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TOUCHET DIVISION, WALLA WALLA PROJECT, OREGON-WASHINGTON

GOVERNMENT
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HEARING BEFORE THE SUBCOMMITTEE ON WATER AND POWER RESOURCES OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS UNITED STATES SENATE NINETIETH CONGRESS

FIRST SESSION
ON

S. 485

A BILL TO AUTHORIZE THE SECRETARY OF THE INTERIOR
TO CONSTRUCT, OPERATE, AND MAINTAIN THE TOUCHET
DIVISION, WALLA WALLA PROJECT, OREGON-WASHINGTON,
AND FOR OTHER PURPOSES

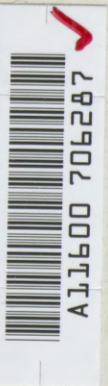
AUGUST 10, 1967

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Committee on Interior and Insular Affairs



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TOUGHET DIVISION, WALLA WALLA
PROJECT, OREGON-WASHINGTON

HEARING

BEFORE THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS

HENRY M. JACKSON, Washington, *Chairman*

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ROY WHITACRE, *Professional Staff Member*

SUBCOMMITTEE ON WATER AND POWER RESOURCES

CLINTON P. ANDERSON, New Mexico, *Chairman*

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| HENRY M. JACKSON, Washington | THOMAS H. KUCHEL, California |
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| CARL HAYDEN, Arizona | |

AUGUST 10 1967

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TOUCHET DIVISION, WALLA WALLA PROJECT, OREGON-WASHINGTON

THURSDAY, AUGUST 10, 1967

U.S. SENATE,
SUBCOMMITTEE ON WATER AND POWER RESOURCES
OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The subcommittee met pursuant to notice at 10:05 a.m., in room 3110, New Senate Office Building, Senator Henry M. Jackson presiding.

Present: Senators Jackson, Burdick, Allott, and Jordan of Idaho.

Also present: Jerry T. Verkler, staff director; Stewart French, chief counsel; Roy Whitacre, professional staff member; William Van Ness, special assistant, and Darryl Hart, assistant minority counsel.

Senator JACKSON. The committee will come to order.

This is a public hearing by the Water and Power Resources Subcommittee of the Interior and Insular Affairs Committee on S. 485, a bill to authorize the construction and operation of the Touchet division, Walla-Walla project, Oregon-Washington.

S. 485 is sponsored by myself and my senior colleague from the State of Washington, Senator Warren G. Magnuson.

At this time, I will direct that the text of the bill, together with reports from the executive agencies be made a part of the record at this point.

(The documents referred to follow:)

[S. 485, 90th Cong., first sess.]

A BILL To authorize the Secretary of the Interior to construct, operate, and maintain the Touchet division, Walla Walla project, Oregon-Washington, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) for purposes of supplying irrigation water initially for approximately ten thousand acres of land, providing municipal and industrial water, flood control, water quality control, the enhancement of fish and wildlife resources, and the enhancement of recreation opportunities, the Secretary of the Interior (hereinafter referred to as the Secretary) is authorized to construct, operate, and maintain the Touchet division of the Walla Walla project, Oregon-Washington, in accordance with the Federal reclamation laws (Act of June 17, 1902, 32 Stat. 388, and Acts amendatory thereof or supplementary thereto). The principal works of the division (hereinafter referred to as the project) shall consist of the Dayton Dam and Reservoir, fish passage facilities, a diversion dam, and associated drainage facilities.

(b) The Secretary is authorized to construct the Dayton Dam and Reservoir to the physical limitations of the site and to recognize the cost of providing such additional capacity as a deferred obligation to be paid, in accordance with section 2 of this Act, at such time as the additional storage capacity is contracted for: *Provided*, That until such additional storage capacity is contracted for, operation and maintenance costs attributable to the excess capacity shall be funded and added to the construction costs allocated to deferred capacity.

(c) In order to assure a realization of the fish and wildlife enhancement benefits contemplated by this Act, the Secretary shall adopt appropriate measures

to insure the maintenance of a streamflow between Dayton Dam and the mouth of the Walla Walla River that is not less than thirty cubic feet per second unless he determines that a water shortage or other emergencies exist or that lesser flows would be adequate for the maintenance of fish life.

Sec. 2. Irrigation repayment contracts shall provide for repayment of the obligation assumed thereunder with respect to any contract unit over a period of not more than fifty years, exclusive of any development period authorized by law. Construction costs allocated to irrigation beyond the ability of the irrigators to repay shall be returned to the reclamation fund from revenues derived by the Secretary from the disposition of power marketed through the Bonneville Power Administration from the McNary Dam project.

Sec. 3. (a) The Secretary is authorized, as a part of the Touchet division, to construct, operate, and maintain, or otherwise provide public outdoor recreation facilities, to acquire or otherwise to include within the project area such adjacent lands or interests therein as are necessary for present or future public recreation use, to allocate water and reservoir capacity to recreation, and to provide for the public use and enjoyment of division lands, facilities, and water areas in a manner coordinated with other project functions. The Secretary is authorized to enter into agreements with Federal agencies or State or local public bodies for the administration of project land and water areas and the operation, maintenance, and replacement of facilities and to transfer project lands or facilities to Federal agencies or State or local public bodies by lease agreement or exchange upon such terms and conditions as will best promote the development and operation of such lands or facilities in the public interest for recreation and fish and wildlife enhancement purposes.

(b) Joint costs allocated to recreation or fish and wildlife enhancement shall be nonreimbursable.

(c) All costs allocated to the enhancement of anadromous fish species shall be nonreimbursable.

(d) (1) Except as provided in subsection (c) of this section, if, before commencement of construction of the division, non-Federal public bodies indicate their intent in writing to agree to administer project land and water areas for recreation or fish and wildlife enhancement or for both of these purposes pursuant to the plan for the development of the project approved by the head of the agency having administrative jurisdiction over it and to bear not less than one-half the separable costs of the project allocated to either or both of said purposes, as the case may be, and all the costs of operation, maintenance, and replacement incurred therefor, not more than one-half of the separable costs and all the joint costs of the project allocated to recreation and fish and wildlife enhancement shall be borne by the United States and be nonreimbursable.

(2) No facilities or project modifications which will furnish recreation or fish and wildlife enhancement benefits shall be provided in the absence of the indication of intent with respect thereto specified in subsection 3(d) (1) of this Act unless (i) such facilities or modifications serve other project purposes and are justified thereby without regard to such incidental recreation or fish and wildlife enhancement benefits as they may have or (ii) they are minimum facilities which are required for the public health and safety and are located at access points provided by roads existing at the time of project construction or constructed for the administration and management of the project or facilities for the enhancement of anadromous fish species. Calculation of the recreation and fish and wildlife enhancement benefits in any such case shall be based on the number of visitor-days anticipated in the absence of recreation and fish and wildlife enhancement facilities or modifications except as hereinbefore provided and on the value per visitor-day of the project without such facilities or modifications. Project costs allocated to recreation and fish and wildlife enhancement on this basis shall be nonreimbursable.

(e) The non-Federal share of the separable costs of the project allocated to recreation and fish and wildlife enhancement shall be borne by non-Federal interests, under either or both of the following methods as may be determined appropriate by the head of the Federal agency having jurisdiction over the project: (i) payment, or provision of lands, interests therein, or facilities for the project; or (ii) repayment, with interest at a rate comparable to that for other interest-bearing functions of Federal water resource projects, within fifty years of first use of project recreation or fish and wildlife enhancement facilities: *Provided*, That the source of repayment may be limited to entrance and user fees or charges collected at the project by non-Federal interests if the fee schedule and the portion of fees dedicated to repayment are established on

a basis calculated to achieve repayment as aforesaid and are made subject to review and renegotiation at intervals of not more than five years.

(f) Notwithstanding the absence of an indication of intent as specified in subsection 3(d)(1), lands may be provided in connection with project construction to preserve the recreation and fish and wildlife enhancement potential of the project:

(1) If non-Federal public bodies execute an agreement within ten years after initial operation of the project (which agreement shall provide that the non-Federal public bodies will administer project land and water areas for recreation or resident fish and wildlife enhancement or both pursuant to the plan for the development of the project approved by the head of the agency having administrative jurisdiction over it and will bear not less than one-half the costs of lands, facilities, and project modifications provided for either or both of those purposes, as the case may be, and all costs of operation, maintenance, and replacement attributable thereto), the remainder of the costs of lands, facilities, and project modifications provided pursuant to this paragraph shall be nonreimbursable. Such agreement and subsequent development, however, shall not be the basis for any reallocation of joint costs of the project to recreation or fish and wildlife enhancement.

(2) If, within ten years after initial operation of the project, there is not an executed agreement as specified in paragraph (1) of this subsection, the head of the agency having jurisdiction over the project may utilize the lands for any lawful purpose within the jurisdiction of his agency, or may offer the land for sale to its immediate prior owner or his immediate heirs at its appraised fair market value as approved by the head of the agency at the time of offer or, if a firm agreement by said owner or his immediate heirs is not executed within ninety days of the date of the offer, may transfer custody of the lands to another Federal agency for use for any lawful purpose within the jurisdiction of that agency, or may lease the lands to a non-Federal public body, or may transfer the lands to the Administrator of General Services for disposition in accordance with the surplus property laws of the United States. In no case shall the lands be used or made available for use for any purpose in conflict with the purposes for which the project was constructed, and in every case except that of an offer to purchase made, as hereinbefore provided, by the prior owner or his heirs, preference shall be given to uses which will preserve and promote the recreation and fish and wildlife enhancement potential of the project or, in the absence thereof, will not detract from that potential.

(g) As used in this Act, the term "nonreimbursable" shall not be construed to prohibit the imposition of entrance, admission, and other recreation user fees or charges.

(h) Costs of means and measures to prevent loss of and damage to fish and wildlife resources shall be treated as project costs and allocated among all project purposes.

Sec. 4. The interest rate used for purposes of computing interest during construction and, where appropriate, interest on the unpaid balance of the reimbursable obligations assumed by non-Federal entities shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations which are neither due nor callable for redemption from fifteen years from date issue, adjusted to the nearest one-eighth of 1 per centum.

Sec. 5. For a period of ten years from the date of enactment of this Act, no water from the project authorized by this Act shall be delivered to any water user for the production on newly irrigated lands of any basic agricultural commodity, as defined in the Agricultural Act of 1949, or any amendment thereof, if the total supply of such commodity for the marketing year in which the bulk of the crop would normally be marketed is in excess of the normal supply as defined in section 301(b)(10) of the Agricultural Adjustment Act of 1938, as amended, unless the Secretary of Agriculture calls for an increase in production of such commodity in the interest of national security.

Sec. 6. There are hereby authorized to be appropriated for construction of the new works involved in the Touchet division, \$16,630,000 (January 1965 prices), plus or minus such amounts, if any, as may be required by reason of changes in the cost of construction work of the types involved therein as shown by engineering cost indexes and, in addition thereto, such sums as may be required to operate and maintain said project.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., August 9, 1967.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request of January 30, 1967, for the views of the Bureau of the Budget on S. 485, a bill "To authorize the Secretary of the Interior to construct, operate, and maintain the Touchet division, Walla Walla project, Oregon-Washington, and for other purposes."

The purpose of the bill is clearly stated in its title.

The Department of the Interior, in a report being submitted to your committee, recommends enactment of the bill with certain perfecting amendments. Accordingly, the Bureau of the Budget would have no objection to the enactment of S. 485, if amended as proposed by the Department of the Interior.

Sincerely yours,

WILFRED H. ROMMEL,
Assistant Director for Legislative Reference.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., August 9, 1967.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: This responds to your request for the views of this Department on S. 485, a bill "To authorize the Secretary of the Interior to construct, operate, and maintain the Touchet division, Walla Walla project, Oregon-Washington, and for other purposes." The bill is identical to S. 1088, 89th Congress, as passed by the Senate.

We recommend that the bill be enacted, if amended as suggested below.

The Touchet division of the Walla Walla project would be located in southeastern Washington. The principal facility of the division would be the Dayton Dam which would impound a reservoir of 52,600 acre-feet of water, maximum feasible at the site. These waters would be used for irrigation, flood control, water quality control, and municipal and industrial supplies, recreation and fish and wildlife enhancement.

Irrigation water would be supplied initially to approximately 9,960 acres of land. A full supply would be provided to 3,520 acres, and a supplemental supply to 6,440 acres that are now irrigated from diversion works on the Touchet River downstream from the damsite, but suffer from seasonal deficiencies in water supply. The lands proposed to be irrigated are of high quality and very well suited to sprinkler irrigation.

Assurance of a full irrigation water supply may be expected to produce a shift in irrigable land use from forage crops to row crops, such as vegetables, for canning and freezing. Water for irrigation will be diverted from the river below the dam into existing distribution systems owned by the irrigators. No distribution facilities are proposed to be constructed in connection with the project.

The Committee is aware of the current activities of the Department of the Interior, the Water Resources Council, and others in developing a policy position with regard to the evaluation of benefits and the reimbursability of costs allocated to water quality control under the Federal Water Pollution Control Act and related statutes. On January 9, 1967, this Department was requested by the Committee to present facts and recommendations on this subject.

We have recommended to the Water Resources Council that the evaluation of water quality control benefits be based upon a recognition that the improvement of water quality serves one or more of the basic water use functions, namely, irrigation, municipal or industrial water supply, fish and wildlife enhancement or recreation. To the extent that the benefit to any of those functions is derived separately from water quality improvement, as distinct from that derived from quantitative requirements for flowing water or water in storage, a definite benefit attributable to water quality control may be claimed. This benefit, applied through the customary cost allocation procedures, will determine the portion of the project cost properly allocable to water quality control.

A need has arisen to reconsider our interpretation of the guidelines regarding the reimbursability of project costs allocated to water quality control in an mul-

multiple-purpose project. These guidelines were set out by Congress in the 1961 amendments to the Federal Water Pollution Control Act (75 Stat. 204). The enactment of the Federal Water Project Recreation Act provides a formula for determining the financial obligation of non-Federal entities for fish and wildlife enhancement and recreation. We have recommended that the basic cost-sharing formula of the Recreation Act be applied to the water quality control function. Although administrative guidelines have not yet been developed it is expected that some non-Federal entity, probably an affected State, would accept the responsibility of repaying one-half of the separable costs allocated to water quality control and the costs of operation, maintenance, and replacement allocated to that purpose. The other half of the separable cost and all joint costs allocated to water quality control would be nonreimbursable.

