March 4, 1970.

HON. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, Rayburn House Office Building, Washington, D.C.

DEAR MRS. HANSEN: For several years I have sought funds for a new laboratory for the U.S. Forest Service in Durham, N.H. Four years ago Congress appropriated $75,000 for planning the laboratory. The planning is completed, an 8-acre area was leased to the Forest Service by the University of New Hampshire for the building site and the laboratory can be constructed whenever the Federal budget situation permits appropriation of the necessary funds. The current cost of the laboratory is estimated to be $1,100,000.

I realize that the present budget situation may not be favorable for laboratory construction items, but I would like to bring the Durham laboratory to your attention again this year in case the situation improves during the next few weeks or months.

As I pointed out last year when I testified before the Senate subcommittee, a new laboratory is badly needed to house 14 scientists and supporting staff employed by the Forest Service in Durham. These scientists are currently housed in a renovated hardware store building in Durham. This space is inadequate, and research progress on serious forestry problems in New Hampshire and adjacent States is severely impeded.

Many of us here in New Hampshire are convinced that the economic health of our State and adjacent States depends to a major extent on the contributions of a vigorous forestry research program. For example, New England is heavily forested with 87 percent of the total land area in New Hampshire is woodlands. The annual total value of manufactured wood products in New England is $2 billion. Total gross receipts from recreation and travel in the heavily forested States of New England are estimated at $2½ billion annually. The value of water used annually from New England forests is over $1 billion.

We have abundant forest resources for growing wood, for producing water for municipal and industrial consumption, and for hunting, fishing, and other forms of recreation such as esthetic enjoyment, hiking, camping, and the amenities provided by a well-managed forest environment. While the Forest Service has made good progress on forestry research problems in New England, there are still serious problems on water, genetics, growing wood, and three diseases that require a modern laboratory and a more basic approach to problems in order to solve them.

The five specific fields of research which are being pursued at Durham are as follows: forest watershed research, with emphasis on water yield and water quality, genetic improvement of white pine for weevil resistance, production of top quality northern hardwoods, the control of diseases that degrade northern hardwoods, and improved planning and management of forest recreation facili-

ties. Further, these are the only Forest Service research programs of their type in the New England area.

I would like to point out again that the location of the Forest Service research program at Duram ties in well with forestry and related natural resources programs at the University of New Hampshire. Many mutual benefits are derived daily in a relationship where research by the Forest Service is coordinated with research and education programs at the university.

In summary, I am asking you to give full consideration to the critical need of the Forest Service and forest resource managers throughout New England for $1,100,000 to construct a new laboratory at Durham, N.H. Would you please enter this letter in the printed record of the subcommittee hearings for the Forest Service.

Very truly yours,

H. A. KEENER, *Dean.*

PORTLAND, OREG., *February, 5, 1970.*

HON. WENDELL WYATT,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN WYATT: This letter deals with the need for greatly increased appropriations for forest environmental research.

Our newspapers are currently filled with news articles and editorials dealing with the pollution of air, water, and scenery. The President featured this problem in his State of the Union message. This concern is good, for it helps to inform citizens of these problems and the urgency of action to deal with them. But there is a real danger of superficial understanding of a complex matter and pressure for preservationist solutions which are not sound in most cases.

There are some gaps in our knowledge of the interrelationships of plants, animals, soil, water, air, and man. We do not have solid quantitative information on the physiology of trees and other plants. We do know that trees and other green plants use carbon dioxide and produce oxygen in the photosynthetic process, but we do not know the relative production between different tree species and between different tree age classes. We do know that the proportion of carbon dioxide in the atmosphere is increasing while the proportion of oxygen is decreasing. What we do with plantlife may have an important bearing on this matter. Forest managers need to know how to make their management responsive to the need for maintaining a lifegiving atmosphere. It may well be that preserving too much old growth forest will reduce the production of oxygen and that the proper course lies in the continuous maintenance of good thrifty young forests. We need to know whether this is so or not, and we need this knowledge as soon as we can get it. There are other examples of the need for more knowledge in this area, but I will not include them here. I am sure that you can get such additional information as you may want from Director Phil Briegleb at the Pacific Northwest Forest and Range Experiment Station.

My purpose in writing you is to ask your support for increased appropriations for environmental research by the Pacific Northwest Forest and Range Experiment Station. This station has, as you know, a fine research facility at Corvallis. The personnel at this laboratory have close working relationships with the Oregon State University Environmental Sciences Center under Dr. Virgil Freed. They are ready to move ahead together to develop our knowledge in this area and others. The station needs money to expand their staff and acquire equipment needed. The current budget for this work is much too small and this is work which just cannot be deferred. Some scientists say that we have only a decade left in which to save our atmosphere and prevent our urban areas from becoming deserts. Research must precede action if we are to make the right decisions.

One other point I would call to your attention. The Bureau of the Budget saddles the executive agencies, both research and administrative, with personnel ceilings. The purpose of these is said to be to force efficiency and economy on these agencies. The result is just the opposite. Project money has to be used to keep the records and make the reports required. Managers are forced to use contracting when it is unwise in order to get a job done or they may have to use scientists for technicians' jobs. It seems to me that there are other ways to obtain efficiency and economy in operations than this rigid and arbitrary method. Elimination of these ceilings would make more money available for these needed research projects.

I ask your support for increased appropriations for environmental research before the House Committee on Appropriations. I further ask that this letter be made a part of the hearing record.

Sincerely,

J. HERBERT STONE.

CROWN ZELLERBACH CORP.,
Portland, Oreg., February 25, 1970.

Hon. JULIA BUTLER HANSEN,
Congress of the United States,
House Office Building, Washington, D.C.

DEAR MRS. HANSEN: Knowing your deep interest in forestry and your understanding of the importance of research in its efficient development, I enclose a copy of my letter of today to Congressman Wyatt about the budget for Forest Service research as it affects activities related to the Northwest.

My enclosed comments relate to research activities headquartered at Portland, Olympia, and Corvallis, but important to the Northwest and much to the entire West. I am writing to you to support several other research projects of the Forest Service headquartered in Washington that are likewise important to the Northwest and beyond.

As you know, forest fire research of the Forest Service in this region is conducted in cooperation with the University of Washington at Seattle. In recognition of the increasingly worrisome logging slash and other forest residues, the Forest Service is planning to restructure its forest fire research to concentrate more effort on this highly critical problem.

Forest owners and managers have been plagued with serious slash accumulations for decades, but positive, efficient solutions will obviously require greater effort than has been applied in the past. The costs of not taking greater action are large, indeed. Landowners in the Northwest spend more than $7 million each year to burn slash. In so burning, they actually downgrade and leave behind some 3 to 4 million tons of sound wood, and, in addition, take the risk of adding to air pollution. If ways could be found to collect and use this wood economically, it could yield marketable wood products worth more than $200 million a year.

Last year I recommended that this research on forest residues at Seattle be speeded by an increase of $150,000. This year the need is even greater, the opportunity just as large, so I reiterate by recommendation.

As you know, an increasingly important part of Forest Service activity is in the rapidly expanding field of forest recreation, which is now providing new jobs and opportunities for an increasing population to enjoy an attractive environment. The only Forest Service recreation research project in the Northwest is in Seattle in cooperation with the University of Washington. Jointly, the Forest Service and the university have been highly productive in seeking techniques for coordinating the timber and recreational uses of lands, in finding ways to reduce littering and vandalism in forest camps and to cut the costs of necessary cleanup and replacement or repair of facilities. The Forest Service now needs to strengthen its contribution to this cooperative endeavor by an additional $100,000.

My thanks to you and your committee for your penetrating and skillful consideration of the forestry problems and opportunities so important to progress of the Northwest and the Nation. Please include a copy of this letter and of the enclosure in the record of the hearings on appropriations before your committee.

Cordially,

CLARENCE RICHEN, *Vice President.*

AMERICAN WALNUT MANUFACTURERS' ASSOCIATION,
Chicago, Ill., February 20, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Subcommittee on Appropriations for the Department of Interior and Related Agencies, House Office Building, Washington, D.C.

DEAR CHAIRMAN HANSEN: For the past several years, we have represented the American Walnut Manufacturers Association and the Fine Hardwoods Association at your public hearings on appropriations for Forest Service research. We appreciate greatly your and your subcommittee's efforts to strengthen research

in growing valuable hardwoods, e.g., the increase of $25,000 allowed in the 1970 budget for black cherry production research at Warren, Pa. Too, we want to thank you for the many courtesies you extended to us during the hearings.

From past exeperience, we are fully aware of the demands made upon you and members of your subcommittee by witnesses wishing to appear at the public hearings. Therefore, we will express our views this year on hardwood forestry research needs by letter rather than appearing in person.

The impending nationwide timber shortage is well known to all of us. This has been brought on by such factors as pent-up housing demands, increasing population, setting aside of forest lands for uses other than timber production, and adjustments in timber production to meet demands for amenities and esthetics in the forest environment.

Shortages of top-grade hardwoods are not impending—they already are here and have been for the past few years. We have pointed out repeatedly in our testimony before your subcommittee. The short supply of black walnut timber dramatizes this situation, but we have a parallel problem in supplies of other fine hardwoods, such as black cherry, ash, oak, and other species that we have depended upon since our Nation was first settled. Unless the supply of fine hardwoods is replenished, we will become more and more dependent upon imports, our homes and offices will no longer be graced by permanently beautiful hardwoods, and substantial sources of employment and income will be lost to rural America.

We are firmly convinced that a solid base of scientific knowledge must be available before we can make real progress in replenishing our hardwood resources. Forest Service scientists in Eastern United States are, we feel, doing an excellent job filling the knowledge gap, but we have too few of them and so, advances are pitifully slow.

So, once again, we ask that you and your subcommittee increase appropriations for Forest Service research in the culture of high-value hardwoods. More specifically, we recommend that the following be added to the Forest Service Budget for next year:

1. To strengthen research in the culture and protection of black walnut at Carbondale, Ill., $100,000.

2. To strengthen research in the culture and protection of Allegheny hardwoods, including black cherry, at Warren, Pa., $335,000.

We were delighted to find that President Nixon's proposed 1971 budget for the Forest Service contains an increase for the forest survey. Strengthening of this program is, we feel, long overdue, and we hope that you and your subcommittee will sustain the full increase when you complete the Forest Service budget for next year.

We would very much appreciate your favorable consideration of our recommendations and the insertion of this letter in the record of your hearings on Forest Service appropriations. Many thanks.

Sincerely,

DONALD H. GOTT,
Executive Director.
E. HOWARD GATEWOOD,
Executive Vice President.

STATEMENT BY HUGH F. O'ROURKE

Walter J. Hickel, Secretary of Interior, in the March issue of Fish Boat magazine states that it is about time for a change if the U.S. fishing industry is to survive. We wholeheartedly agree with him. Yet the concern which he has expressed about America's first industry is difficult to appreciate when the Bureau of Commercial Fisheries which is under his jurisdiction experienced a $7 million cut in their 1971 budget while Sport Fisheries had a $2 million increase. This is the largest reduction in the Department of Interior budget for 1971.

Contrary to the fisheries needs, the 1971 budget has eliminated fishing boat subsidies, withdrawn research vessels, closed laboratories, and curtailed financial support which is vitally needed today. Statistical information published each year about the U.S. fishing industry shows a marked decline in catch, number of fishing vessels, and employment while at the same time imports increase.

Now is the time for a change. Should the U.S. fishing industry as a whole experience the same disaster which has hit the New England fisheries due

primarily to overfishing on Georges Bank by foreign nations, it could well signal the demise of our fisheries.

Foreign fishing continues unabated off our shores while we become the greatest fish market in the world supporting foreign fishing enterprise. It is also interesting to note that the foreign fishing fleets are heavily subsidized by their respective nations.

If we plan to continue in this competitive atmosphere our industry must obtain Government support to build a fishing fleet second to none that will enable us to meet the challenge of our competitors.

The fishing industry is unable to financially support a lobbying program in Washington that would alert Government agencies as to its needs. There is no doubt that many times Government agencies responsible for expenditures find it difficult to determine the fisheries actual needs, due to the lack of accurate information. On occasion they are primarily related to a sectional disaster or to situations over which the industry has no immediate control.

As an example, from 1967 to 1969 32 million pounds less fish has been landed in Boston with a reduction of income of approximately $3 million in 1969. This was caused by extensive overfishing on Georges Bank by foreign countries whose plan was to scoop up all available fish for their own needs. It is startling to note that these fishing methods practically destroyed the haddock resource and created a drastic decline in other Georges Bank species.

Because of the haddock disaster the Bureau of Commercial Fisheries authorized special funds for the New England industry to produce and promote pollock in the absence of haddock. The effectiveness of the program is noted by the acceptance of pollock by the consumer during the haddock shortage.

The U.S. fisheries production decline has been compared to the Dust Bowl situation that existed in the Midwest many years ago. The rehabilitation of that area was only realized through the cooperative effort of many government agencies. Survival of the domestic fisheries may be realized through a like program of cooperative effort undertaken by the Department of Interior.

If the United States is to return to a position of prominence in world fisheries we must have government sponsorship for boat building, continuous research and technological projects, and marketing development programs that would increase and maintain consumer interest.

The Boston Fisheries Association, Inc., respectfully request a review of the Bureau of Commercial Fisheries 1971 budget and consideration be given to reallocating funds within the Department of Interior on a more equitable basis.

America's first industry must receive Federal leadership and support or resign itself to eventual extinction.

CITY OF GLOUCESTER FISHERIES COMMISSION,
Gloucester, Mass., April 4, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, Subcommittee on Interior and Related Agencies, Committee on Appropriations, Congress of the United States, Washington, D.C.

DEAR MADAM CHAIRMAN: Please record the Gloucester Fisheries Commission as being unanimously opposed to the proposed cuts in the budget of the Bureau of Commercial Fisheries. This commission urges the Congress of the United States to reinstate the full facilities of the BCF and especially the Gloucester Exploratory Fishing and Gear Research Base with its research vessel *Delaware II*.

While the Gloucester Fisheries Commission is cognizant of the need for expanded rather than restricted BCF activities throughout the country, it is most familiar with the activities in Gloucester, Mass., which is the BCF region 3 headquarters.

The New England groundfish industry is presently experiencing the most difficult problem of its history; namely, the haddock resource failure. It is literally fighting for its very existence. Its one hope is the development of a fishery for an underexploited species; i.e., pollock, to replace haddock.

Vital to this development program is the need for exploratory fishing to locate concentrations of pollock, and gear research to develop the equipment needed to catch this species. The *Albatros IV*, the *Delaware II*, and the entire Gear Research Base in Gloucester were counted upon to undertake this program. The proposed budget cuts have resulted in the laying up of the *Albatross IV* and the removal of the *Delaware II* and the Gear Research Base from Gloucester. This action unless rescinded will be the doom of the New England groundfish industry.

The Gloucester Fisheries Commission cannot accept the explanation that these budgetary reductions are necessary to fight inflation. If this were so, the Bureau of Sportsfisheries and Wildlife, the sister bureau to the BCF, would also have had a budget reduction instead of an increase of several millions of dollars. We do not begrudge them their increase, but we do feel the commercial fisheries needs are as great as theirs.

The Gloucester Fisheries Commission urges your committee to diligently seek the full reinstatement of the BCF budget.

Sincerely yours,

SALVATORE J. FAVAZZA,
Executive Secretary.

MAINE SARDINE COUNCIL,
Augusta, Maine, April 6, 1970.

Hon. JULIA BUTLER HANSEN,
Congress of the United States,
House Office Building, Washington, D.C.

DEAR MRS. HANSEN: Enclosed is a statement and 18 additional copies which we wish to file and to be made a part of the record of the public hearings before the Subcommittee on Interior and Related Agencies scheduled to be held on April 14.

It is possible I may be able to be present to make this statement in person but in the event something comes up to prevent this we do want to go on record as per the statement.

We appreciate your letter of February 25, calling this matter to our attention and hope that many other segments of industry will express themselves in support of the Bureau of Commercial Fisheries.

Hope to be able to meet you personally on the 14th and if you need anything else from us please advise.

Sincerely,

RICHARD E. REED,
Executive Secretary.

STATEMENT BY RICHARD E. REED

This statement is for the purpose of expressing the concern of the Maine Sardine Packers Association about the attitude or position taken by the Bureau of the Budget in regards to funding for operations of the Bureau of Commercial Fisheries. Our association speaks for the entire Maine sardine industry, which is the only producer of this item in the country, and whose 23 canneries and thousands of workers need an aggressive Federal research, development and promotional effort to help them cope with the many faceted menaces of import competition and constant changes in all aspects of their business.

The placing of $1,190,000 of funds appropriated by Congress in budgetary reserve for fiscal year 1970 may have had some justification in view of the President's efforts to halt inflation but the proposed cuts of $5.7 million in the 1971 fiscal year budget appears to be evidence of either misunderstanding or disregard of the needs and importance of the Nation's fisheries resources.

Programs most severely affected by these cuts were authorized by the Congress after public hearings and long study had established a need for them. They include new research and development facilities, modernization of our aging, decrepit fishing fleets, aid to the States for development programs and restoration of the declining anadromous fish populations.

Our purpose at this time is not to discuss the priorities of programs proposed to be cut but to question why any cuts in the overall fisheries appropriations should be made. We are told by Bureau of Commercial Fisheries spokesmen that approximately 75 percent of all fish products being utilized in this country are imported and it is projected this figure will exceed 90 percent by 1975 if the trend continues.

Certainly there has to be many things wrong when a once proud and vigorous industry that had its beginning long before our Nation was established finds itself in such a sad condition. A great deal of this can be attributed to the aggressiveness of foreign countries who have found our domestic market to be so profitable and a lot more to the lukewarm attitude of Congress and to such agencies as the Bureau of the Budget in dealing with fishery matters.

During the many years we have participated in fishery activities on the Washington front the industry has always had to settle for a few fringe benefits while

the power and tax dollars for other causes have been tossed around with unbelievable generosity and magnitude. History shows this has always been so and the present outlook is not auspicious for a change.

It is difficult for us to believe the Nation with its great expanse of coastline and ocean would choose to permit the fishery resources to sink to a state of mediocrity if the facts were better known. Due to the comparatively small number of people close to this alarming situation the burden of battle has always fallen on the shoulders of a few Members of Congress whose constituencies are salt water oriented.

Our Maine sardine industry is in a grim battle for survival against foreign imports. Our supply of raw material is of grave concern because of lack of specific identification of factors which are causing wide fluctuations in catch and a declining supply. Our markets are flooded with low cost produced foreign sardines. Our supply of cannery labor and fishermen to harvest the resource grows smaller each year because of the uncertainty of the future.

We are not alone in this dilemma. It exists in most segments of the fishing industry of the United States and while we in the private sector are striving to keep our businesses alive we hope that somehow Congress can be convinced that the industry needs more rather than less assistance in the form of large, well-financed, well-manged and well-established programs of fisheries research and development.

