YAKIMA RIVER BASIN AND CANYON FERRY

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON
NATURAL RESOURCES
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

FIRST SESSION

ON

H.R. 1690

TO AUTHORIZE CERTAIN ELEMENTS OF THE YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT, AND FOR OTHER PURPOSES

H.R. 1477

TO PROVIDE FOR THE MANAGEMENT OF LANDS AND RECREATIONAL RESOURCES AT CANYON FERRY RECREATIONAL AREA, MONTANA, AND FOR OTHER PURPOSES

HEARINGS HELD IN WASHINGTON, DC
SEPTEMBER 23, 1993

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H.R. 1690, TO AUTHORIZE CERTAIN ELEMENTS OF THE YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT, AND FOR OTHER PURPOSES

THURSDAY, SEPTEMBER 23, 1993

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON NATURAL RESOURCES,
Washington, DC.

The subcommittee met, pursuant to call, at 9:45 a.m. in room 1324, Longworth House Office Building, Hon. Neil Abercrombie presiding.

OPENING STATEMENT OF HON. NEIL ABERCROMBIE

Mr. ABERCROMBIE. Good morning. Aloha.

I am Neil Abercrombie of the Sixth District of Hawaii. I am sitting in for the Chairman this morning. Today we will hear testimony on H.R. 1690 concerning the Yakima River Basin Water Enhancement Project.

[The text of the bill, H.R. 1690, follows:]

I

103D CONGRESS
1ST SESSION

H. R. 1690

To authorize certain elements of the Yakima River Basin Water Enhancement Project, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 5, 1993

Mr. INSLEE introduced the following bill; which was referred to the Committee on Natural Resources

---

A BILL

To authorize certain elements of the Yakima River Basin Water Enhancement Project, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. PURPOSES.

The purposes of this Act are—

(1) to protect, mitigate, and enhance fish and wildlife through improved water management, improved instream flows, improved water quality, protection, creation and enhancement of wetlands, and by other appropriate means of habitat improvement;

(2) to improve the reliability of water supply for irrigation;

(3) to authorize a Yakima basin water conservation program that will improve the efficiency of water delivery and use; enhance basin water supplies; improve water quality; protect, create and enhance wetlands; and determine the amount of basin water needs that can be met by water conservation measures;

(4) to encourage voluntary transactions among public and private entities which result in the implementation of water conservation measures, practices, and facilities; and

(5) to provide for the implementation by the Yakima Indian Nation at its sole discretion of (A) an irrigation demonstration project on the Yakima Indian Reservation using water savings from system improvements to the Wapato Irrigation Project, and (B) a Toppenish Creek corridor enhancement project integrating agricultural, fish, wildlife, and cultural resources.

SEC. 2. DEFINITIONS.

As used in this Act:

(1) The term "Basin Conservation Program" means the Yakima River Basin Water Conservation Program established under section 3(a).

(2) The term "Conservation Advisory Group" means the Yakima River Basin Conservation Advisory Group established under section 3(c).

(3) The term "Irrigation Demonstration Project" means the Yakima Indian Reservation Irrigation Demonstration Project authorized in section 4(b).

(4) The term "on-district storage" means small water storage facilities located within the boundaries of an irrigation entity, including reregulating reservoirs, holding ponds, or other new storage methods which allow for efficient water use.

(5) The term "Secretary" means the Secretary of the Interior.

(6) The term "Toppenish Enhancement Project" means the Toppenish Creek corridor enhancement project authorized by section 4(c).

(7) The term "Yakima Project Superintendent" means the individual designated by the Regional Director, Pacific Northwest Region, Bureau of Reclamation, to be responsible for the operation and

management of the Yakima Federal Reclamation Project, Washington.

SEC. 3. YAKIMA RIVER BASIN WATER CONSERVATION PROGRAM.

(a) ESTABLISHMENT.—The Secretary, in consultation with the State of Washington, the Yakima Indian Nation, Yakima River Basin irrigators, and other interested parties, shall establish and administer a Yakima River Basin Water Conservation Program for the purpose of evaluating and implementing measures to improve the availability of water supplies for irrigation and the protection and enhancement of fish and wildlife resources, including wetlands, while improving the quality of water in the Yakima Basin. The provisions of this section shall not be applicable to the Yakima Indian Nation except as to any funds specifically applied for from the Basin Conservation Program. The Secretary may make grants to eligible entities for the purposes of carrying out this Act under such terms and conditions as the Secretary may require.

(b) FOUR PHASES OF PROGRAM.—The Basin Conservation Program shall encourage and provide funding assistance for four phases of water conservation, which shall consist of the following:

(1) The development of water conservation plans, consistent with guidelines developed pursuant to subsection (d), by irrigation districts, conservation districts, water purveyors, other areawide entities, and individuals not included within an areawide entity.

(2) The investigation of the feasibility of specific potential water conservation measures identified in conservation plans.

(3) The implementation of measures that have been identified in conservation plans and have been investigated for feasibility.

(4) Post implementation monitoring and evaluation of implemented measures.

(c) CONSERVATION ADVISORY GROUP.—(1) Not later than 12 months after the date of enactment of this Act, the Secretary, in consultation with the State of Washington, the Yakima Indian Nation, Yakima River basin irrigators, and other interested and related parties, shall establish the Yakima River Basin Conservation Advisory Group.

(2) Members of the Conservation Advisory Group shall be appointed by the Secretary and shall be comprised of—

(A) two representatives of the Yakima River basin irrigators,

(B) one representative of the Yakima Indian Nation,

(C) one representative of counties and cities in the Yakima River basin, and

(D) one representative of environmental interests.

(3) The Conservation Advisory Group shall—

(A) provide recommendations to the Secretary regarding the structure and implementation of the Basin Conservation Program,

(B) assist in the preparation of guidelines for the Basin Conservation Program, as provided for in subsection (d),

(C) structure a process to integrate specific water conservation measures into a basin conservation plan,

(D) provide annual review of the implementation of the guidelines, and

(E) provide recommendations consistent with State statutes on rules, regulations, and administration of a process to facilitate the voluntary sale or lease of water.

The Conservation Advisory Group shall be nonvoting, seeking consensus whenever possible. If disagreement occurs, any member may submit independent comments to the Secretary. The Conservation Advisory Group shall terminate 5 years after the date of its establishment unless extended by the Secretary.

(d) GUIDELINES.—The Secretary, in cooperation with the State of Washington, the Yakima Indian Nation, Yakima River basin irrigators, and interested agencies, shall, within 12 months after the Conservation Advisory Group is appointed, adopt guidelines to be used in the administration of the Basin Conservation Program. The Secretary shall establish the guidelines in consultation with the Conservation Advisory Group. The Secretary shall submit a detailed report to the Committee on Energy and Natural Resources of the Senate, the Committee on Interior and Insular Affairs of the House of Representatives, and the Governor of the State of Washington on the guidelines. At least 60 days prior to the submission of the report on guidelines, the Secretary shall make a draft of such report available to the State of Washington, the Yakima Indian Nation, Yakima River basin irrigators, related agencies, and the public, and establish procedures for timely comments thereon. The Secretary shall include a summary of such comments as an appendix to such report.

The guidelines shall to the extent possible be consistent with State funding processes, regulations, and guidelines and shall contain, at a minimum, the following:

(1) Standards for the scope and content of water conservation plans and for feasibility studies of specific measures.

(2) Eligibility requirements for funding of proposals for conservation plan development, investigation of measures, and implementation.

(3) Criteria for evaluating and prioritizing proposals for development of conservation plans and investigation of potential measures and implementation, including—

(A) the availability of information on water diversions and use in the area for which the measures are proposed;

(B) information to be gained and applicability to other areas and programs in the Yakima basin;

(C) cost-effectiveness and availability of non-Federal funding;

(D) the amount of reduced diversions and timing in relation to present diversions;

(E) the extent to which each measure will contribute to the improved use of the available

water and the reliability of the water supply of the Yakima River basin;

(F) post implementation monitoring and evaluation;

(G) a plan to mitigate adverse environmental effects;

(H) the extent to which proposed measures incorporate the testing of innovative water management techniques and technology;

(I) the extent to which proposed measures contribute to the maintenance of the economic viability of agriculture;

(J) consistency with applicable laws and Federal, State, tribal, and Yakima River basin water resource policies, goals, and objectives;

(K) the existence of or willingness of irrigation entities and other Basin Conservation Program participants to adopt procedures providing for incremental water pricing; and

(L) willingness to permanently restrict annual water diversions to a mutually agreed quantity in recognition of securing funding from and accomplishments of the Basin Conservation Program.

(4) Institutional and economic incentives to increase conservation and to promote more efficient use of water, which shall include the specification of procedures for the voluntary transfer of water within the Yakima River basin.

(5) Procedures for administration and allocation of funds from the Basin Conservation Program.

(6) Oversight of the Basin Conservation Program and consultation requirements.

(e) COST SHARING.—(1) Costs incurred in the four phases of the Basin Conservation Program shall be shared as follows:

Program Phase	Non-Federal		Federal Grant
	State Grant	Local	
1. Development of water conservation plans	50% but not more than $200,000 per recipient	(Residual amount if any)	50%
2. Investigation of specific water conservation measures	50% but sum of 1 and 2 not greater than $200,000 per recipient	20% after deducting state funds for Item 2	Residual amount after deducting state and local funds for Item 2
3 and 4. Implementation and post implementation monitoring and evaluation	35%	30%	35%

(2) Water and water related resource improvements implemented in the Yakima River basin subsequent to and independent of this Act which utilize funding from the

Bonneville Power Administration under the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (94 Stat. 2697) to enhance fishery resources, and independent water related improvements of the State of Washington and other public and private entities to improve irrigation water use, water supply, and water quality, shall be treated as non-Federal cost share expenditures under this Act for purposes of the implementation and post-implementation monitoring and evaluation phases of the Basin Conservation Program. Such expenditures shall be limited to 50 percent of the non-Federal portion of the total costs incurred in the implementation and post-implementation monitoring and evaluation phases of the Basin Conservation Program, and such expenditures shall reduce the total amount of the non-Federal cost share required for such phases.

(3) Costs of the Basin Conservation Program related to projects on the Yakima Indian Reservation are a Federal responsibility and shall be nonreimbursable and not subject to the cost-sharing provisions of this subsection.

(f) PUBLIC REVIEW.—Water conservation plans recommended for funding through the Basin Conservation Program shall be made available to the public for a period of at least 30 days for review and comment prior to submission to the Secretary. A summary of such comments

shall be included with the recommendation of the Conservation Advisory Group upon transmittal to the Secretary.

(g) CONSERVATION MEASURES.—(1) Measures considered for implementation in the Basin Conservation Program may include, among others, conveyance and distribution system monitoring, automation of water conveyance systems, lining and piping of water conveyance and distribution systems, on-district storage, electrification of hydraulic turbines, tail-water recycling, consolidation of irrigation systems, irrigation scheduling, and improvement of on-farm water application systems. Basin Conservation Program funds may also be used throughout all four phases of the Conservation Program to mitigate for adverse impacts of program measures.

(2) In addition to implementing existing technologies, the Secretary shall encourage the testing of innovative water conservation measures. The Secretary shall, to the maximum extent possible under Federal and State law, cooperate with the State of Washington to facilitate water and water right transfers, water banking, dry year options, the sale and leasing of water, and other innovative allocation tools used to maximize the utility of existing Yakima River basin water supplies.

(3) The Secretary may, consistent with applicable law, use funds appropriated to carry out this section for the purchase or lease of land, water, or water rights from any entity or individual willing to limit or forego water use on a temporary or permanent basis.

(4) On-farm water management improvements shall be coordinated with programs administered by the Secretary of Agriculture and State conservation districts.

(h) AUTHORIZATION OF APPROPRIATIONS.—There is hereby authorized to be appropriated to the Secretary, at September 1990 prices, plus or minus such amounts as may be justified by reason of ordinary fluctuations of applicable cost indexes, the following amounts for the Basin Conservation Program:

(1) $1,000,000 for the development of water conservation plans.

(2) $4,000,000 for investigation of specific potential water conservation measures identified in conservation plans for consideration for implementing through the Basin Conservation Program.

(3) Up to $67,500,000 for implementation, post-implementation monitoring and evaluation of measures, and addressing environmental impacts.

(4) Up to $6,000,000 for the initial acquisition of water from willing sellers or lessors specifically to

provide instream flows for interim periods to facilitate the outward migration of anadromous fish. Such funds shall not be subject to the cost sharing provisions of subsection (e).

(5) $100,000 annually for the establishment and support of the Conservation Advisory Group during its duration. Such funds shall be available for travel and per diem, rental of meeting rooms, typing, printing and mailing, and associated administrative needs. The Secretary and the State of Washington shall provide appropriate staff support to the Conservation Advisory Group.

SEC. 4. YAKIMA INDIAN NATION.

(a) WAPATO IRRIGATION PROJECT IMPROVEMENTS AND APPROPRIATIONS.—(1) The Yakima Indian Nation's proposed system improvements to the Wapato Irrigation Project pursuant to this Act shall be coordinated with the Bureau of Indian Affairs.

(2) There is authorized to be appropriated to the Secretary not more than $10,000,000 for the preparation of plans, investigation of measures, and following the Secretary's certification that such measures are consistent with the water conservation objectives of this Act, the implementation of system improvements to the Wapato Irrigation Project. Funding for further improvements within

the Wapato Irrigation Project may be acquired under the Basin Conservation Program or other sources identified by the Yakima Indian Nation.

(3) Water savings resulting from irrigation system improvements shall be available for the use of the Yakima Indian Nation for irrigation and other purposes on the reservation and for protection and enhancement of fish and wildlife within the Yakima River basin. The conveyance of such water through irrigation facilities other than the Wapato Irrigation Project shall be on a voluntary basis.

(b) IRRIGATION DEMONSTRATION PROJECT APPROPRIATIONS.—(1) There is hereby authorized to be appropriated to the Secretary at September 1990 prices, plus or minus such amounts as may be justified by reason of ordinary fluctuations of applicable cost indexes, $8,500,000 for the design and construction of the Yakima Indian Reservation Irrigation Demonstration Project. There is also authorized to be appropriated to the Secretary such sums as may be necessary for the operation and maintenance of the Irrigation Demonstration Project including funds for administration, training, equipment, materials, and supplies for the period specified by the Secretary. Funds may not be made available under this subsection until the Yakima Indian Nation obtains the

concurrence of the Secretary in the construction, management, and administrative aspects of the Irrigation Demonstration Project.

(2) The Irrigation Demonstration Project shall provide for the construction of distribution and on-farm irrigation facilities to use water savings resulting from the Wapato Irrigation Project system improvements for—

(A) demonstrating cost-effective state of the art irrigation water management and conservation,

(B) the training of tribal members in irrigation methods, operation, and management, and

(C) upgrading existing hydroelectric facilities and construction of additional hydroelectric facilities on the reservation to meet irrigation pumping power needs.

(c) TOPPENISH CREEK CORRIDOR ENHANCEMENT PROJECT APPROPRIATIONS.—There is hereby authorized to be appropriated to the Secretary $1,500,000 for the further investigation by the Yakima Indian Nation of measures to develop a Toppenish Creek corridor enhancement project to demonstrate integration of management of agricultural, fish, wildlife, and cultural resources to meet tribal objectives and such amount as the Secretary subsequently determines is necessary for implementation. There is also authorized to be appropriated to the Sec-

retary such sums as may be necessary for the operation and maintenance of the Toppenish Enhancement Project.

(d) REPORT.—Within 5 years of the implementation of the Irrigation Demonstration Project and the Toppenish Enhancement Project, the Secretary, in consultation with the Yakima Indian Nation, shall report to the Committee on Energy and Natural Resources of the Senate, the Committee on Interior and Insular Affairs of the House of Representatives, and the Governor of the State of Washington on the effectiveness of the conservation, training, mitigation, and other measures implemented.

(e) STATUS OF IMPROVEMENTS AND FACILITIES.—The Wapato Irrigation Project system improvements and any specific irrigation facility of the Irrigation Demonstration Project and the Toppenish Enhancement Project shall become features of the Wapato Irrigation Project.

(f) TREATMENT OF CERTAIN COSTS.—Costs related to Wapato Irrigation Project improvements, the Irrigation Demonstration Project, and the Toppenish Enhancement Project shall be a Federal responsibility and are nonreimbursable and nonreturnable.

SEC. 5. OPERATION OF YAKIMA BASIN PROJECTS.

(a) WATER SAVINGS FROM BASIN CONSERVATION PROGRAM.—(1) The Basin Conservation Program is in-

tended to result in reductions in water diversions allowing for changes in the present operation of the Yakima Project to improve streamflow conditions in the Yakima River basin. Commencing with the enactment of this Act, and notwithstanding that anticipated water savings are yet to be realized, the Secretary shall, through the Yakima Project Superintendent, (A) continue to estimate the water supply which is anticipated to be available to meet water entitlements; and (B) provide instream flows in accordance with the following criteria.

Water Supply Estimate for Period (million acre feet):				Target Flow from Date of Estimate thru October Downstream of (cubic feet per second):	
April thru September	May thru September	June thru September	July thru September	Sunnyside Diversion Dam	Prosser Diversion Dam
(1) 3.2	2.9	2.4	1.9	600	600
(2) 2.9	2.65	2.2	1.7	500	500
(3) 2.65	2.4	2.0	1.5	400	400
Less than line 3 water supply				300	300

The figures in the water supply columns shall hereafter in this section be referred to as "full supply".

(2) The instream flows represent target flows at the respective points. Reasonable fluctuations from these target flows are anticipated in the operation of the Yakima Project.

(3) The instream flows shall be increased for interim periods during any month of April through October to facilitate when necessary the outward migration of anad-

romous fish. Increased instream flows for such interim periods shall be obtained through voluntary sale and leasing of water or water rights.

(4) The Secretary, in cooperation with the State of Washington, the Yakima Indian Nation, and Yakima River basin irrigators, shall not less than every fifth year after the completion of the first measure of the Basin Conservation Program, review the components which comprise the full supply. If the actual supply reflects an increase in relation to the quantity required to meet irrigation water entitlements and a reduction in water diversions which is attributed to the Basin Conservation Program, the full supply figures shown in the criteria tabulation may be adjusted downward as mutually determined and the Yakima Project shall be operated by the Yakima Project Superintendent in accordance with such adjusted criteria. Water savings resulting from improvements to the Wapato Irrigation Project shall be available for use of the Yakima Indian Nation for irrigation and other purposes on the reservation and for protection and enhancement of fish and wildlife within the Yakima River Basin.

(5) Operational procedures and processes in the Yakima River basin which have or may be implemented through judicial actions shall not be impacted by this Act.

(b) WATER FROM LAKE CLE ELUM.—Water accruing from the development of additional storage capacity at Lake Cle Elum, made available pursuant to the modifications authorized in section 6(a), shall be considered a part of the basin's water supply as provided in subsection (a)(1). Releases may be made from other Yakima Project storage facilities to most effectively utilize this additional water, except that water deliveries to holders of existing water rights shall not be impaired.

(c) STATUS OF BASIN CONSERVATION PROGRAM FACILITIES.—Measures of the Basin Conservation Program which are implemented on facilities currently under the administrative jurisdiction of the Secretary, except as provided in section 4, shall be considered features of the Yakima River Basin Water Enhancement Project, and their operation and maintenance shall be integrated and coordinated with other features of the existing Yakima Project. The responsibility for operation and maintenance and the related costs shall remain with the current operating entity. As appropriate, the Secretary shall incorporate the operation and maintenance of such facilities into existing agreements. The Secretary shall assure that such facilities are operated in a manner consistent with Federal and State law and in accordance with water rights recognized pursuant to State and Federal law.

(d) WATER ACQUIRED BY PURCHASE AND LEASE.—Water acquired from voluntary sellers and lessors shall be administered in accordance with the laws of the State of Washington, including Chapter 90.38 Revised Code of Washington.