We propose to follow the policy and procedures outlined above on a project-by-project basis until such time as an agency-wide Federal policy is developed. Thus, we have made an alternative analysis of the Touchet division. This plan of development does not provide any facilities or storage capacity in Dayton Reservoir specifically for water quality control purposes. The reservoir operating regulations would provide water releases from the reservoir for irrigation and fish and wildlife enhancement sufficient to assure adequate control of water quality during the months of May through September. Flow during other months will be adequate in quantity to assure a resultant quality within the criteria for all project purposes.

There would, therefore, be no basis for an allocation of costs to water quality control. Thus, we recommend that on page 1, lines 5 and 6, the words "water quality control," be deleted.

The allocation of costs of the Touchet division as presented during the hearings on S. 1088, 89th Congress, and with the water quality control functions eliminated is shown in the following tabulation:

Cost allocation	As presented in hearings on S. 1088, 89th Cong.	Reanalysis
Irrigation.....	\$5,612,000	\$6,249,000
Municipal and industrial.....	110,000	141,000
Flood control.....	808,000	883,000
Water quality.....	1,428,000	-----
Fish and wildlife.....	8,357,000	9,035,000
Recreation.....	187,000	194,000
Highway improvement.....	128,000	128,000
Total.....	16,630,000	16,630,000
Reimbursable costs:		
Irrigation.....	5,612,000	6,249,000
Municipal and industrial.....	110,000	141,000
Fish and wildlife.....	656,000	656,000
Recreation.....	81,000	81,000
Total.....	6,459,000	7,127,000
Nonreimbursable costs:		
Flood control.....	808,000	883,000
Water quality.....	1,428,000	-----
Highway.....	128,000	128,000
Recreation.....	106,000	113,000
Fish and wildlife.....	7,701,000	8,379,000
Anadromous.....	(6,295,000)	(6,763,000)
Other.....	(1,406,000)	(1,616,000)
Total.....	10,171,000	9,503,000

The effect of the elimination of water quality control as a project purpose is to increase the allocation of joint costs to all other purposes. The irrigation and municipal and industrial allocations would increase by \$637,000 and \$31,000, respectively, and the amount of financial assistance required from the Columbia River Federal Power System would increase by \$376,500. The benefit-cost ratio under this analysis would be 2.35 to 1 for all benefits and 1.83 to 1 for direct benefits only.

The bill would authorize construction of Dayton Reservoir to the maximum practical capacity of the site as proposed in our project report. This would result in an annual water yield in excess of immediate demands. This additional water supply can serve future irrigation or municipal water requirements. The potential irrigable lands in the valley far exceed the area which could be irrigated

with this water. Based upon the supposition that the water will ultimately be used for irrigation, the deferred costs for unassigned space in the reservoir, amounting to \$3,287,000 exclusive of funded operation and maintenance costs, have been allocated to irrigation, and are included in the \$6,249,000 figure in the table of allocations above. Two million nine hundred and sixty-two thousand dollars of the irrigation allocation represent costs associated with immediate irrigation uses.

All costs allocated to irrigation would be reimbursable. Paying in accordance with their ability, the water users would return \$1,281,000 of the \$2,962,000 of present-use irrigation costs over the 50-year repayment period established by the bill. The remainder of the present-use irrigation allocation (\$1,681,000) would be repaid from revenues derived from the sale of Federal power marketed by the Bonneville Power Administration.

To reflect the consolidated payout system now in effect for the Federal Columbia River power system, irrigation financial assistance should be indicated as deriving from the system as a whole and not one of its elements. Therefore, the second sentence of section 2 should be amended to read as follows:

"Construction costs allocated to irrigation beyond the ability of the irrigators to repay shall be charged to and returned to the reclamation fund in accordance with the provisions of section 2 of the Act of June 14, 1966 (80 Stat. 200), as amended by section 6 of the Act of September 7, 1966 (80 Stat. 707)."

Flood control operation will be based on snow forecast and joint use of 15,000 acre-feet of Dayton Reservoir storage capacity on a seasonal basis. The effectiveness of such an operation plan was most recently demonstrated in the December 1964 floods in the Pacific Northwest. Joint operation of the reservoir for flood control and conservation will require the establishment and operation of a hydro-meteorological network of snow courses, gages, and forecasting equipment. This network is included in the costs of the division allocated to flood control. Pursuant to reclamation law, the flood control allocation is a nonreimbursable cost.

The city of Dayton, Washington, has indicated its intent to purchase 1,000 acre-feet of water annually from Dayton Reservoir for municipal and industrial purposes. Five hundred acre-feet would be used during the first 10 years of project operations, and the full 1,000 acre-feet thereafter. Costs allocated to municipal and industrial water supply would be repaid within 50 years with interest at the rate specified in section 4 of the bill, subject to the deferral provisions of the Water Supply Act of 1958, as amended.

As the only sizable lake in the area, Dayton Reservoir is expected to be a popular recreation attraction. Recreation uses of the division land and water areas will include boating, swimming, water skiing, camping, picnicking, and hunting. Costs allocated to recreation have been treated in accordance with the Federal Water Project Recreation Act (Public Law 89-72). Amendments to apply the precepts of that legislation to the recreation aspects of the Touchet division appear later in this report.

Potentially significant benefits to anadromous fish species exist at the Touchet division. The project plan of development seeks to capitalize upon the opportunities presented. The division will store enough water to enable releases to be made to reestablish anadromous fish runs in the Touchet River. Temperature control over these releases, which is essential, would be maintained by building Dayton Dam with outlet works at several levels. Among the special facilities proposed to be built for anadromous fishery enhancement are a trap, hopper and tramway to carry upstream migrants over the dam and a collector system for downstream migrants. Consistent with our position on S. 1088, 89th Congress, we again recommend that all costs assigned to anadromous fisheries enhancement be nonreimbursable. However, the Department does not consider this to be a continuing policy to be applied to all future projects because further consideration needs to be given to this matter. In the way of local benefits the reservoir would create a lake sports fishery; also, waterfowl hunting opportunities are expected to materialize on project lands.

To make applicable the precepts of the Federal Water Project Recreation Act (Public Law 89-72) regarding costs of the Touchet division allocated to recreation and fish and wildlife enhancement, and our recommendation that all costs assigned to the enhancement of anadromous fish species be nonreimbursable, the following amendments should be made to the bill:

- (1) Delete all of section 3 (line 10, page 3, through line 13, page 8).
- (2) Insert a new section 3 as follows:

"The conservation and development of the fish and wildlife resources and the enhancement of recreation opportunities in connection with the Touchet division shall be in accordance with the provisions of the Federal Water Project Recre-

ation Act (79 Stat. 213). All costs allocated to the enhancement of anadromous fish species shall be nonreimbursable."

On the basis of the foregoing proposed amendments, the recreation and fish and wildlife enhancement costs of the Touchet division would be assigned to the reimbursable or nonreimbursable category as follows:

Recreation:

Reimbursable (50 percent of separable costs) ----- \$81,000
 Nonreimbursable (joint costs, plus 50 percent of separable costs) ----- 113,000

Total ----- 194,000

Fish and wildlife enhancement:

Reimbursable (50 percent of separable costs attributable to benefits realized at the project) ----- 656,000

Nonreimbursable (joint costs, separable costs attributable to enhancement of anadromous fish, and 50 percent of separable costs attributable to benefits realized at the project) ----- 8,379,000

Total ----- 9,035,000

A letter has been received from the Port of Columbia County (Columbia County Port District) expressing its willingness to assume the responsibility for administering the land and water areas for recreation and fish and wildlife enhancement and to assume the non-Federal costs in accordance with the Federal Water Project Recreation Act (79 Stat. 213).

Since the Department's feasibility report was completed, the State of Washington has upgraded its highway design standards. The road which must be relocated around Dayton Reservoir, therefore, will be of a higher standard than the existing road. The incremental cost of that improvement, estimated at \$128,000, would be nonreimbursable under provisions of the Flood Control Act of 1962.

A statement of personnel and other requirements that enactment of this legislation would entail is enclosed in accordance with the provisions of Public Law 801, 84th Congress.

The Bureau of the Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

KENNETH HOLUM,
Assistant Secretary of the Interior.

TOUCHET DIVISION, WALLA WALLA PROJECT, WASHINGTON-OREGON

ESTIMATED ADDITIONAL MAN-YEARS OF CIVILIAN EMPLOYMENT AND EXPENDITURES FOR THE 1ST 5 FISCAL YEARS (AS REQUIRED BY PUBLIC LAW 801, 84TH CONG.)¹

	1st year ²	2d year	3d year	4th year	5th year
Estimated additional man-years of civilian employment:					
Executive direction -----					
Administrative services and support:					
Administrative officer -----					
Clerical and stenographic -----		3.0	3.0	2	1.0
Total, administrative -----		3.0	3.0	2	1.0
Substantive (program):					
Engineering aids and technicians -----		6.0	6.0	6	2.0
Engineers -----					
Inspectors -----					
Other personnel -----					
Total, substantive -----		6.0	6.0	6	2.0
Total positions -----		9.0	9.0	8	3.0
Total estimated additional man-years -----		4.8	8.2	6	1.5
Estimated additional expenditures:					
Personal services ----- ³	\$200,000	\$177,200	\$286,074	\$307,053	\$110,910
All other -----		1,127,800	7,048,926	6,462,947	597,090
Total estimated expenditures -----	200,000	1,305,000	7,335,000	6,770,000	708,000

¹ Salaries based on scales effective July 3, 1966.

² 1st year activity will utilize general investigation personnel and details from other offices.

³ Advance planning.

Senator JACKSON. The Touchet division will be wholly within Washington although the Walla Walla project extends into Oregon as well. It is a multipurpose development, located in the valley of the Touchet River in south Central Washington. The Touchet is a tributary of the Walla Walla which in turn flows into the Columbia River.

The principal feature of the Touchet division would be Dayton Dam and Reservoir on the east fork of the river, 6 miles upstream from the city of Dayton, the largest community in the valley. The proposed structure would be a 200-foot high earthfill dam creating a 52,600 acre-foot reservoir.

Also included are fish passage facilities at the dam and at existing downstream dams, recreation developments at Dayton Reservoir, and minor drainage facilities where needed. The development plan does not contemplate construction of distribution works. Water users will continue to divert water directly from the river through individually owned systems.

Dayton Reservoir would control the unpredictable flow of the Touchet River, thus protecting against floods which have in recent years caused hundreds of thousands of dollars damage and would also provide for more dependable and extensive irrigation uses in the Touchet Valley. Under the provisions of S. 485, 6,440 acres would receive supplemental water, guaranteeing adequate irrigation supply and about 3,520 acres of presently dry-farmed land would receive a full supply of irrigation water.

In all, the project will permit efficient, stable production of specialty crops on 10,000 acres of land. This would enable farmers to shift their crop pattern from dryland wheat, the area's principal crop, to diversified cash crops such as apples, asparagus, peas, and sugar beets.

The benefit-cost ratio is a favorable 2.77 to 1.

I have received many communications from organizations and individuals in the area, stating in their own words the need for the project and its benefits to the economy of the entire region. I ask that these communications be printed at the conclusion of the oral testimony on this bill.

Due to previous commitments Senator Magnuson is not able to be here today. He has, however, prepared a statement in support of S. 485. Senator Magnuson's statement will appear at this point in the record.

STATEMENT OF HON. WARREN G. MAGNUSON, A U.S. SENATOR FROM THE STATE OF WASHINGTON

Senator MAGNUSON. The multipurpose project for the Touchet division of the Walla Walla project is an important addition to the irrigation, recreation, and conservation activities within the State of Washington. The Touchet River, now uncontrolled, will through this project assume a significant role in the economy of the entire region. The proposed Dayton Dam will curb destructive floods, control water pollution, and provide full irrigation for at least 10,000 acres, making fruit and vegetable production possible in an area now devoted mainly to wheat.

Backwaters will also provide municipal and industrial water for the city of Dayton and will create the only sizable lake in the area for swimming, boating, and sport fishing. Salmon facilities included in

the project will produce annually approximately 40,000 salmon for harvest in the Pacific Ocean and lower Columbia River. Thus, fishermen from the entire northwestern seaboard will share in the benefits of this project.

Each portion of the proposal has a favorite benefit-cost ratio, the overall ratio being 2.77 to 1 over a 100-year period.

The long-term advantages that the Touchet project will bring to the region, coupled with its favorable economic stance and approval by departments and agencies involved, make it a proposal I am pleased to support. I would hope that Congress can act expeditiously to make this project a reality.

Senator JACKSON. It is my pleasure to welcome those of you from the State of Washington who have come to appear before this subcommittee.

We appreciate your contribution. I would especially like to welcome the Honorable Catherine May, U.S. Representative, Fourth District; the Honorable H. N. Woolson, mayor of Dayton; Benjamin B. Flathers, vice president, Walla Walla Port District; Vernon Marll, chairman, Touchet Irrigation District; and Glenn Hofer, vice president of National Association of Wheat Growers.

Our first witness this morning is the Honorable Catherine May, the Congresswoman from the Fourth District.

We are glad to welcome you to the committee, Mrs. May.

STATEMENT OF HON. CATHERINE MAY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mrs. MAY. Thank you.

I am Catherine May, Representative in Congress for the Fourth Congressional District of the State of Washington.

The bill before you today, S. 485, will authorize the Secretary of the Interior to construct, operate, and maintain the Touchet division of the Walla Walla project in my district. I am here to support S. 485. I am sponsor of a similar bill in the House of Representatives, H.R. 860.

Several knowledgeable witnesses from my district are in the committee room today to add their supporting testimony to that of Government witnesses. They will be glad to discuss with the subcommittee the benefits to the people of the region that will result from this project, and are prepared to answer any questions you may have. In view of this my statement will be very brief.

This project is needed for several very vital reasons. The Dayton Dam and Reservoir on the Touchet River, to be built 6 miles upstream from the city of Dayton, will regulate the undependable flows of the river.

This will mean irrigation water for nearly 10,000 acres of farmland. It will mean the area will be protected from the kind of severe flood damage that occurred in December of 1964 and January of 1965. It will mean favorable fish, wildlife, and recreation benefits to this growing area. And it will mean a much-needed domestic and industrial water supply for the city of Dayton and the lower Touchet Valley. The benefit-to-cost ratio of this \$16.63 million project has been estimated at better than 2 to 1.

I was pleased that the Senate approved this project in the previous Congress, and I am hopeful of hearings in the House of Representa-

tives and enactment of this legislation in this current congressional term.

Thank you very much, Senator Jackson, for this opportunity to make this brief statement in support of S. 485.

Senator JACKSON. Thank you, Mrs. May.

Senator JORDAN, do you have any questions?

Senator JORDAN. Just one. We passed this bill in the last session. What happened to it in the House?

Mrs. MAY. It did not get called up by the chairman of the House Committee on Interior and Insular Affairs, Senator Jordan.