We certainly hope members of this subcommittee will support the chairman whose views are on record as agreeing with large segments of the industry that any reduction in the already nominal Federal expenditures for preservation and promotion of our fisheries is an exceedingly short sighted and tragic way to economize and will be able to sell this to the Congress.

We are all worried about inflation, mounting taxes, state of the dollar and unbalanced budgets but are sure there are enough boondoggles around from which to take a few million dollars without keeping the minuscule, by Washington standards, funding and therefore the activities of the Bureau of Commercial Fisheries in a constant state of uncertainty and confusion.

PACIFIC COAST OYSTER GROWERS ASSOCIATION,
Olympia, Wash., April 2, 1970.

HON. JULIA BUTLER HANSEN,
Congressional Office Building,
Washington, D.C.

DEAR REPRESENTATIVE HANSEN: We have received your letter addressed to Mr. Philip Parker. I am sorry that we will be unable to attend the hearings. I am out-lining the position in which the oyster industry would be as a result of a reduction of funds.

The oyster industry of the Pacfiic Northwest is an excellent example of aquaculture by private industry, yet we are fearful that the clean waters needed for growth of shellfish will be destroyed by industrialization and coastal development. To fight this trend we need facts to show the effects of pollutants such as pesticides, industrial effluents, and even thermal wastes upon oysters and clams and their habitat. Facts which we need can only be provided by objective scientific research such as that conducted by the Bureau of Commercial Fisheries or by responsible State research agencies supplemented by Federal funds.

Now the West Coast oyster industry is threatened by mass mortalities from unknown causes. A partially completed research program sponsored by the Federal Government has provided important clues to the cause of these mortalities, but it is essential that this work be carried to completion if our industry is to survive.

Finally, we who earn our living from aquaculture are pleased that the potential for farming the seas is becoming recognized generally. We would like to point out, however, that complete development of aquaculture depends on scientific research in genetics, pathology, nutrition and engineering developments to reduce operating costs. We are especially concerned over the closure of the Milford, Conn. laboratory which has provided the scientific basis for the present stage of development of aquaculture, and is so badly needed to develop improved genetic strains of oysters and clams. In our opinion, expenditures to provide a sound basis for food production from the sea would be a wise use of Government funds, and would be repaid many times by taxes paid by an expanding

aquaculture industry. Therefore, we applaud your efforts to secure adequate funding for fisheries research and development.

Thank you very much for your unsolicited interest in our problems. Believe me, Mrs. Hansen, fisheries is in such a state that we need friends badly.

Sincerely yours,

LEE J. WIEGARDT, *President.*

UNITED FISHERMAN'S WIVES ORGANIZATION,
New Bedford, Mass., April 11, 1970.

JULIA BUTLER HANSEN,
Member of Congress, House of Representatives
Washington, D.C.

DEAR CONGRESSWOMAN HANSEN: We, the United Fisherman's Wives Organization Inc., of New Bedford feel that the cuts suggested by the present administration are a definite setback to the fishing industry.

At the present time we have met with the Bureau of Commercial Fisheries and due to lack of personnel and also the cut in budget spending we are not able to implement some of the suggested improvements to the fishing industry.

It is with this in mind that we earnestly request that funds be apportioned to the Bureau of Commercial Fisheries. We must maintain what little place we occupy in world production of fish.

Other countries regard their biologists, researchers and laboratory technicians as invaluable and monies are made available to them without question. Why, in this great country is there such a controversy in bringing food to the table.

As we are all wives of fishermen, with children, we will be unable to attend the hearings in Washington, D.C. on April 14, 1970, but we would like to go on record, to increase the funds that are at present allocated to the Bureau of Commercial Fisheries.

Please continue wtih your efforts to raise the budget on fisheries, which is so necessary. We are grateful that you share our views and if we can be of further service we will be most willing.

Very truly yours,

MRS. HARRY SWAIN.

STAR-KIST FOODS, INC.,
Terminal Island, Calif., April 7, 1970.

Hon. JULIA BUTLER HANSEN,
Congress of the United States
House of Representatives, Washington, D.C.

Re: Department of Interior Budget Hearings April 14, 1970.

DEAR MRS. HANSEN: It is appalling to note the total disregard for the future of the U.S. fishing industry. To be critical of each and every potential item in the budget that might be cut would be like playing a broken record, but in order to alert those who are responsible for the cuts we feel will cause undue harm to our great U.S. fishing industry, I must make the following comments.

Statistics and facts are available to the committee that will show the rapid and steady growth of the tuna industry in the United States. The contribuion given to our American vessel owners by the adoption of the vessel construction subsidy legislation has made the tuna fleet of the United States the most efficient and competitive fishing fleet in the entire world. We in the tuna industry, as well as those engaged in the salmon, shrimp, bottom fish and menhaden industries feel very strongly that the elimination of this program will totally retard the growth that is so vital to feed the peoples of the United States and the world. Look closely before you shut your eyes to this program.

With any great fishery the quest for knowledge to maintain said fishery, as well as to discover new fishing grounds, do basic research, and conduct exploratory fishing is a vital ingredient. To be so naive as to think that we can fish for ever on the same species, the same grounds and with the use of the same gear can only lead to economic detriment to the fishermen and force upon the fisherman and vessel owner the total avoidance of fishery management. With the lack of new knowledge through reesarch for new and expanded areas, the fisherman, vessel owner and processor must do one of two things: (1) go out of business because of over-fishing in limited areas, or (2) set up a base of operation in other countries.

To eliminate sea time of our research vessels must have been determined with caprice and lack of concern for our industry. The migration patterns, availability, composition and habits of any fishry can only be determined by vessel time at sea. Any fishery needs a floating laboratory. Oil research is done on the site. Timber research is done on the site. Why not fish research?

To be more specific I feel that we need more knowledge on skipjack. The closing of the laboratory on Terminal Island is tragic. One is familiar with the status of the yellowfin fishery and the limitation on the catch of albacore, but in order to clear up problems and unknown facts about the skipjack specie, research on color, texture and body composition, it is vital to maintain this laboratory to keep pace with consumer growth.

If it is necessary to cut the budget as anticipated it might be useful to suggest a "shift in the emphasis" of the remaining funds. The appropriations set aside for marketing might be shifted to vessel research or gear technology. With the acceptance of new marketing techniques developed by industry, it might be wise to leave this area to industry and place the burdens on Government in that field more basic to their functions.

I must concur with you Mrs. Hansen that "we are telling the world that the United States is no longer interested in its fishing resources." How inconsistent can we be to say in one breath that the world needs to look at oceanology, ocean engineering, new sources of food from the sea, mineral and natural gas exploration yet, on the other hand, attempt to eliminate the first step or entree to these great wealths of the sea through our commercial fisheries. We in the commercial fishing industry are the first step to these great challenges. We plead for your consideration not to curtail us, but to encourage us to continue with all the programs we have so laboriously fought for.

If you feel it proper I would appreciate entering this statement in the record. I am also taking the liberty of sending copies of this letter to the entire committee.

Yours very truly,

ANTHONY V. NIZETIAH, *Director.*

ANTHONY V. NIZETIAH, *Director.*
Seattle, Wash., March 11, 1970.

Congresswoman JULIA BUTLER HANSEN,
1214 Longworth House Office Building,
Washington, D.C.

DEAR JULIA: Many thanks for sending me your newsletter which is always of interest to us, and we are grateful for your efforts in our behalf in the fishery field. It was with deep interest we noted your remarks regarding cuts in funds dealing with fishery research.

We sent you a copy of our testimony before the Merchant Marine and Fisheries Subcommittee and our concern with the lay-up of the research vessel *Miller Freeman*, which we feel is not only ill advised and false economy, but, more than that, a declaration by the administration that it is not too concerned about the U.S. fisheries. All information we have been able to obtain, and, in this respect, we would like to refer you to the Report on Marine Science, Engineering, and Resources which we set out in our testimony before the Merchant Marine and Fisheries Subcommittee, clearly indicates that there is a great need to maintain our present fishery exploratory vessels and add more of them.

We have said again and again that we cannot argue conservation successfully unless we can support our arguments with scientific proof. In spite of a situation which is clear to a poor, uneducated fisherman, present conditions in the fishing industry do not seem at all clear to those who shape our policies. We have no particular reason to be proud of former administrations, either, because both the Republicans and the Democrats seem to have been quietly determined to trade away our livelihood and fishery resources on the international bargaining counter.

While not entirely in the dark, we have been groping in a dimly lit atmosphere trying to find our way out where the light of a new day would hold some promise for the future. We were impressed with some of the campaign statements made in the last election, but, as usual, these are not being fulfilled. On the contrary, the elimination of vitally important research work would indicate a lack of understanding which can only have a very detrimental effect on our resources.

We sincerely hope that in your position on the Committee on Appropriations, something can be done to restore the research vessel *Miller Freeman* to service and to keep the rest of our research vessels employed so that the answers we need can be furnished by the work of these vessels.

There are other ports in our country where the research vessels have been laid up. We are not too familiar with the need of research in some of these areas, but we are familiar with the need on the Pacific Coast and in Alaska. We believe good support can be generated in the Congress to force a reevaluation of the present policy which seems to be one which considers fisheries an expendable item.

We would appreciate very much anything that can be done by you to help the fishing industry by making possible reestablishment of some of the cuts now being contemplated in fishery research.

Kind personal regards.

Sincerely yours,

GEORGE JOHANSEN, *Secretary-Treasurer.*

March 10, 1970.

Before: Senate Committee on Commerce.
Re: South Korean Salmon Fishing in Bering Sea, Alaska.

GENTLEMEN: Following reports on contemplated salmon operations by South Korean nationals in the Bering Sea area, the Alaska Fishermen's Union brought up this question in the February 19, 1970, Congressional hearing in Seattle by the Merchant Marine and Fisheries Subcommittee, for the purpose of alerting Congress as to the dangers involved should Korea actually engage in salmon fishing during the 1970 season.

We were assured in 1969 that the South Korean government would not license any of its fishing boats for salmon fishing in the North Pacific. Despite this assurance—and, as far as we know, without a government license—a fishing company under the name of Taiyo Gyogyo Company did engage in salmon fishing. It is our understanding they later sold their salmon catches to Japanese companies. As a consequence, the South Korean fishermen were not open to reprisals from the South Korean government as the salmon was not landed in South Korea.

We have no way of knowing whether a tacit agreement or understanding was in effect between the fishing company and the South Korean government. We only know that this South Korean fishing company was able to circumvent promises made to the United States, and it certainly appears that unless specific action is taken, this will again be the case in 1970.

The question may well be asked: Why are we so concerned, when the forecast for 1970 season seems to indicate a record run of salmon?

We are concerned because if salmon fisheries by any foreign nations are allowed east of 175° W. longitude, the abstention principle is destroyed, and Secretary of State Cordell Hull's definition of U.S. rights to American salmon, as well as the Truman Proclamation, are down the drain.

Japan would have a legitimate excuse to abrogate the North Pacific salmon treaty as the treaty would become discriminatory by preventing Japan from fishing in areas where other nations could fish.

The original reason for the North Pacific Fisheries Treaty was to prevent an unlimited fishing effort on North American stocks of salmon. While in the past salmon was fished only in inshore waters, Japan started a high seas fishery in 1952. Since that time, fisheries technology has progressed to a degree where catcher boats with motherships as stations can decimate the salmon resource completely on the open ocean if restrictions are not placed to prevent unlimited fishing.

Bristol Bay red salmon constitutes the greatest salmon resource in the world. There would not be any resource left it were not for the conservation efforts and severe restrictions imposed upon American fisherman. However, more than the personal economic loss to U.S. fishermen should the resource be destroyed because of lack of action by the U.S. Government, the loss to the Nation of this valuable food supply would be disastrous. This is what our fight against invasion by South Korea is all about.

This is why the issue before the Senate Committee on Commerce is so critical that there must be concerted action by the Congress to make the administration understand the urgency and face up to the reality of the emergency confronting not only the fishing industry but the resource itself.

In conclusion, may we also note that any arrangement made with the South Korean government should be coupled with adequate inspection and enforcement measures.

We believe that if South Korean is sincere in saying she is not going to license her nationals to fish on salmon, she should not hesitate to agree to adequate measures to prevent violations. Failure by South Korea to so agree should alert the United States that there will be salmon fishing by South Korean nationals, and, in that case, the U.S. Government should commit itself to take unilateral action for the protection of our North Pacific salmon resource.

Lest we forget, if adequate safeguards are not provided for in the Bering Sea and North Pacific waters, the entire Pacific Coast resource of salmon will also be in the same position and in dire jeopardy of destruction.

Respectully submitted.

GEORGE JOHANSEN, *Secretary-Treasurer.*

CROCKER & WINSOR SEAFOODS,
Boston, Mass., March 16, 1970.

JULIA BUTLER HANSEN, Member of Congress,
Congress of the United States, House of Representatives,
Washington, D.C.

DEAR CONGRESSWOMAN HANSEN: We in the New England fishing industry have seen some bleak depressing conditions, but now with the proposal to cut vessel construction funds, our future looks hopeless.

Most of our fleet are obsolete, over 30 years old. Living conditions and safety aboard our decaying boats will not attract young men to go to sea. As a result we see a compounding of our difficulties unless we rebuild a modern fleet of boats soon.

Furthermore if we stay on the path we are going, shore installations will continue to suffer and gradually the entire New England industry will disappear because of this vicious cycle.

I know that the B.C.F. has statistics ready and available to substantiate my above remarks.

With best wishes and appreciation for your interest and concern,

Sincerely yours,

SAMUEL H. BLOOM.

CALIFORNIA SEAFOOD INSTITUTE,
San Francisco, Calif., March 17, 1970.

Hon. JULIA BUTLER HANSEN, Member of Congress,
House Office Building,
Washington, D.C.

DEAR CONGRESSWOMAN HANSEN: I appreciate, and at the same time apologise for the delay in replying to, your kind communication of February 26.

I heartily concur with your findings and have taken the liberty of forwarding copies of your letter to our entire membership. I have also asked that our members communicate with you and with their local representatives in support of your position concerning the needs of our commercial fisheries.

It does seem to me to be a national calamity that we will allow other fishing nations of the world to not only utilize the resources of the United States, but to have the use of facilities (boats, gear, etc.) far superior to those of our fishing fleets.

Once again I most sincerely appreciate your interest and your efforts. Please be assured of our wholehearted cooperation.

Best regards,

JOHN P. GILCHRIST.

WARRENTON, ORE., *March 16, 1970.*

Hon. JULIA BUTLER HANSEN,
U.S. House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: To those of us in the commercial fishing business, the fact that the Bureau of Commercial Fisheries $3 million research vessel, *Miller Freeman,* is being laid up almost unbelievable.

With foreign governments *emphasizing* the importance of fisheries, it would indeed be negligent to permit the U.S. Fisheries to fall below their present level of sixth place in world fisheries.

We need the Miller Freeman to:

1. Fish with the Russian fleet (as previously scheduled) to prove the vulnerability of our Cohoe salmon to their stern trawlers.

2. Gain us information concerning what is left of the fish stocks off our coast and to provide conservation measures of these resources through international agreements.

Rather than cutting the appropriations for fisheries, it would seem more understandable to our organization that funds be appropriated to help support the endeavors of an industry that helps to feed the people a high quality protein product. According to facts acquired from the B.C.F., Canada has an inspection program similar to ours and U.S. fish is inspected as thoroughly as any other product put on the market such as meat, chicken and grain products. Last year 75 percent of the fish consumed in the United States was imported, this import fish goes through a very limited inspection in the country of origin and is only spot checked when it reaches the United States. The exception to this being Japan where shellfish and frozen fish are inspected. This inspection does not apply to canned fish from Japan.

We feel that the American public should be able to buy the best fishery product available and that funds should be available to help get American-caught fishery products on the market.

Very truly yours,

VIRGINIA GOODRICH, *Secretary.*

THE COMMONWEALTH OF MASSACHUSETTS,
DEPARTMENT OF NATURAL RESOURCES,
BOSTON, *March 26, 1970.*

Hon. JULIA B. HANSEN,
House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: Mr. Hugh O'Rourke recently forwarded to me a copy of your letter of February 25, 1970, regarding the plight of Federal appropriations for the Bureau of Commercial Fisheries and commercial fisheries in general.

Here in Massachusetts, we look with mounting concern at the cutback of funds for the Bureau in the face of a fisheries disaster brought about by foreign fleets. The Commonwealth, although vitally concerned with its multimillion-dollar fishing industry, is in no position to increase its own marine fishery program as a substitute for dwindling Federal involvement.

I sincerely believe the Nixon administration should be made aware that without increased Federal assistance, rather than cutbacks, this Nation will cease to be a catching nation and become completely dependent upon foreign suppliers for fishery products. When and if this situation occurs, the other nations can eliminate their support since our consumers will have become a captive market.

What is desperately needed now is a solid commitment from the administration and Congress that our domestic fishing industry is not being abandoned. Passage of the Fisheries Development Act of 1969 (S. 2825) and release of past appropriations being held by the Bureau of the Budget would be immediately effective steps to reverse this trend. Your concern and effective efforts are deeply appreciated. Please record the Massachusetts Department of Natural Resources in favor of increased appropriations for fisheries during your Department of Interior budget hearings.

Sincerely yours,

ARTHUR W. BROWNELL,
Commissioner of Natural Resources.

GRAND HAVEN, MICH., *April 6, 1970.*

Hon. JULIA BUTLER HANSEN,
House of Representatives,
Washington, D.C.:

Your efforts to retain the regional office and laboratory of the Bureau of Commercial Fisheries at Ann Arbor are greatly appreciated. It appears that the Department of Interior is still intent upon abandoning the office and seriously reducing the effectiveness of the laboratory. We appeal to you to make one last effort to save these installations, the staffs have gained worlds of knowledge about the lakes and the fish stocks over the years. All of this expertise that has cost the taxpayers millions will be lost if the staff is disbanded.

CLAUDE VER DUIN,
Executive Director, Midwest Federated Fisheries Council, Inc.

TUNA BOAT OWNERS ASSOCIATION,
Honolulu, Hawaii, April 9, 1970.

Re: (1) Budgetary reserve of appropriation for the commercial fisheries for fiscal 1970; and (2) proposed cut in the commercial fisheries budget for fiscal 1971.

Hon. JULIA BUTLER HANSEN,
U.S. House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: The Tuna Boat Owner's Association of Hawaii urgently requests—

(1) That of the money Congress appropriated for the Bureau of Commercial Fisheries for fiscal 1970, totaling $1,190,000.00 be expended as originally intended and not held up as a budgetary reserve at this time; and

(2) That no budget cuts be made in the commercial fisheries budget now before Congress for fiscal 1971.