(e) APPROPRIATION FOR CHANDLER POWER CANAL OPERATIONS.—There is hereby authorized to be appropriated to the Secretary $480,000 at September 1990 prices, plus or minus such amounts as may be justified by reason of ordinary fluctuations of applicable cost indexes, for facilities to automate the headgate, wasteways, and trashrack of the Chandler Power Canal to maintain operating controls for the delivery of water to the Kennewick Division as the provisions of subsection (a) are implemented.

SEC. 6. LAKE CLE ELUM AUTHORIZATION OF APPROPRIATIONS.

(a) MODIFICATIONS AND IMPROVEMENTS.—There is hereby authorized to be appropriated to the Secretary—

(1) at September 1990 prices, plus or minus such amounts as may be justified by reason of ordinary fluctuation of applicable indexes, $2,934,000 to—

(A) modify the radial gates at Cle Elum Dam to provide an additional 14,600 acre-feet of storage capacity in Lake Cle Elum,

(B) provide for shoreline protection of Lake Cle Elum, and

(C) construct juvenile fish passage facilities at Cle Elum Dam, plus

(2) such additional amounts as may be necessary which may be required for environmental mitigation.

(b) OPERATION AND MAINTENANCE APPROPRIATIONS.—There is hereby authorized to be appropriated to the Secretary such sums as may be necessary for that portion of the operation and maintenance of Cle Elum Dam determined by the Secretary to be a Federal responsibility.

SEC. 7. ENHANCEMENT OF WATER SUPPLIES FOR YAKIMA BASIN TRIBUTARIES.

(a) GENERAL PROVISIONS.—The following shall be applicable to the investigation and implementation of measures to enhance water supplies for fish and wildlife and irrigation purposes on tributaries of the Yakima River basin:

(1) An enhancement program undertaken in any tributary shall be contingent upon the agree-

ment of appropriate water right owners to participate.

(2) The enhancement program shall not impair (A) the water rights of any water right owners in the tributary; (B) the capability of tributary water users to divert, convey, and apply water; and (C) existing water and land uses within the tributary area.

(3) The water supply for tributary enhancement shall be administered in accordance with the laws of the State of Washington.

(4) Any enhancement program shall be predicated upon the availability of a dependable water supply.

(b) STUDY.—(1) The Secretary, following consultation with the State of Washington, the tributary water right owners, and the Yakima Indian Nation, and agreement of appropriate water right owners to participate, shall conduct a study concerning the measures that can be implemented to enhance water supplies for fish and wildlife and irrigation purposes on Taneum Creek, including (but not limited to)—

(A) water use efficiency improvements;

(B) the conveyance of water from the Yakima Project through the facilities of any irrigation entity

willing to contract with the Secretary without adverse impact to water users;

(C) the construction, operation, and maintenance of ground water withdrawal facilities;

(D) contracting with any entity that is willing to voluntarily limit or forego present water use through lease or sale of water or water rights on a temporary or permanent basis;

(E) purchase of water rights from willing sellers; and

(F) other measures compatible with the purposes of this Act, including restoration of stream habitats.

(2) In conducting the Taneum Creek study, the Secretary shall consider—

(A) the hydrologic and environmental characteristics;

(B) the engineering and economic factors relating to each measure; and

(C) the potential impacts upon the operations of present water users in the tributary and measures to alleviate such impacts.

(3) The Secretary shall make available to the public for a 45-day comment period a draft report describing in detail the findings, conclusions, and recommendations of

the study. The Secretary shall consider and include any comment made in developing a final report. The Secretary's final report shall be submitted to the Committee on Energy and Natural Resources of the Senate, the Committee on Interior and Insular Affairs of the House of Representatives, and the Governor of the State, and made available to the public.

(c) IMPLEMENTATION OF NONSTORAGE MEASURES.—After securing the necessary permits the Secretary may, in cooperation with the Department of Ecology of the State of Washington and in accordance with the laws of the State of Washington, implement nonstorage measures identified in the final report under subsection (b) upon fulfillment of the following conditions:

(1) The Secretary shall enter into an agreement with the appropriate water right owners who are willing to participate, the State of Washington, and the Yakima Indian Nation, for the use and management of the water supply to be provided by proposed tributary measures pursuant to this section.

(2) The Secretary and the State of Washington find that the implementation of the proposed tributary measures will not impair the water rights of any person or entity in the affected tributary.

(d) OTHER YAKIMA RIVER BASIN TRIBUTARIES.—Similar enhancement programs may be investigated and implemented by the Secretary in other tributaries contingent upon the agreement of the appropriate tributary water right owners to participate. The provisions set forth in this section shall be applicable to such programs.

(e) AUTHORIZATION OF APPROPRIATIONS.—(1) There is hereby authorized to be appropriated to the Secretary $500,000 for the study of the Taneum Creek Project and such amount as the Secretary subsequently determines is necessary for implementation of tributary measures pursuant to this section.

(2) There is also authorized to be appropriated to the Secretary such funds as the Secretary determines are necessary for the investigation of similar enhancement programs in other Yakima River basin tributaries contingent upon the agreement of the appropriate water right owners to participate. Funds for the implementation of any similar enhancement program shall be appropriated to the Secretary following the submittal of an investigation report to the appropriate congressional committees.

SEC. 8. ENVIRONMENTAL COMPLIANCE.

(a) NEPA.—Implementation of the provisions of this Act is contingent upon compliance by the Secretary with

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the provisions of the National Environmental Policy Act of 1969.

(b) AUTHORIZATION OF APPROPRIATIONS.—There are hereby authorized to be appropriated to the Secretary $2,000,000 for environmental compliance activities including the conduct, in cooperation with the State of Washington, of an inventory of wildlife and wetland resources in the Yakima River basin and an investigation of measures including "wetland banking", which could be implemented to address potential impacts which could result from the activities taken under this Act.

SEC. 9. SAVINGS PROVISIONS.

Nothing in this Act shall be construed to—

(1) affect or modify any treaty or other right of the Yakima Indian Nation;

(2) authorize the appropriation or use of water by any Federal, State, or local agency, the Yakima Indian Nation, or any other entity or individual;

(3) impair the rights or jurisdictions of the United States, the States, the Yakima Indian Nation, or other entities over waters of any river or stream or over any ground water resource;

(4) alter, amend, repeal, interpret, modify, or be in conflict with any interstate compact made by the States;

(5) alter, establish, or impair the respective rights of States, the United States, the Yakima Indian Nation, or any other entity or individual with respect to any water or water-related right;

(6) alter, diminish, or abridge the rights and obligations of any Federal, State, or local agency, the Yakima Indian Nation, or other entity, public or private;

(7) affect or modify the rights of the Yakima Indian Nation or its successors in interest to, and management and regulation of, those water resources arising or used, within the external boundaries of the Yakima Indian Reservation;

(8) affect or modify the settlement agreement between the United States and the State of Washington filed in Yakima County Superior Court with regard to Federal reserved water rights other than those rights reserved by the United States for the benefit of the Yakima Indian Nation and its members; or

(9) affect or modify the rights of any Federal, State, or local agency, the Yakima Indian Nation, or any other entity, public or private with respect to any unresolved and unsettled claims in any water right adjudications, or court decisions, including

State against Acquavella, or constitute evidence in any such proceeding in which any water or water related right is adjudicated.

Mr. AMBERCROMBIE. First, we will hear from the gentleman from the State of Washington about his bill. Mr. Inslee, I am pleased to have you here.

STATEMENT OF HON. JAY INSLEE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. INSLEE. I want to thank you for holding this hearing on this issue which is so important to the State of Washington.

I want to add a comment that Representative Morrison's leadership was incredible on this project. Assuming that it reaches fruition, he will deserve 90 percent of the credit.

The legislation before you is a product of compromise on the part of all these groups and reflects a real understanding of the political realities of the day.

I believe this bill provides one of our best opportunities to acquire salmon habitat in the Northwest. We in the Northwest are very concerned that the salmon situation will end in an environmental/ecological train wreck much the same way the old growth forests situation has. By protecting the habitat ahead of time, this legislation will help to avoid the kind of agony that we have experienced with old growth forests. Another advantage of this bill is that by using conservation, we expand the options for all users of the water.

Water conservation has the potential to significantly extend the amount of water available This would reduce irrigation shortages, which threaten the farmers in the Yakima Basin. In fact, we have had several water-short years recently; this bill would help farmers in future water-short years. It would also enhance instream flows, which will aid anadromous fish.

Mr. Chairman, this legislation meets the needs of the future in a way that is realistic. The way it was developed is, in my opinion, a model for the kind of cooperation that is needed to solve the natural resource dilemmas we will face in the Northwest and across the country. I urge the subcommittee to favorably consider H.R. 1690.

I know I have heard questions very recently about some things in the bill. I look forward to meeting with all parties to resolve those.

Thank you very much.

[Prepared statement of Mr. Inslee follows:]

STATEMENT OF CONGRESSMAN JAY INSLEE
REGARDING H.R. 1690
BEFORE THE COMMITTEE ON NATURAL RESOURCES
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

September 23, 1993

Mr. Chairman, I would like to thank you and the other members of the subcommittee very much for holding this hearing on H.R. 1690, which would authorize phase two of the Yakima River Basin Water Enhancement Project. I know we have a lot of witnesses today, so I will keep my comments brief.

This bill would authorize conservation improvements in the irrigation projects in the Yakima River Basin. As you know, this legislation was developed by my predecessor, Rep. Sid Morrison, in conjunction with groups and organizations that have an interest in the Yakima River Basin, including the Yakima Indian Nation, irrigators, the State of Washington, the Bonneville Power Administration and the Bureau of Reclamation. The legislation before you today is the product of compromise on the part of all of these groups and reflects an understanding of the political realities of our day.

I believe this bill provides one of our best opportunities to acquire Salmon habitat in the Northwest. We in the Northwest are very concerned that the Salmon situation will end in an environmental/ecological train wreck much the same way the old

growth forests situation has. By protecting the habitat ahead of time, this legislation will help to avoid the kind of agony that we have experienced with old growth forests. Another advantage of this bill is that by using conservation, we expand the options for all users of the water.

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Mr. Chairman, this legislation meets the needs of the future in a way that is realistic. The way it was developed is, in my opinion, a model for the kind of cooperation that is needed to solve the natural resource dilemmas we will face in the Northwest and across the country. I urge the subcommittee to favorably consider H.R. 1690. Thank you very much.

Mr. ABERCROMBIE. Thank you.

We will begin our first panel—Dan Beard, Jack Robertson, and Ken Slattery.

If it is all right with everyone we will begin with Dan Beard, Commissioner of the Bureau of Reclamation of the Department of the Interior.

If I am not mistaken, Dan, this is your first appearance before the committee that you helped guide in the past. I am very, very pleased, I think, to be the first person on the Natural Resources Committee to be able to welcome you.

PANEL CONSISTING OF DANIEL P. BEARD, COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR; JACK ROBERTSON, DEPUTY ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OR; AND KEN SLATTERY, SENIOR POLICY ANALYST, WATER RESOURCES PROGRAM, DEPARTMENT OF ECOLOGY, STATE OF WASHINGTON, OLYMPIA, WA

STATEMENT OF DANIEL P. BEARD

Mr. BEARD. Thank you, Mr. Chairman.

I must tell you, the view from down here is a lot different from up here.

Mr. Chairman, it is a pleasure to appear before the subcommittee today to testify on H.R. 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project, and for other purposes.

This bill represents the culmination of a long, collaborative effort to conserve scarce water resources, with participation and responsibility shared by virtually every interest in the Yakima River watershed.

The administration supports this cooperative effort, and applauds the various interest groups in the State of Washington that have worked to build a consensus on this issue. While we applaud and endorse these efforts, we do have some concerns with the bill.

The Department of the Interior's major concerns with H.R. 1690 relate to five principal areas: one, as yet unquantified tribal instream flow requirements for fish, since the Yakima Nation is a Stevens Treaty tribe; two, tribal ground and surface water rights, since the surface water rights are currently under adjudication and ground water has not been adjudicated; three, the operational implications to the Wapato Irrigation Project; four, whether benefits to fisheries and other public purposes are commensurate with the level of Federal cost sharing contained in the bill; and five, granting authorization of implementation measures prior to a comprehensive study of alternatives for meeting the Secretary's responsibilities in the Basin. The Department would be pleased to work with the subcommittee to resolve these concerns and to move the bill forward.

H.R. 1690 would authorize in excess of $100 million to carry out the purposes of the bill. These activities would have to compete for funds within the discretionary caps within the Omnibus Budget Reconciliation Act of 1993.

My comments before you today will provide a brief background on the Yakima Project, but will focus primarily on the bill's emphasis on a watershed management approach to resolving Western water problems. This approach is supported by the Department of the Interior throughout the West.

The Bureau of Reclamation's existing Yakima Project, developed primarily for agricultural purposes, consists of six irrigation water service divisions and a storage division.

The irrigation districts of the six water service divisions are the major water use entities in the Basin and are responsible for the diversion, conveyance, and delivery of water to landowners within their service areas.

In 1989, over 350,000 acres were irrigated in the Basin, producing crops with a gross value of $500 million.

Reclamation operates the storage division, which consists of six reservoirs with a total capacity of just over one million acre-feet. Project operation each year is keyed to meeting irrigation diversions and maximizing reservoir carryover to assure an adequate water supply in subsequent years. Natural and return flows are generally adequate to meet irrigation demands through the end of June.

However, storage releases have begun as early as May in dry years and as late as August in wet years. This year, natural runoff was deficient, and water was released from storage in mid–June.

The water supply available for irrigation this year has been about 60–65 percent of potential contract deliveries.

Efforts to improve water supply conditions in the Yakima River basin have been pursued for many years. Initially, activities focused on the development of additional storage facilities.

However, the construction of additional dams was not an acceptable option. Recent efforts have been directed toward water conservation measures so that instream flows can be met and irrigation supplies can be enhanced.

Phase One of the Yakima River Basin Water Enhancement Project was initiated in 1984. Under Phase One, fish passage and protective facilities were constructed.

This bill would authorize Phase Two of the Enhancement Project. It focuses on structural and nonstructural water conservation measures to facilitate maintenance of instream flows and improve potential for meeting consumptive water demands.

The major feature of the bill, the Basin Conservation Program, ties together measures designed to achieve stream-flow-related habitat needs of salmon and steelhead, enhance the economy of the Yakima Indian Nation, and improve the health of the local irrigated agriculture based economy.

The Pacific Northwest Power Planning Council, the Bonneville Power administration, the Yakima Indian Nation, the State of Washington, irrigation entities, BIA, the United States Geological Survey, as well as the Bureau of Reclamation have cooperated in developing these measures. The USGS National Water Quality Assessment study in the Yakima basin can provide information on changes in water quality as related to changes in basin management.

As measures are implemented under the Basin Conservation Program, instream flows can be further enhanced. A key component is implementation with feedback through monitoring and evaluation to facilitate the refinement of the program elements over time.

The bill also provides for water resource activities on the Yakima Indian Reservation, at the discretion of the tribe. Funds for improvements to the Wapato Irrigation Project of up to $10 million are initially authorized with water savings for "irrigation and other purposes on the reservation and for protection and enhancement of fish and wildlife within the Yakima River Basin."

An Irrigation Demonstration Project is authorized, subject to approval by the Secretary, using cost-effective, water management, and conservation. It would also provide training for tribal members in state-of-the-art irrigation methods and water management.

Funds are also authorized for further planning by the tribe of the Toppenish Creek Corridor Enhancement Project to demonstrate integrated management of agricultural, fish, wildlife, and cultural resources. All funds authorized for water resource activities on the Yakima Indian Reservation are nonreimbursable.

Checkpoints for implementing the Basin Conservation Program step-by-step are established by this bill. These checkpoints include decision-making by a local oversight group, the Yakima Indian Nation, the State government, the Secretary of the Interior, and the Congress.

Local, State, and Federal funds will be dedicated over time for cost-shared implementation as water-user proposals for conservation are approved. This represents an innovative approach to resolving watershed problems.

An analysis of the cost effectiveness of specific measures and environmental compliance documents, including Endangered Species Act considerations, would be completed prior to Secretarial approval for any action or expenditure of Federal funds.

Mr. Chairman, that concludes my testimony on H.R. 1690. I would be happy to answer any questions that you have.

[Prepared statement of Mr. Beard follows:]

STATEMENT OF DANIEL P. BEARD

COMMISSIONER OF RECLAMATION

BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE COMMITTEE ON NATURAL RESOURCES

ON H.R. 1690, THE YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT ACT

SEPTEMBER 23, 1993

Mr. Chairman, it is a pleasure to appear before the Subcommittee today to testify on H.R. 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project, and for other purposes. This bill represents a collaborative effort to conserve scarce water resources, with participation and responsibility shared by virtually every interest in the Yakima River watershed. The Administration supports this cooperative effort, and applauds the various interest groups in the State of Washington that have worked to build a consensus on this issue. However, we do have concerns with this bill.

The Department of the Interior's major concerns with H.R. 1690 relate to five principal areas: (1) as yet unquantified tribal instream flow requirements for fish, since the Yakima Nation is a Stevens Treaty tribe; (2) tribal ground and surface water rights, since the surface water rights are currently under adjudication and ground water has not been adjudicated; (3) the operational implications to the Wapato Irrigation Project; (4) whether benefits to fisheries and other public purposes are commensurate with the level of Federal cost sharing contained in the bill; and (5) granting authorization of implementation measures prior to a comprehensive study of alternatives for meeting the Secretary's responsibilities in the Basin. The Department would be pleased to work with the Subcommittee to resolve these concerns.

H.R. 1690 would authorize in excess of $100 million to carry out the purposes of the bill. These activities would have to compete for funds within the discretionary caps within the Omnibus Budget Reconciliation Act of 1993.

My comments before you today will provide a brief background on the Yakima Project, but will focus primarily on the bill's emphasis on a watershed management approach to resolving Western water problems. This approach is supported by the Department of the Interior (DOI) throughout the West.

The Yakima River Basin is located in south-central Washington on the east side of the Cascade Range. The Yakima River and its major tributary, the Naches River, flow southeast to join near the City of Yakima, Washington. Further to the southeast, the Yakima River flows into the Columbia River. The Yakima River forms the eastern boundary of the Yakima Indian Reservation, which encompasses about one million acres in the southwest corner of the Basin. The Yakima River also provides the principal water source for the Bureau of Indian Affairs' (BIA) Wapato Irrigation Project which is located on the Yakima Indian Reservation and serves Indian and non-Indian water users.

The Columbia River Basin Fish and Wildlife Program, adopted by the Northwest Power Planning Council in 1992, identified the Yakima River Basin as one of the areas in the Pacific Northwest with the greatest potential for the production of salmon and steelhead, although some basin stocks are currently classified as weak. Lessons learned from efforts in the Yakima Basin could be applicable to the Columbia River Basin, where several species of anadromous fish have already been listed as endangered or threatened and where additional petitions for listing can be expected.

The Bureau of Reclamation's (Reclamation's) existing Yakima Project, developed primarily for agricultural purposes, consists of six irrigation water service divisions and a storage division. The irrigation districts of the six water service divisions are the major water use entities in the Basin and are responsible for the diversion, conveyance and delivery of water to landowners within their service areas. In 1989, over 350,000 acres were irrigated in the Basin, producing crops with a gross value of $500 million.

Reclamation operates the storage division, which consists of six reservoirs with a total capacity of just over one million acre-feet. Project operation each year is keyed to meeting irrigation diversions and maximizing reservoir carryover to assure an adequate water supply in subsequent years. Natural and return flows are generally adequate to meet irrigation demands through the end of June. However, storage releases have begun as early as May in dry years and as late as August in wet years. This year, natural runoff was deficient and water was released from storage in mid-June. The water supply available for irrigation this year has been about 60 to 65 percent of potential contract deliveries.