Senator JORDAN. Do you have any idea why not?

Mrs. MAY. Well, I can only speculate as to what might be the background of this. I have talked to the chairman on a number of occasions. In fairness to him, he has had a very full schedule on various projects, and I can only tell you in quoting him that he just has not had time to schedule this for hearings, he tells me.

Senator JORDAN. Does the project look a little better this year?

Mrs. MAY. I would say to the Senator that the fact that the Senate itself was holding these hearings could help our chances to get a hearing on the House side very much, particularly since the chairman has told me that we have not had a report from the Department on the bill that I have introduced yet. Now, there is a new report on the bill on the Senate side. I have talked to the Department and I am very hopeful a report, which has been requested by the chairman of that committee and myself, will be up to us very shortly. In this case, we can go back to the chairman and show him we now have a report on the bill so that this is not a stumbling block for the calling of these hearings.

Senator JACKSON. Thank you, Mrs. May. I know you have a committee hearing in process. We are delighted to have you here this morning.

Mrs. MAY. Thank you.

Senator JACKSON. Our next witness is the Honorable Kenneth Holum, Assistant Secretary for Water and Power Development; accompanied by Mr. Stamm, Dr. Flannery, and Secretary Caine, of the Department of the Interior. We are delighted to have you.

Secretary CAINE. Thank you.

STATEMENT OF HON. KENNETH HOLUM, ASSISTANT SECRETARY FOR WATER AND POWER DEVELOPMENT, DEPARTMENT OF THE INTERIOR, AND G. G. STAMM, ASSISTANT COMMISSIONER, BUREAU OF RECLAMATION; ACCOMPANIED BY DR. JAMES J. FLANNERY, CHIEF ECONOMIST, FEDERAL WATER POLLUTION CONTROL ADMINISTRATION; AND HON. STANLEY A. CAINE, ASSISTANT SECRETARY FOR FISH AND WILDLIFE; AND JAMES T. McBROOM, DIRECTOR, BUREAU OF SPORT FISHERIES AND WILDLIFE

Mr. HOLUM. We are happy to appear before the committee and particularly happy this morning to have with me at the table my colleague, Assistant Secretary Caine.

He had planned with me that another one of my distinguished colleagues, Assistant Secretary Di Luzio, would be here with me,

too, this morning. Because of obligations to another committee of the Senate, Secretary Di Luzio is not here, but he is represented by Jim Flannery of the Water Pollution and Control Agency.

I also have with me Assistant Commissioner Stamm.

I think the fact that we are here with this group indicates that water resource planning, development, and management now and for the future is becoming an increasingly complex job involving many values that have to be considered and evaluated in the process.

I think the fact that I am able to bring with me these colleagues from the Department of Interior indicates that, following the reorganization and transfer of the water pollution control to the Department of Interior, the Department is ready to do a job of evaluation on the recommendations we make to Congress.

The fact that we are here does not indicate that there are any problems on this project. In fact, it was passed by the Senate in 1965, but it does indicate that we wanted to make these resources available to the committee.

The Touchet Division is a worthy multiple-purpose water resources development on the Touchet River in southeastern Washington. It was discussed at some length before this committee in April 1965, in connection with your consideration of S. 1088 of the 89th Congress. Later the Senate acted favorably on S. 1088, on July 26.

Representatives of the Bureau of Reclamation and other bureaus of the Department are prepared to supplement the record of the 1965 hearings with such additional information as the committee may desire.

I would like to address my remarks this morning to two aspects of this proposal which involve executive interpretations of the Federal Water Project Recreation Act and the Federal Water Pollution Control Act and its amendatory or related legislation.

Although the Federal Water Project Recreation Act does not specifically so provide, we are recommending that the costs assigned to the enhancement of anadromous fisheries be declared nonreimbursable.

This is consistent with our position on S. 1088 in 1965. We wish to make clear to the committee, however, that the Department does not consider this position on the Touchet division a precedent-setting recommendation since we in the executive branch are currently engaged in the development of a policy for administering this matter within the framework of existing legislation.

The plan of development for this division contemplates substantial provisions for establishing new populations of salmon in the Touchet River, where steelhead are now the only anadromous species which can survive.

To this end, the plan includes continuous releases of water from the reservoir specifically to maintain an adequate flow of water of suitable temperature and quality from the proposed dam to the mouth of the river, mechanical means of permitting adult salmon to pass the dam on their way to upstream spawning areas, and specially designed outlet facilities to permit young fry to swim safely past the dam on their way to the sea.

The costs associated with conservation and enhancement of anadromous fish total \$6,763,000, of which \$4,628,000 is associated with separable facilities, and the remainder with joint facilities.

This is the first hearing before this committee this year on a multiple-purpose proposal where water quality control is involved. It is also our

first appearance since January 9, 1967, when the chairman requested us to provide facts and recommendations on this subject.

On June 16, 1967, Secretary Udall approved a statement submitted jointly by Assistant Secretary Di Luzio and myself setting forth recommendations for a departmental policy position on reservoir storage for flow regulation for water quality control on Federal and federally supported projects.

That statement delineates Interior Department policy, and copies have been made available to the Water Resources Council and the Bureau of the Budget for consideration as the policy of the administration.

We propose to use the June 16, 1967, policy in formulating and analyzing Interior Department projects until an administration policy is determined.

We have now had some 5 years' experience working with the provisions of the Federal Water Pollution Control Act Amendments of 1961, which asserted, in brief, that all Federal agencies should give consideration in reservoir projects to inclusion of storage capacity for water quality control, that the value of such storage shall be included in the economic value of the project, that costs shall be allocated to the purpose, and that the costs shall be nonreimbursable if the benefits are widespread or national in scope.

The difficulty in computing benefits for the water quality function is due to the inability to separate water quality as a function from the end use of the water. In other words, the major benefits from improving water quality are generally reflected in the measurement of the water supply for irrigation, municipal and industrial uses, recreation, or fish and wildlife enhancement uses.

Therefore, we came to the realization that our previous policy of estimating water quality control benefits as the cost of the most likely alternative means of realizing the same benefit usually resulted in some duplication of values reported for other functions.

The June 16, 1967, departmental policy on evaluation of water quality benefits and on reimbursability of costs allocated to water quality is based upon this conclusion.

Federal multipurpose water resource development projects can often contribute measurably to the goals of controlling water quality and cleaning up polluted waters through reservoir storage releases and the other methods when the highest practicable levels of waste treatment will not achieve acceptable standards of water quality.

Such measures also are useful in dealing with natural and dispersed pollutant sources. However, a rigorous analytical procedure is necessary to determine when, where, and how much water must be supplied specifically for water quality control.

It is the intent of our evaluations procedure that water quality facilities and releases therefrom would not be proposed except as justifiable and necessary to attain quality conditions not met by operation of the project for other identifiable water resource purposes.

Because of the States' basic responsibilities for water management within their boundaries, specific provisions to protect water quality releases and to maintain necessary minimum flows in the streams are essential to this program.

The application of this policy to specific projects requires an analysis of the effect of proposed operating criteria for each of the basic water

use functions; namely, irrigation, municipal and industrial water supply, fish and wildlife enhancement and recreation, to insure that the quality needs and characteristics of each function will be met and that the benefits may thus be fully realized.

When an identifiable portion of the downstream benefits is found to be due to water quality enhancement as distinct from water supply availability, such portion of the benefits would be assigned to the purpose of water quality control.

The cost of any reservoir storage capacity or other facility required specifically to provide releases of water for this purpose would be specific costs chargeable to water quality control. The benefits and costs attributable to water quality control, as thus defined, would then be used in usual cost allocation procedures to determine the cost allocation to this purpose.

Parenthetically, Mr. Chairman, we are saying that the question of water quality benefit evaluation has not been approached heretofore in a manner which is at once scientifically supportable and technically defensible and also relates costs to the identifiable objectives of improved water quality. Our new policy approach will correct this shortcoming.

Although the 1961 amendments and the foregoing discussion allude specifically to reservoir storage for water quality control, it is our intention that the policy be applied in the same manner to other forms of water quality technology which may be proposed.

We have in mind such measures as instream aeration, importing dilution water from another stream, or withholding highly polluted water from the stream. Still other measures may be devised as the still new technology of water quality control advances.

As a result of studies and conferences regarding the respective roles and responsibilities of the States and the Federal Government in providing for water quality control in such projects, we believe that some measure of non-Federal cost sharing would be equitable. In the absence of other specific criteria we suggest use of the formula which the Congress included in the Federal Water Project Recreation Act, which requires that the non-Federal entity repay one-half of the separable construction costs and all of the operation, maintenance, and replacement costs on such separable facilities. All the joint costs and half of the separable construction costs are considered a Federal responsibility and would be nonreimbursable. The necessary administrative procedures have not yet been developed to implement this cost-sharing proposal.

The affected State, interstate or other responsible non-Federal public entities would be expected to give written assurances that they would assume the responsibilities discussed, both as to financial participation and as to the guarantees of the inviolate water releases for quality control.

Application of the foregoing principles and procedures to the Touchet division resulted in a finding that the plan of operation for the division will result in maintaining acceptable standards of water quality through reservoir releases for other purposes.

All of the water proposed to be released for irrigation, municipal and industrial supply, recreation, and fish and wildlife enhancement is needed on a quantitative basis; no increment over those amounts is needed to attain additional quality objectives. Therefore, no portion of

the cost of the division is allocated to water quality control. This is a departure from the findings we reported to the committee in 1965.

Our report on the bill sets forth the impact of the deletion of water quality control as a function of the division on the economic and financial analyses.

Because the policy questions involved in your considerations of our recommendations with respect to S. 485 are of principal importance to other areas of the Department, I have asked my colleague, Assistant Secretary Caine, to accompany me this morning. I am sure he can and will make a useful contribution to this hearing.

Representatives of the Bureau of Reclamation and the Bureau of Sport Fisheries and Wildlife are also present to discuss their plans in more detail as the committee considers appropriate.

I also have at my right, Assistant Commissioner Stamm, who is prepared, Mr. Chairman, to present any additional information on the project itself that you and the committee might desire to have at this time.

Senator JACKSON. Maybe it would be useful if the committee proceeded to hear from Secretary Caine before we begin our questions.

Do you have a statement?

Mr. CAINE. I do not, Senator.

Senator JACKSON. Do you wish to supplement or comment on Secretary Holum's statement with regard to the fishery resource aspects of this project?

Mr. CAINE. You will notice in his testimony, Senator, that we are recommending that the cost related to the fish that are caught downstream from the project not be reimbursable because we find it impossible to separate the off-site fish that will result from the project from other fish.

We find it impossible, once they are mixed in the streams, to distinguish between those which are caught commercially or by sport fishermen elsewhere, and in any case about 70 percent of the Columbia River fish are caught in the open ocean.

For this variety of reasons, that position in Secretary Holum's testimony was mentioned very briefly, but not developed.

Senator JACKSON. This is the position of the Department taken earlier in the previous bill, too.

Mr. CAINE. That is correct.

Senator JACKSON. All right, sir.

Mr. Stamm, I believe you have a statement.

Mr. HOLUM. If I might interject, Secretary Di Luzio did have a prepared statement. I would like to ask Mr. Flannery to read it or that it be submitted for the record.

Senator JACKSON. All right. Let us wait until we hear from Mr. Stamm.

STATEMENT OF G. G. STAMM, ASSISTANT COMMISSIONER, BUREAU OF RECLAMATION

Mr. STAMM. Thank you, Mr. Chairman, for the opportunity to present details of our plan for the Touchet division, Walla Walla project.

We appeared before this committee in April 1965, when S. 1088, 89th Congress, was under consideration, and presented the physical, economic, and financial data.

With your permission, therefore, today we will summarize those data and explain the effects of the changes in the analyses to which Mr. Holum referred.

The Walla Walla project will encompass several divisions which together will conserve and utilize the water resources of the entire Walla Walla River Basin that straddles the boundary between Oregon and Washington.

Today we are concerned only with the Touchet division which will put the waters of the tributary Touchet River to use for irrigation, municipal and industrial water supply, flood control, fish and wildlife enhancement, and recreation.

This division is entirely in the State of Washington.

Touchet River now has no reservoir regulation. Every year, in the pattern of all tributary streams in the Pacific Northwest, it floods its valleys in the spring, and by late summer the flow is drastically diminished. Although some lands were irrigated a century ago only 5,000 to 6,000 acres are now irrigated, and much of this land does not have a full water supply.

Irrigation from the river has been primarily by simple gravity diversion, but in recent years the acreage served by pumping has increased. Water rights on the river have been adjudicated and a complex system of priorities has been established.

It is proposed to build Dayton Dam and Reservoir on Touchet River a few miles upstream from Dayton, Wash. The dam would be a rolled earthfill structure about 200 feet high. The reservoir would have a storage capacity of 52,600 acre-feet, of which the bottom 4,400 acre-feet is inactive capacity and will provide a minimum pool for fish, 33,200 acre-feet would be used for conservation storage, for irrigation, municipal water, and fish and wildlife purposes, and 15,000 acre-feet for joint storage to be used seasonally for flood control and conservation.

Reservoir right-of-way required for all project purposes totals 1,473 acres, all of which is now in private ownership. Of this total, two 20-acre tracts would be acquired specifically for recreation use.

Facilities for fish enhancement would consist of a trap below the dam, a hopper and tramway to carry upstream migrants over the dam, multilevel outlets in the dam for temperature control of water releases and a collector system for downstream migrants.

Recreation facilities would include boat ramps and docks, sanitary facilities, access roads and parking areas, and overnight camp units. The entire reservoir area would be fenced.

A hydrometeorologic network of snow courses, gages, and forecasting equipment would be operated in conjunction with the division. Water would be released from Dayton Reservoir into the Touchet River channel, from which it would be diverted by the irrigators and the city of Dayton there through their own facilities.

Irrigation water would be served initially to some 9,960 acres of land, 3,520 acres requiring a full supply, and 6,440 acres requiring only supplemental water. These lands are located in a narrow band along the Touchet River. About 2,000 acres are in two established irrigation districts. The remainder is in the newly formed Touchet Valley Irrigation District lying upstream.

The lands are admirably suited to sprinkler irrigation, being about 61 percent class 1. Ownerships are generally in small tracts, and no

difficulty is anticipated in complying with the excess land provisions of reclamation law.

The full supply land proposed to be irrigated is now used for dry farming or forage crops. Under project conditions row crops would become important, dry-farm wheat acreage would be replaced by other crops, and the acreage of speciality crops, mainly vegetables for canning and freezing, would increase. The production of livestock also would increase.

Dayton Reservoir would support a substantial resident sport fishery and provide waterfowl and wild life habitat. Water would be released as needed to establish anadromous fish runs in Touchet River.