President Richard M. Nixon in the 1968 campaign, declared that, "the maritime policy of the new administration will be to accelerate the technological improvements which we know can be achieved today in our fishing industry to make it competitive worldwide."

From a communication to the Tuna Boat Owner's Association of Hawaii, dated December 17, 1969, Commissioner Charles H. Meacham of the Fish and Wildlife Service, Department of the Interior, in announcing the selection of Director of the Bureau of Commercial Fisheries, stated that: "We are confident that Phil (Philip M. Roedel) will do an outstanding job and we appreciate your continuing interest and support of the work of the Bureau of Commercial Fisheries. Both Phil and I are looking forward to working with you in making our fisheries the most progressive industry possible."

In the midst of the announced policy of the administration to accelerate and the Department of the Interior in making our fisheries the most progressive industry possible comes the punch line of your announcement that "of the money Congress appropriated for the commercial fisheries for fiscal 1970, $1,190,000 has been placed in budgetary reserve.

"This means that at a time when we should be increasing our fisheries, the 1970 spending actually is dropping below the 1969 investments."

Further, that "a proposal to further cut at least $5.7 million in the commercial fisheries budget. Construction of facilities is minus $2,325,000; construction of fishing vessels is down $2,800,000; Federal aid for commercial fisheries research and development is cut $440,000 and anadromous and Great Lakes fisheries conservation is minus $139,000."

What then are we of the industry to expect from such pronouncements?

The utter frustration and feeling that the utterances were not meant for an active, live, and progressive program to assist the commercial fishing industry of the United States to its proper place as a leader in world food production from its fisheries program.

Hawaii is well aware of the tremendous progress being made by other nations in the Pacific Basin. These foreign fleets are now fishing throughout the Pacific utilizing information gathered by their agencies as well as from reports gathered and reported by the United States.

In a conference sponsored by the Honorable John A. Burns, Governor of Hawaii, to develop a coordinated approach to the harvesting of skipjack tuna resources of the Central and Western Pacific by Hawaii, the Trust Territory, American Samoa, and Guam held February 19 and 20, 1970, in Honolulu, Hawaii it was decided to form a commission which would function as a corporate body with the three Governors and the High Commissioner or their designated representatives as its Board of Directors.

In the discussions of the problems of the commercial fisheries in the Pacific area it was apparent that much of the work ahead depended heavily on the financial assistance that Congress will be called upon to furnish the Commission and industry to be able to accomplish the work now planned for the future in the Pacific Basin.

At the meeting, when the matter of approaching Congress for financial assistance in oceanographic development in the Pacific area, it was hinted that the matter of securing funds at this time may meet with some difficulty in certain quarters of the Bureau of the Budget, due partly to the overall policy of holding the line and cutting back spending in general.

Those in attendance elected to proceed with the program.

This is when we should be increasing our fisheries. We need to put "muscles and thrust" into our program and one certain way of doing it is by utilizing every dollar that has been appropriated for fiscal 1970 in this field and actively utilize the opportunity that the United States has in the Pacific areas.

We of the Tuna Boat Owners Association of Hawaii urgently request that there be no cuts in the commercial fisheries budget now before Congress.

We have requested the Honorable Patsy T. Mink, Congresswoman from Hawaii, to appear at this hearing for and on behalf of the Tuna Boat Owner's Association of Hawaii.

Respectfully submitted.

OLIVER KINNEY, *President.*

STATEMENT BY LEWIS F. DUNN, NORTH CAROLINA FISHERIES ASSOCIATION, INC.

My name is Lewis F. Dunn. I am executive director of the North Carolina Fisheries Association, with my office in New Bern, N.C. Prior to accepting this position over a year ago, I was seafood development consultant with the North Carolina Department of Conservation and Development in Raleigh, N.C. I have been working to develop and advance the commercial fishing industry for over 8 years.

North Carolina is located in what is known in the Bureau of Commercial Fisheries as Region II which extends from Texas to the North Carolina-Virginia line. The regional office is in St. Petersburg, Fla. All Federal fisheries programs, with the exception of the market news program, are administered from this regional office. The market news program is administered from the Region III office in Gloucester, Mass.

Prior to my assuming my present duties, the North Carolina fishing industry had no advocate, and the existing fisheries programs reflect this in several ways. Since I have been in this position, sincere desire has been evident to me on the part of regional officials to provide additional services to North Carolina. However, each proposal has been thwarted by a lack of adequate funding.

And now, already inadequate services are to be curtailed because of the proposed cuts in the appropriations.

A few specific areas where additional, not curtailed, funding is needed are:

(1) Development of alternate resources for use by the fishmeal industry to provide the basic protein for the animal feed industry. At the present time, Russians and others are fishing on stocks which our own exploratory fishing efforts failed to adequately define because of inadequate funding, and which are needed to fulfill our protein requirements.

(2) Development of the calico scallop industry, a potential $20 million yearly business, the Federal tax revenues from which could alone offset the proposed budget decreases.

(3) North Carolina fisheries miss many harvesting opportunities because of an underdeveloped marketing system. We need more assistance in this area, not less.

(4) The "Market News Report," issued daily but mailed only three times a week, shows only a small percent of North Carolina's landings because of inadequate funds with which to assemble the data from the ports of landings.

(5) Increasing need for capital investments for more modern and efficient equipment for harvesting and processing seafood products is a paramount need in the industry. The loans and grants program should be funded.

(6) Advisory services are needed in a variety of areas of the industry, including the improving of sanitation techniques, product quality, resource management, manpower efficiency, and other areas.

(7) Cost factors, investments, returns, supply and demand, et cetera, should be better understood and applied. A program on economics would do much to advance the industry.

(8) The Bureau of Commercial Fisheries should undertake to develop the areas of services which pay proper attention to the people of the industry, the human resources, including educational programs, sociological programs, and economic programs designed and intended to secure for our people a fair portion of the good life.

There are yet other programs which are in real need of better funding, but I won't go into them here for fear I'll sound critical of the work the Bureau has done. Generally, I commend the good job by those with whom I have had the privilege of working. I can vouch for an unselfish attitude displayed by many, over and above the normal requirements or expectations.

I wonder, in closing, in what condition our Nation's food industry would be today if the agricultural segment had had the same level of nonsupport the marine segment has had.

Thank you.

STATEMENT BY RONALD W. GREEN, COMMISSIONER, MAINE DEPARTMENT OF SEA AND SHORE FISHERIES

For the past decade or so those concerned with the future of the commercial fishing industry in Maine have, along with other fisheries States, been fighting an up-hill battle to convince the Nation in general and the Federal Government in particular that major segments of this industry are in desperate trouble. Again and again we have worked to help develop programs and to obtain Federal as well as State funds to assist our commercial fisheries. During these critical years, some progress has been made. More often than not, however, proposals have been rejected because of overriding considerations of national policy, or simply because sufficient money was never appropriated.

Thus, the commercial fishing industry in Maine and in many other sections of the country continues to teeter on the ragged edge of disaster. The assistance provided so far has only postponed the final death rattle. It seems very clear that substantial additional assistance, especially at the Federal level, is urgently needed. It also seems clear that the most obvious agency through which to start providing such assistance is the Bureau of Commercial Fisheries, U.S. Fish and Wildlife Service, Department of the Interior.

With this in mind, it is particularly distressing to find that the 1971 budget for the Bureau of Commercial Fisheries not only has not been increased to meet the vital needs of the commercial fishing industry and of the Nation as a whole, but that, on the contrary, cuts far in excess of those imposed during fiscal 1970 are being proposed for 1971 by the Bureau of the Budget. It is our understanding, in fact, that the cuts proposed amount to at least $5.7 million.

It is not our purpose at this time to give a detailed analysis of the problems and needs of the commercial fisheries. Such information has been made a part of many official records in recent years through testimony by experts from both Government and industry. In fact, I would think at this point that the plight of our domestic fishing industry must be one of the best documented of any economic problem area in the country. Certainly the Bureau of the Budget has had access to such documentation and must be aware that a crisis exists in our fisheries. It is impossible, therefore, to grasp the logic behind the proposed budget cuts for the Bureau of Commercial Fisheries.

Consideration of only a few salient points will quickly indicate some of the dangers involved in the continuation of a policy which is resulting in the downgrading of one of the Nation's most essential industries. For example: (1) Industry needs and industry problems are escalating; (2) the responsibilities and duties of the Bureau of Commercial Fisheries are increasing steadily; (3) increased offshore research and exploratory fishing are needed; (4) recent international agreements regarding fishing areas and species require the closest

possible Bureau scrutiny and supervision; (5) the continuing influx of foreign fishing vessels onto grounds traditionally fished by our domestic fleet is creating increasingly complex problems, and it is essential that the Bureau have the means with which to cope with them; (6) stepped-up State programs of fisheries aid which are being developed in cooperation with the Bureau are adding a constantly increasing volume of work to Bureau facilities which are already overtaxed.

Finally, we would like to mention two words which loom very large indeed in almost any day's news: oceanography and pollution. It appears that the entire country is in agreement that the first should be developed vigorously and wisely, while the second should be eliminated as completely and as quickly as possible. It seems logical to assume that the Bureau of Commercial Fisheries will be playing a vital role both in the development of our oceanographic resources and in the battle to protect our marine environment from destructive pollution. To do so, the Bureau obviously will need a much larger budget rather than one that shrinks and shrinks until it eventually disappears.

In short, as Maine's commissioner of sea and shore fisheries and as a spokesman for Maine's commercial fishing industry, I would like to go on record as supporting the views of this subcommittee's chairman—that any reduction of Federal expenditures for the preservation and promotion of our domestic fisheries "is a shortsighted and negative approach to the environmental and food problems of the world, an area where the United States should be a leader." We would urge, in fact, that all members of this subcommittee give the most serious consideration to: (1) The restoration of all proposed cuts in the budget of the Bureau of Commercial Fisheries, and (2) the appropriation of additional funds urgently needed for new and expanded programs and services to be provided by the Bureau of Commercial Fisheries.

STATEMENT BY LAWRENCE W. SHAFER, PRESIDENT, SOUTHEASTERN FISHERIES ASSOCIATION

Mrs. Hansen, members of the committee, my name is Lawrence W. Shafer, and I am president of the Southeastern Fisheries Association—a fishery trade association of 500 members who employ over 18,000 people that depend on commercial fishing for their livelihood. My association also is directly tied in with and, in effect, is part of the National Shrimp Congress, the International Shrimp Council, and the Shrimp Association of the Americas. I, therefore, am one of the official representatives of the entire fishing industry in the Southeast. I speak in this capacity today.

Quite candidly, I become more convinced each year that most of those who control the Federal budget for our U.S. fisheries really know very little about our U.S. fishing industry and the contributions it makes to the economy of this country. And let me hasten to say that this general lack of knowledge is equally shared by both major political parties. The general attitude seems to prevail—and I stress this point—that our fishing industry is small, weak, and undeserving of major Federal expenditures. I only wish it were in my power to lay this myth to rest. We all read statistics that point out that the United States has dropped from second to sixth place in world fishery production in recent years. These "prophets of doom," however, ignore that we remain No. 2 in the value of our catch. They are quick to point out that domestic production has remained static for the past 30 years. However, they ignore that the landings value during the same 30 years has increased from $99 million to over $470 million—nearly a fivefold increase in catch values.

Much is made over the fact that an ever-increasing share of U.S. consumption of fishery products is of foreign origin. However, these "prophets of doom" fail to point out three important facts: first, that much of these imports are cheap industrial products; second, that much of the valuable fishery products are further processed in this country, thereby contributing significantly to our U.S. economy; and third, that a significantly large amount of imports is produced by American capital in many parts of the world—again contributing to the domestic economy.

Permit me now to discuss the fishing industry in the Southeast. In 1940 we produced 575 million pounds of fish for which our fishermen received less than $15 million. In 1968, we produced over 1.6 billion pounds of fish worth—to the fishermen—$156 million—nearly a threefold increase in tonnage and more than

a tenfold increase in value, and this is growth at the fishermen's level. When we consider values to wholesalers, processors, brokers, distributors, truckers, retailers, restaurant operators, and closely allied industries such as box and ice manufacturers, packaging firms, and a host of others, the values are much higher. Now, I suggest that this hardly represents a sick or declining industry.

This country is blessed with immense natural resources—forestry, mining, agricultural, and fishery resources. Our fishery resources are vast, and they are renewable resources. The officially designated Federal fisheries agency, the Bureau of Commercial Fisheries, has played a vital role in the rapid growth of the fishing industry in the Southeast. I submit that the Federal policy should be one of expanding assistance to an expanding industry, rather than cutting back on expenditures and risking harm to a dynamic, growing, and important segment of our economy.

Finally, I wish to emphasize a specific point that is important to our fishing industry in the Southeast. The program that our industry likes most is the one that Federal officials like least. I have reference to marketing. For the sake of brevity, I will not detail the background, but suffice it to say that our industry has worked hard to build a strong industry-States-Bureau cooperative marketing program in the Southeast. This marketing program is probably the largest and most effective fishery marketing program in the world. It has been the most important factor in the growth of our industry in the Southeast. We want this program expanded—we certainly do not want to see it cut.

MRS. JULIA BUTLER HANSEN,
Congress of The United States, House of Representatives,
Cannon Building, Washington, D.C.

DEAR MRS. HANSEN: In February, I wrote to you, along with a number of other political leaders, relative to my concern about the layup of the Bureau of Commercial Fisheries research vessel, the *Miller Freeman.* At that time, I was particularly concerned about the loss of jobs and the apparent duplication of effort with the University of Washington research program in tagging salmon.

The many answers I have received and the personal chats I have had with knowledgeable persons have taught me much about our ocean-fisheries resource. I am particularly appreciative of the time Mr. Clarence Pautske spent with me in explaining some of the problems that the Bureau of Commercial Fisheries has had as they attempted to wisely use this important natural resource.

It was Mr. Pautske's suggestion that I give written testimony which might be read at the hearing you will be conducting on April 14 concerning the Bureau of Commercial Fisheries budget for the ensuing year. Thus I am enclosing the following testimony which you may use as you see fit.

Sincerely yours,

FRED S. MARTIN,
Auburn, Wash.

TESTIMONY OF FRED S. MARTIN

Thank you for permitting me to express my interest in the problems of the Bureau of Commercial Fisheries as related to the drastic cuts in budget stipulated by the Bureau of the Budget. I am only a private citizen with no connections with the fishing industry or the governmental agencies responsible for its supervision. However, I am interested in the maximum sustained yield of all renewable resources, the economic plight of men out of work, and the effective and economic use of all resources at the Bureau of Commercial Fisheries' command.

My interest in this matter was aroused by an article in the Seattle Times (February 13) which told of the impending layup of the research vessel, *Miller Freeman.* Here is a vessel, specifically designed and built at the taxpayers expense in 1967, capable of doing *sustained* research work *in all kinds of weather* on the high seas being mothballed as an economy move precipitated by the drastic cuts in the Bureau of Commercial Fisheries' budget.

The studies I have made of the annual reports of the Bureau of Commercial Fisheries Seattle landings, receipts, and value of fishing products for the past several years and the personal conversations I have had with knowledgeable leaders in this field lead me to conclude that we need expanded research rather than a curtailment of this service. I have noted the declining yield of king crab since the high mark of 1966 and the drastic steps the industry has taken to try to offset the overfishing of this species. I am told that similar overfishing of sar-

dines off the California coast and haddock on the east coast have seriously depleted these resources. If adequate data had been available, these problems could have been averted.

We are also faced with intense competition for these resources from Canada, Japan, Russia, and now South Korea. To attempt to bargain with these knowledgeable powers from a weak base of inadequate data seems foolhardy and likely to further erode our position as a significant contributor to the world's fishery community.

As a taxpayer, I am painfully aware of the cost of Government services and I realize the need at this particular time to tighten our fiscal belts. However, it seems shortsighted and unwise to attempt to make substantial savings at the expense of the Bureau of Commercial Fisheries and particularly the research aspects of its work. I would ask the committee and particularly the Bureau of the Budget to give reconsideration to the allocations to the Bureau and see if there are not other areas such as military expenditures or aerospace where savings can be made. Thank you for this opportunity to express my concerns.

STATE OF WISCONSIN,
DEPARTMENT OF NATURAL RESOURCES,

Hon. JULIA BUTLER HANSEN,
House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: At their annual meetings in Milwaukee, Wis., on March 10–12, 1970, the U.S. members of the technical fishery committees of Lake Michigan, Lake Superior, and Lake Huron, which operate under the auspices of the International Great Lakes Fishery Commission, expressed deep concern with certain changes proposed by the Department of Interior that will affect the organization of the Fish and Wildlife Service and its agencies in the Great Lakes area.

A review of the functions of the Great Lakes Fishery Laboratory at Ann Arbor, Mich., and an exchange of viewpoints relating to these proposed changes with fisheries people associated with Lakes Michigan, Superior, and Huron was consummated by the unanimous adoption of the attached resolution which I have been instructed to forward to you for consideration.

It is our sincere hope that the resolution will be of value to you in any considerations that you may be able to give to the reprograming and strengthening of the role of the Fish and Wildlife Service in the Great Lakes fishery program.

Sincerely yours,

CHARLES N. LLOYD,
Chairman, Lake Superior Committee, Great Lakes Fishery Commission.

SUPPORT OF GREAT LAKES FISHERY LABORATORY, ANN ARBOR, MICH.

Whereas, the threat of pollution of the environment to the continued existence of mankind and of other forms of life is receiving extensive though belated attention, and

Whereas, the Great Lakes, situated as they are in the densely populated east central portion of the United States and Canada, are gravely threatened, and

Whereas, the water of these Great Lakes must be kept at a high standard of cleanliness to meet a vast and growing need for water for domestic and industrial use, for recreation such as swimming and boating, and for the production of fish of suitable kinds and in adequate quantity to allow satisfactory sport and commercial fisheries, and

Whereas, the proposed changes of the Department of the Interior appear to be such that they will reduce the effectiveness of the program of the Great Lakes Fishery Laboratory in Ann Arbor, Mich.: Now, therefore, be it

Resolved, That we, the representatives of the conservation agencies of the States of Michigan, Minnesota, Wisconsin, Illinois, and Indiana urge that the Great Lakes Fishery Laboratory be kept at full operating efficiency at this critical time. Among the more compelling reasons for this stand are:

1. The Great Lakes Fishery Laboratory is the only large institution capable of engaging in full-time ecological and fishery research on the Great Lakes; indeed, it is the world's largest and best equipped freshwater laboratory.

2. Founded in 1927 to study fishery problems in the Great Lakes the Great Lakes Fishery Laboratory has a long history of outstanding scientific research.

3. Loss of the Great Lakes Fishery Laboratory would:

a. bring vitally needed Federal research on the environment and fisheries to a halt,

b. cause the dispersal of a highly competent staff of scientists and technicians, and

c. make difficult the application of vast accumulations of biological information that are especially valuable because of their continuity.