Efforts to improve water supply conditions in the Yakima River Basin have been pursued for many years. Initially, activities focused on the development of additional storage facilities. However, the construction of additional dams was not an acceptable option. Recent efforts have been directed toward water conservation measures so that instream flows can be met and irrigation supplies can be enhanced.

Phase One of the Yakima River Basin Water Enhancement Project was initiated in 1984, after Congress authorized Federal participation. Under Phase One, fish passage and protective facilities were constructed. These ladders and screens are critical to the successful migration of salmon and steelhead in the Basin.

This bill would authorize Phase Two of the Enhancement Project. It focuses on structural and nonstructural water conservation measures to facilitate maintenance of instream flows and improve potential for meeting consumptive water demands.

The major feature of the bill, the Basin Conservation Program, ties together measures designed to achieve stream flow related habitat needs of salmon and steelhead, enhance the economy of the Yakima Indian Nation, and improve the health of the local irrigated agriculture-based economy. The Pacific Northwest Power Planning Council, the Bonneville Power Administration, the Yakima Indian Nation, the State of Washington, irrigation entities, BIA, the United States Geological Survey (USGS) and Reclamation have cooperated in

developing these measures. The USGS National Water Quality Assessment study in the Yakima Basin can provide information on changes in water quality as related to changes in basin management.

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Checkpoints for implementing the Basin Conservation Program step-by-step are established by this bill. These checkpoints include decisionmaking by a local oversight group, the Yakima Indian Nation, the State government, the Secretary of the Interior, and the Congress. Local, State, and Federal funds will be dedicated over time for cost-shared implementation as water user proposals for conservation are approved. This represents an innovative approach to resolving watershed problems.

An analysis of the cost-effectiveness of specific measures and environmental compliance documents, including Endangered Species Act considerations, would be completed prior to Secretarial approval for any action or expenditure of Federal funds.

Mr Chairman and Members of the Subcommittee, that concludes my testimony on H.R. 1690. I would be happy to answer any questions you may have.

Mr. SMITH of Oregon. Mr. Chairman, if I might interrupt for a moment, I apologize for the fact that I must leave shortly. Mr. Vento is holding a hearing on national parks in another building. I apologize to you and to the witnesses.

I just wanted to point out, Mr. Chairman, that these two bills were introduced by Mr. Morrison and Mr. Marlenee in the last session of Congress. They did not move. I would not suspect that there is any partisanship involved here. But all I wanted to suggest is that——

Mr. ABERCROMBIE. Especially with me here today.

Mr. SMITH of Oregon [continuing]. Yes. I will not allow that to diminish my enthusiasm for both of these bills, which I support. Please excuse me.

Mr. ABERCROMBIE. We certainly will.

Mr. Beard, thank you very much for your testimony. Mr. Beard has not been forgotten for his service on the committee. You set our standard. You were just within the five-minute mark.

Out of courtesy to the large numbers of people who plan to testify, if we can keep the testimony to five minutes, I can assure you, as Mr. Beard will assure you, that the committee pays close attention to everything that is submitted.

In order to advance the cause then, if we can stick to the five-minute admonition—I won't say rule—but then we could get everyone in and extend the courtesy we need for everyone's point of view.

Mr. INSLEE. I want to tell you how much we appreciate your desire to move this along, Mr. Beard. In all these processes we have questions that come up during the process about the bill, the T's and the I's.

I wonder if you had any comments or advice to the parties as we go through this process on how to assure that we keep the consensus together that has been remarkable so far to get this all across the goal line. I will ask for your advice in that regard.

Mr. BEARD. I think the most important thing to remember is the word "framework." This legislation, in my mind, represents a framework for resolution of the problems. Sure, there are problems with this bill: The administration has problems; the tribe has problems; the irrigation districts have more that they would have liked to have achieved. BPA, I am sure, has things they would like. Every interest has problems.

But I think we have to recognize we don't have any alternative but for all the parties in this room and the ones who are not here today to sit down and continue to work to try to resolve these problems.

This bill represents a very workable framework for solving those problems. It takes the approach we need to promote by enhancing water conservation and efficiency improvements and other measures which are not even identified. We must then do our best to take that water, the saved water and make it available for fisheries restoration.

The choice we have is between two alternatives: We continue down this road using this bill as a vehicle, or we all go back to court. It is as simple as that. I think everybody in this room would agree that going back to court is not the right approach because

the courts can't provide the kinds of flexibility and tradeoffs that are needed to ultimately resolve this problem.

Given your question, I would urge the parties to continue to work within this framework, which I think is acceptable to everybody in this room, and to try to seek common ground and understanding. I think the other thing that we all need is a little bit of faith in one another.

I have heard some criticisms in the past few days that there are not guarantees particular things will happen. For example, will the saved water actually go for instream uses?

Well, I think everybody in this room assumes that that is the case. We have to have a little bit of faith in one another concerning what is going to happen with the saved water.

I think we all sort of have to lock hands and jump in the swimming pool together rather than do this individually.

If for some reason that doesn't happen down the road, this bill passes and it doesn't happen, people can always go back to where they are today. This means going back to court or fighting for appropriations in the Congress or whatever. But I would urge the parties to use the framework and continue the negotiations and the dialogue.

Mr. INSLEE. I appreciate that comment. I think you are entirely correct. In my view, it is better to frame the house even if we don't know the color of the trim at the moment. I appreciate those comments. I hope everyone was listening to them. I look forward to working with you. Thank you.

Mr. ABERCROMBIE. I was told that not everybody could hear me, which might have been the first time in my life.

Can everybody hear now?

The committee will ask some questions. Rather than go through everything in detail today, you may receive some written questions later. So if there are some things that are not covered in the hearing, that doesn't mean questions are not in mind.

Mr. Beard, we will be sending you some detailed questions on cost sharing, how precisely that will be divided up and your administration approach to this and what progress toward restoring fishing resources, how they will be measured, what the measurement activity will be; then, on the State water rights system, whether or not that might impede any implementation on conservation.

You need not answer all these things at this point; but if you have a summary statement with regard to any or all of them, that would be welcome at this time.

Mr. BEARD. We would be happy to answer those questions for the record. If there are any that are of particular interest to the committee, I suppose I could address them now.

Mr. ABERCROMBIE. We would rather have it in detail than some kind of a once-over. I think that serves the purpose of getting the bill passed. Very good. Thank you very much.

Congratulations, again. I know the country is well served by your being in that position.

Mr. BEARD. Thank you.

Mr. ABERCROMBIE. Now we will move to Mr. Jack Robertson who is the deputy Administrator.

STATEMENT OF JACK ROBERTSON

Mr. ROBERTSON. Thank you, Mr. Chairman. In the spirit of your admonition, I sliced some of my testimony. But I want to lead off on a personal note.

We just want to make known to the committee how much Bonneville has already appreciated Mr. Beard's efforts at the Bureau on behalf of water conservation, not just in the Yakima basin, but particularly in the Snake basin where we face some equally serious challenges.

I will be as brief as I can, Mr. Chairman. The Yakima River Basin Program in the bill at issue represents, as Dan said, an ambitious cooperative effort.

It is a pleasure to have the opportunity to appear before this subcommittee to testify in support of the Yakima River Basin Water Enhancement Program in the State of Washington.

The Yakima River Basin Program and the bill at issue represent an ambitious cooperative undertaking of the Northwest Power Planning Council, the Bonneville Power Administration, Yakima Indian Nation, U.S. Bureau of Reclamation, State of Washington, and the Yakima Basin irrigation entities.

All the entities involved in the effort have participated in the development of the program and have been responsible for integrating all program elements into a comprehensive watershed management approach. Bonneville supports this collaborative effort for water conservation measures that contribute to an ecosystem-based solution for watersheds such as that proposed in this bill.

Bonneville initiated fish and wildlife enhancement efforts in the Yakima Basin in 1982 pursuant to the Pacific Northwest Electric Power Planning and Conservation Act (NW Power Act) and measures of the Columbia River Basin Fish and Wildlife Program.

The Council identified the Yakima Basin as one of the areas with the greatest potential for enhancement of Columbia Basin salmon and steelhead populations. The basin is viewed as a model from which knowledge could be applied to other activities throughout the Columbia River basin.

This is significant because several species of anadromous fish have been listed as threatened or endangered in the Pacific Northwest, and additional petitions for listing can be expected. Petitions have not been filed for stocks in the Yakima basin even though some are classified as weak. The work completed and under way has deterred filings on these stocks. Bonneville believes the water conservation measures under this bill will further contribute to enhancement of the Yakima basin ecosystem.

I want to give you a quick overview. Mr. Chairman, Northwest electric ratepayers, through Bonneville, have invested more than $30 million in off-site mitigation efforts in the Yakima River basin.

Bonneville completed a major fish screening program in 1989 in cooperation with U.S. Bureau of Reclamation, the State of Washington, and the Yakima Indian Nation. Ratepayers continue to invest in Yakima basin fish and wildlife efforts in additional fish-screening projects, fish ladders for adult salmon and steelhead, habitat improvement projects, supplementation research, and in a wildlife trust agreement with the State of Washington.

One factor which would maximize these investments by Northwest electric ratepayers and others is a method to achieve improved instream flows. The bill before you identifies regional ratepayer investments in the Yakima River basin to be used as non-Federal cost sharing.

We suggest that the bill clearly reflect all of Bonneville's contributions to the Yakima Program—past, present, and future—as the non-Federal portion of costs.

Given Bonneville's current financial situation and the increasing competitive pressures Bonneville faces in electricity markets, we also suggest that the bill not create additional obligations on Bonneville's part above and beyond what is already required by the Northwest Power Act and the Columbia River Basin Fish and Wildlife Program.

To give you a brief overview of Bonneville's fish and wildlife investments—our region-wide investment prior to 1992 amounted to about $150 million per year.

The agency's costs for fish and wildlife investments are now over $300 million per year, including both Endangered Species Act (ESA)- and non-ESA related activities.

Fish-related expenses now account for roughly 12 percent of Bonneville's entire budget, which includes the net cost associated with the Residential Exchange Program.

The Bonneville budget for the fish and wildlife program certainly reflects the region's increasing commitment to protect and enhance fish and wildlife and is, in fact, the largest fish and wildlife program in the world.

We note that from fiscal year 1991 through fiscal year 1993, costs for power purchases and foregone revenues for fish mitigation increased dramatically—from about $50 million in 1991 to about $150 million in 1993. This increase is largely associated with increases in river flows for fish migration within the Columbia River basin combined with continued regional drought conditions.

Annual investments increased by almost $150 million between fiscal year 1991 and fiscal year 1993. We do not expect costs to continue to escalate as they have over the past 10 years, rising from an expense of about $40 million a year in fiscal year 1983 to an expense of over $300 million a year in fiscal year 1993. However, if costs continue to escalate, the necessary rate increases could jeopardize the agency's ability to continue to fund this critical program.

Additional rate increases could also result in a loss of Bonneville customers and subsequent revenues. This, in turn, could threaten Bonneville's financial well being, including our annual Treasury payment.

Should these events occur, it could well lead to reduced funding for fish and wildlife.

Bonneville is initiating what we term The "Competitiveness Project." We have just announced, as of this Monday, a cut of 600 to 800 people in the course of the next 3 years in an effort to slim the organization and to make the organization more responsive to dramatically changing market conditions in the electric power industry. We believe we must do this in order to stay competitive. Further, we believe it is essential for us to do this to continue sta-

ble funding, not just of our energy-based programs, but also our commitments to fish and wildlife implementation.

In conclusion, Mr. Chairman, the Yakima basin water conservation effort is consistent with other watershed-related programs of particular interest to Bonneville and is a good example of how cooperative partnerships can serve the biological and economic needs within an ecosystem.

Thanks very much for your time.

[Prepared statement of Mr. Robertson follows:]

STATEMENT OF JOHN S. ROBERTSON

DEPUTY ADMINISTRATOR

BONNEVILLE POWER ADMINISTRATION

UNITED STATES DEPARTMENT OF ENERGY

BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,

COMMITTEE ON NATURAL RESOURCES,

UNITED STATES HOUSE OF REPRESENTATIVES

SEPTEMBER 23, 1993

Statement of Jack Robertson, Deputy Administrator
Bonneville Power Administration
September 23, 1993

Mr. Chairman, Members of the Subcommittee: it is a pleasure to have the opportunity to appear before this Subcommittee to testify in support of the Yakima River Basin Water Enhancement Program (Yakima Program) in the State of Washington.

The Yakima River Basin Program, and the bill at issue, represent an ambitious cooperative undertaking of the Northwest Power Planning Council, the Bonneville Power Administration (Bonneville), Yakima Indian Nation, U.S. Bureau of Reclamation, State of Washington, and the Yakima Basin irrigation entities. All the entities involved in the effort have participated in the development of the program and have been responsible for integrating all program elements into a comprehensive watershed management approach. Bonneville supports this collaborative effort for water conservation measures that contribute to an ecosystem-based solution for watersheds such as that proposed in this bill.

Today, my testimony will focus on Bonneville's involvement in fish and wildlife enhancement in the Yakima River Basin, our water conservation interests in general, and on Bonneville's investment in Columbia Basin fish and wildlife.

YAKIMA PROJECT BACKGROUND

The Yakima River Basin is located in central Washington State, immediately east of the Cascade Mountains. The Yakima River flows southeast and enters the Columbia River near Richland, Washington. The Yakima Indian Reservation encompasses approximately 1 million acres in the basin.

The Yakima Project is primarily operated by the Bureau of Reclamation and was developed primarily for irrigation purposes. Existing project facilities and irrigation diversions often adversely affect instream flows necessary for the enhancement and maintenance of Yakima River Basin salmon and steelhead. Flows necessary for the successful spawning, rearing, and migration of salmon and steelhead are often difficult to achieve on a continuous basis. Efforts to improve the water quality and supply in the Yakima River Basin have been attempted for many years. Initially, activities focused on additional water storage projects but, due to environmental issues, the attempt to construct more dams was abandoned. Recent efforts have been directed toward water conservation in an attempt to better use the existing water available and to enhance instream flows for fish and wildlife.

Bonneville initiated fish and wildlife enhancement efforts in the Yakima Basin in 1982 pursuant to the Pacific Northwest Electric Power Planning and Conservation Act and measures of the Columbia River Basin Fish and Wildlife Program. The Council identified the Yakima Basin as one of the areas with the greatest potential for the enhancement of Columbia Basin salmon and steelhead populations. The basin is viewed as a model from which knowledge could be applied to other activities throughout the Columbia River Basin. This is significant because several species of anadromous fish have been listed as threatened or endangered in the Pacific Northwest and additional petitions for listing can be expected. Petitions have not been filed for stocks in the Yakima Basin even though some are classified as weak. The work completed and underway has deterred filings on these stocks. Bonneville believes the water conservation measures under this bill will further contribute to enhancement of the Yakima Basin ecosystem.

BONNEVILLE'S INVESTMENT IN FISH AND WILDLIFE

To date, Pacific Northwest electric ratepayers, through Bonneville, have invested more than $30 million in off-site mitigation efforts in the Yakima River Basin. Bonneville completed a major fish screening program in 1989 in cooperation with U.S. Bureau of Reclamation, the State of Washington, and the Yakima Indian Nation. Ratepayers continue to invest in Yakima Basin fish and wildlife efforts in additional fish screening projects, fish ladders for adult salmon and steelhead, habitat improvement projects, supplementation research, and in a wildlife trust with the State of Washington. One factor which would maximize these investments by Northwest ratepayers and others is a method to achieve improved instream flows. The bill before you identifies regional ratepayer investments in the Yakima River Basin to be used as non-federal cost sharing. We suggest that the bill clearly reflect all of Bonneville's contribution to the Yakima Program, past, present, and future, as the non-federal portion of costs. Given Bonneville's current financial situation and the increasing competitive pressures Bonneville faces in electricity markets, we also suggest that the Bill not create additional obligations on Bonneville's part, above and beyond what is already required by the Northwest Power Act and the Columbia River Basin Fish and Wildlife Program.

Bonneville's annual fish and wildlife investments prior to 1992 amounted to about $150 million. The agency's costs for fish and wildlife investments are now over $300 million per year, including both Endangered Species Act (ESA) and non-ESA related activities. Fish related expenses now account for roughly 12 percent of Bonneville's entire budget, which includes the net cost associated with the Residential Exchange program. The Bonneville budget for the fish and wildlife program certainly reflects the region's increasing commitment to protect and enhance fish and wildlife and is, in fact, the largest fish and wildlife program in the world.

I want to clarify what the $300 million in annual investments includes. Of the $300 million, about $149 million is for power purchases and foregone revenues for fish enhancement of which almost $110 million are the result of actions taken under the Endangered Species Act. About $57 million are for expenses to implement the Northwest Power Planning Council's Fish and Wildlife Program. The $57 million in expense, when coupled with $25.5 million in capital expenditures for fish and wildlife facilities, equates to Bonneville's fiscal year 1993 fish and wildlife budget of $82.5 million. About $44 million are identified for reimbursement of operations and maintenance expenses incurred by other Federal agencies--the Corps of Engineers, the Bureau of Reclamation and the U.S. Fish and Wildlife Service--for salmon recovery operations such as hatcheries and barging fish. Another $55 million in fixed expenses are identified for repayment of capital investments and interest for hatcheries, and fish ladders and screens at the dams. These fixed expenses are based on total completed capital investments through Fiscal Year (FY) 1992, of about $536 million for the Corps of Engineers, and about $76 million for Bonneville, totaling $612 million in investments. They are also additive to the $82.5 million fish and wildlife budget for 1993.

We note that from FY 1991 through FY 1993, costs for power purchases and foregone revenues for fish mitigation increased dramatically--from about $50 million in 1991 to about $150 million in 1993. This increase is largely associated with increases in river flows for fish migration within the Columbia River Basin combined with continued regional drought conditions.

Annual investments increased by almost $150 million between FY 1991 and FY 1993. We do not expect costs to continue to escalate as they have over the past 10 years, rising from an expense of about $40 million a year in FY 1983 to an expense of over $300 million a year in FY 1993. However, if costs continue to escalate, the necessary rate increases

could jeopardize the agency's ability to continue to fund this critical program. Additional rate increases could also result in a loss of Bonneville customers and subsequent revenues. This, in turn, could threaten Bonneville's financial well being, including our annual Treasury payment. Should these events occur, it could well lead to reduced funding for fish and wildlife.

THE BPA COMPETITIVENESS PROJECT

Bonneville's Competitiveness Project, an effort through which we are striving to become more results-oriented, cost-conscious, customer-focused, and market-driven, is moving us to rethink how we accomplish our fish and wildlife responsibilities. Increasing our cost effectiveness in meeting these responsibilities will help sustain our business advantage and the financial viability. We see the results of the Competitiveness Project as helping Bonneville achieve both long-term rate stability, and long-term stability in fish and wildlife program funding.

Our customers as well as the State and Federal fish and wildlife agencies, Tribes, the Council, and other interested parties, need to be invested in Bonneville's financial and biological success. We want to create a system that provides incentives to help guide the Bonneville investment toward measurable results. Moreover, Bonneville is interested in examining budgeting options, including financial incentives, which reward results and increase funding for fish and wildlife as Bonneville's competitive position improves. We want to develop a structure which would lead fish and wildlife advocates to want Bonneville to be successful in its revenue producing programs. This option and others could be discussed as part of the development of Bonneville's 10-year fish and wildlife implementation plan.

CONCLUSION

The Yakima River Basin water conservation effort is consistent with other water related programs of particular interest to Bonneville and is a good example of how cooperative partnerships can serve the biological and economic needs within an ecosystem. In this regard, Bonneville has contributed a significant portion of the resources in the Yakima Basin to date, and believes the measures outlined in this bill provide a sound complement to Bonneville's contribution.

Thank you again for the opportunity to testify. We will be pleased to provide you any additional information you request.

Mr. ABERCROMBIE. Thank you, Mr. Robertson.

Are there any questions?

Mr. INSLEE. I want to thank the organization for its efforts to date which are not unnoticed in the Yakima River area.