The city of Dayton, Wash., has indicated its interest in participating in the project by purchasing 1,000 acre-feet of water annually from Dayton Reservoir. The estimated use for this purpose is 500 acre-feet for the first 10 years, and the full 1,000 acre-feet thereafter.

Flood control is an important purpose of the Touchet division. The reservoir operation plan is based on runoff forecasts and joint use of a portion of the storage space for flood control and conservation on a seasonal basis.

Unpredictable rain floods having high peak and low volume runoff frequently occur in the basin. These could generally be controlled in Dayton Reservoir.

The December 1964 and January 1965 floods in the Touchet River Basin were especially destructive. Incidentally, the committee was provided with pictures of the damage done at that time.

The estimated peak flow at the Dayton damsite was 5,450 cubic feet per second, approximately $3\frac{1}{2}$ times the previous record. Many homes, irrigation and municipal water diversion facilities, highways, and bridges, and a section of the Northern Pacific Railroad were extensively damaged in the narrow river valley.

Silt and debris deposition in urban and rural areas was widespread. The entire river basin was declared an emergency flood disaster area. Damages of \$1,290,000 would have been prevented had Dayton Reservoir been in operation during these floods, an amount substantially exceeding the total proposed allocation to flood control in the Touchet division.

Dayton Reservoir would be a popular recreation attraction, as it would be the only sizable lake in the general area. The National Park Service prepared a recreation plan for the reservoir including facilities for boating, swimming, water skiing, camping, picnicking, and hunting.

Dayton Reservoir is designed to the maximum economic capacity of the site and will provide the practical limit of control of the water resource. The average annual water yield through storage regulation, will exceed the initial water requirements by about 23,700 acre-feet annually.

The potential irrigable lands in the valley, far exceed the area which could be irrigated with that water and there are indications that the deferred yield will be subscribed shortly. Future needs of the city of Dayton and other municipalities may also require some of this water.

Touchet River flows in the summer months diminish to a trickle or occasionally dry up entirely. At such times the affluent from municipal and industrial plants, particularly canneries, even though treatment plants are in operation, impose severe pollution loads on the stream.

However, studies indicate that normal operation of Dayton Reservoir for other purposes will provide sufficient dilution to maintain acceptable quality standards in the river. Therefore, we do not now recommend an allocation of costs to water quality control.

The estimated cost of constructing the Touchet division is \$16,630,000 at January 1965 prices. The allocation of costs now recommended is compared with the allocation we presented in 1965 in the following tabulation.

With the decrease of the allocation to water quality control the cost allocation to other functions has increased. The irrigational allocation increases from \$5,612,000 to \$6,249,000.

Flood control increases from \$808,000 to \$883,000, minimal and industrial water from \$110,000 to \$141,000.

Water quality control previously was \$1,428,000 and is deleted completely, fish and wild life enhancement, from \$8,357,000 to \$9,035,000.

Recreation increases from \$187,000 to \$194,000. Highway improvement does not change. It remains at \$128,000 because this represents the State having increased its standards in the interim, and this, under separate legislation, would authorize supplying funds to provide the highway higher standards on a nonreimbursable basis.

In accordance with reclamation law, the costs allocated to irrigation would be reimbursable without interest. The water users in the initial development would pay a total of \$1,281,000 in 50 years. This amount of repayment is based on three levels of charges: \$5.40 per acre for those lands having no present irrigation supply; \$3.80 per acre for those having a partial but seriously deficient supply; and \$1 per acre for those having a reasonably good supply with shortages only in mid and late season.

A development period of 10 years is recommended for the lands which have no existing water supply rights, and a 3-year period for those which have a partial but seriously deficient water right.

The remainder of the irrigation allocation associated with the initial development—\$1,681,000—would be repaid from revenues derived from the sale of Federal power marketed by the Bonneville Power Administration and the sale of municipal and industrial water.

The deferred costs for unassigned reservoir storage capacity amount to \$3,287,000 all of which is tentatively allocated to irrigation. If the deferred use storage capacity is not contracted for within the repayment period, that cost would be repaid from power revenues.

Costs allocated to municipal and industrial water supply would be repaid with interest as provided by the Water Supply Act of 1958. The municipal and industrial water rate is expected to be \$10 per acre-foot, plus annual operation and maintenance costs. The city of Dayton will divert directly from the river, using its own facilities.

The costs allocated to recreation and fish and wildlife enhancement total \$9,229,000. With the exception that the share of the costs properly assignable to anadromous fishery enhancement is considered nonreimbursable, the provisions of the Federal Water Project Recreation Act apply to this allocation.

We find that \$8,492,000 would be nonreimbursable with interest. The amendments to S. 485 proposed in the Department's legislative report to the committee are designed to bring the bill in conformance with this act.

We have received a letter from the port of Columbia County, which states that it is willing to assume the responsibility of administering and cost-sharing the land and water areas for recreation and fish and wildlife enhancement at the Dayton Dam and Reservoir.

Since the Bureau's feasibility report was completed, the State of Washington has upgraded its highway design standards. The road which must be relocated around Dayton Reservoir therefore will be to a higher standard than the existing road, and the incremental cost of that improvement, estimated at \$128,000 would be nonreimbursable under provisions of the Flood Control Act of 1962.

The Touchet division is a thoroughly justified and feasible multiple-purpose reclamation development. Its economic justification is demonstrated by the favorable total benefit-cost ratio of 2.35 to 1 at January 1965 costs and a 3.18-percent interest rate.

The direct benefit-cost ratio under the same basis would be 1.83 to 1.

The potential water users are completely in accord with the plan of development and are prepared to contract for water service.

I recommend this committee act favorably on S. 485 with the amendments proposed by the Department.

Senator JACKSON. Thank you, Mr. Stamm.

Mr. Flannery, you have a statement from Mr. Di Luzio. I wonder if you could hit the high points of it and maybe the rest could be put in the record.

Dr. FLANNERY. It is a brief statement, and I can submit it for the record.

Senator JACKSON. Go ahead and read it.

**STATEMENT OF HON. FRANK C. DI LUZIO, ASSISTANT SECRETARY,
WATER POLLUTION CONTROL, DEPARTMENT OF THE INTERIOR;
PRESENTED BY DR. JAMES J. FLANNERY, CHIEF ECONOMIST,
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, DE-
PARTMENT OF THE INTERIOR**

Dr. FLANNERY. The subject of my statement is "Storage and Flow Regulation for Quality Control in the Context of Water Pollution Control and a Water Quality Management."

The philosophy basic to the Department's new policy regarding flow regulation for water quality control has implications and objectives beyond reservoir construction and beyond its proposed immediate application to the Touchet division of the Bureau of Reclamation's Walla Walla project. As I view it, our new policy approach has valid meaning and applicability over the entire realm of water pollution control and water quality management, and, by logical extension and necessity, over the entire realm of water resource development and conservation.

Water quality and water supply are the two sides of a single coin. The essence of our thinking is that the attainment of water quality goals cannot be divorced from the attainment of water supply goals—whether the schemes used are local, regional, or national in scope. With this in mind, we also think and know that the attainment of water quality goals can be achieved through a wide combination of means.

Waste treatment—though the mainstay of pollution control in this combination—can be supplemented and augmented by a whole range of pollution control means and choices, including land use controls, reservoir storage and releases and other hydrologic-engineering tech-

niques and this enables us to devise efficient and effective plans and projects. The results will not, and cannot, be optimal, however, unless we look at the total system, consider the total needs—quality and supply—and utilize the best combination of tools available to us. The statutes which authorize the use of these tools are the responsibility and concern of several Federal agencies. State governments also share in this responsibility and concern. A thoroughly integrated and efficient program to restore and enhance the quality of our Nation's waters must take best advantage of the contribution from each of these governmental entities.

We in the Department of the Interior are most fortunate now to have the major share of the statutory responsibilities and agencies involved in water quality control and enhancement. Thus, in addition to having the lead role agency, represented by the Federal Water Pollution Control Administration, and the major statute, the Federal Water Pollution Control Act, we have the opportunity to bring to bear a formidable array of skills and authorities in closely related fields of Federal water activity. This includes the Fish and Wildlife Service; the Geological Survey; the Bureau of Outdoor Recreation; the National Park Service; the Bureau of Land Management; to name some of the major ones. In the Western States, moreover, these skills and authorities are even further augmented by the Bureau of Reclamation and the body of reclamation law.

As Mr. Holum pointed out, the Touchet division is the first reclamation project before this committee which conforms to the Department's new policy concepts regarding the role of reservoir storage and releases for flow regulation for quality control. To facilitate the committee's understanding of the reasons which have led us to advocate this policy approach at this time, I should like to devote the remainder of my statement to a more detailed explanation of our thinking. It is well known that reservoir storage and releases—for any purpose—affect water quality in some manner. Our policy approach emphasizes this fact and impels the several agencies to consider the mutuality of interests in water resource development and, consequently, in water quality, so that project design and operation can further fulfill the quality objectives.

As I have said before, water uses cannot be considered apart from the quality characteristics basic to, and necessary for, those uses. Quality and quantity are integral parts of the whole, and we maintain that this physical fact must be acknowledged, measured, and analyzed when considering how the river is to be used downstream.

Thus, fish and wildlife and recreation uses of water, for example, being particularly sensitive to quality constraints, can be fulfilled and realized only if the dual and integral essentials of quality and quantity are sought and provided simultaneously. This is the key factor and analytical feature in our policy approach.

In fact, it is also the thrust of the water quality standards which the States have been induced to develop under the Water Quality Act of 1965, and which the Secretary is now reviewing for adequacy prior to their implementation.

Two major features are involved, both relating to management aspects. One requires that the study and analysis of a project be integrated among the several agencies with responsibility for water use

and development. The construction agency puts the project together, after close interplay and continuous analysis of various choices and combinations suggested by the agencies participating in this formulation process.

Quality is the unifying and essential concept. The project must be designed not only to provide for specific uses but must be operated to avoid detrimental effects.

That latter objective reveals the necessity of another major feature of the policy; that is, it points to the present deficiencies in laws and institutions to manage the river for the various uses in regard to quality. Some agency or arrangement must be devised and instituted to assure that the flows in the river will be maintained to fulfill the planned purposes without adverse depletions or diversions. Such management must be in conjunction with waste controls and land drainage controls.

The attainment of this objective requires the full participation of the States, not only in the planning process but in the management system as well. The contemplated financial participation of the States will increase their appreciation of the very important stake they hold in the game. And the State programs of water pollution control and the State implementation plans for the water quality standards provide impetus for this participation. All in all, there is a most viable policy base here.

For instance, in the particular project of concern here today, the irrigation releases and the releases for fish and wildlife purposes are sufficient, in combination with high-level treatment of cannery wastes and other industrial and municipal wastes, to meet the quality needs for all the water uses, especially during the critical periods of the year and in the critical stretches of the river when fish travel and spawning grounds are at stake. The close participation of the several responsible agencies in the Department makes this result an achievable reality.

We are working to establish similar joint analyses with the Corps of Engineers. A major accomplishment in this regard is the recent agreement between the Secretaries of the Army and Interior on the issuance of dredging permits by the Corps of Engineers. The several Interior bureaus concerned will advise the corps on the water quality effects of dredging proposals to allow the corps to require the necessary offsets to possible damages. A similar but more closely integrated role must be devised for Interior agencies to participate in corps reservoir project planning and operation and to provide, in the operation of those reservoirs, particularly during emergency situations, that water quality effects are taken into positive account.

The State role is vital here, for the States must be able to protect the hydrologic results—the streamflows—from detrimental diversion and depletion and from degradation through waste disposal and land drainage. As I mentioned earlier, implementation of the water quality standards will facilitate this end, but legislation may also be required in several respects.

In conclusion, I wish to stress that the new policy approach is not limited to reservoir storage and releases for quality control. Other means, supplementing waste treatment and land drainage controls, are involved. Such means as in-stream aeration, waste disposal diver-

sions, canals, and channel adjustments are included. The objective is to consider water quality in terms of water uses, just as the quality standards require—in time and in place—and then to develop thorough-going analyses of all pertinent factors. In this way, the best combination of waste controls and drainage controls, in conjunction with control and management of the hydrology on a river system, utilizing whatever statutes and agencies are available and necessary, can be established.

Certainly, it is true that we must still gain the ultimate finesse in this respect. Once a system is built and operating there is also still a great need to achieve effective and efficient management, to maximize the output contemplated in the design. Equally important, of course, is the need to consider and analyze the management aspects in the course of planning and thus optimize the design itself. The Department is turning its talents to these ends to complete the set of tools and arrangements necessary to do the job as best it can be done.

Thank you, sir.

Senator JACKSON. Dr. Flannery, are you satisfied that the arrangements that are proposed with reference to the cannery waste disposal will be satisfactory and can meet the standards that the Department is laying down on water quality control?

Dr. FLANNERY. The water quality standards, under the Water Quality Act of 1965, do not pertain to that stretch. That stretch, apparently, is outside the interstate river definition. However, we have supervision of the situation through the regular water pollution control program and the arrangements there are satisfactory between us and the State. We will have that control.

Senator JACKSON. Wouldn't the fact that the Touchet, the water from which eventually goes into the Columbia, bring it within interstate provisions?

Dr. FLANNERY. When we demonstrate that a pollution effect on a tributary stream adversely affects the mainstream, yes.

Senator JACKSON. You would have to show that it has an adverse effect on the mainstream?

Dr. FLANNERY. Yes.

Senator JACKSON. Mr. Holum, I address this to you and Mr. Stamm: From your testimony here, I take it that the main change in your position and the position of the Department since last year is the elimination of water quality control as a nonreimbursable item. As a result of that deletion, which amounted to \$1,428,000, you have increased the allocation for irrigation and municipal and industrial purposes \$637,000 for irrigation and \$31,000 for municipal.

In addition, of course, you have increased the allocation from the Columbia River Federal power system by \$376,000. So that is, in essence, the change, is it not, in the allocation of costs in connection with this project?

Mr. HOLUM. That is absolutely correct, Mr. Chairman. The only significant change in the project that was favorably considered by the Senate in 1965 and the project day is the deletion of water quality control as a nonreimbursable. That is why we have taken pains to bring that forth.

In the Walla Walla project, we wrestled with this for awhile, and then went along with the House decision to make it reimbursable.

Senator Allott?

Senator ALLOTT. As I look at these figures, total costs are \$16,630,000?

Mr. HOLUM. That is correct.

Senator ALLOTT. And of this, only \$5,461,000 is reimbursable, so that only 42 percent, 42.3 percent of the cost is reimbursable?