Be it further resolved, That copies of this resolution shall be forwarded to the members of the U.S. section of the Great Lakes Fishery Commission and to the respective Department Directors whom we urge to take immediate action in support of this resolution. We further suggest that copies be provided to:

Senators and Representatives (of each State)
Chairman, Subcommittee of Merchant Marine and Fisheries Committee for Fisheries
Chairman, Subcommittee on Interior's House Appropriations Committee
Assistant Secretary for Fish and Wildlife, Parks and Marine Resources
Commissioner for Fish and Wildlife Service.

UNIVERSITY OF WASHINGTON,
Seattle, Wash., February 14, 1970.

Mrs. JULIA BUTLER HANSEN,
House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: We in the College of Fisheries at the University of Washington applaud your concern about the reduced appropriation for the Bureau of Commercial Fisheries. We have been concerned for 50 years with the problems of the U.S. commercial fishing industry and the conservation of the food fishery resources. The Bureau of Commercial Fisheries (and its predecessor agencies) has been concerned with this problem for almost 100 years and has been the sole Federal Agency to be so concerned. The drastic cuts in the budget of the Bureau of Commercial Fisheries and the accompanying demoralization of the Bureau apparently mean that the Federal Government has much less concern for either the commercial fishing industry or the food fishery resources. This seems most unwise.

The United States is fortunate in having a very long coastline and fishery resources which, if properly conserved, ought to be yielding about 10 times the current U.S. catch. These resources are exceedingly vulnerable to foreign fishing fleets, which in recent years have become so numerous and which have depleted so seriously the resources close to their home bases that they are engaged in search and destroy missions all over the world. We now have many foreign fleets catching fish within sight of our shores, and we can only expect their efforts to be increased. Most of these fleets are subsidized by their home governments.

Neither these foreign vessels nor our own fishermen can be allowed to destroy these resources. They are too important as a source of protein food for too many people here and abroad.

Our defense against the encroachments of the foreign vessels cannot be to lock up the resources by declaring a 200-mile or some other broad territorial sea. We must insist on responsible utilization of the resources and this requires an intensive research effort. It means knowing enough about the resources in advance of the heavy foreign fishing to estimate the sustainable yields and to be able to show the consequences of destructive fishing. Such information cannot be gathered by tying up research vessels and decimating the staffs of laboratories, because every negotiation with a foreign government about the conservation of these resources requires hard facts.

Some people have claimed that our fishing industry is not worth saving, that it is antiquated and cannot compete with the big foreign vessels. These assertions are simply not true when our fishermen are freed from the shackles of some of our restrictive laws and when they are given an equal opportunity to obtain equipment at competitive world prices. We have vessels on all of our coasts that are operated by venturesome and able men who are making money, even though many of the fishermen on the depleted stocks are in financial trouble.

The U.S. fishing industry can use the large stocks of fish around our coast if it is allowed to operate efficiently. This will require surveys of the resources, reliable knowledge of the size of the stocks, better gear to find and catch fish, better equipment for processing all of the catch, and modifications of existing laws.

The Bureau of Commercial Fisheries was reorganizing their program to meet this challenge, but now it is faced with radical budget cuts that will set it back for years. The welfare of both our coastal fishery resources and our commercial fishing industry depends on an effective Federal fisheries service.

Sincerely yours,

WILLIAM F. ROYCE, *Associate Dean.*

STATEMENT OF GERALD I. BOLDA, PRESIDENT OF BOLDA FISHERIES, WISCONSIN, DIRECTOR WISCONSIN FISHERIES COUNCIL, MIDWEST FEDERATED FISHERIES COUNCIL AND NATIONAL FISHERIES INSTITUTE

As a member of the commercial fishery industry and former member of the American Fisheries Advisory Committee, I have had an opportunity to work very closely with personnel of the U.S. Bureau of Commercial Fisheries. Prior to 1958 and the establishment of Region 4 at Ann Arbor, with its excellent multidisciplinary staff of top freshwater fishery scientists, our only source of assistance was through the Washington Office of the Bureau. This arrangement was not at all satisfactory because the central office people were not familiar with our problems and immediate assistance was therefore impossible. However, with the establishment of the regional office in Ann Arbor and its staff, we were able to obtain the cooperation and immediate assistance with our problems. This arrangement was ideal and of immense assistance to the fishing industry. I would venture to say that I alone have had occasion to contact BCF people at Ann Arbor hundreds of times over the past 10 years. I have found them to be helpful, cooperative and always willing to assist us.

In addition to my own personal requests for assistance, I know of myriads of other calls that they have been handled. It is my firm belief that it is doubtful whether the fishing industry (commercial fishermen, processors, dealers and brokers) could have survived these last trying years without the help that we have received from Region 4, personnel of the BCF.

We have experienced many other crises over the years that threatened our very existence. First it was the disappearance of the lake trout, whitefish and pike and the Lake Erie cisco, next we were faced with the sea lamprey, then botulism, pollution, and alewife menace. Not all of these problems have been settled. We are still living with these problems and daily face new threats to our livelihood—the latest being the mercury poisoning.

Seldom has the Bureau of Commercial Fisheries group in the Great Lakes had money adequate to the task assigned. Never, until most recently, could long-term researches be set up that would contribute to a fundamental understanding of fish populations and of the factors, including the environment, that control their level of productivity.

It appears to us in the fishing industry that the Bureau regional office and its ancillary activities have had a constant battle, not only with the elements but primarily with the attitude of the Department of Interior and the central office of the Bureau regarding freshwater work. Let us be frank and say that the Department of Interior is not commercial fishery oriented and they cared little for the commercial fisheries. Year after year Region 4 failed to receive sufficient funds to enable them to do their jobs. Year after year funds for certain projects were arbitrarily withdrawn long before the work was completed. Within the past several years the Washington office constantly withdrew funds for botulism research and even tried to scuttle the entire project. This at a time when the industry was hard pressed to continue its smoked fish operations in the face of constant pressure from the Food and Drug Administration.

It appears to the fishing industry that the Great Lakes work born in crisis has forever since experienced the varying fortunes that inevitably befall an organization whose very life has depended upon emergencies that cry for attention.

Region 4 personnel have made many breakthroughs in science. These have given them a worldwide reputation. The sea lamprey control program is a classic

example of such work. The disclosure of the pollution of Lake Erie is yet another. The pollution of Lake Erie disrupted the entire aquatic habitat and the fish and fish-food organisms were the first indications that something was wrong.

We, the fishing industry, and I know that I can speak for the entire industry as well as all other residents of the Great Lakes, were appalled, mortified, and shocked when we learned that region 4 was being abolished. Now we will have to go to Gloucester, St. Petersburg, or Seattle for help. No longer will we have someone close at hand who is familiar with our problems and anxious to be of assistance. Above all though, we cannot understand the thinking behind this audacious decision. The abolishment of the only freshwater fishery center in the United States is beyond belief. Here were gathered every discipline known to freshwater fisheries. Gone forever will be the expertise that existed here.

Our disbelief is furthered by our knowledge that Canada is increasing her freshwater capability and has two tremendous freshwater centers at Winnipeg, Manitoba, and a new multimillion-dollar laboratory now under construction at Burlington, Ontario. Both labs will work on the Great Lakes but the Burlington group will devote their entire energies to the Great Lakes. Canada at least recognizes the Great Lakes for what they are: Their most precious and valuable natural resource. The United States on the other hand, is not discharging their responsibilities on the Great Lakes, but merely disbanding their establishment and allowing the problems to go unattended in the hopes that they would fade away.

Apparently what we face is confusion in the Washington Office of the Bureau of Commercial Fisheries. The former goals of the Bureau seem to have been submerged under new ones of—

1. Personal aggrandizement;
2. The building of a top-heavy and costly administrative superstructure; and
3. Establishment of tight, dictatorial, efficiency-killing rule over Bureau activity.

The following information suggests that selfish goals—not industry welfare—are now the primary concern of the bureaucrats, including appointed officials in the Department of the Interior.

1. The fishing industry is consulted less and less on its needs and desires, high-level bureaucrats sitting at their desks know them for us.
2. The Bureau in Washington did not have the courtesy to explain their plans for abolishing region 4 and other actions elsewhere in the United States.
3. I find no evidence that the Bureau of Commercial Fisheries asked industry to help them reduce the $7 million cut they recently received.
4. Scientific research has been given a low priority not only in region 4, but the entire United States of America, at a time when more research is needed so badly. Laboratories are being closed or handicapped by excessive reductions of funds and staff. How can we harvest stocks of fish sensibly if we know nothing of the populations on which they are based?

It hurts me to have to speak so frankly about the Bureau of Commercial Fisheries. It has long served us well. But now it is a sick Bureau that needs a thorough cleansing, that needs to regain its sense of purpose.

We in the fishing industry would urge you to stop this rape of the Great Lakes-Central Region of the United States by demanding that the cuts and personnel be restored. It cannot be permitted. We, the people, have too much at stake here. We stand to lose an investment of millions of dollars in data collection, accentuated knowledge, and knowledgeable manpower. The brain-drain loss cannot be calculated. Many years of data will be lost forever. Data are the building blocks of knowledge. But most important, we cannot afford to lose out in the continuity of the collection of data. As I dimly understand the plans, as much as a year will be lost between July 1, 1970, and 1971 while Sport Fisheries takes over the biological laboratory. On top of this will be the time lost in training new men to do the job. The loss of such data during these critical times when we do not know what will happen in the Great Lakes year to year, cannot be countenanced. Lost data cannot be made up. It is necessary to keep watch constantly.

Frankly, I feel at a loss to fully express my strong feelings for what has happened to the once-proud commercial fishing industry of the Great Lakes. On this very day our newspapers carry the story that Lake Erie, Lake St. Clair, are closed to commercial fishing because of mercury poisoning. The fishing in-

dustry suffers and its doors close to those who for generations made their living on fishing—yet the very source and cause of polluting these waters, the big chemical companies, are allowed to continue operations. The same situation is true of our coastal and river fisheries. I feel the time for reorganization cannot be too soon—before all of our fishery resource is lost.

I wish to suggest that you give strong consideration that the Bureau of Commercial Fisheries be taken out of the Department of the Interior. It should be made a part of the National Oceanic and Atmospheric Agency (NOAA) as proposed in the Julius Stratton report of January 9, 1969. Under this agency the problems of the fisheries and the environment will be given the attention they require.

I thank you for your kindness in asking me to testify before you.

AMERICAN FISHERIES SOCIETY.

HON. JULIA BUTLER HANSEN,
Committee on Appropriations, House of Representatives, Washington, D.C.

DEAR MRS. HANSEN: This statement is being made in response to your invitation to comment on the 1971 budget of the Bureau of Commercial Fisheries, Department of the Interior. The American Fisheries Society, the oldest active professional society in the Western Hemisphere dealing with some particular aspect of natural science, or conservation, has been a constructive force for the gathering and dissemination of information pertaining to fisheries for 100 years. The official society journal is the Transactions of the American Fisheries Society which has been published continuously since 1870. Membership in the society totals over 5,200 with the majority of the members coming from the United States and Canada and, to a lesser degree, from more than 60 other countries throughout the world. The society's operating funds are derived mainly from the dues of individual members. Included in our objectives is the promotion of the educational, scientific, and technological development and advancement of all branches of fisheries science and practice.

The American Fisheries Society has adopted a North American fisheries policy that promotes the scientific management of the fishery resources for the maximum use and enjoyment by the people of this continent. Sport and commercial fisheries in both fresh and marine waters including those for mollusks, crustaceans, and fishes are equally important. Scientific management of these fishery resources is best achieved by promoting the theory and application of all branches of fishery science including aquatic ecology, fish culture, oceanography, engineering technology, and economics.

The fiscal year 1971 budget of the Bureau of Commercial Fisheries shows a cut of well over $1 million for research, including losses of $482,000 and $392,000 for coastal and offshore research and shellfish research, respectively. Although a curtailment of certain BCF programs and services appears to be a necessity because of a period of very severe budgetary constraints, it is absolutely essential that the financial support necessary for the scientific management of the fisheries resources be made available. The American Fisheries Society is most interested in seeing that moneys are made available to the Bureau of Commercial Fisheries so that vital programs like the joint scientific studies with the Soviet Union, which are being conducted in the interest of conservation of the vulnerable commercial and sport fisheries resources of the Atlantic shelf, are not curtailed.

Because of proposed cuts in the 1971 BCF research budget, and the fact that certain vital ongoing research programs are being curtailed or sacrificed, it is abundantly clear that we are not properly promoting the theory and application of the various branches of fisheries science for the scientific management of the fisheries resources. Consequently, there will be serious long-lasting harmful effects on (1) the resources, (2) the role of the United States in the field of international cooperation in fisheries conservation, (3) the availability of capable fisheries scientists, and (4) the fishermen.

In summary, the budgetary curtailments on the Bureau of Commercial Fisheries research program now being considered will jeopardize the fisheries resources and the fisheries profession, and in the long run will also be detrimental to the public interest. Therefore, the society deplores the action of the Bureau of the Budget which made these cuts necessary. However, it recognizes that reinstatement of funds in fiscal year 1971 alone cannot undo the damage already done. We hope, Madam Chairman, that you will be able to convince the Bureau of the Budget of the importance of its encouragement and support of a strong

research program in fisheries and related environmental activities. It is most important that the Bureau of the Budget reevaluate its position and support increased funds of the Bureau of Commercial Fisheries in fiscal year 1971, fiscal year 1972 and in future years. Furthermore, the society is most interested in learning more about the future role, including financial support, of both the Bureau of Commercial Fisheries and the Bureau of Sport Fisheries and Wildlife in the fields of scientific research and management of our important fisheries resources.

I wish to thank you very much for this opportunity to comment on the 1971 Bureau of Commercial Fisheries budget, and I trust that the above statement will be included in the record of the hearing when appropirate.

Sincerely yours,

ROBERT F. HUTTON, *Executive Secretary.*

STATEMENT BY ROBERT C. GAEDE, OF THE AMERICAN INSTITUTE OF ARCHITECTS

Mr. Chairman, my name is Robert C. Gaede. I am a practicing architect from Cleveland, Ohio, and a member of the American Institute of Architects' Committee on Historic Resources. I am also the State preservation coordinator for Ohio, and act as the counterpart for the profession to the State liaison officer, an individual appointed by the Governor to manage Federal and State historic preservation programs. Accompanying me is Philip Hutchinson, the AIA's director of governmental affairs.

Today, I am appearing on behalf of the American Institute of Architects (AIA), a professional society of over 24,000 licensed architects, to indicate support for National Park Service appropriations for historic preservation programs. We believe that your approval of the National Park Service's request for funds will—

Insure a certain quality to our built environment;
Demonstrate for succeeding generations our cultural development; and
Provide a variety of townscape worthy of our best expectations.

You may wonder why involvement and concern with historic preservation is expressed by the American Institute of Architects. Simply, it is that our commitment to the design of buildings and sites obligates us to a considerable responsibility for the total environment. That environment is one demanding a thoughtful retention of the buildings, structures, sites, and groups of buildings from our past wherever warranted by excellence of architectural quality or historic association.

The concern with historic preservation within the American Institute of Architects is not new. In the mid-1930's many architects participated in the initial efforts of the historic American buildings survey of the National Park Service, a program extending successfully, if modestly funded, to this day, and, hopefully, into the future.

In the early 1950's the institute's committee on historic buildings began a program of an educational and advisory nature which in time embraced all the States. Working with very meager funds, our members assisted in the taking of local surveys, advised on specific preservation projects, helped establish landmark preservation ordinances and carried out tours, exhibits, and public lectures.

Today, the problem of preserving the valuable heritage of our built environment is very great. Even though individual sites and buildings have been snatched from loss, usually at the last moment, countless distinguished and still useful structures have gone by the board—victims of impatience, poor management, or local apathy. Often, the losses are due to federally assisted construction projects, such as highways, which are consuming large urban districts.

Lately, there has been a groundswell of public concern for the preservation of historic properties. Grassroots activities are everywhere. Yet, funding for local preservation projects are nearly always inadequate. Inventories of noteworthy sites and buildings in an area or region have rarely been undertaken, either for lack of necessary funds or expert management. Advice on establishing protective measures or recording and documenting significant buildings is desperately needed. Too often, the demolition permit is in process and counselling under the wrecker's ball is not conducive to thoughtful study and deliberation.

If we are to preserve our national heritage, the assistance of the National Park Service and its Office of Archaeology and Historic Preservation is crucial. So are the advisory capabilities and guidelines of the National Trust for Historic

Preservation, the Nation's uniquely well-equipped, nonprofit organization chartered by Congress in 1949.

The Congress, in passing the National Historic Preservation Act of 1966, authorized sums which appeared ample at the time. However, the experience of the subsequent years, 1967 through 1969, found appropriations to be only a small fraction of the authorized amounts; only about $1,369,000 of a $32 million authorization has been appropriated.

The amount actually available ($751,500) to the States as matching funds for the necessary survey work and related preservation action, was too little to support an effective program.

Yet, the States have established action agencies and have raised substantial funds to further preservation activities. A recent survey by the NPS indicates that for fiscal 1971, 35 States and the national trust have raised about $19 million in matching funds.

The AIA, therefore, endorses grant-in-aid funds to increase the effectiveness of State programs and to more nearly meet the demonstrated need for grants-in-aid to the States. The amount of $6,119,000 proposed for fiscal 1971 would make it possible for many of the regions of our country, where no careful analysis of our historic and architecrural heritage has been made, to proceed and to assemble the teams and process the results of this environmental examination.

We are encouraged that the total budget of $6,950,000 for the NPS in the historic preservation program for fiscal 1971 is finally raised to a level where effective measures to curb the rapid erosion of our architectural and cutural heritage can be employed. Out of this total we urge that funds be provided to the historic American buildings survey to document and record our resources. We also urge that funds be provided to assure the continued growth of the National Register, a critical listing which provides a special protection to any structure or site qualifying as being of national excellence. Architects, living in areas still lacking in landmark protective codes or ordinances, will increasingly depend on the National Register for the extra measure of preservation assistance when noteworthy buildings are threatened.

Historic preservation is a positive force in our society. It is allied to the exciting spirit of conservation of the best in our entire environment. It has a stimulating and economically enhancing impact on the community. It provides the youth of America with a real recognition of our cultural heritage. It seasons our contemporary environment. It makes us reflect. It can help restore vitality and neighborliness to a deteriorated urban district by the rehabilitation of still useful public buildings, housing, or parks. It can retain the natural grandeur of a noteworthy country town. It is for all the people. For all these reasons, the historic preservation should be funded at the level of the administration's request.

Thank you for the opportunity to present our views. If there are any questions, we shall do our best to answer them.

STATEMENT OF PHILIP A. HUTCHINSON, JR., AMERICAN INSTITUTE OF ARCHITECTS

Mr. Chairman, my name is Philip A. Hutchinson, Jr. I am director of government affairs for the American Institute of Architects.