Mr. ABERCROMBIE. Mr. Robertson, you mentioned on page 4 that you do not expect costs to escalate, I think, in the context of your testimony, within the outlines that you presented to us on your investment in the fish and wildlife program. Is that correct?

Mr. ROBERTSON. Yes. We are now spending about $300 million a year, and we hope that will be a stable investment at least for the time being.

We are very concerned, as I indicated, about the impact of additional costs on our ability to stay competitive in the electric market.

Mr. ABERCROMBIE. You don't mean costs with respect to this program, but costs generally?

Mr. ROBERTSON. Yes, that is what I meant.

Mr. ABERCROMBIE. Thank you very much.

Mr. ROBERTSON. Thank you, Mr. Chairman.

Mr. ABERCROMBIE. We will move on now to Mr. Slattery who is a senior policy analyst for the Water Resources Program of the Department of Ecology of the State of Washington.

And aloha to you, Mr. Slattery; and thank you very much for being here.

STATEMENT OF KEN SLATTERY

Mr. SLATTERY. Thank you, Mr. Chairman.

On behalf of the State of Washington, I appreciate this opportunity to urge your support of H.R. 1690 which authorizes elements of the Yakima River Basin Water Enhancement Project.

The State of Washington has worked diligently with the Bureau of Reclamation, the Yakima Indian Nation, the irrigation districts in the Yakima basin, and other interested parties to develop the legislation now before the committee.

We believe this legislation, if passed, will lead to improvements in the use and availability of water for the full spectrum of water uses in the Yakima River basin. The bill would be particularly beneficial for the basin's fish and wildlife resources which are now considerably reduced in abundance as a result of water development and use.

Conservation is the key to a better water future in the Yakima basin as it is nearly everywhere in the West. That is why a basin water conservation program is the centerpiece of this legislation.

With appropriate conservation, the existing developed water supply of the Yakima basin can be stretched to meet currently unmet needs for higher instream flows. Conservation will also improve the tolerance of irrigation to the inevitable periodic natural water shortages that occur in the basin.

The State of Washington recognized these realities many years ago. The State has a long and continuous record of appropriating State funds to assist irrigation systems in upgrading their infrastructure.

The voters of the State of Washington have approved $75 million in bond funds for irrigation systems throughout the State since 1970. Much of the money distributed so far has been expended in the Yakima basin.

Since 1980, the State has provided over $19 million in grants and over $9 million in loans toward water system improvement projects totalling $113 million in value in the Yakima basin. These funds have been used to line canals, convert from open ditches to piped conveyance systems, automate water delivery systems, provide reregulation of canal flows, and provide for better measurement and control of water. These improvements result in water savings by reducing demand on the water resource. Reduced demand means more water can remain in the Yakima River and its tributaries for primarily the benefit of fish and wildlife resources.

Currently, most of the major irrigation systems in Yakima Valley are developing water conservation plans in accordance with State guidelines. And we are providing 50 percent of the grants for the development of those plans.

Under our guidelines, these plans are the first step for receiving funding for future system improvements. The plans identify various alternatives for system improvements and estimate the water savings from them. The plans will provide a rational means of allocating limited monetary resources to those projects that have the greatest public benefits. The proposed legislation before you is, in every way, consistent with the approach and is basically modeled after the State's approach.

The proposed conservation program in H.R. 1690 would be a cooperative Federal, State and local initiative that would continue, in an accelerated manner, the work that has been under way for many years. It is also intended to be a demonstration and test of water conservation as a means of generating new water supplies. If successful, it will provide a national model, not only of water conservation but also a means by which interested parties, who often end up on the opposite side in court, can work together to resolve a long-standing natural resource problem.

State cost sharing would be provided for all phases of the conservation program. State bonds already have been authorized since 1980 for use in the kinds of planning and projects contemplated under the bill. If the bill is passed, we will ask the legislature to specifically earmark bond funds to assure the availability of the State's cost share.

We are very excited about the potential for innovative, nonstructural water conservation measures that are talked about in the bill as well, water, banking, water-rights transfers, dry-year options, which I think you will hear some more about a little later in the testimony today. We think that these things can help increase the streamflows at critical times and locations in the basin during dry years which is when the fish really have a difficult time in the basin.

In 1989, our State legislature passed innovative legislation for the Yakima basin to enable and encourage the transfer of water and water rights to the State for public benefits. These rights are called trust water rights. The funding for these trust water rights may come from State, Federal, or private sources. Under this law,

water and water rights may be acquired by purchase, leasing, or by public funding of water conservation that results in water savings.

I guess my point is that we do have basic law in place to help this bill move forward. And we have had it since 1989, basically when Mr. Morrison asked the State to move ahead with this kind of legislation.

The legislation you are now considering is the product of many years of effort—too many, perhaps—and represents a revolutionary approach for resolving some very difficult water problems in probably the key area of our State with water problems.

The State of Washington is fully committed by its policies and by its own funding efforts to improving the use and availability of water in the Yakima basin. Especially in helping to recover depressed fish stocks in the basin. By working together, we will improve instream flows and provide a greater measure of drought tolerance for the Basin's highly productive agricultural activities.

The bill is a product of what we think is an unprecedented cooperative effort, in our State at least, among the major water interests in the Yakima basin. The State of Washington strongly urges your positive consideration of the bill and offers its assistance in securing early passage.

We are prepared to work with the committee and with our partners who brought this bill to you if further refinements in the bill are required.

Thank you.

[Prepared statement of Mr. Slattery follows:]

Statement of the State of Washington On H.R. 1690 Before the House Committee on Natural Resources Subcommittee on Oversight and Investigations

September 23, 1993

Statement of Kenneth Slattery, Senior Water Policy Analyst for the State of Washington Department of Ecology.

Mr. Chairman and Members of the Subcommittee: on behalf of the state of Washington, I appreciate this opportunity to urge your support of H.R. 1690 which authorizes elements of the Yakima River Basin Water Enhancement Project.

The State of Washington has worked diligently with the Bureau of Reclamation, the Yakima Indian Nation, the irrigation districts in the Yakima basin, and other interested parties to develop the legislation now before the Committee. We believe this legislation, if passed, will lead to improvements in the use and availability of water for the full spectrum of water uses in the Yakima River basin. The bill would be particularly beneficial for the basin's fish and wildlife resources which are now considerably reduced in abundance as a result of water development and use.

Conservation is the key to a better water future in the Yakima basin as it is nearly everywhere in the west. That is why a basin water conservation program is the centerpiece of this legislation. With appropriate conservation, the existing developed water supply of the Yakima basin can be stretched to meet currently unmet needs for higher instream flows. Conservation will also improve the tolerance of irrigation to the inevitable periodic natural water shortages that occur in the basin.

The State of Washington recognized these realities many years ago. The state has a long and continuous record of appropriating state funds to assist irrigation systems in upgrading their infrastructure. The voters of the State of Washington have approved $75 million in bond funds for irrigation systems throughout the state since 1970. Much of the money distributed so far has been expended in the Yakima basin. Since 1980, the state has provided over $19 million in grants and over $9 million in loans toward water system improvement projects totalling $113 million in value in the Yakima basin. These funds have been used to line canals, convert from open ditches to piped conveyance systems, automate water delivery systems, provide reregulation of canal flows, and provide for better measurement and control of water. These improvements result in water savings by reducing demand. Reduced demand means more water can remain in the Yakima River and its tributaries for the benefit of fish and wildlife resources.

Currently, most of the major irrigation systems in the Yakima valley are developing water conservation plans in accordance with state guidelines and with state funding assistance. Under

our guidelines, these plans are the first step for receiving funding for future system improvements. The plans identify various alternatives for system improvements and estimate the water savings from them. The plans will provide a rational means of allocating limited resources to those projects that have the greatest public benefits. The proposed legislation before you is in every way consistent with the approach that the state, with the assistance of the Bureau of Reclamation, has been taking for some time.

The proposed conservation program in H.R. 1690 would be a cooperative federal, state and local initiative that would continue, in an accelerated manner, the work that has been underway for many years. It is also intended to be a demonstration and test of water conservation as a means of generating new water supplies. If successful, it can provide a national model not only of water conservation, but also of federal, tribal, state, and local cooperation to resolve longstanding natural resource conflicts.

State cost sharing would be provided for all phases of the conservation program. State bonds have been authorized for use in the kinds of planning and projects contemplated under the bill. If the bill is passed, we will ask the Legislature to earmark bond funds to assure the availability of the state's cost share.

The legislation also provides for the testing of innovative nonstructural water conservation measures including water right transfers, water banking, dry year options, sale and leasing of water, and other tools that maximize the utility of existing water supplies. The water acquired in this manner would be used to increase streamflows at critical times and locations in the basin during dry years to benefit fishery resources.

In 1989, the Washington State Legislature passed innovative legislation for the Yakima basin to enable and encourage the transfer of water and water rights to the state for public benefits. These rights, called trust water rights, can be used for instream flow enhancement and/or supplemental irrigation supply. The funding for trust water rights may come from state, federal or private sources. Under this law, water and water rights may be acquired by purchase, leasing, or by public funding of water conservation that results in water savings. This law is wholly consistent with the intent of the basin conservation program and will be an important tool for implementing the legislation now before you.

The legislation you are now considering is the product of many years of effort and represents a revolutionary approach for resolving water supply problems. The State of Washington is fully committed by its policies and by its own funding efforts to improving the use and availability of water in the Yakima basin. By working together we will improve instream flows and provide a greater measure of drought tolerance for the basin's highly productive agricultural activities.

H.R. 1690 is the product of an unprecedented cooperative effort among the major water interests in the Yakima basin. The State of Washington strongly urge your positive consideration of the bill and offers its assistance in securing early passage.

Mr. ABERCROMBIE. Are there any observations or questions?

Mr. INSLEE. No, Mr. Chairman.

Mr. ABERCROMBIE. Mr. Slattery, you stated very clearly that you now have State water laws, particularly the trust water rights.

Is it your belief that this will allow you to have a conservation program adequate to the various results and tasks that you have outlined?

Such as, do existing State laws allow you to do what you want to accomplish in your testimony?

Mr. SLATTERY. I believe existing State law does allow us to accomplish what we have proposed in the bill.

As I mentioned, we have a long-standing history of funding water conservation projects.

We have a much more recent law which speaks to the ability to move conserved water, saved water, toward desired public purposes including instream flows.

I am very confident that working with our partners we can resolve any problems that people have regarding moving safe water and securing it.

Mr. ABERCROMBIE. I have one question in that regard. If you look at the bottom of the first page of your testimony you say "most of the major irrigation systems in the Yakima Valley are developing water conservation plans in accordance with State guidelines and with State funding assistance."

My impression of your testimony was that your State laws were comprehensive. Why would some rather than all participate? Where do you get the idea? Is that a question of simply getting geared up, or will everyone be involved eventually? Or do some, under your laws, have a way to opt out?

Mr. SLATTERY. Basically, it is voluntary. The irrigation districts who wish to receive funds from the State in the future, both in terms of grants or loans, must develop a conservation plan or we will refuse to provide them with the funding.

It is basically the same set up in this piece of federal legislation, development of conservation plans will be the first step.

If a district refused to do that, then they would not be on the receiving end of any funding assistance.

Mr. ABERCROMBIE. I am not quite sure on this level. My assumption is that everybody will participate. One of the arguments being made at this point is that various entities which might otherwise be arguing with one another have subsumed their personal, immediate interests for the good of the whole.

Will everybody be getting the benefit of the cooperation yet not participate themselves?

Mr. SLATTERY. It might be a good question for the district representative who comes along later.

I would think there might be tremendous peer pressure to move into this program and be a part of it.

Mr. ABERCROMBIE. Why wouldn't it be a good idea to have everybody participate in it?

Mr. BEARD. Could I amplify on that?

Mr. ABERCROMBIE. Sure.

Mr. BEARD. Any district which receives Federal water and is a contractor with the government, which I think includes most if not

all districts in the six divisions, is required to have conservation plans.

One of the tasks that we have before us will be to ensure that our water conservation rules and regulations, which are in the process of being revised, dovetail with the State requirements and the requirements of this bill.

It is my expectation certainly that our water conservation rules and regulations will provide for effective conservation. If this passes, we can use its authorities to require water conservation plans on the part of federal contractors.

Mr. ABERCROMBIE. In other words, if someone is not participating now, in effect, the bill will enable you to make rules and regulations to address the question.

Mr. BEARD. In the federal program now, every district was to have submitted to the Bureau of Reclamation a water conservation implementation plan and program.

We are in the process of reexamining our rules and regulations for water conservation. We will ensure that not only will they have to submit a plan, but it will also have to be implemented.

Mr. ABERCROMBIE. The reason I ask the question is that this is a very ambitious undertaking. I certainly appreciate it and think well of it, but one would only have to glance at the map up here, and I find it virtually impossible to see how anyone could realistically say they were involved in an irrigation project that was not intimately connected with all other water-related activities in the region.

I don't see how you can separate it out and say, we don't have anything to do with the area immediately next door, particularly where water is concerned.

I hope that makes sense to everybody.

Mr. BEARD. It makes sense to me. What I would say is, if they are a federal contractor, then they do have water conservation requirements.

In addition, they have requirements under State law. The State law requirements are voluntary, but the Federal law requirements are not.

Mr. ABERCROMBIE. I got it. Thank you.

Mr. Slattery, I now understand why you are a senior policy analyst rather than a junior policy analyst, because you handed that question off very, very fast.

Mr. SLATTERY. I will pay for it later.

Mr. ABERCROMBIE. Let's move on to the next panel.

Are you going to stay around, Mr. Beard?

Mr. BEARD. Yes, Mr. Chairman.

Mr. ABERCROMBIE. Thank you.

We will move to the second panel. These numbers, I assure you, are not in order of importance.

This panel consists of Mr. Strong, Mr. Meninick, and Mr. Sockzehigh. We will start with Mr. Strong, the executive director of the Columbia River Inter-Tribal Fish Commission.

PANEL CONSISTING OF TED STRONG, EXECUTIVE DIRECTOR, COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION, PORTLAND, OR; JERRY MENINICK, TRIBAL COUNCIL MEMBER AND CHAIRMAN, TRIBAL FISH AND WILDLIFE COMMITTEE, YAKIMA INDIAN NATION, ACCOMPANIED BY TIM WEAVER, ESQ. TRIBAL ATTORNEY; AND ROSS SOCKZEHIGH, TRIBAL COUNCIL MEMBER, YAKIMA INDIAN NATION

STATEMENT OF TED STRONG

Mr. STRONG. Thank you, Mr. Chairman, for the opportunity to testify before this committee on a matter of great importance to the Yakima Indian Nation as well as the other member tribes of the Columbia River Inter-Tribal Fish Commission.

We are a fisheries technical agency that supports these four tribes, and our area includes a three-State region.

We manage fisheries on the Columbia and its tributaries and the Yakima basin, a very important part of our entire fisheries restoration effort.

I have submitted comments for the record, and today my comments will just be in support of that in hopes of keeping this very brief.

The conservation usage of the Yakima River basin, as a part of the development for the region's economy, is part of an ambitious community undertaking to support the citizenry of that region.

This bill, which proposes to provide ecosystem management, brings scientific management principles that are important in the areas of salmon restoration.

We favorably support this bill and hope that this committee will report on this favorably and in doing so allow for the restoration of these important economic resources such as salmon in the region.

We encourage the development of adequate instream flows, that is the mainstay of any salmon restoration effort. We consider that the region has long utilized the Yakima River basin and perhaps in some instances over-utilized the Yakima resources.

This bill provides an opportunity for the people of the community and the United States, as a responsible ecosystem manager, to put back some of the vitality and life into a seriously depleted river basin system.

We believe that the restoration will prove good for the region's economy while it provides those things necessary for sustainable development. That is, we can still utilize the resources of the region in today's environment without compromising the ability to have resources for future generations.

I believe that is something very responsible and something very necessary if we are to pass a legacy of consideration, respect, and reverence for our abundant resources.

The restoration of both the instream flows and the restoration of salmon will provide those things necessary for the quality of life that people in the Yakima basin and Columbia basin have long been accustomed to. It is not only a source of pride for us, but it gives purpose to the intent that this bill provides.

Mr. Chairman and members of the committee, the Columbia River Inter-Tribal Fish Commission and the parent tribes urge this committee to support this bill and urge that its prompt passage be a part of this Congress.

Thank you very much.

[Prepared statement of Mr. Strong follows:]

**TESTIMONY OF TED STRONG, EXECUTIVE DIRECTOR
COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION
BEFORE THE HOUSE NATURAL RESOURCES COMMITTEE
ON SEPTEMBER 23, 1993 IN WASHINGTON, D.C.
CONCERNING H.R. 1690, A BILL TO AUTHORIZE CERTAIN ELEMENTS OF THE YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT**

Mr. Chairman, members of the Committee, thank you for the opportunity to testify before this Committee on an issue of great importance to the Yakima Indian Nation as well as the other member tribes of the Columbia River Inter-Tribal Fish Commission. My name is Ted Strong and I am executive director of the Columbia River Inter-Tribal Fish Commission. The Commission was formed by resolution of the Yakima Indian Nation, the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, and the Nez Perce Tribe in 1977. Its purpose is to coordinate fishery management policy among its member tribes and to supply technical expertise for fishery management activities.

In November of 1982, the Northwest Power Planning Council under the authority of the Pacific Northwest Electric Power Planning and Conservation Act of 1980, identified the Yakima River Basin as a target subbasin of its Fish and Wildlife Program. By this action, the Council aimed to focus resources on the basin in order to restore its once bountiful runs of Pacific salmon. The Council's plan included improvements at the basin's diversion dams and an ambitious project designed to utilize modern artificial propagation techniques for the purpose of rebuilding the Yakima basin's salmon runs.

The Northwest Power Planning Council is composed of individuals appointed by the Governors of Oregon, Washington, Idaho and Montana. With the Council's support, Congress passed phase 1 of the Yakima River Basin Water enhancement Program in 1984, allowing for the construction of ladders and screens at the irrigation facilities. Phase 2, encompassed by H.R. 1690, before this Committee, furthers that work by:

-defining an instream flow regime;
-authorizing water conservation and ecosystem management projects;
-providing for fish passage facilities at Cle Elum Dam; and,
-supporting studies designed to improve water supplies for fish on basin tributaries.

Mr. Chairman, runs of Columbia Basin salmon have declined from a high of between eleven and sixteen million adult salmon to the present return of about two million fish. Nonetheless, evidence from enhancement projects in other basins indicates that the salmon are a resilient species that can be enhanced through careful management. With minor modifications, the Commission believes that H.R. 1690 can provide that enhancement.

With regard to modifications, the Commission is concerned that section 5 does not provide clear assurances that reduction in water diversions through conservation or other means will be devoted to instream flows. Secondly, the Commission suggests that electrification of the hydraulic pumps at Chandler Pumping Plant could alleviate problems of instream flows at Prosser Dam. In addition, we suggest that subordination of power generation at Chandler during low flow periods could also assist provision of instream flows at Prosser.

The Columbia River Inter-Tribal Fish Commission along with various state and federal agencies is actively engaged in the restoration of Pacific salmon thoroughout the available habitat of the Columbia Basin. Achievement of this goal requires concerted efforts to protect and restore existing habitat and assist natural production. The Yakima Enhancement Project in combination with the work of the Yakima Nation to increase populations of natural spawning salmon is an important element in this recovery effort. On behalf of the member tribes of the Commission, I urge the Committee to favorably report H.R. 1690 and support its prompt passage.

Mr. ABERCROMBIE. Thank you very much, Mr. Strong.

We have been joined by Mr. Inslee of Washington, a good friend to everyone on this committee and an able Member whose contributions are very, very good.

Mr. Inslee, do you have a question or observation?

Mr. INSLEE. I do.

I appreciate your testimony. You seem to be in a position to be able to comment on the relative value of this project compared to some others in the Columbia River system.