Mr. HOLUM. The reimbursable costs under the 1967 proposal is \$7,127,000, because the reanalysis for water quality drops out as a non-reimbursable function and it increases the allocations to municipal and irrigation water and the other reimbursable functions.

Senator ALLOTT. In percentage terms, how much does that increase the reimbursable costs?

Mr. HOLUM. The percentage I haven't computed.

Mr. STAMM. We can provide those in a few minutes.

Senator JACKSON. It is about a 10-percent increase, is it not, in reimbursable costs? Are you referring to reimbursable?

Senator ALLOTT. Yes; reimbursable costs.

Senator JACKSON. It is pretty close to 10 percent.

Senator ALLOTT. What is the percentage of your reimbursable costs? while you are computing that, I will ask another question.

On page 7 of Mr. Stamm's statement—I believe it is Mr. Stamm's—in the middle paragraph he says that the costs of municipal and industrial water supply is expected to be \$10 per acre-foot. Now as I recall it, the costs in the previous contracts of reclamation have run \$25 to \$30 an acre-foot for municipal and industrial water. How does it come you are selling this water so cheaply, sir?

Mr. STAMM. Actually, the cost of municipal water from reclamation projects has varied from less than \$10—in fact, out of the Colorado River storage it is about \$7—up to substantially in excess of this, up to \$35 and \$40, and we have one in prospect that may run as high as \$50 an acre-foot.

However, these relate both to the cost of providing the water and the services provided. In many cases the cost of municipal and industrial water includes diversion and distribution systems. In this case, the only cost is the reservoir storage and release, and the Federal Government would provide no diversion or conveyance facilities to the city of Dayton. The water would merely be released at the reservoir.

Senator ALLOTT. What other projects have we had in the last 3 or 4 years that have as low a municipal and industrial water cost as \$10 an acre-foot?

Mr. STAMM. I think the established rate on the Colorado River storage project, again where it is only making stored water available with no diversion or conveyance facilities, is \$7 an acre-foot.

Senator ALLOTT. What project?

Mr. STAMM. Navajo. The same rate is provided for the several reservoirs on the Colorado River, and I think—

Senator ALLOTT. We had one here for Washington a couple of years ago up in the Northwest that would cost around \$30 an acre-foot.

Mr. STAMM. Again, I don't know any of the Northwest projects where the Federal cost was that high, Senator Allott, and there is a municipal and industrial rate for the—Senator Allott, I think the Tualitin project, which was heard and enacted by the Congress last year, also carries a municipal and industrial function, and I believe the rate there is even less than this one. I believe it is \$5 an acre-foot, but I would have to check that to be really sure.

Senator ALLOTT. For municipal and industrial water?

Mr. STAMM. Yes, sir. Again, this is merely making water available in the river to the municipality.

Senator ALLOTT. Now, sir, on page 6 of your statement you talk about repayment of water for irrigation. You have a level of \$5.40 for those lands having no present irrigation supplies, which I think is reasonable. But you have \$5.40 per acre. Now, what is this figure in acre-feet?

What do you figure that an acre requires for irrigation in that area?

Mr. STAMM. Three and a half acre-feet per acre, divided into \$5.40 would be less than \$2 an acre-foot.

Senator ALLOTT. Do you know of any other place that the water has been supplied to irrigators at such a cost?

Mr. STAMM. Yes. I think there are a good many. This repayment in all cases, as you know, and pursuant to the 1938 Reclamation Project Act, is based on the water users' ability to pay, and these rates are established pursuant to detailed farm management analyses taking into account all items of income and expenses of the farmer. Under our policies he is required to pay at least 75 percent of his calculated ability to pay. I recognize in these cases the cost to the farmer is going to be substantially more than \$5.40 per acre, because again they have their own diversion facilities and their own pumping plants to maintain power costs, and I believe the total costs raise the cost to the farmer to about \$17.

The pumping power amounts to about \$7.90 an acre, the interest and equity on investment, \$1.65, and adding repairs, depreciation, and operating interest brings those costs to \$11.65, plus the \$5.40, which brings the total cost for sprinkler service to \$17 an acre.

Senator ALLOTT. Are these all going to be pumped out of the river?

Mr. STAMM. Some will be gravity diversion.

Senator ALLOTT. Why is there a lower differential in the supplemental supply?

Mr. STAMM. Because they don't require as much project water to supplement their nonproject entitlement.

Senator ALLOTT. Shouldn't there be the reverse? Shouldn't it be more expensive rather than less expensive?

Mr. STAMM. Well, not necessarily so.

Senator ALLOTT. You go as low as \$1 per acre at 3.5 for the reason you supply the shortages in the light season, so those people would be paying less. Well, it is impossible to tell from the figures you have here, but—

Mr. STAMM. They would be getting quite a little less project water. Some of those individuals may have a water supply that some years is completely adequate. In other words, the diversion for those people would probably be in the range of less than 1 acre-foot.

Senator ALLOTT. One acre-foot. So the cost for them would go down to a maximum of \$1 per acre-foot for irrigation water?

Mr. STAMM. For the people who have a nearly adequate supply now.

Senator ALLOTT. Do you have any area where a comparable price has been set by the Department of the Interior on supplemental water? Can you cite me an example?

Mr. STAMM. I think I could cite examples where we sell water to irrigation districts, contract with the district for certain quantities of

water, and the district distributes that to its water users on the basis of their need, and they pay in accordance with their need and the rates and the charges to the individual water users do vary.

Senator ALLOTT. You have taken the water quality control out as a nonreimbursable item, and put it in as a reimbursable item?

Mr. STAMM. We have distributed it to the other functions, and to the extent that the function itself is reimbursable, the reallocation and the increased cost is reimbursable. To the extent that it has been reallocated to nonreimbursable functions it would be nonreimbursable.

Mr. HOLUM. Senator Allott, underlying that is the determination by the Federal Water Pollution Control Administration that the other purposes of the project are designed to provide, particularly the water available for irrigation, municipal and industrial water supply, and fish and wildlife enhancement will maintain adequate quality, so there is not a water quality benefit from the project. That is what led to it.

Senator ALLOTT. On your allocation of costs, which total \$16,600,000 at 1965 prices, you have allocation of costs of six and a quarter million, in round figures, \$6,249,000 to be exact, and six and a quarter million to irrigation. Your fish and wildlife enhancement, which is a nonreimbursable item, is it not—

Mr. HOLUM. Yes, sir.

Senator ALLOTT (continuing). Jumps to \$9,035,000, so your non-reimbursable portion of this project for fish and wildlife enhancement is 50 percent larger than the reimbursable portion for irrigation.

Mr. HOLUM. That is correct.

Senator ALLOTT. And even if you add the \$141,000 that you have in for municipal and industrial water, it still is almost 50 percent more than in the cost allocable to irrigation. Is that correct?

Mr. HOLUM. This is a unique and significant opportunity to improve the tremendously valuable fishery resource.

Senator ALLOTT. I am always interested in people who suffer from the ravages of floods, and we have had such situations in Colorado, and we tried to conserve water, too. I see no impetus on the part of the Department of the Interior to report out the Narrows project in Colorado, which has lost us upward of 300,000 acre-feet of water in the valley, if it had been used.

What is the status of that project? I don't seem to be able to get any satisfactory answers any other way, so I will ask it here.

Mr. HOLUM. Senator Allott, it is easy to understand your impatience, and I can assure you that the Narrows project is under very active consideration in the Department of Interior and the Bureau of Reclamation.

Mr. STAMM. I might mention one aspect of the Narrows project that is getting attention now in the Department—expedited attention, in the Department. There is a water quality function involved in the Narrows, and to maintain the appropriate water quality between the Narrows damsite and the State line requires some water dilution.

The constitution of the State of Colorado is such that this function could not be recognized, as I understand it, under the State constitution, and there is no assurance that if the water were put in the stream at the dam that it would remain there until it gets to the State line to serve this function.

Recognizing this situation, the project was formulated eliminating the water quality function, but in reconsideration, the decision was made that this shouldn't be a Department of the Interior decision.

The State of Colorado ought to have the opportunity to decide whether it can, through modification of the constitution or otherwise, take advantage of the opportunities for quality control in connection with this project, so we are preparing right now the alternative figures to put in the report, and we hope to have this done rather soon, because we also are anxious to get this project reported out.

Mr. HOLUM. I think we would be doing the State of Colorado a great disservice if, in our wish to move quickly, we don't provide an opportunity for this benefit to the State.

Senator ALLOTT. I appreciate your concern, and I am sure the people of Colorado do. This project has been on the boards for some 20-odd years, and we are concerned about it. I think there are ways, if they are ever discussed with the Colorado people or their representatives in Congress, that whatever problems there are could be worked out; but at least we would like the opportunity to work them out.

Mr. HOLUM. We are doing our best.

Senator ALLOTT. Thank you, Mr. Chairman. I have to go to the floor.

Senator JACKSON. Thank you, Senator Allott.

Senator JORDAN?

Senator JORDAN. Thank you, Mr. Chairman.

Mr. Holum, the cost of this project has been given us as \$16,630,000; is that correct?

Mr. HOLUM. That is right.

Senator JORDAN. The cost of the fish and wildlife enhancement, \$9,035,000. Is that correct?

Mr. HOLUM. That is correct.

Senator JORDAN. I figure the cost of the fish and wildlife enhancement is nearly 55 percent of the total cost. Is that about right?

Mr. HOLUM. I would think so.

Senator JORDAN. What is the height of the proposed dam?

Mr. HOLUM. About 200 feet.

Senator JORDAN. Has the Department of Interior or anyone ever successfully passed fish over a 200-foot dam migrating upstream and the fingerlings downstream?

Mr. STAMM. Yes. The proposal here is to set up a mechanism to trap the fish below the dam and a tramway system to carry them up and release them above the dam. This has been done elsewhere, and when this procedure is followed, it doesn't make too much difference what the height is.

Senator JORDAN. If you take them up in elevators it wouldn't make any difference in the upstream migrants. How about the fingerlings coming downstream?

Mr. STAMM. I would prefer to have Secretary Caine answer that.

Senator JORDAN. I will put my question to Secretary Caine. Have you ever successfully passed downstream fingerlings over a 200-foot dam?

Mr. CAINE. As I understand it, Senator Jordan, this dam is designed with a system to pass the fish down, and there are other cases where fish have been passed up over dams.

Senator JORDAN. Yes; passed up. You could put them in elevators and take them a mile high, but have you ever taken fingerlings successfully down over a 200-foot head?

Mr. McBROOM. My name is James T. McBroom. I am Assistant Director of the Bureau of Sport Fisheries and Wildlife.

There are systems for downstream passage that work well on the Pelton Dam and the Collins River Dam.

Senator JORDAN. What is the head of the Pelton Dam?

Mr. McBROOM. About 300 feet.

Senator JORDAN. Are you successfully passing the fingerlings downstream at Pelton?

Mr. McBROOM. I would have to qualify the "successfully," sir.

Senator JORDAN. What is the attrition?

Mr. McBROOM. I would say 60 percent, sir.

Senator JORDAN. What would you think it would be passing them down a 200-foot head?

Mr. McBROOM. I would expect 75 or 80 percent.

Senator JORDAN. What is the head of the Collins?

Mr. McBROOM. About 350 feet.

Senator JORDAN. What is the attrition rate there?

Mr. McBROOM. About the same as Pelton.

Senator JORDAN. About 60 percent?

Mr. McBROOM. Yes.

Senator JORDAN. Have you paced fingerlings downstream over heads higher than those?

Mr. McBROOM. No, sir. As you know, Senator, there is research going on, on this.

Senator JORDAN. We are all very much interested in it.

It seems like a very high percent of the cost of the project allocated to nonreimbursable function to fish and wildlife enhancement when the likelihood of success of the stream passage of the fingerlings is not too promising.

Mr. McBROOM. We believe that the costs here, Senator Jordan, justify it. Of course, the main part of the project would provide better flows downstream from the dam. We think this is very important as far as the fisheries aspect of this project goes.

Senator JORDAN. What new devices are you using for passing these fingerlings downstream? I wasn't aware of any successful devices that were in operation to take care of such heads as we are talking about.

Mr. McBROOM. Of course, if the dam is spilling, there is no problem. The fingerlings could pass over the spillway.

Senator JORDAN. But when they go through the turbines that is when the damage is done?

Mr. McBROOM. Yes. If you have a low-head turbine, they could pass through there without damage.

Senator JORDAN. That is right.

Mr. McBROOM. On the higher head, we hope the multiple outlets, such as are being planned on the Dayton Dam, will allow them to pass successfully.

We are also hoping to have an artificial outlet, floating at the top of the dam, which will attract the fish to it.

Senator JORDAN. I note for a number of years dams were designed on the Columbia at a maximum height of 90 to 100 feet. It was calculated

at that time as the limit over which you could pass the downstream fingerlings without an attrition loss that would be excessive, but you have now gone up to 200 and 350 feet, and you have said that you can do this successfully?

Mr. McBROOM. We have a lot more research to do, Senator, but we are satisfied that we can get enough fingerlings down to make our estimate on this project, and what it will do for salmon in the future.

Senator JORDAN. To the extent you can justify 55 percent total cost to this function?

Mr. McBROOM. Yes, sir.

Senator JORDAN. That is all.

Senator JACKSON. The Chair would like to compliment our colleague from Idaho in asking some excellent questions. Senator Jordan has been involved in this problem for a long time. The questions were helpful, and this is a difficult problem.

As I understand it, what you are trying to do is restore the anadromous fish flow in this area. In the summer months there is not sufficient water in the Touchet River for the salmon to go upstream and spawn, and by proper control of Touchet River waterflow you hope to be able to restore the run of fish. There were a substantial number of fish going upstream in years gone by?

Mr. CAINE. Yes, sir.

Senator JORDAN. May I interject another comment here, Mr. Chairman? I think this is highly important, because if we can successfully pass these downstream fingerlings over a 350-foot head, then I want a restudy made of the site on the Snake River in Idaho. If we can do it over 300 feet, let's do it over 500 feet.

Senator JACKSON. Dr. Caine, you have your work cut out for you. There is the added fact here, that you are not dealing with turbines, because this is a nonpower project.

Thank you, gentlemen, we appreciate your testimony and having your responses.

The Chair will call now the three representatives from the area, the Honorable H. Woolson, mayor of the city of Dayton, Mr. Benjamin Flathers, vice president of the Walla Walla Port District, Prescott, Wash., and Mr. Vernon Marll.

If you gentleman will be seated.

Each of you have statements. I think in the interests of time, the Chair will ask Mr. Marll to act as spokesman, and each of you can have your statement put in the record.

All right, Mr. Marll, would you proceed with your statement? Just pull the microphone in front of you.

STATEMENT OF VERNON MARLL, PRESIDENT, TOUCHET VALLEY IRRIGATION DISTRICT, DAYTON, WASH.