The AIA has a suggestion for saving money which we would like to couple with our request for historic preservation funds.

We have studied the operations of the Bureau of Indian Affairs design and construction activities and have concluded that it is uneconomical for the BIA to maintain a substantial in-house design capability when equivalent services could be provided at lesser cost from private enterprise. Accordingly, we suggest that a potent source for reducing the costs of BIA construction activities would be to strip down its in-house design organization and to give most of its work to private architectural and engineering firms.

The AIA's analysis of the Bureau of Indian Affairs' design activities leads us to conclude that, based upon the Bureau's own data, it costs between 2 and 3 times as much for the Bureau to design a project and administer it in-house as it would to obtain comparable services from private practitioners.

Congressional appropriation hearing records on BIA construction practices underscore our assertion. For example, the Senate hearings before the Committee on Appropriations, Subcommittee on Department of the Interior and Related Agencies for fiscal year 1969, contain, among others, the following projects:

(1) *Turtle Mountain County School, Belcourt, N. Dak.*—Estimated construction costs, $2,551,950. BIA architectural and engineering services, $341,000 or 13.4 percent of the estimated construction costs. A/E services provided by private practitioners for this project would be in the range of 6 to 7 percent of the estimated construction cost. These services would include advance planning, construction document development, and limited supervision of the project.

(2) *Gray Hill High School, Tuba City, Ariz.*—Estimated construction costs, $8,613,780. BIA architectural and engineering services, $878,000 or 10.2 percent of the estimated construction costs. Comprehensive private A/E services for this project would be the range of 6 to 7 percent of the estimated construction costs.

Such examples indicate to us that the BIA is paying far more for in-house A/E services, or a combination of in-house private A/E services, than the cost of equivalent services from the private sector. And the figures stated above do not represent Department of the Interior assignment of administrative cost to the BIA construction department estimated to be $207,000 for fiscal year 1969 (Senate appropriation hearing, fiscal year 1970). Such administrative cost is not included in the construction appropriation. Furthermore, the figures do not represent the cost of space occupied by the construction department and funded by the General Services Administration. If such costs were assigned, the cost of BIA's in-house design and construction activities would be even greater.

Those Federal agencies which guarantee or insure construction have developed various guidelines for architectural and engineering fees. The Department of Housing and Urban Development, for example, uses the following guide for all its projects insured under pertinent sections of the Housing Act such as section 236, "Housing":

ARCHITECT'S FEE

Improvement cost	Design percentage	Supervision percentage	Improvement cost	Design percentage	Supervision percentage
$100,000	7.00	2.33	$5,000,000	2.90	.97
$300,000	6.00	2.00	$6,000,000	2.70	.90
$500,000	5.00	1.67	$7,000,000	2.50	.83
$1,000,000	4.50	1.50	$8,000,000	2.35	.75
$2,000,000	4.00	1.33	$9,000,000	2.20	.73
$3,000,000	3.50	1.17	$10,000,000	2.10	.70
$4,000,000	3.20	1.07	$11,000,000 and over	2.00	.67

Note: When the cost is above a division point, the guide percentage for the next higher amount will be used.

You will note that the Department of Housing and Urban Development obtains comprehensive architect-engineer services on a $2,500,000 project for under 5 percent of the estimated construction cost, while the Bureau of Indian Affairs pays 13.5 percent for A/E services on a similar project.

To put this in perspective, we compared BIA's in-house design capability with that of the General Services Administration. We found that GSA, one of the largest civilian construction agencies, employs 131 professional technical and clerical staff in its central design and construction office. This staff supports a $1 billion construction program. The Bureau of Indian Affairs employs 169 professional technical and clerical personnel in its central design and construction office. This staff supports less than a $50 million program. Thus the BIA requires more personnel than GSA to handle a construction program that is less than one-twentieth the size of GSA's.

We believe that each Federal construction agency should have a staff of competent professional and technical employees. This is essential if the Government is to assure that maximum value is obtained for each dollar spent. But we do not believe it is prudent for an agency to overstaff as is the case with the Bureau of Indian Affairs.

Thank you.

STATEMENT OF NEAL FITZSIMONS, C. E.

I am Neal FitzSimons, chairman of the national committee on the history and heritage of American civil engineering.* You have already received from President Miles, of the American Society of Civil Engineers a letter strongly supporting the proposed appropriation of the National Park Service; in particular, the Historic American Engineering Record program.

A few years ago there were only a handful of scholars concerned with the preservation of our engineering heritage. They saw, with frustration, the neglect of the great American engineering works of the past; and sometimes their irretrievable destruction. For example, the most powerful waterwheel ever built was allowed to collapse and become a victim of the junk pile.

More recently several American engineering societies have established active programs in the history and heritage of engineering. The American Society of Civil Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical and Electronic Engineers, the American Waterworks Association and the American Society for Metals are among the more active.

Programs for recognition of engineering landmarks have been given much attention. Through them the public learns about the positive side of our heritage—engineering works that say "It can be done!" The engineers themselves are made more conscious of the permanence of their works; more conscious of the need to consider the aesthetic as well as the economic aspects.

Many important historical projects can be anticipated as the Historic American Engineering Record joins the Historic American Building Survey in helping preserve the heritage of America's builders. These key projects will result in State and local groups of historians and engineers producing the basic studies on the engineering landmarks of their area which are of national significance.

The broad interest in this effort is clearly demonstrated by the Mohawk-Hudson survey. Engineers, historians and conservationists were among those sponsoring this successful prototype project which was accomplished in 1969.

As practical men, engineers are not prone to engage in ephemeral efforts. But they see in the Historic American Engineering Record a solid program which will efficiently serve to stimulate and coordinate many of the diverse activities in the emerging field of engineering history; a program in which a small amount of Federal money is translated into a large amount of local effort.

STATE OF NEW MEXICO,
STATE RECORD'S CENTER AND ARCHIVES,
Santa Fe, N. Mex., April 1, 1970.

Hon. MANUEL LUJAN, JR.,
U.S. Representative, House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE LUJAN: As a member of the Cultural Properties Review Committee of the State of New Mexico, I am dismayed that the proposed budget for the national historic preservation program would disburse a large portion of Federal funding to the National Trust for Historic Preservation. I am a member of the national trust and fully aware of the work which it does. However, if a sizeable amount of the $6 million is to be granted to this group, I fear that State programs will suffer. A systematic historical preservation plan for New Mexico is already far in advance of that for many States, thanks to the Cultural Properties Act passed in 1969 and the severance tax bond financing provided by the 1970 State legislature. I feel that discrimination in favor of a basically private agency will make it impossible for our State to secure the funding to make our program significant.

Sincerely yours,

DR. MYRA ELLEN JENKINS,
Deputy for Archives.

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*Of the American Society of Civil Engineers.

NATIONAL RECREATION AND PARK ASSOCIATION.

Hon. JULIA BUTLER HANSEN,
Chairman, Subcommittee on Appropriations, Interior and Related Agencies,
Cannon House Office Building, Washington, D.C.

DEAR MADAM HANSEN: Undoubtedly you are well aware of the need for additional parks, recreation and conservation for the constituency of this Nation. In the past, your leadership has been excellent indeed in bringing about appropriate and adequate resources so that the leadership could do the job that needs to be done. We are most cognizant this year of additional funds needed by the National Park Service and know that you will soon be discussing these programs and budgets. If you deem it appropriate, we would be happy to meet with you to discuss our concerns. More appropriately, though, we write at this time seeking your assistance in bringing about the adequate resources necessary to make the National Park Service one of the finest in the world. I well realize that the economic conditions are rather stringent at this time, nonetheless, we owe it to our people to give them excellent service and a park system of which all of the citizens of this country can well be proud. Under the leadership of George B. Hartzog, Jr., the National Park Service has progressed immeasurably and with your assistance we know that he will continue to progress bringing about a better environmental quality and quality of life. We thank you sincerely for whatever assistance you may give to be sure that the adequate resources are made available.

Sincerely,

SAL J. PREZIOSO, *President.*

WASHINGTON, D.C., *April 11, 1970.*

Hon. JULIA BUTLER HANSEN,
U.S. House of Representatives,
Washington, D.C.

DEAR REPRESENTATIVE HANSEN: As one more citizen interested in the future of Alaska, I am asking if you may see the wisdom of promoting further studies before the issuance of the Alaskan Pipeline permit. I would like to add my support of H. Res. 810 and be assured a comprehensive study of the operations of the various oil companies will be promoted.

Also would like to ask this letter be included in the April 16 public witness hearing record.

Assuring you, I, with many others, will appreciate your interest in this matter.

Yours truly,

MRS. MARTHA M. BACHE.

MARCH 31, 1970.

Re H-Coal research project funding.

Hon. JULIA BUTLER HANSEN,
Cannon House Office Building,
Washington, D.C.

DEAR MRS. HANSEN: Knowing your interest in our vital future energy requirements, your concern for a wise and proper development of our natural resources together with a rational approach to protection of the environment, I would like to call your attention to our "H-Coal research project" and its present status.

You are aware, as chairman of the House Subcommittee on Interior Appropriations, that funds for the "H-Coal research project" have been cut to a point where further research is no longer possible under our present commitments. In view of the fact that the process, in our opinion, has the greatest chance of success in the utilization of coal to produce commercial quantities of premium grade lead-free gasoline and low sulfur fuel oil, we are appealing to you to please consider the proposition proposed in the attached presentation.

In view of the fact that hearings have been held on coal research funding and that the record is still open, it is respectfully requested that this letter and the attached information be included in the record for consideration before final action is taken.

Sincerely,

PHIL D. HELMIG.

H-COAL PROCESS

H-Coal is the trade name for a process developed by Hydrocarbon Research, Inc., for the liquefaction of coal by hydrogenation. The H-Coal process, an application of the ebullated bed reactor, is a patented process owned by HRI.

H-Coal is regarded by many independent analysts as the soundest process for the conversion of coal to liquid petroleum products. Its development is technically far ahead of other processes currently being sponsored by the Office of Coal Research.

H-Coal development has been sponsored for the past 2 years by the Atlantic Richfield Co. ARCO has agreed to continue its support on a limited basis provided other companies and/or the Government can provide partial funding. The fact that industry, outside the development company, has supported and is willing to continue to support the H-Coal development attests to the technical and economic soundness of the process.

Recent laboratory developments, which have substantially improved the economics of H-Coal, indicated that it is now possible to produce premium grade lead-free gasoline from coal at prices nearly competitive with prices of gasoline from petroleum. In addition, high sulfur content coal can be converted to low sulfur fuel oil for use by electrical generating plants at prices competitive with conventional fuel oil. These developments are of significant interest to the country's efforts to alleviate air pollution.

If the H-Coal process development is to continue without disastrous interruption. Government funding must be provided on the basis of joint industry and Government support. A minimum of $950,000 per year for a 2-year period is needed to continue laboratory work in order to further develop and prove the process. Industry can probably be counted on to provide $450,000 per year: the balance of $500,000 per year is required from the Government. A proposal setting forth a program in detail has been submitted to the Office of Coal Research.

In addition to funds for laboratory development, $200,000 is needed in fiscal year 1971 for preliminary engineering of a pilot plant.

Hydrocarbon Research, Inc., has demonstrated its ability to achieve results as forecast under Government-sponsored research contracts. The company was awarded a 3-year contract by OCR in February 1965 for the development of the H-Coal process. This contract was terminated in September 1967 because HRI had achieved the goals established in the contract ahead of schedule and the Office of Coal Research diverted the funds to another contractor who was experiencing difficulty in meeting contract objectives—a difficulty which persists.

Unless a commitment for Government funding can be obtained in the near future, H-Coal development may have to be broken off and the team of research specialists associated with the program disbanded. In view of the fact that the Government is currently spending large sums on coal liquefaction processes which are not as far advanced as H-Coal, this would be an unnecessary tragedy.

STATEMENT BY DR. SPENCER M. SMITH, JR., SECRETARY, CITIZENS COMMITTEE ON NATURAL RESOURCES

Madam Chairman, members of the committee, I am Dr. Spencer M. Smith, Jr., secretary of the Citizens Committee on Natural Resources, a national conservation organization with offices in Washington, D.C.

It is impossible for a citizen's organization to be totally familiar with the great variety of matters that are before this committee. It is important to note, however, that based on the widest categories, Natural Resources received 1.3 percent of the Federal budget request for fiscal year 1971. We feel this proposition is not commensurate with the needs of the country nor with any prudent planning. Few private business firms would permit their capital base to receive such limited attention.

FOREST SERVICE

Very recently, an analysis by members of the timber industry revealed a timber shortage despite the fact that the industry had contended strongly for some period of time that such shortage was not imminent. The projection by the Forest Service was clearly on target and problems in the timber supply began to manifest themselves during the last few years. The solution, which some had decided upon, was to increase the allowable cuts on the national forests. The

basic concern of relieving the present situation with such a recommended course of action is expedient but the country is placed in a situation of reoccurring emergencies in the future—each being more onerous and egregious.

The national forests are going to have to serve the many purposes required of them in the Multipurpose and Sustained Yield Act. The budget does not, in our judgment, reflect properly the serious problems faced by the Forest Service in fulfilling their stewardship. For example, only $2,877,000 is requested by the administration as an increase in reforestation and timber stand improvement. The Forest Service has about 5 million acres which need replanting and reforestation. This acreage continues to increase. If the national forests are to take on an additional burden of timber supply over and above the present requirements in view of the diminution of such supplies on private land, then rather strict attention must be paid to both the immediate and long-term efforts in management of our forest resources.

The increase in sales, administration, and management of $5,260,000 over last year, while helpful in getting out the lumber, is not in keeping with the greater need of reforestation. The range resource management has a minimal increase of $650,000 for improvements. This is indicative of the entire area of national forest protection and management which must be strengthened significantly in almost every category if the purposes of the national forests, including timber production, are to be achieved.

We are especially concerned that the pressure for timber now does not cause the Forest Service to be pressured so severely that they will be straining at the very limit of sustained yield management. We feel the extension of working circles and other administrative decisions that the Service has made recently is placing the forests in a posture that is borderline as to sustained yield management at the present time. Also, the practice of clear-cutting which varies in terms of proper silva culture varies from specie to specie. Even if clear-cutting is accepted, however, there is some considerable latitude as to the area of clear-cutting practices. In many instances the specific area of clear-cutting has been too large and the impact upon other uses of the forest resources have been significant.

If the national forests are to serve effectively the many uses and many demands upon them, then the Forest Service is going to have to have more than token improvements from area to area. More trees are going to have to be planted. More personnel, with appropriate skills and training, must be retained. At the present time, wildlife management and wildlife biologists are hard pressed in terms of needed financing. This can be said of many other skills which are required for proper management of forest resources. Cooperative programs with States and, to some extent, with private industry must be extended, for unless the total forest lands of the Nation—private, local, State, and Federal—are improved significantly, the demands on any one of them will be impossible.

BUREAU OF LAND MANAGEMENT

The Bureau of Land Management has been extended to the breaking point. Year after year this Bureau, after deducting those amounts to States and counties, deposits in the Treasury of the United States between $250 million and $1 billion. Its management is spread so thin that in most instances supervision of the public lands exists on paper only. While we will mention only a few highlights of the basic picture, it is obvious to us that the Bureau of Land Management cannot protect the areas of its responsibility and/or administer them in a fashion that serves the public interest. Almost any activity of the Bureau with which one comes in contact is understaffed and underfinanced. Often, help must be extended to it by other bureaus or State organizations.

A detailed inventory and analysis in wildlife habitat management has long been necessary on a wider basis and in more detail than now exists. The wildlife alone on such lands includes 15 major big game species, 20–25 small game species, and 15–20 wildfowl species. In total, the Bureau of Land Management manages about 475,000 acres of wildlife habitation and it is estimated that about one-third of this area in the 10 Western States is not in satisfactory condition. As indicated previously, inventory surveys are a requisite for any appropriate habitat management plans. In the previous 2 years we have completed 50 such plans of an estimate of some 1,500 needed. The budgetary request has remained the same at $2,156,000 for fiscal year 1971. The minimum that should be allotted to this function is $4 million.

It would be impossible for us to detail the outdoor recreation utilization of the lands administered by the Bureau of Land Management. It is estimated that the use of these lands for public recreation has increased about 400 percent in the last 5 years. This has resulted in the deterioration of the land so used, for the manpower and facilities currently available can handle only a small percentage of such recreation use. As a result, littering, vandalism, destruction, et cetera, are a consequence. Delays of remedial action are evident. Ranging from urban recreation, special environmental protection to the implementation of special areas have seen problems increasing each year in terms of effective management. The 1971 budget increases slightly the construction, operation, and maintenance and management. We would recommend that for a bare minimum the following increases be appropriated: Construction, $640,000 to $5 million; operation and maintenance, $985,000 to $1,500,000; management, $1,026,000 to $2 million.

Another major responsibility of the Bureau of Land Management is the soil and water conservation. We have over 125 million acres of land that have seriously deteriorated. Not only should the 125 million acres of public land which comprises a part of 450 million acres indicate a need for water control and development, revegetation, and other conservation practices, but such goals are not attainable by the budget request of $13,407,000. While technically this is a slight increase over the 1971 budget request, it seriously lags behind the demands that are being made upon these lands and there are perhaps few areas in Government that are as underfinanced. Certainly, $20 million falls far short of the 1964 billion dollar improvement program but a better attainment would be possible than the present request would allow.

We would conclude by mentioning that grazing on the public lands needs a significant increase in supervision on the part of the Bureau of Land Management. This, again, indicates an increase in personnel as well as the necessary supportive services which would come to more than the $879,000 recommended in the 1971 budget request. By the same token, $95,000 requested in the 1971 budget for the Bureau to minimize damages to public lands and resources from mining is also inadequate. If we are serious about our concern for the environment, this amount can hardly be less than $1 million. This would not replace the so-called self-policing regulations by the oil and gas industries, but would simply aid and abet programs that are already underway. Certainly $1 million could not begin to phase out, at this juncture, the so-called self-policing programs.

We know the committee has heard our plea for many years as to the need to increase the amount allocated for fire control to the Bureau of Land Management. The 1971 fiscal year budget allocates approximately $5,607,000 for prevention and presuppression while a token of some $400,000 is provided for emergency firefighting. As this committee knows, the emergency firefighting fund is a completely flexible amount. The Bureau does not stop fighting fires when the $400,000 is exhausted. The critical element, therefore, is in prevention of fires, as we have argued for so long. The total amount which the Bureau allocates for this purpose would be far superior and would be about the same if the prevention and presuppression of fires was adequately funded. In other words, if instead of spending approximately $5½ million, we spent $12 to $13 million, this would tend to level out the total expense on the fires for all types within 5 to 10 years, in addition to which we would not have the timber destruction that we have had in the past.