My observation has been that this appears to be the one that gets the biggest bang for the buck from Federal investments as far as restoring fish habitat.

I would like your comments in that regard.

Mr. STRONG. We have been witness also to the Umatilla basin that Congress recently authorized, and it has provided immense benefit as far as some early returns of salmon in that area. There have been early returns to salmon in that area.

We have participated in a multi-jurisdictional project in the Upper Grand Ground restoration.

This falls hand-in-glove with other efforts such as those. We believe this provides the right framework and appropriate funding and brings together inter-jurisdictional cooperation which is extremely important in any restoration effort.

Mr. ABERCROMBIE. Mr. Strong, in your testimony on the first page, this is a shocking number to me where you indicated that between 11 million and 16 million adult salmon at one time were involved in running in the Columbia basin, and that that has declined to 2 million.

The reason it grabs my attention is that there is a parallel in my State, in my home island where streams have been diverted, and as a result, the Native Hawaiians are not able to grow taro which is a staple food.

They are trying to regain the right to get back to where they were. We are told that progress in the instance of growing taro has had a giant step backward.

Is it your opinion that, if this bill passes, there will be a significant increase in the fish run?

Mr. STRONG. Mr. Chairman, the significant increases will only be if there is a sustained will by Congress and the other members of the community in the Yakima basin to really put forth meaningful effort into restoration.

Up until this time, it has been somewhat limited not only by funding but also by competing users of the Yakima River basin.

Mr. ABERCROMBIE. Does that go to the question I asked the previous witness as to whether conservation generally takes place and everybody gets in it? I assume conservation means increased stream flow?

Mr. STRONG. Mr. Chairman, that is correct. We believe that the conservation of water means pressure for the anadromous fisheries.

It is estimated that the highest returns in the Columbia were as much as 30 million in the best years.

Mr. ABERCROMBIE. What years are you referring to?

Mr. STRONG. Maybe at the turn of the century, prior to the development of many of the hydropower diversions and irrigation diversions that were developed.

Mr. ABERCROMBIE. So I have reason to conclude that my previous observation about there being no such thing as segregated water, if you will, what one does affects everyone else, right?

Mr. STRONG. Mr. Chairman, in ecosystem management, it is very clear that any part of that ecological system cannot be torn part because of the interdependent relationship between instream flows and wetlands and its ability to absorb moisture and release during low-flow years and supporting all the vegetation around it that creates more or less the sponge characteristics that support the instream flow.

Mr. ABERCROMBIE. I think I would be correct in assuming that, from an economic and social point of view, everyone would benefit if you have an increase in the salmon run?

Mr. STRONG. That is absolutely correct. For literally thousands of generations of American Indians, we had a perfectly sustainable ecological system which supported our economy. That has been virtually destroyed by progress.

We believe this is progress in another sense in that it restores what historically used to be an abundance of natural resources to provide for the economic growth.

Mr. ABERCROMBIE. Are you satisfied that the bill provides a framework for the kind of planning and implementation of planning that can and will result in increased stream flow and consequent increase in salmon runs?

Mr. STRONG. Mr. Chairman, it has been a long, difficult climb uphill to this point. I believe that the lessons learned by all of the parties in the area really forced them to be more consultative, participative, and cooperative; and I believe this bill provides such a framework.

Mr. ABERCROMBIE. Very good. Thank you.

Let's move, then, to Mr. Meninick. You are a Tribal Council member and chairman of the Tribal Fish and Wildlife Committee for the Yakima.

STATEMENT OF JERRY MENINICK

Mr. MENINICK. It is a pleasure to appear before this subcommittee to testify on H.R.1690.

My name is Jerry Mininick. I chair the Fish and Wildlife Committee of our Council.

I will discuss the need for the fisheries aspects of this legislation. My colleague Ross Sockzehigh will discuss the on-reservation components of the bill.

We are also accompanied by Tim Weaver, who is our tribal attorney.

For the sake of saving a little time, I have highlighted a few things here that I will go through.

This bill deals principally with two resources—anadromous fish and water—both of which are absolutely essential to the Yakima Indian Nation.

In dealing with these resources, we hope the Congress will be mindful of an important third resource, the Yakima people themselves.

We have lived in this basin since time immemorial, and the fishery resource is an unconditionally integral part of our lives, our culture, our religion; in essence, our very being.

In the famous *Winans* case in 1905, the Supreme Court said that, "Salmon were no less important to the Yakima Indians than was the air they breathed."

When the Yakima Indian Nation signed our treaty with the United States of America, the Yakima River basin produced hundreds of thousands of adult salmon each year. Historically, the Yakima was second only to the Snake River in the numbers of salmon it contributed to the Columbia River basin.

Today, the situation is radically different. The development of irrigation and other such developments, while it has made the Yakima Valley an important agricultural area, has had a devastating impact on anadromous fish.

Salmon runs that numbered in the hundreds of thousands now number less than ten thousand. Three stocks of Yakima River basin salmon are extinct: summer chinook, sockeye, and coho. The three remaining stocks—spring chinook, fall chinook, and steelhead—are potential candidates for listing under the Endangered Species Act.

Many Yakima basin rivers and streams currently have reaches that are completely dewatered during portions of the year. Other reaches are subjected to periods of extremely low flows. The poor water quality conditions in the lower 100 miles of the Yakima River were recently documented in a report by the U.S. Geological Survey. See Open File Report, Numbers 91–453 and 92–644.

The water supply and fisheries problems in the Yakima basin have been recognized for many decades. Unfortunately, no effective action or program has been implemented to address these problems.

The Pacific Northwest Power Planning Council, at the urging of the Yakima Indian Nation, included the Yakima River basin as one of the primary production areas in its program to restore Columbia basin anadromous fish and wildlife.

Over the past ten years, over 60 million dollars, from power ratepayers, has been invested in new fish passage in the Yakima basin in the form of screens at irrigation turnoffs and ladders for upstream migration at irrigation dams. These new fish passage facilities finally allow safe migration for adult and juvenile salmon.

In addition, planning continues on a complex of supplementation facilities that will assist in the restoration of salmon runs in the Yakima basin, as well as provide information and data for restoration of salmon runs in other parts of the Columbia basin.

It is important for the subcommittee to realize that much has already been accomplished with respect to restoration of salmon runs in the Yakima basin; but two vital components remain to be addressed: water quantity and water quality.

The bill establishes the Yakima River Basin Water Conservation Program "* * * for the purpose of evaluating and implementing measures to improve the availability of water supplies for irriga-

tion and the protection and enhancement of fish and wildlife resources. * * *"

It is our understanding the bill will transfer water saved through the conservation program to instream flows in the Yakima basin and to establish minimum instream flows below Sunnyside and Prosser Dams.

The bill before you today, H.R. 1690, is the product of long and diligent work by the Yakima Indian Nation, the Bonneville Power Administration, the Pacific Northwest Power Planning Council, State of Washington, Yakima basin irrigation entities, and the Bureau of Reclamation.

While we have some concerns with certain provisions of the bill, we are confident that those concerns can be satisfactorily resolved through consultation among these entities.

With this, I will turn the mike over to my colleague, Ross Sockzehigh, for the "On-reservation Components."

I have a brief after-summary.

Mr. ABERCROMBIE. All right.

Mr. Sockzehigh.

STATEMENT OF ROSS SOCKZEHIGH

Mr. SOCKZEHIGH. Good morning, Honorable Chair, committee members, Mr. Abercrombie.

My name is Ross Sockzehigh. I am a member of the Yakima Tribe and also a member of the Yakima Tribe's Council.

I appear to offer testimony with regard to the portion dealing with irrigation on the Yakima Indian Reservation within H.R. 1690.

Although water conservation is the heart and soul of this bill, there are also other important specific features of this legislation that are very important to the Yakima Indian Nation. These include, number one, the bill authorizes improvements to the Wapato Irrigation Project. The WIP is located on the Yakima Indian Reservation and is the largest irrigation project in the Yakima basin, encompassing over 140,000 acres. The WIP is extremely important to the well being of the Yakima people, as well as the general economy of the Yakima basin and the Pacific Northwest.

The physical facilities of the WIP are in an extremely deteriorated condition, to the point that the reliability and safety of the project are in question. The WIP, generally, is in urgent need of rehabilitation. While this bill does not authorize sufficient funding to address all of the physical problems on the WIP, it does provide an important first step.

Two, the bill authorizes a Yakima Indian Reservation Irrigation Demonstration Project. There is no question that agriculture is important to the Yakima basin and to the Yakima people. The Yakima Indian Nation desires to place additional land, within the Wapato Irrigation Project under irrigation, and to train its members in the operation and management of such enterprises.

There is significant additional extremely fertile land on the Yakima Indian Reservation that can produce high value crops, such as orchards and vineyards.

We believe that this allows us the unique opportunity to implement water conservation on the WIP, use this saved water for addi-

tional irrigation, and employ and train Yakima people in the operation and management of irrigation enterprises.

In addition, the increased productivity will benefit the economy of the entire Yakima basin.

Three, the bill authorizes the Toppenish Creek Corridor Enhancement Project. Too often in the past, resource management has been splintered—one group concerned with irrigation and agriculture, another group concerned with wildlife, and still another group with other resources.

The Toppenish Creek Corridor contains a number of resources that are important to the Yakima people, including agriculture, wildlife, fisheries, and cultural resources.

The Yakima Indian Nation is already deeply involved in an extensive wildlife mitigation program along Toppenish Creek. We believe that the Toppenish Creek Corridor offers the opportunity to implement sound multi-resource management that will enhance and protect agriculture, wildlife, fisheries, and cultural resources.

Four, the bill authorizes the investigation and implementation of measures to address serious instream flow problems on Yakima basin tributaries. These tributaries were once important producers of anadromous fish.

Today, due to irrigation diversions, these streams suffer from extreme low flows or complete dewatering. Beginning with Taneum Creek, this legislation begins the process of healing these streams, and restoring anadromous fish production in them.

While we are supportive of this legislation, the Yakima Indian Nation has several concerns that need to be addressed. We look forward to working with the committee to resolve these concerns.

Principally, our concerns include the following:

One, the process by which water saved through conservation measures is transferred to instream flows needs to be more explicit.

Two, the bill needs to include language that reflects 1993 project operations, which the table in section 5 does not presently do.

Three, the bill must clearly indicate that instream flows provided as a result of this bill are not intended to be a substitute for flows provided pursuant to the *Acquavella* adjudication.

Four, language needs to be included that authorizes the electrification of Chandler hydropumps, and the subordination of Chandler powerplant. Both can be accomplished without the slightest adverse impact on irrigation water deliveries.

We understand that regarding the last concern there, the process has already been undertaken as to the feasibility on the electrification of the channel hydropumps. I want to thank Mr. Beard and his department for that effort.

Mr. ABERCROMBIE. Did you want to finish the statement then?

Mr. MENINICK. While we are supportive of this legislation, the Yakima Indian Nation does have several concerns that need to be addressed.

We also look forward to working with the committee to resolve these concerns.

[Joint prepared statement of Mr. Meninick and Mr. Sockzehigh follows:]

Confederated Tribes and Bands
of the Yakima Indian Nation

Established by the
Treaty of June 9, 1855

TESTIMONY OF JERRY MENINICK, CHAIRMAN, FISH AND WILDLIFE COMMITTEE

AND

ROSS SOCKZEHIGH, MEMBER OF THE IRRIGATION AND LANDS COMMITTEE

OF THE YAKIMA INDIAN NATION

ON HR 1690, A BILL TO AUTHORIZE CERTAIN ELEMENTS OF THE YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT

PRESENTED BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE COMMITTEE ON NATURAL RESOURCES

UNITED STATES HOUSE OF REPRESENTATIVES

23 SEPTEMBER 1993

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121

MR. CHAIRMAN, MEMBERS OF THE SUBCOMMITTEE, GOOD MORNING. IT IS A PLEASURE TO APPEAR BEFORE THIS SUBCOMMITTEE TO TESTIFY ON HR 1690. THE YAKIMA INDIAN NATION IS A SIGNATORY TO THE TREATY OF JUNE 9, 1855 WITH THE UNITED STATES. IN THAT TREATY, WE CEDED OVER 11 MILLION ACRES OF LAND THAT NOW COMPRISE MOST OF CENTRAL WASHINGTON. WE RETAINED A RESERVATION OF OVER 1.3 MILLION ACRES WHICH IS THE LARGEST IN THE STATE OF WASHINGTON. IN OUR TREATY WE ALSO RESERVED TO OUR PEOPLE A PERMANENT RIGHT TO HUNT AND FISH ON THE RESERVATION, TO HUNT ON OPEN AND UNCLAIMED LANDS AND TO FISH AT OFF RESERVATION "USUAL AND ACCUSTOMED AREAS." THESE RIGHTS HAVE BEEN CONTINUOUSLY UPHELD BY THE HIGHEST COURTS IN THE LAND.

THIS BILL DEALS PRINCIPALLY WITH TWO RESOURCES, ANADROMOUS FISH AND WATER, BOTH OF WHICH ARE ABSOLUTELY ESSENTIAL TO THE YAKIMA INDIAN NATION. IN DEALING WITH THESE RESOURCES WE HOPE THE CONGRESS WILL BE MINDFUL OF AN IMPORTANT THIRD RESOURCE ... THE YAKIMA PEOPLE THEMSELVES. WE HAVE LIVED IN THIS BASIN SINCE TIME IMMEMORIAL AND THE FISHERY RESOURCE IS AN UNCONDITIONALLY INTEGRAL PART OF OUR LIVES, OUR CULTURE, OUR RELIGION; IN ESSENCE OUR VERY BEING. IN THE FAMOUS WINANS CASE IN 1905, THE SUPREME COURT SAID THAT "SALMON WERE NO LESS IMPORTANT TO THE YAKIMA INDIANS THAN WAS THE AIR THEY BREATHED." ONE OF THE MOST IMPORTANT REASONS WE SUPPORT THIS LEGISLATION IS OUR DESPERATE NEED TO SEE THE FISHERY RUNS OF THE YAKIMA BASIN PROTECTED AND ENHANCED.

WHEN THE YAKIMA INDIAN NATION SIGNED OUR TREATY WITH THE UNITED STATES OF AMERICA, THE YAKIMA RIVER BASIN PRODUCED HUNDREDS OF THOUSANDS OF ADULT SALMON EACH YEAR. HISTORICALLY, THE YAKIMA WAS SECOND ONLY TO THE SNAKE RIVER IN THE NUMBERS OF SALMON IT CONTRIBUTED TO THE COLUMBIA RIVER BASIN. THEN THE WATERS RAN CLEAR AND COLD AND THE SALMON SUSTAINED THE YAKIMA PEOPLE. NOW, JUST AS THEN, SALMON DEPEND ON THE CLEAN, COLD WATER.

TODAY, THE SITUATION IS RADICALLY DIFFERENT. THE DEVELOPMENT OF IRRIGATION, WHILE IT HAS MADE THE YAKIMA VALLEY AN IMPORTANT AGRICULTURAL AREA, HAS HAD A DEVASTATING IMPACT ON ANADROMOUS FISH. SALMON RUNS THAT NUMBERED IN THE HUNDREDS OF THOUSANDS NOW NUMBER LESS THAN TEN THOUSAND. THREE STOCKS OF YAKIMA RIVER BASIN SALMON ARE EXTINCT: SUMMER CHINOOK, SOCKEYE, AND COHO. THE THREE REMAINING STOCKS, SPRING CHINOOK, FALL CHINOOK, AND STEELHEAD, ARE POTENTIAL CANDIDATES FOR LISTING UNDER THE ENDANGERED SPECIES ACT.

MANY YAKIMA BASIN RIVERS AND STREAMS CURRENTLY HAVE REACHES THAT ARE COMPLETELY DEWATERED DURING PORTIONS OF THE YEAR. OTHER REACHES ARE SUBJECTED TO PERIODS OF EXTREMELY LOW FLOWS. THE LOWER YAKIMA RIVER IS POLLUTED WITH AGRICULTURAL CHEMICALS AND HIGH TEMPERATURES. THE POOR WATER QUALITY CONDITIONS IN THE LOWER 100 MILES OF THE YAKIMA RIVER WERE RECENTLY DOCUMENTED IN A REPORT BY THE U.S. GEOLOGICAL SURVEY. (SEE OPEN-FILE REPORT NOS. 91-453 AND 92-644.)

THE WATER SUPPLY AND FISHERIES PROBLEMS IN THE YAKIMA BASIN HAVE BEEN RECOGNIZED FOR MANY DECADES. UNFORTUNATELY, NO EFFECTIVE ACTION OR PROGRAM HAS BEEN IMPLEMENTED TO ADDRESS THESE PROBLEMS. THE YAKIMA INDIAN NATION HAS CONSISTENTLY SUPPORTED PREVIOUS ATTEMPTS TO GAIN CONGRESSIONAL APPROVAL OF YAKIMA BASIN WATER LEGISLATION, INCLUDING HR 3849, INTRODUCED BY REP. McCORMICK IN 1979; S. 2322, INTRODUCED BY

SENATOR EVANS IN 1988; AND HR 3097, INTRODUCED BY REP. MORRISON IN 1991 AND COMPANION LEGISLATION INTRODUCED BY SENATOR GORTON THAT SAME YEAR.

THE PACIFIC NORTHWEST POWER PLANNING COUNCIL, AT THE URGING OF THE YAKIMA INDIAN NATION, INCLUDED THE YAKIMA RIVER BASIN AS ONE OF THE PRIMARY PRODUCTION AREAS IN ITS PROGRAM TO RESTORE COLUMBIA BASIN ANADROMOUS FISH AND WILDLIFE. OVER THE PAST TEN YEARS, OVER 60 MILLION DOLLARS (FROM POWER RATEPAYERS) HAS BEEN INVESTED IN NEW FISH PASSAGE IN THE YAKIMA BASIN IN THE FORM OF SCREENS AT IRRIGATION TURNOFFS AND LADDERS FOR UPSTREAM MIGRATION AT IRRIGATION DAMS. THESE NEW FISH PASSAGE FACILITIES FINALLY ALLOW SAFE MIGRATION FOR ADULT AND JUVENILE SALMON.

IN ADDITION, PLANNING CONTINUES ON A COMPLEX OF SUPPLEMENTATION FACILITIES THAT WILL ASSIST IN THE RESTORATION OF SALMON RUNS IN THE YAKIMA BASIN, AS WELL AS PROVIDE INFORMATION AND DATA FOR RESTORATION OF SALMON RUNS IN OTHER PARTS OF THE COLUMBIA BASIN. IT IS IMPORTANT FOR THE SUBCOMMITTEE TO REALIZE THAT MUCH HAS ALREADY BEEN ACCOMPLISHED WITH RESPECT TO RESTORATION OF SALMON RUNS IN THE YAKIMA BASIN, BUT TWO VITAL COMPONENTS REMAIN TO BE ADDRESSED: WATER QUANTITY AND WATER QUALITY.

THE BILL ESTABLISHES THE YAKIMA RIVER BASIN WATER CONSERVATION PROGRAM "...FOR THE PURPOSE OF EVALUATING AND IMPLEMENTING MEASURES TO IMPROVE THE AVAILABILITY OF WATER SUPPLIES FOR IRRIGATION AND THE PROTECTION AND ENHANCEMENT OF FISH AND WILDLIFE RESOURCES..." IT IS OUR UNDERSTANDING THE BILL WILL TRANSFER WATER SAVED THROUGH THE CONSERVATION PROGRAM TO INSTREAM FLOWS IN THE YAKIMA BASIN, AND TO ESTABLISH MINIMUM INSTREAM FLOWS BELOW SUNNYSIDE AND PROSSER DAMS.