Mr. MARLL. My name is Vernon Marll. I am a farmer at Dayton, Wash., and president of the Touchet Valley Irrigation District.

I appreciate the opportunity to testify in support of the Senate bill 485.

The Touchet Valley Irrigation District is located in the southeastern part of Washington State. Lands within the district lie along the Touchet River and extend from the Dayton damsite about 4 miles

southeast of the community of Dayton some 50 miles to the community of Touchet. The district forms a narrow arc whose radius extends 15 to 20 miles north from the city of Walla Walla, the principal community in southeast Washington State.

The district was formed in June 1964 with an overwhelming favorable vote of nearly 97 percent and comprises 7,950 acres suitable for irrigation. In addition, the proposed Dayton Reservoir would provide capacity for an additional 9,000 acres—applications from owners of lands outside the boundary to come into the district are already before the district board and it is anticipated that practically all of this area will eventually be included.

The district is in dire need of a full water supply during the full irrigation season to properly irrigate our lands. Our cropping patterns and production are limited in varying degrees to existing water rights and total water cutoff at the peak of the irrigation season. The Dayton Reservoir will regulate the river flow and provide a supply in the traditionally water short months.

At present our lands are devoted largely to production of wheat and barley. The availability of a full water supply will bring a wide diversification of crops, our soil and climate are ideal for production of crops that can be processed in the new existing facilities in Walla Walla, Waitsburg, and Dayton. The additional income would then strengthen the economy of the entire region tremendously.

Of great importance to the valley is the large measure of flood control that would result from the construction of the dam. The history of the valley is one of recurring floods, two of the most devastating having occurred on December 22, 1964, and late January 1965, when conservative estimates by local, State, and Federal authorities placed losses from flooding at many millions of dollars. Losses of roads, bridges, and buildings have been restored from time to time, but the damage in terms of lost topsoil is irreplaceable.

Municipalities are discovering that a dependable water supply source is of grave importance. We understand Dayton was forced to impose rigid restrictions this summer.

Of great interest is the recreational potential of this project. The Blue Mountains of southeastern Washington are famous as a recreational area. The need of additional facilities to serve our expanding population is daily becoming more obvious. The planned construction of marinas and boating facilities in the reservoir area will serve to fill the need for the entire area.

We also understand that the construction of this project will vastly enhance the fish runs in the Touchet and Columbia Rivers through improved water quality and increased streamflow of the Touchet River. Not only will this bring through additional sport fishery a much needed recreational value, but will provide a continuing supply of commercial salmon for this valuable Pacific Northwest industry.

We thus respectfully submit that this project is justified on the grounds that we have outlined above.

The local farmer would benefit by saving continued erosion and other losses from flooding, and by making available additional crops that cannot now be produced. The crops would be processed locally, furnishing employment to many people of the area. A dependable

municipal water supply would also be assured. The severe damage suffered from floods would indicate that the project is necessary from that point of view alone. The project would also provide recreational facilities for many people of the region.

Thank you for your courteous time and attention.

Senator JACKSON. Thank you, Mr. Marll. We appreciate your statement.

Mayor Woolson, would you like to make a short comment, and your statement will be included in full in the record.

STATEMENT OF HON. H. N. WOOLSON, MAYOR OF THE CITY OF DAYTON, WASH., ON BEHALF OF THE PORT DISTRICT OF COLUMBIA COUNTY

Mr. WOOLSON. Yes, I am here in two capacities: As mayor of the city of Dayton, and attorney for the Port District of Columbia County.

Our problem is too much water in the wintertime and not enough water in the summertime. We hope this can be controlled by construction of the Touchet Dam.

If the Congress sees fit to pass this bill, the Columbia County Port District, which I represent, is ready to construct the recreational facilities at the lake.

Senator JACKSON. Yes. The water is important, and as I understand it, you will construct your own diversion work.

Mr. WOOLSON. Yes.

(The prepared statement of Mayor H. N. Woolson follows:)

STATEMENT OF H. N. WOOLSON, MAYOR, CITY OF DAYTON, WASH., ON BEHALF OF THE PORT DISTRICT OF COLUMBIA COUNTY

I am appearing here on behalf of the City of Dayton, Washington, and also on behalf of the Port District of Columbia County.

Insofar as the Port District is concerned, my appearance is to assure this committee that the Port District is prepared to develop and maintain the recreational facilities that would be established in the lake behind the proposed Touchet Valley Dam.

The recreational facilities, of course, serve a purpose not only in our own community but also in the Tri-Cities of Pasco, Kennewick and Richland and, of course, the entire southeastern Washington area. Because of the shortage of recreational facilities in that area, many of their residents take advantage of the recreational facilities provided by the Blue Mountains, and we have every confidence that if the Touchet Valley Dam is constructed, there would be a much greater use of the Blue Mountain recreational area.

The Columbia County Port District has funds on hand for the construction of the recreational facilities.

The other statement I would like to make is on behalf of the City of Dayton.

The dam, as you know, would be about four miles south of the City of Dayton. Our problem within the city is too much water in the winter and too little in the summer. In December of 1964 and again in January of 1965, our community was struck by a disaster flood. The flood inundated our city water filter plants as well as the city disposal plant. Many of the streets were covered with water and a great amount of damage was caused to private property.

It is the hope that construction of the Touchet Valley Dam will assist greatly in preventing future damage to our city by the flooding of the Touchet River.

The terror of the night of the flood, of course, subsides in one's mind as the days go by, and on a hot day in August it is hard now to even imagine the feeling of panic that was present during the flood.

The other side of the coin is the shortage of water during the summer growing season. Three times this summer it was necessary for the City of Dayton to ration the use of its water.

Our community, of course, is dependent almost entirely upon the production of agricultural products and with the development of a greater amount of irrigated land, there would be the obvious economic contribution to the community I represent as well as to the entire southeastern Washington area.

The water table level of our municipal well has dropped alarmingly within the last four or five years. In fact, in that period of time it has dropped more than fifty feet.

With the construction of the Touchet Valley Dam my community would be assured of an adequate supply of water for both the domestic users as well as the commercial enterprises within the area.

May I, therefore, respectfully suggest that the construction of the Touchet Valley Dam would be of great benefit to our city in assuring it an adequate supply of water and in lessening the danger of damage to our city by floods and that the entire southeastern Washington area would be served by the recreational facilities that the Port District of Columbia County is prepared to develop.

Senator JACKSON. Mr. Flathers.

STATEMENT OF BEN FLATHERS, VICE PRESIDENT, THE WALLA WALLA COUNTY PORT COMMISSION

Mr. FLATHERS. I am a farmer, and president of the Walla Walla Port District.

With your permission, I request this statement of support on my part, and also the Port Commission, be made a part of the record of this hearing.

Senator JACKSON. Your statement will be included in full in the record.

(The prepared statement of Ben Flathers follows:)

STATEMENT OF BEN FLATHERS, PRESCOTT, WASH.

Thank you, Mr. Chairman. My name is Ben Flathers. I am a farmer and live in Prescott in southeastern Washington on the Touchet River. My ranch was homesteaded in 1859 by my grandfather and has remained in the family since. In addition, I am Vice President of the Walla Walla County Port Commission whose purpose is developing the economic growth within the county.

The hill ground of my farm is used for growing wheat and barley. However, part of the flat land of my property is irrigated with water from the Touchet River adjudicated from a previous water right. This irrigated ground is planted to asparagus which is utilized by local processors. The remainder of this flat land raises wheat because of lack of irrigation. The irrigated ground supports four men for eight months and at harvest time supplies work for up to eighty men for three months. Whereas if this same land was in grain production every other year, it would only require one man year round.

As a youngster, I recall helping my father and uncles build a temporary diversion dam every spring on the Touchet River about two miles north of Prescott. In those days we used horses on fresnos and slips. The purpose was to divert water to our ranch and others along the ditch for irrigation use. Not only would a Touchet River dam provide a regular flow of irrigation water for ranches in the valley, it would also provide the river with a much needed flood control system. During winter or spring, floods can become one-half mile wide and about six-feet deep. In the late summer the river is narrow enough to jump across. These floods cover crops with silt, deposit gravel bars on rich soil and leave debris that is expensive and time consuming to remove. We have a constant annual maintenance program after the flood season to keep the river from cutting new channels.

Recently the Walla Walla County Port Commission built warehouse facilities and a railroad siding to help establish a 3,200 acre farm operation out of what was previously unproductive pasture land. That land once required approximately

100 acres to sustain one cow only six months. In 1965, prior to the farm operation, that land had an assessed valuation of \$30,450 and a tax of \$1,432.67. But with water pumped from the Ice Harbor Dam on the Snake River to irrigate the farm operation, the 1967 assessed valuation rose to \$259,800 with taxes at \$13,673.27, plus a personal property tax of \$51,730 and an estimated annual payroll of \$181,000 to \$200,000. Fifteen full-time employees are required on the farm operation plus seasonal employment for seventy-five more.

This success study has proven to the Port District and everyone in the area the importance of irrigation to the future economy of this area.

Senator JACKSON. Any questions?

Senator JORDAN. I am pleased to have these men here from the State of Washington. Dayton is a lovely city, the Touchet River and the Touchet Valley, is a beautiful place. Thank you for your statements.

Senator JACKSON. Thank you, gentlemen. We appreciate having your testimony.

A letter from the Governor of Washington, Hon. Daniel Evans, will be included in the record at this point followed by a statement of H. Maurice Ahlquist, director, Department of Water Resources of the State of Washington.

(The data referred to follow:)

STATE OF WASHINGTON,
OFFICE OF THE GOVERNOR,
Olympia, August 4, 1967.

HON. HENRY M. JACKSON,
*Chairman, Senate Committee on Interior and Insular Affairs,
Washington, D.C.*

DEAR SENATOR JACKSON: I am pleased that your committee has scheduled a hearing August 10, 1967, on S. 485 for authorization of the Touchet Division of the Walla Walla Project, Washington.

The rivers and streams of Washington State are major suppliers of salmon stock to the Pacific Ocean, and, as such, are of tremendous value to both the sport fishery and the commercial fishing industry.

The Touchet River is a stream particularly well adapted to support certain species of anadromous fish. However, the appropriation of water to satisfy other needs, and the loss of natural cover in portions of the watershed have depleted the flows beyond the point where these runs can now be adequately supported. The Touchet Division's Dayton Dam would provide the required minimum flows to maintain a valuable fishery resource, together with providing benefits to other important multipurpose uses.

It is my belief that the long range benefits to the sport and commercial fishing industries more than offset the Federal investment required as a non-reimbursable allocation.

Over and above this inter-regional consideration, storage and regulated releases are vitally necessary to the optimum development of the related land resources of the Touchet Valley. Benefits from the project for municipal and irrigation supplies, for water quality, flood control and recreation are highly important factors to the continued social and economic progress in this tri-state area, and particularly to the State of Washington.

I sincerely hope the committee will report favorably on this bill.

Best regards.

Sincerely yours,

DANIEL J. EVANS, *Governor.*

STATEMENT OF H. MAURICE AHLQUIST, DIRECTOR, DEPARTMENT OF WATER
RESOURCES, STATE OF WASHINGTON

We are advised that Senate Committee on Interior and Insular Affairs will hear witnesses and accept testimony on August 10 in Washington, D.C. on Senate Bill No. 485, authorizing the Touchet Division of the Walla Walla Project, Washington.

The Department of Water Resources has reviewed reports of the Bureau of Reclamation and others on this project. In accordance with state statutes, we sub-

mit herewith the official views and recommendations of the State of Washington relative to this project and Senate Bill No. 485.

The Touchet River valley is one of a number of watersheds in this state wherein water supplies to the adjacent lands are limited to the available, but uncontrolled, natural stream flows. Much of the original ground cover in the Touchet Basin has been removed due to logging operations, agricultural and urban development. At times these factors accentuate an early runoff, such that the natural flows available do not coincide with the water demands or requirements. Full water rights are enjoyed by a comparably small number of owners of the earlier-developed lands. On the present basis of natural flow, the bulk of lands that could benefit from a full irrigation supply, are restricted to a very limited period of water use or have no water available for use at all.

We particularly wish to emphasize that farms in the Touchet Valley are family owned and operated. Landowner interest in the project has been outstanding, and an irrigation district was formed in 1964 in anticipation of favorable action by the Congress, and in support of the Bureau of Reclamation plan for this project.

Marketing and processing facilities in Dayton, Waitsburg, Walla Walla and in the adjoining Columbia Basin area are capable of handling the additional volume of production these lands could yield through an adequate and dependable water supply.

Although the allocation for flood control appears small in comparison with benefits to irrigation, quality control and fish and wildlife enhancement, the need is very real in both the urban and rural areas of the basin. As of July 1, 1967 a total expenditure of nearly \$750,000 in local, state and federal monies, has been invested in flood control in the Touchet Basin. Despite this, the last major floods of December 1964 and January 1965 resulted in \$1.75 million of damages in the basin. Storage above Dayton would be an integral part of the channel and revetment improvements, and would have substantially reduced the damage figures.

We concur with the report of the Bureau of Reclamation relative to municipal water supply and quality control benefits to be derived from the project, and understand that local agencies have indicated a willingness to assume those responsibilities for reimbursable portions of separable costs.

Senate Bill No. 485 brings into focus a basic point relative to fish and wildlife enhancement. We concur that it is appropriate to allocate a calculable, non-reimbursable benefit for fish and wildlife that extends beyond the project area. With a minimum flow of 30 c.f.s., made possible through the Division's principle feature—the Dayton Dam, the Touchet River watershed is capable of providing spawning area to a potential escapement of 5,000 spring Chinook and 5,000 Coho salmon, annually. The commercial and sports catch of salmon incubated and reared in the Touchet system would contribute to the fishery for at least 400 miles downstream from the Dayton Dam site to the mouth of the Columbia, as well as in the Pacific Ocean fishery off Washington and adjacent coastal areas. Based on the state fishery management catch-to-escapement ratio of 3:1, the harvest value of the Touchet River salmon resource would amount to \$14,750,000, over a 50-year project life.

Further comments by the Washington State Department of Fisheries are attached as an appendix to this statement.

The state also recognizes that the Touchet project can provide substantial benefits to the steelhead fishery of the Columbia River system, and would provide an additional, and much needed, fishing lake and game fish environment to the area.

In accordance with Public Law 89-72 and data furnished us, it is our understanding that cooperative effort is required for recreation and sports fish and wildlife, and that assurances are needed in support of these phases of the project. These assurances for initial separable construction costs are understood to constitute one-half of the development costs. In addition, the assurance must cover the annual operation and maintenance of those features.