We have not exhausted the areas of arguments for increases in the budget requests for the Bureau of Land Management. We hope the public will be educated and the Congress will respond to these important needs.

BUREAU OF OUTDOOR RECREATION

The Bureau of Outdoor Recreation has the principal task of administering the land and water conservation fund. The budget request is for $168,500,000 for fiscal 1971. We understand, however, that an additional amount is to be requested which would fully fund the land and water conservation fund to the $200 million authorized. It is our further understanding that the administration will seek to appropriate an additional $127 million authorized but not appropriated in previous years. We fully support this budget request and hope the committee will respond favorably. This would result, therefore, in a recommendation of some

$327 million to be appropriated and spent in fiscal year 1971. There would be an additional $30 million which would serve to close out the contract authority which the National Park Service was authorized under the statute that raised the amount in the fund from $100 million to $200 million.

We feel the testimonies of the involved Federal agencies, as well as the recognized needs of the respective States and localities, offer sufficient justification for the full funding of this most important endeavor. If we fail in the upcoming fiscal year to increase significantly moneys available for increasing the resources devoted to outdoor recreation, our efforts will be, in all probability, beyond the pale in ever attaining these resources.

THE BUREAU OF SPORT FISHERIES AND WILDLIFE

We strongly support the increase in the wildlife research funds in the amount of $406,000. In addition to the $6,000 standby amount, the $200,000 allocated for environmental pollution research is especially important. We feel that the Institute of Environmental Studies, which would be located at the Patuxent Wildlife Research Center, Laurel, Md., can make an important and effective contribution. We do not know the impact of various complex influences which result from PCB's, oil, chemical compound, acid and other similar pollutants. It is evident from the immediate past that the residuals found in wildlife population from toxic elements have provided important warnings regarding the state of pollution in the environment. The amount requested could be doubled and efficiently expended.

Both the task as well as the physical setting seem most appropriate in carrying out these studies. The space and facilities are available; the area is appropriate and certainly the need is great.

The program of land acquisition continues to lag behind. We are appreciative that the budget request this year represents an increase of $1.7 million over the amount requested for 1970 and represents an advance of approximately $7½ million from the Migratory Bird Conservation account. We hope the committee will treat this request as a minimal amount. The entire fate of fish and wildlife is dependent upon the existence of habitat. We are facing a significant reduction in land areas that support the fish and wildlife because of the continued expansion of other human needs. Though underfinanced, since the passage of P.L. 87–383 which provided for the $105 million wetlands loan, some 325,000 acres of land for refuges have been acquired and over 950,000 acres have been acquired in either fee or easement for waterfowl production throughout the Dakotas, Minnesota, Montana and Nebraska. This represents a significant achievement within severe budgetary limitations. Ultimately this program is funded by the sportsmen who purchase duck stamps and we, therefore, support strongly an advance from the Migratory Bird Conservation account of $10 million for fiscal 1971.

We hope that the Endangered Species Conservation Act of 1969 will be granted the requested $75,000 increase in order properly to carry out the provisions of the statute. The requirement to regulate the importation of wildlife into the United States, as well as the interstate shipment of particular species that are taken contrary to laws of a State or foreign country, require implementation. Certainly the $75,000 requested is a minimal amount for this important work. It would be our hope that the $75,000 could be increased with the subsequent effect of initiating this important work at a level that will be visible and effective.

The Bureau of Sport Fisheries faces problems comparable to all agencies involved in the management of natural resources when budgetary stringencies are invoked. The establishment of priorities becomes an unwelcome and many times an impossible chore. If one were to advance a rule of thumb, however, it would be suggested that the two most desperately needed factors are the acquisition of necessary lands and the continuance and further implementation of required research activities. In the case of land, we are already desperately late. Research provides the necessary basis for effective and prudent planning and no program can be carried forward without such preparation. The research involved is often time-consuming and cannot, therefore, be expanded or contracted at the whim of fiscal urgencies. Development, construction, are the easiest to postpone and the easiest to reinstitute. We feel our comments have been within the general frame of reference of these considerations.

The proposed budget requests which provide an increase of $22,300,000 over the requests for 1970 continue to represent a skin-tight approach. We have continually urged that the operating programs be strengthened and better supported financially. We feel that it is only in this manner that the areas within the National Park System can be given appropriate and proper protection. Also, we feel that such strengthening especially is important in proper planning and implementation of the Wilderness Act as well as the embracing of new areas and the utilization thereof.

We have yet to master our primary difficulty involving the areas administered by the National Park Service. First and foremost, is the land escalation that takes place between the time of authorization and the time in which appropriations are available. It is apparent that the Congress is not going to grant the National Park Service sufficient funds for use under contract authority in order to obviate this price escalation on land to be acquired. It would be beyond the abilities of a citizen's organization and would unnecessarily intrude on the time of the committee for this presentation to attempt to relate the number of situations in which the failure to acquire inholdings are now threatening important and major park areas. It is too often thought that inholdings can be acquired at one's leisure and that once the boundaries have been established the primary task is completed. Often, however, the entire posture of a pristine area which has qualified years ago for a national park is threatened by the management of inholdings which can be injurious to the entire setting of the park. When such an occurrence is evident it undermines and consequently destroys the park and the represented public investment that already exists. The inholding problem, therefore, though separate and distinct from the acquisition of new areas and new lands, is in most instances of tantamount importance.

There must be some way to better effect the ability of the National Park Service to purchase inholdings and new areas. At the present time, the administrative time lapse between the time when assessment or appraisal is made and the Government is able to move is unduly long. Continually the appraisals must be updated and wherein options have been taken, the time of administration action is so long that such options lapse. The renewal of such options is obviously at a higher level.

This procedure simply adds to the agony of problems prevalent between the time the Congress authorizes the purchase of an area and appropriates the money. Thus, if one adds to that complexity the further problem of administrative delay, the committee can see the overall escalatory effect that this has had on the acquisition of inholdings and new lands by the park service. The approach that we have alluded to previously of the Land and Water Conservation fund appears to be significant and to represent a serious effort to reduce the backlog that is now facing the National Park Service and is representative of both new areas as well as inholdings. It will do little good, however, if these moneys cannot be utilized efficiently, and we would hope that the committee would look with some care as to how the administrative delay can be reduced, short-circuited, if you will, in order to minimize the time of effective purchase from the time the money is available to the National Park Service.

We feel that there are many areas within the budget that can be supported more effectively than they have been, but the problem which we have presented to the committee is so overriding that if the adverse effects could be ameliorated significanty this could be the primary concern in fiscal year 1971.

We do not mean to suggest that the same problem of a lack of skilled and competent personnel does not continue to plague the service. It does. It is not appropriate to criticize the Service for failure to carry out the directives of Congress if they do not have the personnel as to skill or numbers.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., March 13, 1970.

HON. JULIA BUTLER HANSEN,
Member of Congress,
Cannon House Office Building.

DEAR COLLEAGUE: This letter is written in support of a letter to you dated March 4th from Dean H. A. Keener, College of Life Sciences and Agriculture, at the University of New Hampshire in Durham.

I think you will agree that Dean Keener suggests a very reasonable and moderate approach, and I hope that your committee will move forward with the laboratory when the budget situation permits.

Sincerely,

JAMES C. CLEVELAND.

OREGON STATE UNIVERSITY,
DEPARTMENT OF FISHERIES AND WILDLIFE,
Corvallis, Oreg., March 16, 1970.

Hon. WENDELL WYATT,
House of Representatives,
Washington, D.C.

DEAR MR. WYATT: We are delighted to learn from your letter of March 6 that you are pressing for reestablishment of the Oregon Cooperative Wildlife Research Unit. A unit constitutes a valuable asset to Oregon. The need for such a program has never been greater than now, especially because the increasing number of dedicated young people seeking graduate education in the environmental sciences is not accompanied by a complementary increase in academic staff.

While I must admit to possession of a particular interest in the reestablishment of the Oregon Cooperative Wildlife Research unit, I am even more concerned about the implications in previous testimony as they bear upon higher education. As I interpret the testimony, the position of the Bureau of Sport Fisheries and Wildlife is that the unit program cannot be given a high priority of support because jobs are not available at the present time for everyone obtaining an education in this profession today. The Cooperative Wildlife Research units become involved here because a primary role of the unit is that of supporting education at the graduate level for people seeking careers in wildlife resource management and science.

It is true that there appears to be a recession in recruitment of college graduates educated for careers in the wildlife profession. This recession in employment of college graduates is not limited to the wildlife profession. A recent report by the College Placement Council which serves approximately 1,300 colleges and 2,100 employers, indicates that the slowdown in recruitment is affecting all fields, with one notable exception, accounting.

A table (enclosure 1) on placement history for 1969 graduates from 59 North American campuses compiled by The Wildlife Society is attached. This table is crudely organized and requires careful reading. It is not discriminatory for the kind of questions we must answer. It fails completely in dealing with the number of qualified people who really wanted employment in the wildlife field at the time of graduation and could not find it. Rather than attempt a complete reevaluation of the data in the table, I will deal with data as they relate to the cooperative unit program. As indicated earlier, the unit program is concerned with education at the graduate level. Please note that of 500 undergraduate students for whom we have data, 131 or 26 percent were selected for graduate education. We know that more applied for an advanced education but are either rejected because there is an insufficient academic staff to supervise them or their grades fall below minimum standards, or because they fail to be selected for a scholarship. Further, at the master's level we find that 58 or 30 percent elect to work for a higher degree. Thus, there is a substantial demand for the kind of education supported by the unit program. A unit provides additional academic staff qualified to guide graduate students, scholarships, and sometimes specialized equipment which would not otherwise be available to the students. Now, let us consider employment of the type of student educated by the unit program. At the master's level, 88 percent of those apparently desiring employment found it in the wildlife field. At the doctorate level, 100 percent of those desiring employment found it in the wildlife field. I must interpret this as very strong evidence for giving unit programs a high priority.

I am also enclosing placement reports (enclosures 2, 3, 4, and 5) on fisheries and wildlife graduates in our department. Our placement record appears to be better than the average and is not appreciably different from previous years. I should like to point out that some of our graduates have always gone into fields of work other than that for which they were specifically trained. We have people in other employment ranging from bank president to beekeeper. In some cases this is by design. For example, Philip J. Yasui is shown on enclosure 2 as having gone into farming. You will find it of interest that Philip is the son of Ray T.

Yasui, member of the State Board of Higher Education of Oregon. From the very beginning it was Philip's intention to go back into the family business at Hood River. I should also like to submit that these people, as educated citizens, are not lost to our objective of better management of our wildlife resources and that on many occasions because of their unique position in society are able to be influential in a most effective manner.

When you educate a human being you hopefully do more than prepare him for a narrow professional job. You also create a better citizen who has special skills and values. Well educated people also contribute to creating jobs. A benefit provided by well-planned education is that the educated person may succeed in a wide variety of employment situations. By contrast, the student trained to perform as a special technician must frequently be retrained to meet the requirements of other employment.

Further, no one can unequivocally predict the job situation 4 to 8 years in advance, the time it takes to get a degree in advanced education. The present downtrend in recruitment of college graduates surely is only temporary. While a determined and constant effort is made to assist students in finding employment, jobs are not guaranteed.

Finally, I would like to call attention to the fact that the environmental crisis is being discussed on all fronts. I believe that interest in the environment will be sustained. We must do more than give lip service to it. The cooperative wildlife research unit program is a part of the real service which can be rendered, for it helps educate people who are especially well qualified to deal with environmental problems. Frequently the first evidence that something is awry in the environment is seen in damage to the wildlife resource, and thus it serves as a measure of the quality of man's environment. If we have learned anything at all in contending with the environmental crisis it is that it must be resolved through interdisciplinary and interagency cooperation. May I submit that a cooperative wildlife research unit lives on interagency cooperation and frequently provides the principal basis for drawing State and Federal resource agencies together.

Sincerely yours,

THOMAS G. SCOTT,
Head, Department of Fisheries and Wildlife.

TABLE 1.—PLACEMENT HISTORY, 1969 GRADUATES, 59 NORTH AMERICAN CAMPUSES

Placement	Bachelors		Masters		Doctorate		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Wildlife employment:								
Federal	39	6.0	29	14.2	7	14	75	8.2
State/Provincial	58	8.7	53	26.1	3	6	114	12.5
College/University	4	.6	11	5.4	34	68	49	5.3
Private wildlife	13	1.9	8	4.0	1	2	22	2.4
Total wildlife	114	17.2	101	49.7	45	90	260	28.4
Non wildlife Employment [1]	60	9.1	14	6.8	0	0	74	8.1
Total known employed	174	26.3	115	56.5	45	90	334	36.5
Other placement:								
Work on higher degree	131	19.8	58	28.6	4	8	193	21.1
Military, Peace Corps	179	27.0	20	10.0	0	0	199	21.7
Miscellaneous [2]	16	2.4	2	1.0	0	0	18	2.0
Total other	326	49.2	80	39.6	4	8	410	44.8
Unknown	162	24.5	8	3.9	1	2	171	18.7
Total	662	100.0	203	100.0	50	100	915	100.0

[1] Includes elementary or secondary schools, business, camping program, cook, farming, forestry, pulpwood cutter, and salesman.
[2] Includes those unemployed at time of survey and women graduates who married.

EMPLOYMENT OF GRADUATES, 1968-69

	Advanced study	Military service	Farming	Government jobs	Business or industry	Other designate	Starting salary (per year)	Comments
Wildlife, bachelor of science:								
Barstad, Marvin	X						$6,300	Elementary school teaching.
Blankenship, Merle S								No recent information.
Casciato, Edward V		X						
Christensen, Alan	X							
Conn, Larry D				X			[1] 525	
Frayo, Ronald H		X						
Haglan, William C		X						
Hayley, Stephen J						X		Peace Corps, Iran.
Henderson, David D		X						
Hettman, Gary L								No recent information.
Holt, Donald L								Do.
Ingram, Rodney A				X			[1] 550	
Jordan, Warren L						X		Peace Corps program.
Lundy, Emery R				X			[1] 600	
McCrow, V. Pat	X						2,430	Teaching fellow.
Manske, Kenneth A				X			[1] 459	
Manthey, Kenneth R				X			[1] 705	
Mantie, Donald W						X		Not in field.
Martin, James T		X						
Morrison, Dan D		X						
Murray, John B				X			[1] 613	Temporary.
Robertson, Edward I		X						
Schmitt, Stephen M	X							
Taylor, Calvin H		X						
Terry, Leslie E				X			5,732	
Wills, Michael A		X						
Yasui, Philip J				X			[1] 500	
Zook, William J						X		Not in field.
Fisheries, bachelor of science:								
Beach, Donald R								Anticipates employment, Game Division, Oregon State Police.
Bickler, Michael J	X							
Carlson, Roy A		X						
Coon, John C		X						
Faudskar, John D	X						3,468	
Ferris, Warren G					X		[1] 675	
Forsberg, Brent O				X			[1] 570	
Fujimoto, Michael M				X			[1] 500	
Golden, James T	X							
Kaiser, Rodney J	X							
Kinunen, Wayne A						X		Peace Corps, Iran.
Lichatowich, James A	X						2,880	
McLain, Thomas H		X						
Nielsen, James	X						2,880	
RaLonde, Raymond						X		Do.
Smith, Robert Z								No recent information.
Weaver, Ronald O	X						3,000	
Whitmore, William								Deceased.
Willmore, Greg						X		Private commercial fishing.
Wildlife, master of science:								
Langowski, David J				X			[1] 669	
Morse, Thomas E	X						[1] 250	
Pearson, John P	X							
Peloquin, E. Paul	X							
Primbs, Edward R. J	X							
Silovsky, Eugene D								No recent information.
Fisheries, master of science:								
Bisson, Peter A	X							
Fessler, James L				X			[1] 800	
Hoffman, F. Owen				X			9,000	
Lee, Ronald A				X			[1] 615	
Schlegel, Michael W				X			[1] 600	
Stolte, Lawrence W				X			[1] 650	
Fisheries, doctor of philosophy:								
Averett, Robert C				X			12,580	
Beardsley, Alan J				X			12,000	
Brocksen, Robert						X	12,500	College teaching.
Chapman, Gary A				X			12,174	
Hazel, Charles R				X			13,200	
Liu, David H. W	X						8,000	Postdoctoral.
Pasley, James N	X						6,500	Do.
Straty, Richard L				X			[2] 14,500	
Wallace, Richard L						X	11,340	College teaching.

[1] Per month.
[2] Plus cost of living allowance.

TEXAS A. & M. UNIVERSITY,
COLLEGE OF ENGINEERING,
College Station, Tex., April 10, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Interior Subcommittee on Appropriations, U.S. House of Representatives, Cannon House Office Building, Washington, D.C.

DEAR CONGRESSWOMAN HANSEN: This letter is for support of the Helium Research Center in Amarillo, Tex. The center is scheduled to be closed by the Interior Department June 30.

In my research area of the density and thermodynamic properties of gases I have come in contact with the many research publications of the center. I have had a number of technical discussions with Dr. Barieau and four other members of his staff in the thermodynamics section. Their people, publications, and experimental work are of high quality.

As chairman of the House Interior Subcommittee on Appropriations, I hope you will consider favorably a proposal that:

1. The Helium Research Center be refunded for fiscal year 1971.
2. The Congress request that the National Academy of Science appoint a committee to study the Helium Research Center, and
3. The Congress request the President to instruct the Office of Science and Technology to study the Helium Research Center.
4. The President and the National Academy of Science Committee would submit their recommendations to Congress in time to be considered for fiscal year 1972.

The sudden closing of the center is a personal disaster to the scientists working there. As you may know, the job market for Ph. D. chemists and physicists has grown dim in the past year. If the center must be closed, a slow phasing out of the operation would be rational in view of both people and current projects. Also they have a large quantity of research equipment representing a considerable capital investment. This equipment would be of use to only a few scientists working in this research area and its disposition should be carefully considered in the event the center is partially or completely closed.

I would sincerely appreciate your consideration of this letter and your support of the Helium Research Center.

Cordially yours,

P. T. EUBANK, *Professor.*

W. F. GIAUQUE,
Berkeley 4, Calif., April 15, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, House Interior Subcommittee on Appropriations, U.S. House of Representatives, Cannon House Office Building, Washington, D.C.

MADAM: I understand that serious consideration is being given to the abandonment of the United States helium conservation program which was expected to cover the 22-year period 1960–1983. My own work, which has utilized the unique low temperature properties of liquid helium for nearly 40 years, has led me to a more than usual understanding of this irreplaceable substance.