THE BILL BEFORE YOU TODAY, HR 1690, IS THE PRODUCT OF LONG AND DILIGENT WORK BY THE YAKIMA INDIAN NATION, THE BONNEVILLE POWER ADMINISTRATION, THE PACIFIC NORTHWEST POWER PLANNING COUNCIL, STATE OF WASHINGTON, YAKIMA BASIN IRRIGATION ENTITIES, AND THE BUREAU OF RECLAMATION. WHILE WE HAVE SOME CONCERNS WITH CERTAIN PROVISIONS OF THE BILL, WE ARE CONFIDENT THAT THOSE CONCERNS CAN BE SATISFACTORILY RESOLVED THROUGH CONSULTATION AMONG THESE ENTITIES.

ALTHOUGH WATER CONSERVATION IS THE HEART AND SOUL OF THIS BILL, THERE ARE ALSO OTHER IMPORTANT SPECIFIC FEATURES OF THIS LEGISLATION THAT ARE VERY IMPORTANT TO THE YAKIMA INDIAN NATION. THESE INCLUDE:

1. THE BILL AUTHORIZES IMPROVEMENTS TO THE WAPATO IRRIGATION PROJECT (WIP). THE WIP IS LOCATED ON THE YAKIMA INDIAN RESERVATION AND IS THE LARGEST IRRIGATION PROJECT IN THE YAKIMA BASIN, ENCOMPASSING OVER 140,000 ACRES. THE WIP IS EXTREMELY IMPORTANT TO THE WELL-BEING OF THE YAKIMA PEOPLE, AS WELL AS THE GENERAL ECONOMY OF THE YAKIMA BASIN AND THE PACIFIC NORTHWEST. THE PHYSICAL FACILITIES OF THE WIP ARE IN A EXTREMELY DETERIORATED CONDITION, TO THE POINT THAT THE RELIABILITY AND SAFETY OF THE PROJECT ARE IN QUESTION. THE WIP GENERALLY IS IN URGENT NEED OF REHABILITATION. WHILE THIS BILL DOES NOT AUTHORIZE SUFFICIENT FUNDING TO ADDRESS ALL OF THE PHYSICAL PROBLEMS ON THE WIP, IT DOES PROVIDE AN IMPORTANT FIRST STEP.

2. THE BILL AUTHORIZES A YAKIMA INDIAN RESERVATION IRRIGATION DEMONSTRATION PROJECT. THERE IS NO QUESTION THAT AGRICULTURE IS IMPORTANT TO THE YAKIMA BASIN, AND TO THE YAKIMA PEOPLE. THE YAKIMA INDIAN NATION DESIRES TO PLACE ADDITIONAL LAND - WITHIN THE WAPATO

IRRIGATION PROJECT - UNDER IRRIGATION, AND TO TRAIN ITS MEMBERS IN THE OPERATION AND MANAGEMENT OF SUCH ENTERPRISES. THERE IS SIGNIFICANT ADDITIONAL EXTREMELY FERTILE LAND ON THE YAKIMA INDIAN RESERVATION THAT CAN PRODUCE HIGH VALUE CROPS, SUCH AS ORCHARDS AND VINEYARDS. WE BELIEVE THAT THIS ALLOWS US THE UNIQUE OPPORTUNITY TO IMPLEMENT WATER CONSERVATION ON THE WIP, USE THIS SAVED WATER FOR ADDITIONAL IRRIGATION, AND EMPLOY AND TRAIN YAKIMA PEOPLE IN THE OPERATION AND MANAGEMENT OF IRRIGATION ENTERPRISES. IN ADDITION, THE INCREASED PRODUCTIVITY WILL BENEFIT THE ECONOMY OF THE ENTIRE YAKIMA BASIN.

3. THE BILL AUTHORIZES THE TOPPENISH CREEK CORRIDOR ENHANCEMENT PROJECT. TOO OFTEN IN THE PAST, RESOURCE MANAGEMENT HAS BEEN SPLINTERED, ONE GROUP CONCERNED WITH IRRIGATION AND AGRICULTURE, ANOTHER GROUP CONCERNED WITH WILDLIFE, AND STILL ANOTHER GROUP WITH OTHER RESOURCES. THE TOPPENISH CREEK CORRIDOR CONTAINS A NUMBER OF RESOURCES THAT ARE IMPORTANT TO THE YAKIMA PEOPLE, INCLUDING AGRICULTURE, WILDLIFE, FISHERIES, AND CULTURAL RESOURCES.

THE YAKIMA INDIAN NATION IS ALREADY DEEPLY INVOLVED IN AN EXTENSIVE WILDLIFE MITIGATION PROGRAM ALONG TOPPENISH CREEK. WE BELIEVE THAT THE TOPPENISH CREEK CORRIDOR OFFERS THE OPPORTUNITY TO IMPLEMENT SOUND MULTI-RESOURCE MANAGEMENT THAT WILL ENHANCE AND PROTECT AGRICULTURE, WILDLIFE, FISHERIES, AND CULTURAL RESOURCES.

4. THE BILL AUTHORIZES THE INVESTIGATION AND IMPLEMENTATION OF MEASURES TO ADDRESS SERIOUS INSTREAM FLOW PROBLEMS ON YAKIMA BASIN TRIBUTARIES. THESE TRIBUTARIES WERE ONCE IMPORTANT PRODUCERS OF ANADROMOUS FISH. TODAY, DUE TO IRRIGATION DIVERSIONS, THESE STREAMS SUFFER FROM EXTREME LOW FLOWS OR COMPLETE DEWATERING. BEGINNING WITH TANEUM CREEK, THIS LEGISLATION BEGINS THE PROCESS OF HEALING THESE STREAMS, AND RESTORING ANADROMOUS FISH PRODUCTION IN THEM.

WHILE WE ARE SUPPORTIVE OF THIS LEGISLATION, THE YAKIMA INDIAN NATION HAS SEVERAL CONCERNS THAT NEED TO BE ADDRESSED. WE LOOK FORWARD TO WORKING WITH THE COMMITTEE TO RESOLVE THESE CONCERNS.

PRINCIPALLY, OUR CONCERNS INCLUDE THE FOLLOWING:

1. THE PROCESS BY WHICH WATER SAVED THROUGH CONSERVATION MEASURES IS TRANSFERRED TO INSTREAM FLOWS NEEDS TO BE MORE EXPLICIT.

2. THE BILL NEEDS TO INCLUDE LANGUAGE THAT REFLECTS 1993 PROJECT OPERATIONS, (WHICH THE TABLE IN SECTION 5 DOES NOT PRESENTLY DO).

3. THE BILL MUST CLEARLY INDICATE THAT INSTREAM FLOWS PROVIDED AS A RESULT OF THIS BILL ARE NOT INTENDED TO BE A SUBSTITUTE FOR FLOWS PROVIDED PURSUANT TO THE ACQUAVELLA ADJUDICATION.

4. LANGUAGE NEEDS TO BE INCLUDED THAT AUTHORIZES THE ELECTRIFICATION OF CHANDLER HYDROPUMPS, AND THE SUBORDINATION OF CHANDLER POWERPLANT. BOTH CAN BE ACCOMPLISHED WITHOUT THE SLIGHTEST ADVERSE IMPACT ON IRRIGATION WATER DELIVERIES.

MR. CHAIRMAN, THAT CONCLUDES MY COMMENTS ON HR 1690. THANK YOU FOR THE OPPORTUNITY TO TESTIFY ON THIS IMPORTANT LEGISLATION. IF THERE ARE ANY QUESTIONS, I WOULD BE HAPPY TO ANSWER THEM.

Mr. ABERCROMBIE. Mr. Inslee, do you have any questions or observation?

Mr. INSLEE. No, Mr. Chairman.

Mr. ABERCROMBIE. I have some, but they may be better addressed to Mr. Eberhart and Dr. Kinsel.

With respect to irrigation, I will ask you, as users in the area who I presume have some idea of the history, it bothers me, as someone coming to this legislation from outside but has some knowledge about irrigation, because of the agribusiness in Hawaii, we tried to move away from old-fashioned irrigation practices which were very, very wasteful and move to highly specified activity with irrigation like drip irrigation.

You may not be particular expert in that, but has there been some discussion in this area about whether irrigation itself can be improved so that stream flows do not have to be adversely effected?

Does anyone care to comment on that?

Mr. SOCKZEHIGH. Mr. Chairman, I will comment somewhat briefly on that. When you state that we may not be experts in drip irrigation, I am familiar with that process. I myself personally am involved with irrigation. I irrigate portions of my own land.

We have discussed practices with the members of the Yakima Reservation Irrigation District about improving the delivery system of the Wapato Irrigation Project.

One of them is that we would like to see, within the irrigation district, the demonstration project that we would emphasize that the major canals and the major laterals be lined to prevent complete seepage that occurs today.

Most of these canals and major laterals lose a major portion of the water delivery, and much of the canals and ditches and the laterals are quite porous. They have sand and rocks.

Most of the irrigation done today on the Yakima Indian Reservation is done primarily with sprinkler systems, and that does not use as much water as the tube system.

Mr. ABERCROMBIE. It does or does not?

Mr. SOCKZEHIGH. Does not. Sprinklers do not use as much water.

Mr. ABERCROMBIE. Would you say that this problem exists elsewhere throughout the region other than just the Yakima area?

Mr. SOCKZEHIGH. Well, with regard to the Yakima Reservation, most, if not all, of the farmers use sprinkler irrigation.

I cannot speak for the other irrigation districts. I don't know if they use, entirely, sprinkler systems within their irrigation systems or not; but I do know that the delivery system needs definite improvement.

Mr. ABERCROMBIE. I guess my question is, then, because I am not familiar with it but I think I know the right questions to ask: Is it your contention that if this bill passes that you can modernize, to the degree necessary, your irrigation system?

Mr. SOCKZEHIGH. That is correct.

Mr. ABERCROMBIE. And, in turn, presumably that will help to increase stream flows and the salmon run?

Mr. SOCKZEHIGH. That is correct. The major canals and laterals, as I mentioned a few minutes ago, were built at the turn of the century, there being no funds to line these miles and miles of major canals and laterals.

In fact, I indicated earlier the major portion of the water delivery seeps into the ground, and much of the water is lost.

We believe that if these major canals and laterals are lined, that a major portion can be returned as these stream flows.

Mr. ABERCROMBIE. Okay. Thank you.

Do you have some kind of estimates? We have not really seen it so far in any of the testimony—maybe we will later—as to what it would mean if you could get these salmon runs returned.

Again, it is anecdotal obviously from my point of view, but being part of the travel and tourism industry, I know that salmon, particularly fresh salmon if it is made available to people, is highly prized.

I just have to believe that if your salmon run is way, way down that the entire region and most certainly the State of Washington and the people in it must be losing an enormous source of income.

Why wouldn't there have been, long since, a concerted move to get salmon back into the forefront. I mean that is like cutting sunshine off with a light.

Am I asking naive questions?

Mr. SOCKZEHIGH. No, you are not, Mr. Chairman. Both Mr. Meninick and I, in the short period we spent on the Yakima Reservation, we saw the declining numbers of salmon within the Columbia River and the tributaries decline.

The major portion of the blame for the decline of these runs has been due to the massive dams that have gone in Bonneville, the Dallas Dam, John Day, Umatilla; and the contributing factors also have been the irrigation diversions.

It was in years past that the salmon runs were considered to be somewhat insignificant to irrigation.

Having been a member of the tribe, my family and I saw the importance of attempting to preserve the salmon and also to preserve what we took from the salmon runs and also at the same time having been involved in livestock. We have also had horse herds. And it was important that we utilize water for irrigation but also at the same time we saw these two resources should be managed well and efficiently.

Mr. ABERCROMBIE. Do you believe that this bill will enable those who would like to increase the salmon run and stream flows and those who are interested in irrigation to be able to work more sensitively together to be able to accomplish both these things?

Mr. SOCKZEHIGH. On the Yakima Reservation, I believe that is so. I am also of the firm belief that other irrigation districts within the Yakima basin will be able to cooperate and work together on this bill to increase the instream flows.

Last year the Yakima Tribe endorsed this bill, and I am not too sure about the other irrigation districts within the Yakima basin; but I understand everybody supports this bill this year.

Mr. ABERCROMBIE. Very good.

Mr. MENINICK. Mr. Chairman, if I may just take a couple of seconds here?

Mr. ABERCROMBIE. Certainly.

Mr. MENINICK. In part of the testimony that we have here, one of the things that we point out is supplementation facility efforts on the Yakima basin.

One of the things that we as a tribe have long known is the decline, as we have witnessed it, not only in the Yakima basin but in the Columbia and efforts as the areas shifted throughout the history into the political and legal arena and to the technical arena, we have adjusted accordingly to somehow educate and get the blessings of support in our efforts to restore the anadromous fish positions in the Yakima River basin.

One such effort is the Yakima Production Project which has met with a lot of resistance in the local community. It has been in the planning stages for something like 14 years now with many, many, different concerns that have dragged the process for this many years.

One of the things that we as a tribe are aware of is that in order for us to plant and attempt the enhancements of the fish population is in the basin, then as a management perspective into the whole region, we have to take all considerations into the habitat, into the watersheds, upon the mountains.

We have, in that effort, established a working relationship through the decision in our ceded areas which is the watershed management, also the effort on the local front.

As far as the water quality, the water quantity, those things we have looked at intensively. We have looked at raising taxes on our own reservation to somehow enhance the habitat of the mountains. We have been up to the timber practices.

In some respects, we have met with resistance; but as you, know in Clinton's Forest Plan, we testified in that arena as the Yakima Nation timber operation was the only commercial timber operation in the whole of the United States to pass a Section VII consultation on the Endangered Species Act with regard to the spotted owl.

Our justification to that fact is that many years ago we put together a forest management plan and an integrated resource management plan that takes into consideration all of the appropriate disciplines as far as a complete integrated resource plan.

We feel that the approach must be consistent in all phases. It would be a matter of consistency to plant salmon into the region.

Mr. ABERCROMBIE. Mr. Meninick, I think I would have to presume that central to that whole outline that you have just given to us would be a comprehensive sensible water plan.

How can you make any of it work if you don't have it?

Mr. MENINICK. Yes. We have that in operation right now.

Mr. ABERCROMBIE. Perhaps it would be remodeled, but I am certainly not trying to become an instant observer and commentator in the sense of saying what direction you should go in.

I am merely observing, as you look at the bill, that it would seem the direction the bill wants to take seems duplicative; and as soon as you can get it into place the more likely it is that these projects can be resolved, if not amicably, at least reasonably.

Thank you very much.

Mr. MENINICK. Thank you.

Mr. ABERCROMBIE. Let's move to the next panel with Mr. Eberhart. And I believe we have a substitute, Dr. William Kinsel, president of the Board of Directors of the Kennewick Irrigation District.

Mr. INSLEE. I would like to add that, on some of your questions, I hope we can get some more specific answers from Bob Tuck, who was going to join us today. He is a fisheries biologist for the Nation. He is not here today. He is ill, and he wasn't able to join us. We will get some written answers to your questions, I think, for the final record.

Mr. ABERCROMBIE. Fine.

Thank you, gentlemen, for being here. I think you heard some of the commentary and questioning. Obviously, we want to be educated in this area. It is very timely, at least from my perspective, to hear your testimony right now.

We have Mr. William Eberhart from the Yakima River Basin Association of Irrigation Districts.

Does that include all of the irrigation districts?

Mr. EBERHART. Yes, sir, all of the irrigation districts. But there are also water entities that deliver water in the Yakima basin as well. And they are members of the association.

Mr. ABERCROMBIE. Very good. Let's begin with you, then.

Thank you very much for being here.

PANEL CONSISTING OF URBAN B. EBERHART, YAKIMA RIVER BASIN ASSOCIATION OF IRRIGATION DISTRICTS, ELLENSBURG, WA; AND WILLIAM KINSEL, PH.D, PRESIDENT, BOARD OF DIRECTORS, KENNEWICK IRRIGATION DISTRICT, KENNEWICK, WA

STATEMENT OF URBAN B. EBERHART

Mr. EBERHART. Thank you.

Mr. Chairman and members of the committee, thank you for allowing a hearing on this legislation and for giving me the opportunity to testify before you in support of H.R. 1690.

I am a farmer in the Kittitas Valley, which is in the northern portion of the Yakima basin, in Central Washington State. We grow apples, pears and hay on our farm.

The irrigation method we use in our orchards is entirely drip or micro-sprinkler application. So I am familiar with that. The different types, there is the sprinkler and certainly the drip, and I believe the tubes Mr. Sockzehigh mentioned earlier; that would be the siphon tubes where there is actually an open ditch and the water is siphoned out from the ditch into the field.

That is why I think he was saying the sprinklers would be using less water. He wasn't referring to the drip, I don't believe.

I am also a board member on the Kittitas Reclamation District, one of the major fully proratable irrigation districts in the Yakima River basin. The Yakima River basin grows almost entirely specialty crops. Many of these crops are hauled to the ports of Seattle, Tacoma, or Portland and exported throughout the world.

I have had the opportunity to work on this bill and its predecessor bills. This proposed legislation has evolved into its current form after many years of debate and consensus building. The language in it represents a delicate balance of positions that the unique coalition of Yakima basin water interests have painstakingly achieved.

Most Yakima water user groups support H.R. 1690. The water interests who have worked on this bill include the Yakima Indian Nation, the State of Washington, the Northwest Power Planning Council, the Bonneville Power Administration, the Bureau of Reclamation, and members of irrigation entities of the Yakima River Basin Association of Irrigation Districts.

It is important to understand the sensitive and delicate status of the coalition which favors this bill and that changes in the bill could cause the coalition to fall apart.

However, as Commissioner Beard stated earlier in his testimony, we should continue to work within the framework of the coalition if changes need to be made.

Those of us who have been intimately involved in the development of this coalition feel that these group efforts will set a precedent for dealing with complicated and controversial resource issues fairly, reasonably and without litigation.

The language in the bill is within the confines of the law and provide for a productive and effective way to improve irrigation distribution systems and to provide additional flows in the Yakima River system.

This innovative way of providing for a more consistent and adequate supply of water for irrigators while improving flows for fish runs should be seen as a model for other river basins in the western U.S. with similar problems.

It also must be emphasized that this is not a settlement bill. It is the second step in the process to remedy the water problems in the Yakima basin.

The third step should be to provide additional storage necessary to achieve optimum flows to improve conditions for anadromous fish, recreation, flood control, irrigation, and resident fish in the river.

During an average year, the Yakima basin will produce 3.5 million acre-feet of water. There are 2.5 million acre-feet of water rights but only 1 million acre-feet of storage; thus, some of the entities in the Yakima basin may receive little if any water in water-short years unless significant additional water storage is provided.

This bill encourages voluntary transactions of water such as water-rights transfers, water banking, dry-year options and the sale or lease of water. Funds are also included for leasing land, water or water rights from a willing party. This could be very useful in helping to increase flows during water-short years.

The farmers in the Yakima basin are implementing water conservation measures on their own to improve the distribution systems.

However, this bill provides funding to implement conservation measures which would be cost prohibitive for an individual entity to develop but which are, nevertheless, important for the entire basin's water supply.

Many of the systems will benefit from improvements to seal leaks and to automate delivery systems. Examples of other improvements are lining and piping of distribution systems, constructing reregulating reservoirs, providing for tailwater recycling, consolidating irrigation systems, electrifying hydraulic turbines, and funding on farm improvements.

Also included in the bill is a tributary demonstration project which will help to address some of the tributary water issues. All of these improvements will benefit both water quality and the water supply available in the Yakima basin.

Mr. Chairman and Members of the subcommittee, this concludes my testimony. I urge you to support H.R. 1690. I will be happy to answer any questions you may have.

[Prepared statement of Mr. Eberhart follows:]

September 23, 1993

WITNESS STATEMENT
YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT, WASHINGTON

Statement by Urban B. Eberhart of Yakima River Basin Association of Irrigation Districts before the Subcommittee for Oversight and Investigations of the Committee on Natural Resources on HR 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project, and for other purposes.

Mr. Chairman, Members of the Subcommittee:

Thank you for allowing a hearing on this legislation and for giving me the opportunity to testify before you in support of HR 1690.