The Department of Water Resources is confident that a fully competent governmental agency or agencies will be available to sponsor the reimbursable aspects of recreation and fish and wildlife features of the project in order to justify the benefits credited to it.

Please be assured that upon authorization of the project and availability of firm design plans and project costs, this office will personally make every effort that the details of individual agency assurances for the several parts of this commitment will be arranged to meet the requirements of definite development schedules and maintenance requirements.

Finally, recognizing the need for and benefits of the project, the Department of Water Resources has withdrawn all public waters of the Touchet River and its tributaries from further appropriation for a period of one year. Extensions will be granted as necessary so that the unappropriated supply will be available for use in the development of the Touchet Division.

In view of these factors, the State of Washington strongly endorses Bureau plan and urges speedy and favorable consideration of Senate Bill No. 485.

STATE OF WASHINGTON DEPARTMENT OF FISHERIES,
Olympia, Wash., August 2, 1967.

Re Touchet River.

Mr. H. MAURICE AHLQUIST,
Director, Department of Water Resources,
Olympia, Wash.

DEAR MR. AHLQUIST: In answer to your inquiry with reference to fishery benefits referred to in the "Walla Walla Project, Touchet Division" as proposed for the reservoir project by the Bureau of Reclamation.

Referring back to the initial data that was produced in 1956, the following information is presented with the evaluation up-dated to 1967. Initially it is considered that the Touchet River watershed has a potential annual escapement figure of 5000 spring chinook salmon. The area is also capable of supporting an escapement of 5000 coho salmon. With reference of our basic data of catch to escapement at 3:1 these figures are indicative of producing a catch of 15,000 fish per each species. These numbers of fish thus produced to catch are: spring chinook—255,000 pounds, coho salmon—120,000 pounds annually. The first wholesale value at present day prices would thus be: spring chinook @ \$.85 per pound=\$217,000; coho salmon @ \$.65 per pound=\$78,000, which would produce a total annual value of \$295,000. On the basis of 50 year project life this product value is \$14,750,000.

As the development of water uses have exterminated the salmon runs from this stream, the above value would totally be benefits.

It is well to relate some additional initial recommendations which have changed through the period of evolution for development of the latest Bureau of Reclamation report.

1. Stream flows for transportation of fish should be not less than 50 cfs. The Bureau of Reclamation indicated the reservoir capacity was not sufficient to support these flows, the Fish and Wildlife Service agreed that 30 cfs is sufficient (this quality is defined finitely as transportation water and would not take into account the present day problem of pollution which actually requires considerably greater flow in able to supply water quality to maintain a desirable DO content). The April 1963 Bureau report, however, indicates a dam can be constructed to include 24,470 acre-feet of unassigned storage space. (annual filling may be questionable.)

2. Adequate fish passage will be needed, present and proposed, which include fish facilities at reservoir dams to allow spawning benefits of the upper drainage basins.

3. Complete screening of the diversions will be necessary. This phase initially has been completed under separate Fish and Wildlife funding to provide protection for the present existing steelhead run.

4. The flows referred to in the Touchet River must remain in the drainage system through the lower Walla Walla River.

This department is heartily in support of this reservoir project which would allow a re-introduction of salmon runs into the Touchet River.

Very truly yours,

THOR C. TOLLEFSON, Director.

MAY 24, 1967.

NORMAN H. MOORE,
Acting Regional Director,
Bureau of Reclamation,
Region 1,
Boise, Idaho.

DEAR MR. MOORE: This will acknowledge receipt of your notice dated May 23, 1967, of withdrawal of water under the provisions of 90.40.030 RCW, stating that the United States intends to make examinations and surveys for the utilization of unappropriated waters of the Touchet River and all tributary channels

leading thereto, including all waste, seepage, drainage and return flow in connection with the development of the Touchet Division, Walla Walla Branch.

This notice will be made a matter of record in this office, and the waters in question will be withdrawn from appropriation for a period of one year from this date.

Very truly yours,

DEPARTMENT OF CONSERVATION,
H. W. POLLOCK,
Supervisor, Division of Water Resources.

Senator JACKSON. The Chair wishes to state that a communication has been received from Mr. Dorsey M. Martin, vice president of the State of Washington Rivers and Harbors Conference, which will be included in the record at this point.

A statement by Mr. Glen Hofer will likewise be entered in the record at this point.

The statement by Mr. Byron Friedman introducing Mr. Ben Flathers, who is here today, will be included in the hearing record.

A letter from Melville Cummins, secretary of the Westside Irrigation District will be included.

A letter from Albert Land, mayor, city of Waitsburg, Wash., will be included.

A letter from the Chamber of Commerce of Dayton, Wash., will be printed.

A letter from Loren Dumas, of Waitsburg, Wash., will be included.

And also a telegram from Henry Alexander, president, Washington State Reclamation Association, will be included in the hearing record.

Also numerous letters from chambers of commerce and other organizations in the area. They will all be included in the hearing record at this point.

(The data referred to follows:)

STATEMENT OF DORSEY M. MARTIN, VICE PRESIDENT, STATE OF WASHINGTON RIVERS
AND HARBORS CONFERENCE

I would like to make a statement on behalf of the Touchet Valley proposal recommending it as a worthy and beneficial project for our area. Having worked for the project the past several years, I feel that our community and area would very much benefit from this project in the conservation of our resources, the development of irrigation that is much needed in the Valley, and the control of the flood problem.

AUGUST 10, 1967.

HON. HENRY M. JACKSON,
Chairman, Senate Interior and Insular Affairs Committee, U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: My name is Glen Hofer, and I am a home and crop-land owner within the boundaries of The Touchet Valley Irrigation District in southeastern Washington. My property is located near the City of Waitsburg, and I wish to represent to your committee the popular support prevalent throughout our entire community for the water storage project proposed in S. 485.

Our section of the Touchet Valley, already the site of a vegetable canning and freezing industry, would benefit substantially from the considerable expansion in row crop and fruit production that an adequate, consistent water supply would make possible. In addition, the flood control capacity of such a project would remove the threat of floods which have, with discouraging frequency, devastated the entire valley.

Development of recreational facilities centering on the reservoir created by such a project and the re-emergence of the Touchet-Walla Walla River system as a salmon-spawning ground are further benefits which would accrue with the realization of such a project.

With such positive factors in mind, it is readily apparent that the impact of a Touchet Valley Dam would revitalize the economy of the entire area and help

it stand firm against the trend toward centralization of our industry and population in urban areas.

My friends and neighbors join me in urging favorable consideration of S. 485.

Sincerely,

GLEN HOFER.

CHAMBER OF COMMERCE,
Walla Walla, August 7, 1967.

To Whom It May Concern:

Please allow this letter to introduce Mr. Benjamin B. Flathers, who is hereby designated as a representative of the Walla Walla Chamber of Commerce regarding the Touchet River Project.

In addition to his position as a Commissioner of the Walla Walla County Port District of Washington State, Mr. Flathers is a member of the Walla Walla Chamber of Commerce.

He strongly feels, as the Chamber does, that the Project should be authorized for completion at the earliest possible time.

We consider completion of the Touchet River Project critical for irrigation, flood control, domestic water supply and recreational purposes.

Sincerely,

DR. BYRON FRIEDMAN, *President.*

WESTSIDE IRRIGATION DISTRICT No. 5,
Touchet, Wash., March 31, 1965.

Senator HENRY M. JACKSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: I am writing you in support of the "Dayton Project" in Columbia and Walla Walla counties, Wash., soon to be considered by the Senate Interior Committee.

I represent the Westside Irrigation District No. 5, organized in 1919 to irrigate approximately 1,300 acres near Touchet, Wash., on the lower Touchet River.

The major crops raised in this district are alfalfa (for hay and seed), sugarbeets, pasture grass, used in beef and dairy, and cannery crops, mainly asparagus and sweet corn. Cereal grains, when grown are used as rotation crops and account for less than 3 percent of acreage in crops.

Supplemented water for irrigation has long been recognized and even more so today. During the period this district has been in operation great strides in increasing efficiency of crop production has been made but the end is in sight unless sufficient water can be made available when needed. You will note that the crops raised in the district are not "surplus."

Water resource development is needed for irrigation, industrial purposes, water quality control (the Touchet River gets pretty bad in late summer), fish, wildlife, and recreation. (I am also an ardent fisherman.) And last but not least, flood control.

Last December 21, 1964, a disastrous flood on the Touchet River caused untold flood damage to farmlands within the district and caused \$10,00 damage to the facilities of the irrigation district.

It is the history of the Touchet River and of the farmers in this irrigation district to see water, literally thousands of acre-feet go downstream in winter and spring runoff only to have a meager amount to irrigate with in July and August, a very critical time for the crops being grown.

The directors of the irrigation district have been behind the Dayton project from the very start. They are willing and the landowners are 100 percent ready to enter into an agreement for the delivery of as much of the stored water as will be necessary to insure a full water supply when needed.

Sincerely yours,

MELVILLE CUMMINS, *Secretary.*

WESTSIDE IRRIGATION DISTRICT No. 5,
Touchet, Wash., August 5, 1967.

Senator HENRY M. JACKSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: The directors of this Irrigation District have authorized me to again enter the enclosed letter (dated March 31, 1965), as testimony for the "Dayton project". May I again stress the point that the crops being grown on this project are not surplus. Alfalfa hay, the major crop grown, suffers

immeasurably from the lack of water at this time of year. The U.S. crop reporting service, according to a report crossing my desk just recently, states there is a shortage of hay in the state of Washington.

Water is a wonderful commodity but if it runs down the river and on the ocean, it does us no good. We have long visualized a storage Dam on the Touchet River. It seems that with the increasing concern of an expanding population, now is the time to get this project underway. Next year may be too late.

We are in accord with the testimony of the Touchet Valley Irrigation District and stand willing and ready to contract for our allotted share of the stored water.

Sincerely yours,

MELVILLE CUMMINS, *Secretary.*

CITY OF WAITSBURG, WASH., August 4, 1967.

HON. HENRY M. JACKSON,
U.S. Senate, Washington, D.C.

DEAR MR. JACKSON: We note that a hearing is to be held on the Touchet River Dam on August 10, 1967. It is our sincere hope the outcome will be favorable and this project can be started in the very near future.

You no doubt are aware of the very serious floods that struck our city and the whole Touchet Valley on December 21 and 22, 1964 and again on January 29, 1965. The U.S. Corps of Engineers preliminary estimate of the damage to public and private property in the City of Waitsburg alone amounted to nearly \$375,000.00. This is nearly \$375.00 per capita.

We were very grateful for the assistance given us under the Disaster Program, Public Law 875 and Public Law 99, but our local government and citizens still had to spend many thousands of dollars to repair the damages.

Although the Touchet Dam probably will not be the entire answer to the flood problems, we feel that it will be a long step forward toward preventing a repeat performance of the past destructive floods.

We are of course very interested in the irrigation and recreation phase of the project also, but we feel that the increasing flood threat due to the intense logging operations in the Touchet watersheds make it imperative that immediate steps be taken to lessen the danger.

Although we are sure you will give this measure your wholehearted support, we feel that by contacting you in this way, you may be able to persuade some of your colleagues to support the measure also.

Thanking you for all past favors and hoping for the success of this measure, we remain,

Yours truly,

ALBERT LAND, *Mayor.*

DAYTON, WASH., August 5, 1967.

Senator HENRY M. JACKSON,
Old Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: Just a brief note to add to our previous correspondence relating to the Touchet Division of the Walla Walla Project.

Every last man and woman of the Dayton Chamber supports Senate Bill 485, which you and Senator Magnuson introduced, seeking authorization for the project. We all urge that your committee take favorable action at the August 10 committee hearing.

We cannot emphasize too strongly the benefits which would result from this project along the entire length of the Touchet River in Columbia and Walla Walla counties.

Of prime interest are the benefits from irrigation water available to more than 10,000 acres of farm land, flood control to prevent a reoccurrence of the disastrous floods of 1964-65 and municipal water to halt the regular summer shortage in Dayton.

The Dayton Chamber is naturally interested in the business aspects which could result from this project. It could mean more agricultural-based industry and more crop diversification for farmers able to use irrigation water.

In short, the project can mean a "whale of a lot" to our area and we sincerely urge your favorable consideration of the measure at the August 10 committee session.

Thank you for your continued interest and work in our behalf.

Sincerely,

DAYTON CHAMBER OF COMMERCE,
By A. A. SHARPE, *Secretary-Treasurer.*

Waitsburg, Wash., July 20, 1967.

Hon. HENRY M. JACKSON,
Chairman, Senate Interior and Insular Affairs Committee.

Hon. CLINTON P. ANDERSON,
Chairman, Subcommittee on Irrigation and Reclamation.

Gentlemen: Replacing or supplementing my letter of Mar. 15, 1965, with additional information pertinent to hearing re the Touchet Dam soon:

The writer, Loren F. Dumas, is a retired apple orchardist, who has lived and farmed as an irrigator in the Touchet Valley for 69 out of his 76 year.

During this 69 years, deponent has personally experienced, as a dirt farmer on his own 160 acres of apple orchard, drought, flood and polluted irrigation water. He is the surviving petitioner of the first two landowners to appeal to the Bureau of Reclamation for a solution to mounting warfare between upper and lower valley irrigators over water rights. 30 years ago he began "bugging the Bureau" and has been active thereafter in every movement, campaign, meeting, petition, and organization of citizens seeking water storage and flood control.

To establish my competence as a witness concerning the various phases of this project in which your committee has shown its interest by reason of its careful scrutiny, may I say that in 69 years personal observation of, and struggle with, floods, shortages, and stinking ditch water, I feel that I can qualify as a lay witness, who may be able to give you a historical picture of our "shoestring valley".

From my father, a pioneer school teacher in the valley in the 1880s and 90s, I learned that in those days he was able to spear salmon without getting his feet wet, as they passed the riffles, going up river to spawn. This almost irrelevant fact, is relevant and intrinsic in establishing the picture that the Touchet River bed *has been* and again, *can be*, an ideal spawning ground if it is given the 30 sec. feet of continuous flow provided in this project.

I further testify regarding the phrase "recurrent flooding" sometimes rather loosely used to indicate "rather high water"; as follows:

As a boy, about 1906, I rode bareback on a horse, belly deep in Touchet flood water, to rescue the family cow, marooned and un milked on a slight rise in the valley floor.

As a young man, with a World War I draft card in my hip pocket, I once had to swim clutching desperately to my horse's tail, when swept off his back in the 1917 spring flood.

Some years later I had a Model T Ford truck and an iron wheeled Fordson tractor stored in our warehouse basement, and both were buried deep in mud with little salvage value, from a 1949 overflow.