One should not think of helium simply in terms of the current cost in dollars, but rather in terms of conserving a substance for which no bulk replacement is known or likely to be economically feasible. Helium conserved in gas wells is on a par with gold in Fort Knox and will eventually almost certainly be of much greater importance. It is painful to think of the amount escaping to the atmosphere through its presence in much hydrocarbon gas from which it is not now recovered. Also much of the amount presently used escapes essentially forever without even being reused because of the present modest price. The difficulty of recovering helium from the atmosphere would be comparable to recovering gold from ocean water. Such almost inconceivably difficult recoveries should be thought of not just in terms of dollars but in terms of enormous energy requirements with their addition to existing thermal and chemical pollution problems.

In my low temperature laboratory at the University of California we reuse helium for liquefaction at least 10 times before it is lost to the atmosphere and some day such losses should be further reduced. I wish I could say that such

conservation is more general but the fact is that most users do not give it a second thought as long as they can get more in their time. It will be tragic if our country takes the lead in permitting the loss of any irreplaceable resource, and especially one that required millions of years for its natural production and reasonably substantial concentration.

It took nearly a century before Faraday's early nineteenth century electrical experiments placed electrical energy at the disposal of our modern civilization. The fact that many metals and alloys lose all electrical resistance at liquid helium temperatures, even though they carry enormous currents, is due for practical use and liquid helium will be indispensible. A few metals are superconductors at liquid hydrogen temperatures but it is only at very low temperatures that large current capacity is available. The magnetic fields, which increase with current, destroy superconductivity as the temperature and current are increased.

We understand that a 30-year supply at current rates of usage is already in storage and if you listen only to economists, 30 years is a long time. I doubt that many emonomists foresaw the century long developments based on Faraday's discoveries. In any case the helium situation is different, in that there is no known practicable way of replacing it, and we should not tolerate its loss on the basis of some foreign hope.

Like other specialists, reputable economists do the best they can but they certainly got the helium program into financial trouble when they failed to visualize that private enterprise could undersell the Government with respect to helium. However, we should welcome such efficient efforts against the Government yardstick. If economic advice is the determining factor in terminating the helium conservation program, the present minor difficulties will appear as a trivial rseponsibility when a really large demand for helium cannot be met. This is not a 30-year problem but one for all the years of those who come after us.

Since it seems inevitable that we are approaching a period in which the unique properties of helium will be utilized for practical purposes, it is a strange time to close down the Amarillo Helium Research Center. While we would place conservation first and research second, the apparently abrupt termination of such a unit seems very questionable. It takes a long time to bring such an organization to a condition of research efficiency and we would deplore its destruction. Some reduction in its activities along with those of many others might be expected, but complete elimination will not benefit our national interest.

Perhaps it might be pertinent for me to state that I do not have and have never had any personal connection with the Helium Research Center.

Yours respectfully,

WILLIAM F. GIAUQUE,
Nobel Laureate, Chemistry.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., April 16, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, Interior Subcommittee, House Appropriations Committee,
U.S. Capitol, Washington, D.C.

DEAR MADAM CHAIRMAN: The Governor of North Carolina, the Honorable Robert W. Scott, has written your subcommittee requesting that his written remarks be included in the testimony for the Department of the Interior budget. I hope that his request can be granted. I would further like to support the Governor's endorsement of funding of the land and water conservation fund at the $327 million level for fiscal year 1971 and at a minimum level of $300 million in subsequent years. All parts of North Carolina have benefitted from this fund as has been the case in numerous other States. I support its continuation at the above-mentioned level.

With kind regards, I am

Sincerely,

NICK GALIFIANAKIS.

STATE OF NORTH CAROLINA,
GOVERNOR'S OFFICE,
Raleigh, April 6, 1970.

Hon. JULIA HANSEN,
House of Representatives, House Public Hearing for the Department of Interior, Cannon House Office Building, Washington, D.C.

DEAR MRS. HANSEN: Due to our inability to be present for the public hearing on the Department of Interior's fiscal year 1971 budget scheduled for Friday, April 17, we would like our testimony entered into the record.

North Carolina is vitally interested in the full funding of the land and water conservation fund administered by the Bureau of Outdoor Recreation, U.S. Department of Interior.

This program, although relatively small, has provided assistance to a multitude of State agencies and local governmental outdoor recreation land acquisition and development projects. Not only have the funds gone to the acquisition and development of large State parks but to urban areas, large and small, to aid in their effort for a more wholesome environment. These 150 projects in North Carolina needed the support of the land and water conservation fund to become a reality.

North Carolina has a backlog of about 25 projects qualified for funding but without Federal matching money. Another 20 projects are in various stages of preparation. We strongly endorse and support the funding of the land and water conservation fund at the $327 million level for the fiscal year 1971 and a minimum level of $300 million in subsequent years. This program has been most beneficial to our State in helping to meet the outdoor recreation crises.

Cordially,

ROBERT W. SCOTT.

SOUTH DAKOTA DEPARTMENT OF GAME
FISH AND PARKS,
Pierre, S. Dak., March 4, 1970.

Hon. JULIA BUTLER HANSEN,
Chairman, Interior Department Subcommittee, House Committee on Appropriations, House of Representatives, Washington, D.C.

DEAR CONGRESSMAN HANSEN: The growth of our Nation's population, the increasing affluence of our society, mobility, and leisure time have set the stage for some of our Nation's more pressing and complex problems. These problems include the loss and destruction of our natural resources, the overcrowding and ultimate abuse and overuse of existing park and recreation areas, and the unmet recreation needs and demands of our Nation's people.

The possible solutions to our Nation's recreation problems are manifold. Each of these possible solutions however are hinged on a single, common factor. The availability of sufficient and dependable capital. The States being more closely associated with this problem are in a position to guide and direct programs aimed at our recreation needs. They have compiled vast and comprehensive plans aimed at providing the necessary guidelines, policies, and objectives to be followed. They have placed plans in motion by gearing up the recreation programs of the States, cities, and counties. The impetus has been initiated; the programs begun; but the single basic ingredient necessary for the success of these programs, a sufficient and dependable source of capital, has not been available.

The land and water conservation fund has provided a great deal of impetus to the recreation programs of the States. The available funds however have been erratic and insufficient. Federal funds have been tied up over long periods of time while our recreation programs waited. This has upset the long- and short-range plans of the cities and States. It is evident that Congress recognized this problem in 1968 when Public Law 90-401 was passed. The problem facing us today is to see the wishes of Congress fulfilled. It is time that full funding as authorized by Public Law 90-401 be attained and stabilized. It is also time that we stabilize the distribution of these funds according to the 60 percent State, 40 percent Federal formula originally provided by the Land and Water Conservation Act. This will place the pivotal role on the States as the original act intended.

I would like to solicit your assistance in obtaining full funding under the land and water conservation fund. I would also ask that you add your influence to-

ward maintaining the 60 percent State, 40 percent Federal apportionment ratio for this program.

Sincerely yours,

R. A. HODGINS, *Director.*

STATEMENT SUBMITTED BY CHESTER SPRAGUE, ASSOCIATE PROFESSOR OF ARCHITECTURE, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

As professor of architecture at Massachusetts Institute of Technology, I have been increasingly interested and involved in the condition and improvement of American Indian housing. During the past few years I have done considerable research in this area. I am also involved in the planning and conceptual design of a housing project sponsored by the Blackfeet Tribe and the Association on American Indian Affairs, Inc., on the Blackfeet Indian Reservation, a project financed through FHA mortgage insurance pursuant to section 236 of the National Housing Act.

In addition, I have just recently completed work on a program sponsored by the U.S. Department of Housing and Urban Development to study existing housing conditions among American Indians and Alaska Natives and to develop a viable self-help housing process for these peoples. The final report is now being submitted to HUD by the general contractor, Organization for Social and Technical Innovation (OSTI).

At the present time I am conducting a study of housing problems among Alaska Native peoples sponsored by the AAIA and the National Endowment for the Arts. In the course of these projects I visited 28 Indian reservations and 15 Alaska Native communities, observed a cross section of housing conditions, talked extensively with Indian people and with representatives of the BIA and formed some conclusions concerning the effectiveness of various housing programs.

I am particularly impressed by the BIA's home improvement program (HIP) and want to congratulate this committee on initating and supporting such an intelligent approach to Indian housing. I would go so far as to say that HIP is the only Indian housing program with general popularity among Indian people. It is popular because it allows the Indian people to achieve improved housing conditions with a minimum of delay and bureaucratic complexity.

Under HIP the houseowner has maximum freedom to determine the form of housing improvement, method of improvement, and pace of activity. Furthermore, since HIP provides direct grants for material and labor, the occupant owns the housing product and the Indian tradition of home ownership can continue uninterrupted.

To my mind, HIP is an excellent model for an Indian housing program. It is the only program that actually relates well to the many aspects of Indian life and culture and economy. In fact, if the administration of HIP could be transferred to the Indians themselves, it would be a perfect housing program. It would be a mistake at this time of growing concern for the self direction of Indian peoples to weaken this most popular and most appropriate housing program by inadequate funding.

As a program which has been devoted primarily to rehabilitation and repair of existing structures, HIP also is the most economical way of improving Indian housing conditions. The Bureau of Indian Affairs has determined that some 17,100 Indian housing units are beneath minimum standards but capable of restoration at a cost of $2,200 per unit as against $14,000 per unit for new construction. Many of these homes are deteriorating rapidly and, if not rehabilitated in 1971, will be beyond repair thereafter.

If the Federal Government is going to meet its commitment in Indian housing, this would mean the construction of new homes at much additional cost to the Government. In addition, continued occupancy in these substandard dwelling units without rehabilitation, will tend to maintain Indian disease and infant mortality rates at their present unacceptably high levels.

HIP also involves a small proportion of new construction. This aspect of HIP should be expanded and emphasized for the following reasons:

HIP is a simple program to administer. By tapping the enormous reserve of Indian energy and intelligence for self administration and self planning, the Federal Government could significantly reduce its own administrative costs. A program such as HIP which allows and encourages Indian self determination in housing would insure a closer match between the users and the housing products.

Because the people would be in large measure doing their own improvements, they would identify more completely with the housing product, understand their houses and know how to use them. There is little doubt that on the average such houses would be better maintained than homes built under other programs and that the initial investment of housing money would have a longer effective life. Thus, the high level of HIP funding can produce a disproportionately high level of improvement in Indian housing conditions.

The $6½ million now being considered for HIP's yearly budget would permit the repair and rehabilitation of approximately 3,700 houses. This is well below the 5,330-unit figure which Bureau planners had developed for fiscal year 1971. Limiting the appropriation to this amount will mean that several thousand Indian houses may pass into unredeemable condition so that new homes will eventually have to be built for these families. Even those homes which may still be salvageable will probably cost more to repair in future years if inflation continues at its present rate of 10 percent per year.

Expansion of HIP to cover the operation and maintenance of existing houses at or above standard in order to prevent them from falling into disrepair should also be considered. In the mutual-help program, for example, the cost of operating and maintaining these new houses proves to be too expensive for many participating families. Inability to meet the cost of utilities, of monthly payments, of maintenance and of the new furniture needed for these new and larger houses frequently leads to misuse and deterioration of the houses. In our recent report to HUD, we suggested that HIP subsidies, especially in the areas of maintenance and furnishings, could be used to make mutual-help programs more viable. Thus, even if there were a substantial number of new houses constructed, the financial condition of the Indian people would still require a well financed HIP program.

In summary, I recommend adequate funding for HIP for three reasons:

1. The immediate and pressing need for decent Indian houses.

2. The wisdom of attending to redeemable housing quickly before it deteriorates beyond repair.

3. The appropriateness of HIP as a model for self-directed Indian housing programs, i.e., for programs with optimum freedom of self-determination.

I recommend that the current proposed funding level for HIP of $6,594,000 be roughly doubled to $13 million and that the committee seriously consider doubling next year's appropriation to reach $26 million.

I further recommend that the HIP program be recognized as the best Indian housing program developed to date and that consideration be given to the possibility of improving it even further by turning administrative responsibility over to the Indian people and by granting the program financial support adequate to the need.

Many unversities and other institutions with interest in the housing production field, including MIT, are now recognizing the growing need for full user participation in, and domination of, the housing process. Here, with BIA's home-improvement program, is a case in which this committee and the Federal Government have taken the lead in devising and funding a program that is directly responsive to user communities. This innovative program deserves continued congressional support sufficient to achieve the full potential of the principle of user participation.

INDIAN SOIL CONSERVATION ASSOCIATION,
Anadarko, Okla., April 2, 1970.

Mrs. JULIA BUTLER HANSEN,
Chairman, Interior Appropriation's Subcommittee, House of Representatives, Washington, D.C.

DEAR MRS. HANSEN: As the executive board of an Indian organization dedicated to the promotion of resource development and conservation we wish to say thanks to you for your vigorous efforts in directing appropriated funds to Federal programs designed to enhance our natural environment. On behalf of the Indian landowners of western Oklahoma we wish to solicit your continued support.

We have become concerned at the lessening of emphasis by our national leaders in the area of natural resources. We are hopeful the new environmental control programs will give some side benefits to natural resources programs. We, however, applaud you for the stand you have taken on nuemerous occasions in defense of natural resources.

We are advised the proposed budget for fiscal year 1971, for the soil and moisture conservation activity, for the Bureau of Indian Affairs will be $500,000 less than was available for fiscal year 1970. This will result in a reduction in funds of approximately $34,000 or a proposed allocation of $535,000 for the Anadarko area office, the area we cover with our program.

The land users in this area have been spending about $6.50 for each dollar the Government is spending for soil and moisture conservation practices on Indian lands. In general the Bureau of Indian Affairs is furnishing only technical assistance on this program. The technicians design, layout and assist with the installation and implementation of a wide range of proven conservation practices, and assist operators in securing financial assistance through the ACP and the Great Plains programs available from the Department of Agriculture. Assistance is given in developing irrigation projects and clearing of brush from potentially high productive lands. Long term development leases involving such practices have resulted in Indian landowners receiving as much as 500 percent increase in rentals.

Again we thank you for the vital contribution you are making as a champion for natural resources programs. We ask your help in effecting restoration of the proposed cuts in appropriations for the Bureau of Indian Affairs Soil and Moisture Conservation activity. Please call upon us any time we may be of assistance to you.

Enclosed is a brief statement describing the nature and function of our organization.

Sincerely yours,

JACKSON, MCLANE, JR.,
President, Indian Soil Conservation Association.
LAWRENCE TOMAH, JR.,
Vice President.
JULIA MAHSEET,
Secretary-Treasurer.

Enclosure.

INDIAN SOIL CONSERVATION ASSOCIATION

The Indian Soil Conservation Association was chartered as a local cooperative association and its articles and by-laws were approved under the terms of the Oklahoma Indian Welfare Act (49 Stat. 1967, 25 U.S.C., secs. 501–509) by Commissioner of Indian Affairs, D. S. Myer, on August 12, 1952.

The current membership of the association is comprised of 76 members of several Indian tribes under the jurisdiction of the Anadarko area office. Eligible Indians who patronize the association or participate in its activities automatcally become members for the current year.

The association is a nonprofit cooperative without capital stock. The purpose of the association as stated in article II is "To carry on the business of land management and to promote soil and moisture conservation on Indian lands and to engage in any activities related thereto."

The association is managed by a board of three directors, one of whom is elected each year at the annual meeting to serve a 3-year term. The accounts are audited annually by a certified public accountant.

The main function of the association since its beginning has been to make available at a nominal cost to the operators of Indian lands certain conservation field equipment and materials, which were not otherwise immediately available and to make funds available for sponsoring conservation educational meetings, tours and exhibits. Through these programs, the association has made a very significant contribution in the development and implementation of the Bureau's Soil and Moisture Conservation program in the area.

The association sponsors two awards programs to promote and stimulate interest in natural resources conservation and development. One of the programs recognizes an outstanding conservation farmer in each of the Bureau of Indian Affairs Soil and Moisture Conservation work unit areas each year. Each awardee is honored at an awards luncheon each year. To date 90 Indian land operators have received the award.

The other program which is being initiated in 1970 is the Indian 4–H Achievement program. One Indian boy and one Indian girl will be selected in each participating county for outstanding accomplishments in 4–H work. Winners will be presented a special pin, and a boy and girl State winner will receive an expense-paid trip to the Oklahoma 4–H Roundup which is held annually.

Total liabilities and resources of the association now amounts to $47,987.98. During the calendar year 1969, special conservation equipment was made available to land operators at nominal rental rates. The association received $4,057.25 from equipment-rental income, also $4,290.42 worth of conservation materials were sold to Indian land operators.

COEUR D'ALENE TRIBAL COUNCIL,
COEUR D'ALENE SUB-AGENCY,
Plummer, Idaho, March 12, 1970.

Congresswoman JULIA BUTLER HANSEN,
House of Representatives,
Washington, D.C.

DEAR MRS. HANSEN: It is my understanding that you have been contacted by Wilfred P. Schoenberg, president of the board of trustees of the Pacific Northwest Indian Center. As a member of the board of trustees, I am very concerned that the money is raised to complete the center.

Of primary importance to the Coeur d'Alene Indians, is the center's plan to create a leadership program. Any activity from a personalized tour of the center to traveling displays exhibited at the reservation would do much to foster the pride of our people in their culture.

Several of the Coeur d'Alene Indians have already contributed financially to the success of this venture and will continue to aid in its development. The Coeur d'Alene Tribe has in itself already contributed half of its promised $10,000 grant.

If there is any way you can assist us further, we would be deeply grateful.

Most sincerely,

OSWALD C. GEORGE, *Chairman.*

TESTIMONY OF PHILIP A. DOUGLAS, EXECUTIVE SECRETARY, SPORT FISHING INSTITUTE, WASHINGTON, D.C.

Mr. Chairman, and members of the committee, my name is Philip A. Douglas. I am executive secretary of the Sport Fishing Institute, the only nonprofit, non-Government, professionally-staffed national fish conservation organization. Our main objective is to encourage the rapid development and sound application of fish conservation practices in order to improve sport fishing to the fullest. We derive our operating funds from a wide representation of manufacturers of various sorts of equipment used out fishing, related industries, and interested individuals.

Sport Fishing Institute appreciates this opportunity to appear before you today to give testimony in behalf of the 1971 budget proposals for the U.S. Bureau of Sport Fisheries and Wildlife and those phases of the U.S. Department of Agriculture, Forest Service, pertinent to the consideration of this committee.

1. Marine game fishery research.—Congressional committees charged with looking after the Nation's resources are beginning to recognize the vital importance of such ecological complexes as estuaries and the effects of filling, dredging, and all the visible and insidious forms of pollution on one of the greatest productive areas of our coastal oceans. Too, the coastal and shelf waters, themselves, as well as the open oceans, are being harvested more and more heavily by increasing millions of fishermen, not only by sport and U.S. commercial, but foreign-flag vessels as well. In this respect, Mr. Chairman, it becomes doubly important that the full significance of these estuaries and other marine waters in the life histories and ecology of sport fishes, the effects of environmental influences of various sorts, influence of various rates of fisherman harvest, and a myriad of other factors, require concentrated study by the many competent research scientists working in a coordinated program.