I am a farmer in the Kittitas Valley which is in the northern portion of the Yakima Basin, in Central Washington State. We grow apples, pears and hay on our farm. I am also a board member on the Kittitas Reclamation District, one of the major fully proratable irrigation districts in the Yakima River Basin. The Yakima River Basin grows almost entirely specialty crops. Many of these crops are hauled to the ports of Seattle, Tacoma or Portland and exported throughout the world.

I have had the opportunity to work on this bill and its predecessor bills. This proposed legislation has evolved into its current form after many years of debate and consensus building. The language in it represents a delicate balance of positions that the unique coalition of Yakima Basin water interests have painstakingly achieved. Most Yakima water user groups support HR 1690. The water interests who have worked on this bill include the Yakima Indian Nation, the State of Washington, the Northwest Power Planning Council, the Bonneville Power Administration, the Bureau of Reclamation, and members of irrigation entities of the Yakima River Basin Association of Irrigation Districts. It is important to understand the sensitive and delicate status of the coalition which favors this bill and that changes in the bill could cause the coalition to fall apart.

Those of us who have been intimately involved in the development of this coalition feel that these group efforts will set a precedent for dealing with complicated and controversial resource issues fairly, reasonably and without litigation. The language in the bill is within the confines of the law and provide for a productive and effective way to improve irrigation distribution systems and to provide additional flows in the Yakima River system. This innovative way of providing for a more consistent and adequate supply of water for irrigators while improving flows for fish runs should be seen as a model for other river basins in the western U.S. with similar problems.

It also must be emphasized that this is not a settlement bill. It is the second step in the process to remedy the water problems in the Yakima Basin. The third step should be to provide additional storage necessary to achieve optimum flows to improve conditions for anadromous fish, recreation, flood control, irrigation and resident fish in the river. During an average year, the Yakima Basin will produce 3.5 million acre feet of water. There are 2.5 million acre feet of water rights but only 1 million acre feet of storage; thus, some of the entities in the Yakima Basin may receive little if any water in water-short years unless significant additional water storage is provided.

This bill encourages voluntary transactions of water such as water rights transfers, water banking, dry year options and the sale or lease of water. Funds are also included for leasing land, water or water rights from a willing party. This could be very useful in helping to increase flows during water short years.

The farmers in the Yakima Basin are implementing water conservation measures on their own to improve the distribution systems. However this bill provides funding to implement conservation measures which would be cost prohibitive for an individual entity to develop, but which are, nevertheless, important for the entire Basin's water supply. Many of the systems will benefit from improvements to seal leaks and to automate delivery systems. Examples of other improvements are lining and piping of distribution systems, constructing reregulating reservoirs, providing for tailwater recycling, consolidating irrigation systems, electrifying hydraulic turbines, and funding on farm improvements. Also included in the bill is a tributary demonstration project which will help to address some of the tributary water issues. All of these improvements will benefit both water quality and the water supply available in the Yakima Basin.

Mr. Chairman and Members of the Subcommittee, this concludes my testimony. I urge you to support HR 1690. I will be happy to answer any questions you may have.

Mr. ABERCROMBIE. Maybe we should move to Dr. Kinsel, and combine your testimony. That way we might get the questions a little more comprehensive.

STATEMENT OF DR. WILLIAM KINSEL

Dr. KINSEL. My name is William Kinsel. I am president of the Board of Directors of the Kennewick Irrigation District. That is at the lower end of the Yakima Valley. I am also a farmer. I farm 200 acres and have a cattle ranch.

I come here today to support the bill. I think it is an excellent bill because it addresses the issues of conservation of water and also maintenance of fish stocks. We have two concerns I would like to raise.

The first of these involves something called "return flows" which is not addressed in the bill. You heard earlier that the Yakima Project consist of six divisions, five operating divisions and one storage division.

We are one of the four, the four up-river divisions, that also relies, at times, on waters from the Cascade Mountains for their water supply. We depend almost exclusively on something called "return flows," in other words, flow that comes back from our upstream neighbors.

In responding to your question, Mr. Abercrombie, earlier there, Does one irrigation district affect another? Yes, it does.

So what happens upstream is very important to us. We would like to see some language put into the bill that addresses the impact of return flows as related to conservation. We do not feel necessarily that conservation methods as proposed in the bill are contradictory to the maintenance of return flows, but we think that that is a critical issue that should be addressed.

The second issue that we would like to raise which is addressed in the bill regards the electrification of hydrolic pumps. Our main supply station is supplied by hydrolic pumps which transfer water from the carrier canal into our main canal.

It has been proposed that they be electrified. We certainly understand the arguments for that; however, that does affect water rights. As noted on pages 28 and 29 of the bill, this bill should not affect the water rights of any party and particularly those which are under adjudication in the *Acquavella* lawsuit.

This water rights issue is under *Acquavella.* Mr. Beard, earlier, made the statement that he hoped we would not have to seek litigation to settle the issues on the Yakima. I hope not either. But the point of the fact is that some of the water rights are under litigation now, and we will have to see how these particular issues can be addressed.

You asked the question earlier whether irrigation districts practice conservation. Let me say I think we certainly do. Of our 19,000 acres, approximately half of that is in the cities of Kennewick and Richmond.

We are a strong advocate of pressurized water systems to the urban users. That is one way of significantly conserving water.

Also we have undertaken the 25-year capital improvement project to line the significant area of our 81 miles of open canals.

We recognize that seepage loses are a major concern and something that can be overcome to achieve water conservation. Probably in the future we will see enclosed systems such as pipe systems to prevent evaporation.

I want to close by saying we certainly want to cooperate with all parties who have an interest in Yakima River waters. We are certainly willing to seek alternatives to our concern.

Finally, I think it is essential that there be good communication among all parties.

Thank you.

[Prepared statement of Dr. Kinsel follows:]

KENNEWICK IRRIGATION DISTRICT
P.O. Box 6900 • Kennewick, Washington • 99336-0401

September 21, 1993

Congress of the Unites States
Jay Inslee, 4th. District, House of Representatives
1431 Longworth House Office Building
Washington, DC 20515-4704

RE: SEPTEMBER 23, 1993, TESTIMONY-ENHANCEMENT BILL HR1690

Dear Mr. Inslee:

Conservation is essential for the future of irrigation districts in the Yakima River Basin. This bill is timely and when implemented should be of value. However, the KID has reservations about certain aspects:

- A number of critical areas have not been analyzed--including the effect of conservation on return flows and the effect of increased instream flows on fish enhancement
- The current design of the Yakima Project Reservoirs does not allow for availability of storage water for KID without greatly affecting all other water users in the Basin
- Electrification of hydraulic pumps does not necessarily result in conservation. No scientific studies have yet shown that electrification improves fish migration.
- Other alternatives need to be explored such as redistribution and alternate diversion points on the Yakima and Columbia River Systems
- Washington State is presently adjudicating the Yakima River Water Rights. Court decisions could impact certain elements in the proposed bill.
- KID recommends further study on critical issues before the entire bill is implemented.

Sincerely,

KENNEWICK IRRIGATION DISTRICT

for William Kinsel, PhD
President-Board of Directors

WK:ds

214 W. 1st Avenue • (509) 586-9111 • FAX (509) 586-7663

Mr. ABERCROMBIE. Do you have any questions or observations, Mr. Inslee?

Mr. INSLEE. If I may.

Mr. Eberhart, my observation is that conservation is necessary in this project. I would like to ask whether you believe you have the full commitment of the membership of the association that you represent to that principle. If so, how have you been able to achieve that consensus in the group?

Mr. EBERHART. Mr. Inslee, we have been working on this for a long time. There have been some attempts at legislation on the Yakima. The last time something was passed, I believe, was in 1984 with the improvements of the fish streams under the auspices of the Bonneville Power Act.

We tended to do a big fix, a big storage bill; and most of that bumping expansion would have gone to instream flows before fish. That did not get through Congress. It was too big of a package.

Now we have developed the conservation stage. Yes, I do have the support of the Association of Irrigation Districts that I am bringing here on this conservation measure.

This is a distribution, conservation package mainly; but it does include money for improvements. That would be lands and through the Soil Conservation Service. The local offices would handle the money as that would go out to the farms.

So the answer is, yes, we do support the conservation package. How we got there was through years of discussion, debate, consensus building, just the need to see improvements in the Yakima River system.

Mr. INSLEE. This is something I see every day driving back and forth from the State of Washington. But can you give us any idea of changes necessary on farm methods because of this system?

Mr. EBERHART. If there have been or will be?

Mr. INSLEE. Changes that have occurred on farm practices and what you see in the future.

Mr. EBERHART. There have been open improvements in on-farm improvement. I am a farmer myself. It is impossible to put in a state-of-the-art system on your property; you cannot afford it.

The money is not there. The farmers are improving the systems in their fields as they can work it into their budgets. Everybody seems to have a plan of moving ahead and tries to improve their systems.

A lot of pipe has gone in, certainly sprinklers and, in my case, and my neighbor's cases drip irrigation and micro sprinklers. I see that continuing. This sped up that process in making funding available for individuals and entities to continue that at a faster pace.

Mr. INSLEE. What has driven farm improvement? What kind of economic force has driven those to date?

Mr. EBERHART. A couple of things. Water quantity available certainly drives water improvements and then also entities that do not usually have that problem. I know that there are water conservation measures continuing on those as well. I think it makes good economic sense and good environmental sense to improve the systems if you can.

Mr. INSLEE. Thank you.

Mr. ABERCROMBIE. Mr. Eberhart or Dr. Kinsel or both, feel free to answer or comment if you would.

We are happy to have you here today because we are taking this seriously. We have decisions to make that, for example, Mr. Inslee may be familiar with, you are familiar with it, but many of us on the committee are not. We have to be educated. We are not stupid people, but we are ignorant.

The way to deal with ignorance is with information. The questions may seem naive or exasperating to you because you have had to deal with them for years. But we have to deal with them in the immediate context of the bill. That is the motivation here.

I am not necessarily disturbed, but I am not quite sure what you mean by your statement on page two about providing "additional storage necessary to achieve optimum flows to improve conditions for anadromous fish, recreation, flood control, irrigation and resident fish in the river."

Does that mean you want to build more dams?

Mr. EBERHART. Yes, sir. And that may be where we have to achieve optimum flows in the river or to develop the full development of the fishery and to ensure that the entities in the Yakima River basin receive an adequate supply of water over the short years.

Mr. ABERCROMBIE. If the argument is that the return to the country storage in terms of other reservoirs, et cetera, would decrease what stream flows took place prior to the start of irrigation, the advancement of farming and the reservoir increased farming in the area, what would lead us to believe that storage would increase the flow?

Mr. EBERHART. The basin produces 300 acre-feet of water per year, but it does not run off which would be more efficient for the resource.

There certainly is enough water produced in the basin. We are dealing with a demonstration product or conservation package that will see just how much water can be obtained through conservation.

Once we get this legislation passed and we get the conservation plans done and get the improvements on the ground, we will determine how much water is actually able to be obtained through conservation; and that will then come back to you.

We would explain to you, this is where we have gotten. This is how much I see it. This is how much water we have come up with. It doesn't look like there is enough—maybe there is enough. I don't think so. But if there is not enough, we will come back and ask you for help with additional storage I would think would improve the flows in the river system.

Mr. ABERCROMBIE. Let me pose the opposite case that, if the bill passes, it will require conservation, utilization of water not previously required. And if we do have that requirement, storage will be helpful because we will be able to regulate the stream flows which has not been possible up to this time because it has all been organized by, sometimes, opposing entities all trying to get their own deal out under way.

Mr. EBERHART. Yes, you would have better management of the system possibly with other impoundments facilities to meet certain

needs in certain stretches of the system at different times of the year.

Mr. ABERCROMBIE. Would it be fair to say that what this bill does, at least the intents of this bill, is to integrate usage in a comprehensive way?

Mr. EBERHART. Yes. The oversight committee will see to that. If an entity wants to put in a conservation measure, then the committee looks it over and makes sure it makes sense.

Mr. ABERCROMBIE. You are volunteers, right? Or are you elected officers?

Mr. EBERHART. I am an elected officer.

Mr. ABERCROMBIE. So you are a public servant.

Dr. KINSEL. Yes. We know the feeling.

Mr. ABERCROMBIE. There is only one thing worse than being wrong, and that is being right. People forgive you for being wrong; they seldom forgive you for being right. You can take that back with you and use it if you will.

Let me ask you about the money, then, because you have to make decisions about this. The core of $67 million is probably $100 million altogether. I am not being facetious when I say that. That seems like a good amount of money to me. Not that $100 million is to be sloughed off. I don't mean that at all, but it doesn't seem to me—in terms of the national interests, for this entire region and what it means to the country—that does not seem to me to be a great amount of money.

Is this a sufficient amount of money for you to accomplish, not you personally but for this bill to accomplish the goal?

Mr. EBERHART. This bill will accomplish the goal with that amount of money which is to give us a good idea of how much water can be saved through conservation.

This is not a big fix. This is not the $500 million package that we came to Congress several years ago with. This is not the big fix.

This is an attempt to get the distribution systems up and running to state-of-the-art in areas where it can be done. This, by no means, will fix all the problems in the Yakima Basin. But, yes, it will accomplish the purpose to give us an idea of what actually can be saved through conservation.

Mr. KINSEL. One of the important elements in the bill on page 5, I think, was that this involves funding feasibility studies.

I would view this bill as a very important learning experience for all of us that, that as we go through, we will be learning things in this committee that Mr. Eberhart referred to.

The oversight committee will pass judgment on what are good ideas. So that while all of us might want to spend all the money right at once, the idea is to learn as we go and to fund, in the future, those efforts which have paid off.

Mr. ABERCROMBIE. Let me conclude my commentary with an observation to you. For those of us who do not reside in the area, but obviously have a responsibility on the committee, looking at it from the point of view of the American taxpayer, because we are putting up tax dollars in this bill from everybody, psychologically it is a lot like the situation in Hawaii. I will draw a parallel, not necessarily an analogy.

If we did things that destroyed the natural beauty in Hawaii, we are just hurting ourselves. Here, psychologically, when you think about salmon runs, that draws a picture right away in your mind. If you could do something that would enhance that and show that, as a result of this, your ability to come to the Congress and get somewhere near that $500 million would probably increase enormously.

It may not be entirely fair, but there is an image that is associated with that that has almost a romantic quality. It is the kind of thing that draws people to Hawaii and, frankly, sustains our economy. There is that vision, that picture in one's mind, that this is going to be great, this is a terrific thing. I think when you mention that the salmon run has been reduced—and if you would like to enhance that, you automatically get favorable attention of a lot of people because they have that same image. We want to enhance those kinds of things that are better economically, socially, as they include everyone in the country.

Dr. KINSEL. I don't have the statistics with me, but I know that agriculture is the number one industry in the State of Washington, surprisingly enough. We often think timber is. It is agriculture. Here, I don't know the dollar values, but I can assure you that the Yakima Valley with all its irrigation is a major component of our total agricultural income.

I also a professor at Washington State University involved in water conservation issues. In my recent research, I have learned that throughout the world every six seconds one acre of arable land disappears through decertification through urbanization, or through other causes.

When we look at bills like this, we must not only think about the immediate future, but we must think about what happens 10 and 20 years down the path. Where we have the availability of irrigation water that land is going to be increasingly valuable over time.

We have a serious world problem right now with water resources. Anything we can do to enhance water availability—and as the gentlemen from the Department of Ecology said earlier, this could be a model for our Nation—watersheds like this may want to participate in similar programs.

Mr. ABERCROMBIE. My own view at this stage is that money is well spent to the degree that you take difficult problems, where you have otherwise competing entities that are able to achieve a cooperative context within which to make decisions; $100 million, it seems to me, is not very much money if that can be accomplished.

We are looking at this legislation.

I have no further observations.

Mr. INSLEE. Mr. Chairman, I have one thing. I will be happy to work with you regarding your concerns. I have not had a chance to tell you that. I think they are important ones. I look forward to talking to you and Mr. Ivey as the process unfolds to try to address those.

I would like to indicate for the record that when we do restore the fish runs in the Yakima River and our quality of life and tourism increases, we will not have a "Skip Hawaii Come to Yakima Project" after this hearing.

Mr. EBERHART. Mr. Abercrombie, if you would like to stop by on one of your trips back home and take a short hop over the Cascades, we would love to give you a tour of the Yakima.

Mr. ABERCROMBIE. I would be happy to do that. One of the attractions we have when people fly to Hawaii is that we serve salmon.

Mr. EBERHART. Thank you.

Mr. ABERCROMBIE. Thank you very much.

Mr. ABERCROMBIE. Our last panel then, before we move to H.R. 1477, is Dr. Zach Willey, the Environmental Defense Fund; and Dr. Brent Blackwelder, who is vice president of Friends of the Earth.

PANEL CONSISTING OF ZACH WILLEY, PH.D., SENIOR ECONOMIST, ENVIRONMENTAL DEFENSE FUND, OAKLAND, CA; AND DR. BRENT BLACKWELDER, VICE PRESIDENT, FRIENDS OF THE EARTH, WASHINGTON, DC, ALSO ON BEHALF OF SIERRA CLUB AND NATIONAL WILDLIFE FEDERATION

Mr. ABERCROMBIE. We will start with Mr. Willey, if that is all right.

Welcome, Aloha. Thank you for being here.

STATEMENT OF DR. ZACH WILLEY

Dr. WILLEY. Thank you, Mr. Chairman.

My name is Zach Willey. I am senior economist with the Environmental Defense Fund in the Western Regional Office. I chair programs in the Environmental Defense Fund in the northwestern part of the country and British Columbia, and I presently have projects in Idaho and Oregon.

I am very pleased to be here today. I want to start out by saying—I think this is a true statement—the Environmental Defense Fund is the only speaker who is not a litigant in Washington water affairs or Yakima water affairs.

Mr. ABERCROMBIE. Do you want to leave now then?

Dr. WILLEY. I want to say that recently the Environmental Defense Fund produced a report in cooperation with the Washington State Water Resources Association, the U.S. Bureau of Reclamation, the Washington Department of Ecology, major irrigation districts in the Yakima basin, and the tribes; I will submit that for the record today. This report was done in May and it concerned developing procedures by which water could be transferred from out-of-stream to instream flows on a voluntary basis, particularly in dry years.

EDF supports the intent of H.R. 1690, certainly the intent to enhance stream flows, the intent to improve the Yakima Nation's irrigation system and the intent to move toward a sustained agricultural economy.

As usual, the devil is in the details, and I will skip through and touch on the concerns that we have within the context of being in support of the overall efforts. I am very sensitive to the delicate balance that has been reached in bringing this bill before you.

I was able to attend some of the meetings that Congressman Morrison held in the last several years. I appreciate very much the process and the work that has gone into developing this bill.

Our concerns break down into four general areas. The first one has to do with the setting of instream flow standards. Nowhere in the bill is there mention of a biological or scientific process by which instream flow standards will be set.

Instream flow standard numbers are noted in Section 5, actually in numbers, but there is not a process to determine whether or not those numbers are going to have a substantial, a marginal or an in-between effect on salmon runs. So we need to have some kind of process, I think, in place that will actually can tell us what kinds of instream flows are needed for these fish runs.

The second point on instream flows, nowhere is it noted how they will be defined. They need to be defined as instantaneous in time. You could take the instream flow standard and take it as an average over the year, and it would not help salmon. That needs to be defined as an instantaneous standard.

Another factor with the Yakima runs is temperature. We have serious water temperature problems in some spawning areas. I don't believe the word "temperature" is mentioned in the bill. It is certainly not providing a procedure by which temperature maximums will be set in conjunction with instream flow management. That is as a concern as well.

Finally, the concept of out-migration flush flows for salmon smults is mentioned. That is the problem throughout the region. Getting the smolts to the ocean in a timely fashion is a factor of mortality.

We also need to have to have a basis for the Yakima smolts to predict what a productive out-migration flush flow would be.