Still later we rip-rapped the river bank, and dozed away accumulated gravel, from spillages occurring in the 1950s.

As a resident of Waitsburg in 1964-65 I saw dozens of elderly less affluent neighbors from the lower section of town, with ruined floors, carpets, furniture, gardens, woodsheds and septic tanks.

I have testified at some length in regard to floods to dispel the notion, current even in our own newcomer citizens, that the 1964-65 floods "couldn't happen again". Only the building of the Touchet Dam, with retention of cresting flood waters will remove the threat of destructiveness to homes, roads, railways, power lines, communication lines, business houses and parks and recreational areas in the Touchet Valley. More truly basic solutions, through reforestation and re-establishment of water holding herbiage and crops are a matter of exceedingly slow acceptance, with almost a lifetime before they have a chance of general effectiveness.

May I at this time supplement previous testimony with reference to supplementary supplies of water for acreage already under irrigation.

Storage space behind the Touchet is truly multipurpose, in that it is designed to give a full supply of water thru privately built and owned diversions (mostly pump, pipe and sprinkler systems, cost of which has already been absorbed by the landowner) to the several hundred owners who have water rights under the 1929 adjudication. These people, with a few exceptions, practically *never* have adequate season-thru water supplies.

My own experience is typical. In the production of apples, of which I shipped a million and a half boxes of apples to 42 states of the Union and 8 foreign countries during the 50 odd years in which I had direct management, there were recurrent years in which my crop suffered real quality and monetary damage, because of water shortage. I was forced to drill 992 feet into the basalt under-

lying the valley, at a drilling cost of \$11,000 to get supplementary water, or else suffer the fate of some 20 other apple growers in the valley, who gave up the fight. As previously testified the apple acreage in the valley decreased from 1000 acres to 215, the payroll for apple handling dropped from over 500 seasonal workers to less than 100.

The situation in the valley since your 1965 hearing has, in my estimation become more critical,—for the following reasons:

With technical improvement in water lifting, moving, and application, these two years has enabled many more farmers to install pumping systems to take advantage of early season stream flow. Much of this is for augmented moisture in hay fields and pastures in connection with cattle raising. The fact of these diversions has brought greater limitations on the supply for established irrigators whose entire crop development depends on full irrigation.

At the date this letter is written, July 20, streamflow in the Touchet is down to the flow normal for the end of the first week in August. In this and succeeding years, a 3 week or more gap in short supply added to the Usual extreme shortages of the crop maturing weeks of August, means disaster. If losses are encountered by farmers with diversified crops, the trend towards diversification will be reversed, with a return to wheat growing, and its recurrent surplus problems.

With the promise of machine-cutting of asparagus, more acreage in the valley is gradually being planted to this specialty crop, in constant high demand.

In the past, accepted practices have called for the irrigation of grass crowns, following cutting in June, through the month of August. If only limited irrigation in early July is possible there could be a resultant weakening of stored plant food. In any case, the more water taken out of the stream for more purposes as it grows shorter and shorter, the sooner the "shutdown" date for all irrigators with inferior rights. The tragedy of a shut-down for a few dozen families in far-off Washington State does not "make" the metropolitan newspapers. But it is exceedingly "real" to our people who suffer part of the year from too much water and part from too little.

A farther change in our valley situation since the committee hearing of 2 years ago, is to be found in the policy decisions of this valley's principal canning industry. In their search for longer cannery runs through diversification of products, the Green Giant Cannery in Waitsburg is forced to haul some of its materials (raw, materials) for canning for considerable long distances. In the case of beans they are hauled by truck under refrigeration from as far as the Williammete Valley, almost 400 miles. It can be seen that consumer benefits should accrue when plentiful water will allow these row crops to be grown here at home.

Reviewing the testimony at the previous hearing which resulted in your favorable decision, I note that one minor feature was overlooked to which I might call your attention. This was in the matter of the 30 second feet continuous flow provision for salmon restoration. This 30 sec. feet adds up to be the equivalent of 2,592,000 cubic feet of water which will be added to the Columbia River above its 4 major down river dams during the beginning of the low water season, with about the same amount in the succeeding two months of the low water season. The writer is incapable of translating this 5 million cubic feet of water into a power equivalent, but he does feel that such a sizeable amount utilized when badly needed, rather than going over as flood surplus, should have some weight in determining the merit of our small project.

Thanking your committees for such attention as you may be able to give to the testimony of an elderly farmer, I am,

Sincerely yours,

LOREN F. DUMAS.

YAKIMA, WASH., August 8, 1967.

Senator HENRY M. JACKSON,
Chairman, Senate Interior and Insular Affairs Committee, U.S. Senate, Washington, D.C.

Will you please have introduced into your Senate hearing schedule for August 10 the continued support of the Touchet project. The Washington State Reclamation Association again urges speedy authorization of the Touchet division of the Walla Walla project as contained in S. 485 the Washington State Reclamation Association deems one of the most feasible projects in the Pacific Northwest.

Respectfully,

HENRY ALEXANDER, *President*,
H. G. WELLS, *Secretary Treasurer*.

PORT OF WALLA WALLA,
Walla Walla, Wash., July 26, 1967.

Hon. HENRY M. JACKSON,
Chairman, Senate Interior and Insular Affairs Committee, Old Senate Office
Building, Washington, D.C.

DEAR SENATOR JACKSON: The Commissioners of the Port of Walla Walla have been active individually for some time in support of the Touchet River project. This project is of extreme importance to both Walla Walla and Columbia Counties both from an agricultural standpoint as well as domestic water supply.

The Port of Walla Walla is pleased to support the authorization of this project and we offer our assistance wherever possible.

Sincerely,

WILLIAM D. RAY, *President.*

MONTY'S RADIO & TV SALES & SERVICE,
Dayton, Wash., July 27, 1967.

Hon. HENRY JACKSON,
Washington, D.C.

DEAR SIR: We are very appreciative of your work on our Walla Walla Project. In our part of the state, although we lack in voting power, we are rich in potential farming, fishing, hunting and recreation. This time of year it looks futile because there is no water much for irrigation. Our streams are getting too low for fish, and the closest body of water for recreation is about 60 miles to the Snake.

We would be very thankful here in the (desert) for some water storage.

Yours very truly,

"MONTY" A. P. MONTGOMERY.

INLAND EMPIRE WATERWAYS ASSOCIATION,
Walla Walla, Wash., July 24, 1967.

Hon. HENRY M. JACKSON,
Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: We understand that your Committee on Interior and Insular Affairs is holding hearings on August 10th on the Touchet Division, Walla Walla Project.

Northwest Rivers and Harbors Congress and Inland Empire Waterways Association continue to strongly support this project. We testified in May of this year before the Senate and House Appropriations Sub-Committees on Public Works urging its authorization.

I would greatly appreciate your efforts in behalf of this project, as we believe it to be meritorious and worthwhile.

Sincerely yours,

CHARLES BAKER, *President.*

SPOKANE CHAMBER OF COMMERCE,
Spokane, Wash., July 27, 1967.

Hon. HENRY M. JACKSON,
Senate Office Building,
Washington, D.C.

DEAR SENATOR: Thank you for the letter calling attention to your hearing on the Touchet Division of the Walla Walla Project scheduled for August 10. As you know from previous correspondence, the Spokane Chamber of Commerce as well as the Washington State Reclamation Association supports the project.

The project is truly a multiple-purpose one. It will regulate the flow of the Touchet River and put otherwise waste water to good use. It is feasible as a flood control project and irrigation project for approximately 10,000 acres of farm land, and a source of water for the city of Dayton.

Will you please have our Chamber's endorsement of the project noted in proceedings of the hearing?

No doubt the Washington State Reclamation Association will submit a statement of support also since the Board of Directors of the Association is meeting in Yakima on August 3.

Sincerely yours,

L. W. MARKHAM, *General Manager.*

DAYTON JUNIOR CHAMBER OF COMMERCE,
Dayton, Wash., July 24, 1967.

HON. HENRY M. JACKSON,
New Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: The Dayton Junior Chamber of Commerce hereby urges your support of the Touchet Division Project. We feel this is a necessary and deserving project.

As young men who will someday be leaders in our community, we feel the Touchet Division Project will facilitate making leadership much easier. The project will ensure an adequate water supply for our community for many years. It will bring under irrigation a large number of acres of wheatland now being dry farmed. This will in turn cause farm crop diversification that will provide many jobs for the present as well as future generations. Paramount, is the fact that the dam will reduce the threat of floods in the community. Eastern Washington as well as Oregon residents will be able to make use of a large water recreation area in the Blue Mountains, possibly making the Touchet River into one of the nations finest Steelhead Streams.

Many of the Dayton Jaycees were directly involved in the disastrous floods that took place in December of 1964 and January of 1965. Fortunately there was only extensive property damage and no loss of lives. Will we be this lucky the next time? Immediately after the flooding the exposed bank fish all but disappeared from the Touchet River. Extensive work has been done by the Washington State Fisheries Department to restore the fish. This work could be quickly destroyed by the next flood.

Your whole-hearted support of this project which we are so vitally interested in, will be greatly appreciated.

Sincerely yours,

CLARK A. BREWINGTON, *President.*

WAITSBURG COMMERCIAL CLUB, INC.,
Waitsburg, Wash., July 20, 1967.

HON. HENRY M. JACKSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: It is our understanding that the proposed Touchet Valley Irrigation Project is to be presented before a Senate committee hearing on August 10, 1967.

This project is of vital interest and importance to our area. From the standpoint of flood control it is without a doubt, our community would have escaped the nearly \$380,000 damages it sustained to public and private property from the two floods during the winter of 1964 and early 1965. From the point of irrigation we all visualize the growing of new row crops which will enable our local Green Giant Cannery and its freezing plant to process these new food items. This will certainly add greatly to the economy of our area and will undoubtedly result in putting new life into all of the communities embracing this wonderful Touchet Valley.

Members of this organization urgently request you do everything in your power to bring the Touchet Valley Irrigation Project to a quick reality.

Thank you very much.

Sincerely,

IVAN K. KEVE, *Secretary.*

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS,
Dayton, Wash., July 24, 1967.

HON. HENRY M. JACKSON,
Chairman of Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

MY DEAR SENATOR JACKSON: In lieu of a personal appearance in Washington, D.C. at a hearing before the "Interior and Insular Affairs Committee" relating to the construction of the Touchet River Dam.

We, the Commissioners of Columbia County wish to present a written statement concerning the importance and benefits of having our Touchet River and tributaries controlled.

Floods of 1920, 1948 and 1964 and 1965 would not be repeated if we had the proposed 195 foot Touchet River dam. Former damage to valley farm lands and orchards has been immense in the past, to say nothing of the bridges, buildings and highway damage.

When the Touchet River dam is built we feel Columbia County and the City of Dayton will be well insured against flood damage. We would not have to call for help from the Red Cross, the Civil Defense or the Army Engineers as we have previously.

The 52,600 acre feet of reservoir formed by the dam and located adjacent to the Umatilla National Forest would serve a double purpose, reserve irrigation water and an area for recreation to be enjoyed by people within a one hundred mile radius.

We commissioners of Columbia County wish to appeal to the "Interior and Insular Affairs Committee" for action favorable to the construction of the Touchet River dam. It would be flood insurance for Columbia and Walla Walla County. It would enable the farmers in both Walla Walla and Columbia Counties to increase their output of irrigated foods to be processed by the canneries. It would establish an ideal recreation area in timbered surroundings.

Respectfully submitted.

ROY CADMAN, *Chairman*,
MAURICE WITT, *Commissioner*,
HOLT BOONE, *Commissioner*.

CHAMBER OF COMMERCE,
Walla Walla, July 25, 1967.

HON. HENRY M. JACKSON,
Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: Through past resolutions the Walla Walla Chamber of Commerce continues on record solidly behind completion of the Touchet River Project.

The project offers a great potential for Columbia and Walla Walla Counties.

Thru irrigation many acres will move from restricted grain production to non-restricted diversified annual cropping permitting a much broader agricultural base for the communities involved.

More important is the creation of adequate domestic water supplies for Dayton, With the ground water supplies as tight as they now are the improvement of stream flows for domestic needs seems to offer the best possible solution for meeting increasing requirements.

The orderly movement of downstream flows on the Touchet River has been of great need for many years. We therefore urge approval of the Touchet project at this time.

Sincerely,

DR. BYRON FRIEDMAN, *President*.

PORT OF COLUMBIA COUNTY,
Dayton, Wash., July 27, 1967.

Re Walla Walla project, Touchet division.

CHAIRMAN, SENATE INTERIOR AND INSULAR AFFAIRS COMMITTEE,
New Senate Office Building, Washington, D.C.

DEAR SIR: This is to advise you that the Port District of Columbia County is prepared to construct and maintain recreational facilities at the site of the Touchet Valley Dam.

We have recently employed engineers to study the recreational facilities within the area including the Touchet Valley proposed project.

The continued support of the committee in our project is sincerely appreciated.

We are prepared to offer additional testimony should, in the judgment of the committee members, this be indicated.

Respectfully,

CHARLES S. MEAD III, *Chairman*.

Senator JACKSON. If there is no further business to come before the subcommittee we will stand adjourned.

(Whereupon, the testimony on S. 485 was concluded.)

of 1930 that had not and had not been reported if we had the proposed 100-foot dam. Toulouse River dam. Toulouse River dam and highway damage. In the past to say nothing of the damage, buildings and highway damage.

The Toulouse River dam is built by the Toulouse County and the City of Dayton will be built against flood damage. We would not like to call for the Toulouse River dam. The City of Dayton is the only one who has the right to build the dam.

The 25,000 acre lot of gravelly formed by the dam and located adjacent to the Toulouse River dam. It is a large lot, and we would like to see it. It is a large lot, and we would like to see it. It is a large lot, and we would like to see it.

We have a committee of Columbia County, which is appeal to the Toulouse River dam. It is a large lot, and we would like to see it. It is a large lot, and we would like to see it. It is a large lot, and we would like to see it.

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CHIEF OF DISTRICT,
Walla Walla, Wash.

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Dear Sir: Through the Toulouse River dam. Toulouse River dam and highway damage. In the past to say nothing of the damage, buildings and highway damage.

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Dear Sir: This is to advise you that the Fort District of Columbia County is prepared to construct and maintain recreational facilities at the site of the Toulouse River dam.

We have recently employed engineers to study the recreational facilities within the area including the Toulouse Valley project.

The committee in our project is kindly appreciated. We are prepared to offer additional testimony should, in the judgment of the committee members, this be indicated.

Hot Ladder, Oregon,
Hot Ladder, Oregon,
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Hot Ladder, Oregon,

Dear Sir: There is no further business to come before the committee we will stand adjourned.

(The testimony on 2-18-35 was concluded.)