Our testimony before your committee has repeatedly pointed out the alarming course that high-seas commercial fishing it taking with respect to the important offshore tunas, billfishes, and other tunalike fishes that constitute some of the most important big-game fishes. Some countries, notably Japan, are utilizing these most important big-game fish. Some countries, notably Japan, are utilizing these magnificent fishes as ignoble binding elements in fish sausages and decimating many prime sport fishing areas frequented by our anglers in the process. The economic significance of the billfishes, in particular, to sport fishing it thoroughly recognized and, except for broadbill swordfish, these fishes are little used in our domestic commercial fishery. Therefore, Mr. Chairman, it is imperative to provide adequate authorization for funds to carry out fishery research in our

estuaries, along our coasts, and into the oceanic environs where so little is known of the fishery and its aquatic habitat.

In this regard, we highly endorse the Bureau of Sport Fisheries and Wildlife's request for an additional $50,000 ($140,000 in fiscal year 1971 budget) for increased staffing and execution of the billfish research program at the Narragansett Marine Game Fish Laboratory, R.I., in cooperation with the University of Rhode Island. A limited research program has been in progress on the differentiation of billfish stocks through blood typing and protein chemistry. This effort will be increased and additional attention given to life history studies of swordfish, marlins, and tunas. There is a critical need for data on the effect of domestic and foreign commercial fishing, as well as recreational fishing, on these fish.

The Bureau is taking the lead in obtaining data on the sport catch of billfish and tuna in an effort to be able to satisfy U.S. obligation under provisions of the International Commission for the Conservation of Atlantic Tunas (ICCAT), which resulted from the Conference of Plenipotentiaries on the Conservation of Atlantic Tunas at Rio de Janeiro, Brazil; in 1966. Additional funds will be needed to bring the research programs up to the level of the laboratory's long-range plan of program development and assure that the United States will be fully able to meet its obligation. This plan includes research on the differentiation of races of game fishes, the natural history of western Atlantic oceanic big game fish, including billfishes, tunas, and sharks, and studies of the physiology, nutrition, and behavior of larval game fish species in order to evaluate the effect on their development of man-induced environmental variations, as well as determining methods for obtaining statistics.

These programs are compatible with the aims of the Bureau's long-range plan for marine game fish research. It was anticipated that a full program would be in progress at this laboratory by 1970. Due to budgetary, personnel, and construction restrictions, which have been Government-wide, the level of effort has not progressed beyond the initial effort scheduled for 1966. In addition, hopefully, funds will be made available for study of the oceanic phase of the Atlantic salmon's life history. Much is needed here to provide a rational basis for proper conservation of this splendid game fish, in augmentation of the joint U.S. marine program to rehabilitate our Atlantic salmon resource, now progressing cooperatively under the anadromous fish program.

The Sport Fishing Institute's board of directors has been vitally concerned over the danger that oceanic harvest of Atlantic salmon will be detrimental to resource management and did adopt the following resolution:

"OCEANIC HARVEST OF ATLANTIC SALMON"

"Whereas Atlantic salmon (*Salmo salar*), being anadromous fish, must ascend rivers to spawn after growing to maturity in the oceans, which fact permits the countries of origin to control the harvest of their own salmon stocks so as to permit adequate escapement needed to assure their continued perpetuation; and

"Whereas in the last five years, commercial fishermen of Denmark and Greenland have developed an intensive fishery of alarming proportion for Atlantic salmon in marine waters in and near the area of the Davis Strait, adjacent to Southwest Greenland, which is evidently composed of fish derived from many rivers of Scotland, England, Wales, Ireland, Sweden, Canada, Maine, and doubtless Norway, as well as from a single river in Greenland; and the magnitude of this fishery threatens to negate scientific management of Atlantic salmon needed to assure optimum sustained yields in their rivers of origin, and if continued or expanded may develop to the point of possible destruction of important spawning stocks; and,

"Whereas a substantial cooperative private-State-Federal program for rehabilitation of once important Atlantic salmon stocks is being initiated with respect to selected rivers in the State of Maine, and continued commercial sea harvest of Atlantic salmon would pose a grave threat to the successful outcome of the projected rehabilitation program, as well: Now, therefore, be it

"*Resolved*, That the directors of the Sport Fishing Institute, assembled in regular annual meeting this 18th day of May, 1967, at Louisville, Ky., do herewith urge the U.S. Government, particularly the Department of the Interior and the Department of State, to intensify its representation on behalf of U.S. sport fishery interests at any and all forthcoming international meetings concerned in whole or part with the management of fishery resources found in the North Atlantic Ocean, including both the northwest and northeast Atlantic,

with a general view toward and the specific objective of effecting or helping to effect suitable international agreement(s) that would successfully prohibit the harvest of Atlantic salmon by the fishermen of any nation, using any means whatsoever, in waters outside the seaward boundaries of the Atlantic salmon spawning rivers to be found within the land confines of their own countries."

The early implementation at full authorization of the marine game fish research funding program under Public Law 86-359 could by now have helped solve some of our marine game fish management problems. Since passage of this act it would appear that the $2.7 million annual authorization under this legislation was being utilized primarily to serve as a kind of damper to mute the cry for needed program funding which then seldom followed with the necessary congressional appropriations.

Such funds would have gone far to actuate needed research programs at the Pacific Coast Marine Game Fish Laboratory, Tiburon, Calif. A 5-year program formulated in 1961 for the Tiburon facility should have given it an operating budget of at least $1 million by fiscal year 1966. The budgetary proposals for fiscal year 1971 amount to but $150,000, providing for a very meager step, albeit in the right direction, where initial research is commencing on tuna and billfish investigations in the Pacific. An increase of $75,000 is vitally needed for other game fish studies in the California current. Effects of commercial longline fishing practices on the population of recreationally important billfishes, especially including the marlins, is being given highest priority—but little funding there. Grave question exists whether these important species can long sustain the harvest now being made by commercial fishermen. Such limited studies as are underway on these problems are being carried out in fullest coordination with other State and Federal agencies operating in waters off the California coast.

Additional studies are now underway to cover the life history, migrations, and population dynamics of important coastal game fishes including several species of rockfishes, surf perches, and flounders. Surveys of the marine environment are carried out, when funds and equipment are available, to document conditions of temperature and current velocity in which the game fishes live. Monitoring of surface water temperatures with infrared equipment is a part of the studies on environmental quality and holds promise of biological significance when eventually related to biological phenomena.

The conference of plenipotentiaries from 17 nations held in Brazil in May 1966 (previously noted), drafted a treaty convention for the conservation of tunas and billfishes in the Atlantic Ocean. Article IV of the convention authorized the International Commission for the Conservation of Atlantic Tunas (ICCAT) to utilize the technical and scientific services of the contracting parties to carry out billfish research. This places a specific obligation on the United States because of its predominate interest in these species for angling. The Bureau of Sport Fisheries and Wildlife has taken the lead role in obtaining data which will be required of the United States under ICCAT. This work has been hampered by lack of funds and, although some important advances are being made, our Nation still lacks the facts necessary to evaluate the condition of the resource or to make recommendations for its proper conservation.

Mr. Chairman, we need at the very least to raise the level of funding of this important west coast program, based at Tiburon, so that it is comparable to the $690,000 appropriated in 1970 for the "sister" program on the Atlantic coast, based at Sandy Hook, N.J. To move toward this minimum goal, my organization urges that $300,000 ($75,000 additional to the proposed 1971 budget) be added for the operation of the Pacific Marine Game Fish Research Station at Tiburon.

Mr. Chairman, the marine game fishery research laboratory at Panama City, Fla., needs an additional $75,000 for fiscal year 1971. During this past fiscal year $50,000 was allotted from reverted Dingell-Johnson funds, barely enough to "keep afloat." The Panama City laboratory, operating in rented quarters, already has in progress a small but highly productive research program on fishery hydrography relating to billfish and estuaries. The long-range plan for marine game fish research of the Bureau envisions this laboratory as the marine game fish research center for the northeastern Gulf of Mexico and the Caribbean big game fish. Life histories of game fish, including billfish and species such as snook and snapper, expanded fishery hydrography research, estuarine research, including the effect of man-induced changes on estuarine-dependent species, will be important and it will be the Gulf of Mexico center for behavior research on marine game fish. One professional is now employed. It is planned that the full staff will include 20 professionals in 5 or 6 years after the laboratory is completed.

A makeshift operation cannot do the effective type of work so necessary for the vital marine fishery work now required in the Gulf of Mexico and adjacent waters. This is one of our most productive aquatic environments supporting fine game fish populations being jeopardized by man's own manipulation, resulting in disastrous effects to the natural resources of this southern area. Estuarine destruction, through dredging and filling, and all forms of pollution, as well as oil contamination at sea, are hastily bringing about a real crisis.

The facts, obtainable only by hard and persistent research efforts, planned to be carried out by means of these needed facilities, must be in hand very soon to enable us to plot a "saving" course for these tremendously valuable resources. Mr. Chairman, the Sport Fishing Institute is concerned by the relative lack of emphasis given various vital programs of the Bureau of Sport Fisheries and Wildlife for their appropriate share of budget allotments.

The Sport Fishing Institute, therefore, finds it most important that the four stations previously noted—Tiburon, Sandy Hooks, Narragansett, and Panama City—receive the adequate financial support that they so badly need to carry on investigations that vitally affect the fisheries that are so important to many millions of U.S. sport fishermen.

2. National Reservoir Research.—This program has been operating since 1961 on a most stringent budget. The 1970 operating budget amounted to but $285,000 for the North Central Reservoir investigations based at Yankton, S. Dak. No increase is being permitted for 1971. The north central investigations has been sacrificing funds from other important research projects in order to carry out a study of the effects of major drawdowns from 78,637-acre Lake Francis Case (Fort Randall), one of the Missouri River flood control reservoirs near Yankton, operated by the U.S. Army Corps of Engineers. These drawdowns are severe during the spring spawning periods. In order to determine the effects of this lower water level at a critical period on largemouth black bass and white crappie, two additional men and pertinent field equipment need to be added at a cost of $50,000.

In addition, a new laboratory is urgently needed at the north central investigations quarters. Staff members of the Sport Fishing Institute have visited this overcrowded and poorly designed facility, which was supposed to have originally served as shop space, not a research laboratory. Too, because of this building's small size, space is shared elsewhere with the U.S. Army Corps of Engineers. Work spaces must be consolidated, and the only answer is to provide adequate space, at least twice that now available. The site for construction of a proposed office, library, and dry laboratory would be adjacent to the existing warehouse and lab at Gavins Point. Officially estimated cost is $212,000; our own judgment is that at least $350,000 will be barely sufficient.

Therefore, we strongly urge your committee to approve a total cost of at least $685,000 for use in the north central investigations program.

The South Central Investigations, headquartered in Fayetteville, Ark., has an additional need of $200,000 over and above the $195,000 requested for 1971's normal operations. This is necessary to work out thermal pollution control problems associated with pumped storage at the Keowee-Toxaway Reservoir (23,000 acres) nuclear-fueled electric power generating station, which is now in advanced planning for 1971 construction in North Carolina. This will provide cooling of the heated waste water discharge. Originally, it was thought that this program could be delayed until 1972. Some 12 additional positions are required for this particular program. I need not elaborate on the tremendous new impact thermal pollution will have on this Nation's water resources.

This, then, brings the financial needs to the south central reservoir investigations to $395,000 in fiscal year 1971, which sum my organization urges that you recommend be appropriated.

The Sport Fishing Institute considers the vital research efforts being conducted by the Federal Government in its Missouri River studies in South Dakota and its White River studies in Arkansas to be of utmost importance at this time. A threefold increase in angling demand is anticipated to develop throughout the remainder of this century, with one-third of this demand to be met by reservoir fishing. Much more must be learned about fishes in reservoirs in order to sustain the anticipated increase in fishing pressures on this natural renewable resource, possibly only through research. The Congress has authorized several billions of dollars for reservoir construction, much of it not yet appropriated for use in construction. It has an associated responsibility to assure

the American taxpayer that he will realize the maximum benefits from these works. Recreational fishing has turned out to be one of the leading benefits that result. Static budgeting in this important area of reservoir research is preventing needed progress to be made in carrying out one of the most important related directives enunciated by the outdoor recreation resources review commission. We, therefore, urgently request that for fiscal year 1971 the Congress appropriate at least $1,080,000 to carry out this important national reservoir research program, the results from which are applicable in many situations throughout the rest of the Nation.

Mr. Chairman, I would like to alert this committee to a most important future (fiscal year 1972) construction need to greatly increase the efficiency of operation of the south central reservoir investigations. It is recommended that a research center be built on Beaver Reservoir, Ark., by the national reservoir research program and operated in cooperation with the University of Arkansas, the Arkansas Water Resources Research Center, the Arkansas Game and Fish Commission, FWPCA laboratories at Duluth, Minn., and Ada, Okla., and other interested agencies. It should be an all-purpose facility, including wet and dry laboratories, offices, conference hall, indoor and outdoor fish-holding tanks and raceways, floating docks, and maintenance shop. Research vessels and field equipment would be designed for portability to be operated on other reservoirs within a 500-mile radius. Space would be provided for visiting scientists and graduate students. We presently estimate cost of site and construction to approximate $1 million.

3. The Anadromous Fish Act—Public Law 89–304 was enacted in response to an urgent need for a national program designed to benefit the anadromous and Great Lakes fishery resources. The act authorizes the Secretary of the Interior to enter into cooperative agreements with the States, on an equal cost-sharing basis, either jointly or separately, and with other non-Federal interests, for the conservation, development and enhancement of the anadromous fishes and those stocks of fish of the Great Lakes that ascend the streams to spawn—including the Atlantic salmon, five species of Pacific salmon, shad, striped bass, Dolly Varden, Arctic char, cutthroat and steelhead trout, sheefish or inconnu, and others. Work on the Columbia River Basin is excluded under the act since this area has been provided for by a previous Federal statute—the Mitchell Act of 1939.

This act is presently scheduled to terminate on June 30, 1970; it provides for a culminative appropriation ceiling of $25 million, and it limits the allocation to not more than $1 million to any State during any 1 fiscal year.

Man the despoiler, through ignorance and in some cases wholesale destruction, has polluted the waters, built impassable barriers, and changed the habitat making it unsuitable for spawning or rearing anadromous fish. This has sharply reduced their abundance, and in other cases destroyed them entirely. The several States, vested with management authority, have attempted to discharge their obligation for the conservation of the anadromous fish resources within their respective boundaries, but they need help.

The program objectives are to help save and develop important fishery resources of sport and commercial value (in connection with which the United States has international commitments), or that are subject to depletion from water-resource developments, pollution, land-filling or other causes. Work projects designed to meet the objectives fall under the following general heading:

(*a*) Factfinding—research on the stocks of fish and their habitats;

(*b*) Habitat improvement, including the restoration and enhancement of spawning and rearing areas, stream clearance to provide access to the upper reaches of the watersheds, setting aside water for the use of anadromous fish;

(*c*) Determining the effects of pollution both on the habitat and the stocks of fish;

(*d*) Long range comprehensive program planning for Great Lakes and anadromous fish stocks and the producing lake and river systems;

(*e*) Fish facility construction, designed to assist and extend the anadromous fish stocks, including fish passage facilities; hatchery and rearing stations; protection and guidance devices; artificial spawning channels; and,

(*f*) Developing methods and means for manipulation of the relative abundance of fish stocks for the benefit of the anadromous fish.

The program is administered jointly by the BSFW and BCF. Twenty-seven States have cooperative agreements under this program with the Secretary, through one or both Bureaus. Interbureau cooperation is achieved through a four-man coordinating committee.

Mr. Chairman, as previously noted, June 30, 1970, is the termination date of the Anadromous Fish Conservation Act. Since a large amount of necessary work remains to be accomplished, extension of the act has been requested. A proposal for extending the act for 5 years and increasing the authorization an additional $25 million is included in the Interior Department's legislative program presented to the 91st Congress.

H.R. 1049 and S. 2396, bills to amend the act, have been introduced in the 2d session of the 91st Congress. These bills do not extend the termination date in the act, though it would raise the authorization ceiling from $25 to $32 million. Because of the immediacy of action required to continue this vital program, we have testified in favor of $5 million to extend the act to June 30, 1971.

Benefits have already been realized under the program; however, much remains to be done. Great rewards lie ahead. The rehabilitation, extension, and enhancement of the anadromous fish resources will take time and funds if we are to meet the challenge. The Sport Fishing Institute sincerely urges your consideration to this necessary extension and funding.

4. U.S. Forest Service Appropriation.—The Sport Fishing Institute strongly supports forest service plans to expand its facilities for watershed research. For this purpose, a laboratory is vitally needed at the U.S. Forest Service's Coweeta Hydrologic Station, Dillard, Ga., which is the site of the most intensive continuous watershed study program—small though it is—ever to be inaugurated in these United States. With better than 30 years of detailed hydrologic data now recorded by this station, using various forms of manipulation on its test plots of 45 small watersheds, Coweeta now has the potential to provide needed answer to many puzzling technical questions concerning the precipitation-runoff relationship in certain types of forested areas. Vegetation, soils, and water involve complex relations between transpiration, interception, and evaporation. Improved understanding of these matters are of the utmost significance to hoped-for improvements in watershed management procedures.

For the record, we thank this committee for providing planning money in the 1968 budget for the new laboratory at Coweeta Station, which was completed during fiscal year 1969. A modest $750,000 is now needed to build the Coweeta Laboratory. We understand that no money has been requested for this work as a fiscal year 1971 budget item, which we regard as most unwise and retrogressive. For our part, Mr. Chairman, we respectfully request that your committee add the necessary funding at this time in order to expedite this very important, if small, research program. This can be a key fact-finder in the Environmental Decade—we cannot afford to quibble over such a small but significant request that can pay back manyfold in vitally-needed knowledge.

Thank you for this opportunity to present the Sport Fishing Institute's views to you and your Committee on these matters that are of such grave concern to nearly one-third of America's citizenry—the sport fishermen.

Mrs. HANSEN. Our hearings began on February 17, 1970 and today completes hearings of the Interior Subcommittee on Appropriations. I wish to thank the membership of this committee for their magnificent support, attendance, and interest during the entire duration of the hearings.

I would like to add a special salute to my ranking and distinguished member from South Dakota, Congressman Ben Reifel, who has been present at all hearings, and has made such a great contribution.

Like the members of the subcommittee, I share their misgivings about Mr. Reifel's retirement. We only wish he would stay.

I may say without his cooperation and the cooperation of the committee members, it would have been impossible to have reviewed the agencies which came before us with the same degree of penetration and analysis.

At 6:28 P.M., April 16, 1970, I declare the record of these hearings closed on testimony relating to the 1971 budget requirements in the Interior and Related Agencies bill.

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