In the cost-share area, our second area, three comments: We believe that the Federal cost-share ought to be dedicated to the instream flow benefits of the bill. If the Federal part is dedicated to the instream flow benefits of the bill, then the instream numbers in Section 5 will increase. We think that is a equitable formula to leverage these conservation projects for instream flows.

With respect to the Bonneville Power Association, we encourage a non–Federal cost-share for Bonneville for fisheries. That is in the bill. We support that. Mr. Robertson mentioned that earlier.

We also would like to have the option that Bonneville could participate as a cost-sharer on a non-Federal basis for power enhancement, if any, that result from conservation projects. What I mean is, if there is an increased instream flow that reaches Bonneville turbines on the mainstem of the Columbia, there will be a power benefit. Bonneville ought to have the option to participate and encourage projects that do that.

Finally, this is a proposal, but it is mentioned in the EDS report that I will submit for the record, we believe an environmental trust fund ought to be established for the Yakima basin to manage and disburse the funds in the way that trust funds have been established elsewhere.

The third area of concern is water transfers. Actually, this is an area of support for language in the bill in Sections 3 and 5 is excellent. We are very supportive of voluntary transfers, sales and leases of water for instream flows. We think the bill has made tremendous progress, actually made progress over previous versions, and we applaud the authors for that work.

In terms of cost effectiveness, the bill is allowing both conservation and sales and leases to occur. There can be a fundamentally different process involved in each. As Mr. Eberhart said, conservation projects can be anything from improved pipe to distribution systems. Sales and leases can involve actual fallowing or switching of crops to lower water-using crops. That is the subject of a report that was submitted. We think both are options in this bill and there ought to be cost effectiveness criteria established to determine what mix of land fallowing and reductions in consumptive use on the one hand, and conservation projects, on the other, ought to have money spent on them to achieve goals. I think that would involve side-by-side comparison.

Finally, Section 3(g)(3), we support the access of water sales and leases to appropriations as provided in this bill.

Finally, in State law we have a fundamental concern there. As the bill is written, there will be no protection of instream flows from other appropriators under State law. If it can conserve water and keep it in the Bureau's reservoirs and release it to the environment, then it can be diverted. We do not see a clear way to protect against that happening except to require that the water freed up as a result of this program be placed in the Yakima State Water Trust Fund mentioned by Mr. Slattery, be held as an instream flow, that there be a transfer of rights from appropriations to instream flows and that they be held in that trust; and that the State then would have the authority and responsibility to protect those instream flow rights from appropriations within the system.

Mr. ABERCROMBIE. Would that require State legislation or are you suggesting that be in this bill and the State be subject to it as a result of the bill?

Dr. WILLEY. As Mr. Slattery already mentioned in 1989 legislation was passed in Washington State in anticipation of the date in which a Federal bill would pass. There is no need to pass additional State legislation. There is only a need to reference the use of the existing Yakima trust mechanism in this bill.

Mr. ABERCROMBIE. That goes back to Mr. Beard's testimony. He thought that rules and regulations coming from passage of a bill such as this would have to be handled.

Dr. WILLEY. It could.

Mr. ABERCROMBIE. We can handle it if we have the right commissioner in there, like Mr. Beard.

Dr. WILLEY. No problem for the next four years.

That concludes my comments. Thank you.

[Prepared statement of Dr. Willey follows:]



ENVIRONMENTAL
DEFENSE FUND

California Office
Rockridge Market Hall
5655 College Ave.
Oakland, CA 94618
(510) 658-8008
Fax: 510-658-0630

YAKIMA RIVER BASIN WATER ENHANCEMENT

H.R. 1690

TESTIMONY BEFORE THE COMMITTEE ON

NATURAL RESOURCES

U.S. HOUSE OF REPRESENTATIVES

Presented By

Zach Willey, Ph.D.

Senior Economist

Environmental Defense Fund

September 23, 1993

National Headquarters

257 Park Avenue South
New York, NY 10010
(212) 505-2100

1875 Connecticut Ave., N.W.
Washington, DC 20009
(202) 387-3500

1405 Arapahoe Ave.
Boulder, CO 80302
(303) 440-4901

128 East Hargett St.
Raleigh, NC 27601
(919) 821-7793

1800 Guadalupe
Austin, TX 78701
(512) 478-5161

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H.R. 1690 -- YAKIMA RIVER BASIN WATER ENHANCEMENT BILL

BEFORE THE COMMITTEE ON NATURAL RESOURCES
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Testimony Presented By
Zach Willey, Ph.D.
Senior Economist
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September 23, 1993

Background and Summary

The Environmental Defense Fund (EDF) is a national, not-for-profit environmental organization with more than 200,000 members. EDF's program in the Northwest currently has projects involving water, power, fisheries, and other environmental values in Washington, Oregon, and Idaho. Each of these projects has an objective of implementing environmental improvements using market-based policies.

During the past several years, EDF has worked with the State of Washington to reform several aspects of its water law to reduce barriers to voluntary transfers of water and water rights. More recently, EDF collaborated with representatives of the Washington State Water Resources Association, the U.S. Bureau of Reclamation, the Washington Department of Ecology, major irrigation districts in the Yakima Basin, and the Yakima Indian Nation on a project to design methods to implement water leases for instream flow enhancement in the Yakima Basin. The executive summary and table of contents of EDF's draft final report (May 28, 1993) -- *Water Marketing and Instream Flow Enhancement in Washington's Yakima River Basin -- Procedures for Dry Year Leasing and Transfer of Water* -- is included here as Attachment 1.

The introduction of H.R. 1690 by Congressman Inslee is a constructive attempt to complete longstanding efforts to improve water supply conditions in the Yakima Basin. Several unsuccessful attempts to enact federal legislation have been made during the past twenty years. There are complex and ongoing water rights issues and litigation, including the adjudication of the Basin's water rights, which must be addressed, or at least acknowledged, in federal legislation. Water rights litigation has yet to fully address the instream environmental problems of the Basin, although the courts have acknowledged the requirements of Yakima fisheries. The Yakima River has substantial environmental problems, including those involving salmon habitats which could, if not resolved, induce the filing of petitions for listings under the Endangered Species Act. Federal legislation could help to solve these problems.

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EDF supports the intent of H.R. 1690 and other efforts to improve both the Basin's environment and the sustainability of its agricultural economy. The following statement includes an outline of key criteria for and an evaluation of federal water legislation in the Yakima. EDF supports the bill's provisions on water leasing and sales and on-reservation programs for the Yakima Indian Nation. On the other hand, there are problems with the bill's specification of instream flow targets as well as the means proposed to meet these targets.

• *EDF's overall conclusion is that H.R.1690 is a good start on a bill which needs substantial revisions to make it productive legislation.*

Criteria for Environmentally- and Economically-Sound Federal Legislation in the Yakima Basin

◆ **Instream flows: scientifically-based** -- The specification of instream flow targets, standards, or minimum levels should be based on scientific evaluation of the effects of alternative flows on fisheries and other environmental values. A credible methodology, such as the instream flow increments methodology (IFIM), should be applied to set these standards. In addition, the relationship between flows and pollutants should be addressed. Of particular importance to salmon spawning is water temperature, which can be reduced with instream flow management. Finally, instream flow evaluations must be specific to river reach segments where reduced diversions -- as opposed to reduced consumptive uses -- are the basis for improving instream flows.

◆ **Conservation as supply: "wet" water** -- Two types of conservation can be used to augment water supplies. First, increased efficiency of water delivery reduces the need to divert water and, to a degree, return flows to the river. The benefits to instream flows of such conservation accrue primarily between the point of diversion and the point(s) of return flows to the river. Second, reductions in consumptive use from switching to lower water-using crops or from land fallowing also reduce the need to divert water. Since consumptive use water was not previously in the river even as return flows, such water can enhance instream flows in all reaches of the river downstream of the diversion point. In both cases, the water being conserved will only be real, or "wet," if it has consistently been diverted and used.

◆ **Water Transfers: market-based** -- Any river basin has a long list of potential water conservation projects. Studies and plans to determine which projects should be implemented with what effectiveness and at what cost are useful in sorting out these options. Identification of the bonafide, cost-effective projects is best achieved through buyer-seller interactions and negotiations.

◆ **Financing: beneficiaries pay** -- Financing water conservation projects should be linked to the resulting benefits. Public financing should result in tangible public benefits. Revenues from fees on all river uses -- irrigation, municipal, industrial, recreation; fisheries; pollution sources (point and nonpoint) -- should be generated as a source of public funding. Environmental trust funds should be established to manage and disperse funds for environmental purposes.

◆ **Legal: consistent with state water laws** -- Instream flows resulting from conservation projects should have a firm basis in Washington water law. Transfers of appropriative water rights freed up by conservation projects are allowed by state law, and resulting instream flow rights would be held by the Washington Department of Ecology under the state's Yakima Basin Trust legislation (RCW 90.38). Such transfers must also be consistent with the ongoing Yakima Basin adjudication (State of Washington, Department of Ecology v. James J. Acquavella, et al.). The Washington Department of Ecology must enforce the terms of these instream flow rights.

◆ **Institutional: irrigation district authorities** -- Irrigation districts must have authorities to finance their share of conservation projects, and to either work with landowners to implement on-farm conservation or develop water rate structures to provide incentives for on-farm conservation.

Evaluation of H.R. 1690, and Recommendations

The following includes an evaluation of H.R. 1690 according to each of these criteria. Recommendations for changes in H.R. 1690 are included in *italics*.

◆ **Instream flows: scientifically-based** -- Section 5(a)(1) of H.R. 1690 contains targets for instream flows for varying levels of "full supply" of water in the Basin. The origin of these targets is not stated. Inadequate streamflows in the Yakima have been identified for improvement to protect anadromous fisheries in the Columbia River Fish and Wildlife Program adopted by the Northwest Power Planning Council. In early 1992, water resource and fishery agencies, along with the Yakima Indian Nation, identified the fluctuating flows in the lower reaches of the Yakima River as a problem that affects the anadromous fish resource.

EDF supports the intent of H.R. 1690 to reduce these fluctuating flows in the Yakima by adopting instream targets. The specification of target instream flow levels in Section 5(a)(1) would, if implemented and enforced, provide some additional assurance of a 300 cfs target being achieved upon enactment of the bill, several years at least ahead of the implementation of the Yakima River Basin Water Conservation Program proposed in the bill.

At the same time, the 300 cfs target already exists as a guide for the U.S. Bureau of Reclamation in its operations of the Yakima Project. This target has been set with the technical advice of the Systems Operation Advisory Committee. As will be seen below in the discussion of Figures 1 and 2, current levels of total water supply availability (TWSA) would not require, per the specifications in the table in Section 5(a)(1) of HR1690, an increase above 300 cfs in target flows in "average years." Only in full supply years (i.e. wet years) would increases above 300 cfs be triggered by the provisions of H.R. 1690. Thus, the "baseline" instream flow target of the bill is identical with the existing situation in most years.

Further, neither the levels nor definitions of instream targets listed in Section 5(a)(1)-(3) provide assurance that the adverse effects of inadequate flows on salmon stocks and other environmental values will be significantly reduced even if these targets are achieved.

• *A process of scientific determination and review of instream targets is needed. Credible instream flow studies, together with consultation with fisheries agencies (including the National Marine Fisheries Service) should be used to set minimum instream flow standards. "Targets" in Section 5(a)(1) should be replaced, if necessary, by such minimum flow standards.*

• *Such standards should be instantaneous, i.e. measured over hourly, or at most daily, time periods. The discretion to allow fluctuations provided in Section 5(a)(2) should be curtailed by specifying such instantaneous standards to guide the Yakima Project's operation.*

• *Temperature ceilings should be established for spawning flows. Add Section 7(a)(5): "Minimum instream flows and maximum instream temperatures shall be determined for any tributary for which an enhancement program is considered. Such flows and temperatures shall be established based upon the best available scientific information and analysis concerning requirements of salmon spawning and other environmental uses, and shall guide the selection of water enhancement projects in the tributary."*

• *Increased instream flows for outward migration of anadromous fish as provided in Section 5(a)(3) are defined "when necessary." A process for the scientific determination of flushing flows for outmigration should be specified which addresses the survival and sustainability requirements of anadromous fish stocks..*

◆ **Conservation as supply: "wet" water** -- The Columbia River Fish and Wildlife Program adopted by the Northwest Power Planning Council calls for water conservation projects to enhance instream flows to be planned and implemented by the end of 1993 and 1996 respectively. The intent of H.R. 1690 is consistent with the Council's Program. EDF's evaluation above of the instream flow targets in the bill indicates the possibility that these targets will need to be increased. If so, the impacts on water supply available for irrigation and other out-of-river uses appear to be minimal.

To demonstrate this, Figure 1 provides a baseline of water supply, or total water supply available (TWSA), in recent years in the Yakima Basin. "Full water supply," a concept noted in Section 5(a)(1), refers to water supply conditions which allow full deliveries not only to all non-proratable water rights but also to all proratable water rights. An "average" water supply, based on average use patterns in recent years, is available with full delivery to all non-proratables, and 80% delivery to proratables.

The top two curves in Figure 1 represent these levels of TWSA respectively. In a full water supply year, approximately 2.8 million acre-feet (MAF) of TWSA exists on April 1; in an "average use" year, 2.3 MAF exists on April 1. The table in Section 5(a)(1) specifies 2.65 MAF

Figure 1

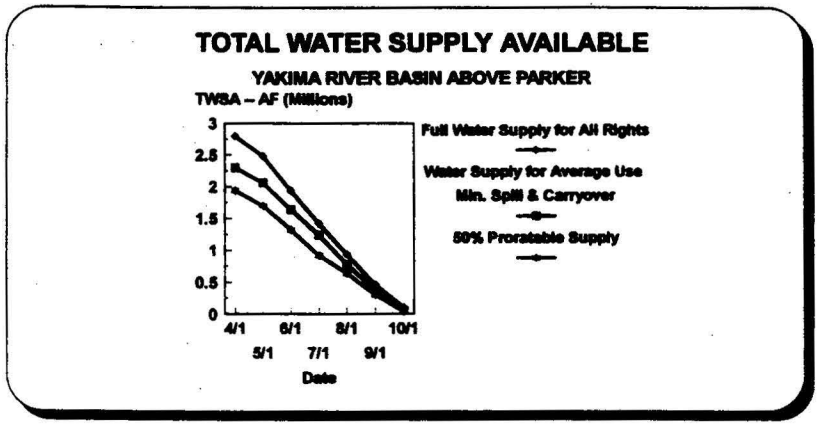
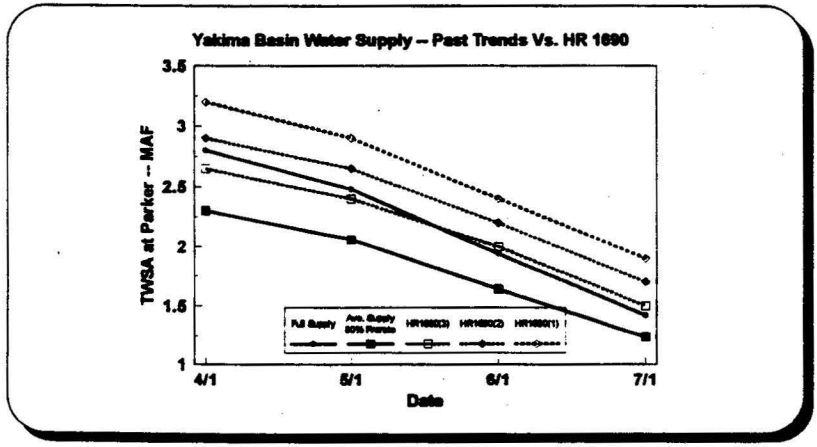


Figure 2



available on April 1 as a precondition for the elevation of instream flow targets to 400 cfs. Thus, increases in average TWSA and/or reductions in average water use will be required to trigger increases above the 300 cfs instream target.

The TWSA curves in Figure 2 compare existing full supply and "average" conditions with those proposed in H.R. 1690. Level "3" in Section 5(a)(1) approximates the existing full supply TWSA curve -- a 400 cfs instream target would be triggered currently only under "wet" or full supply conditions unless or until TWSA is effectively expanded by the Yakima Water Enhancement Program. Thus, a 400 cfs target would only be triggered in normal or "average" years by an increase in average TWSA of approximately 250,000 to 350,000 acre-feet as a result of water conservation projects.

Under current "average conditions, with 2,300,000 acre-feet of TWSA projected on April 1, a 300 cfs minimum flow during the ensuing six months requires 108,600 acre-feet, or approximately 4.7%, of TWSA to be managed for instream flow releases from Bureau of Reclamation reservoirs. As the data in Table 1 below indicate, H.R. 1690 would increase the share of TWSA required to meet instream flow targets to 5.7%, 6.2%, and 6.9% respectively for the three TWSA full supply levels and instream targets proposed in Section 5(a)(1). Figure 3 illustrates these increases in TWSA, and associated shares for instream flow targets.

Table 1

	TWSA: April 1/MAF	Instream Target: April 1/ MAF	Instream Share of TWSA – %
HR 1690 (1)	3.2	0.22	6.9
HR 1690 (2)	2.9	0.18	6.2
HR 1690 (3)	2.65	0.15	5.7
"Average Use"	2.3	0.11	4.8

Figure 3

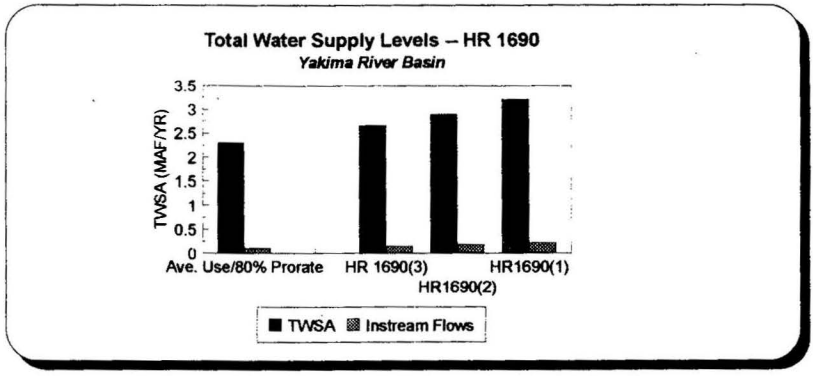
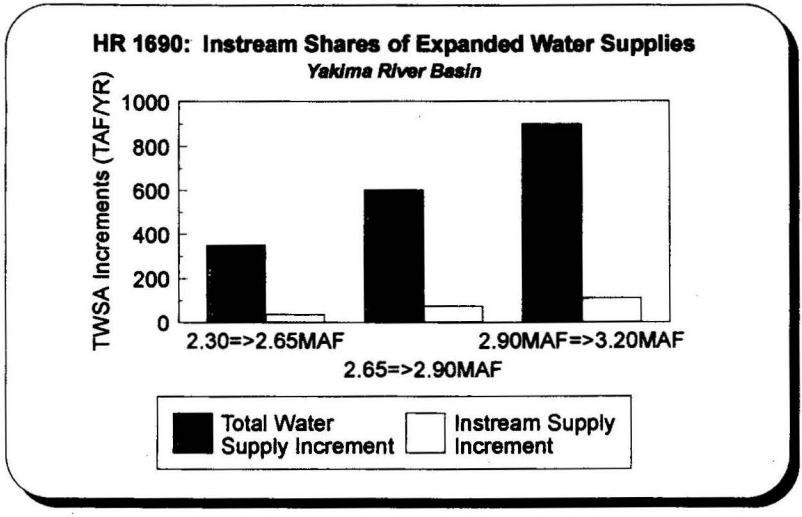


Figure 4



The increments in the Yakima Basin's TWSA which may be enabled by H.R. 1690 (if the TWSA levels in Section 5(a)(1) were realized), along with the proposed share of these increments which would be dedicated to instream flows under the bill's targets, are illustrated in Figure 4. The instream shares would be in the 10-12% range of increments in TWSA enabled by the Yakima River Basin Water Enhancement Program.

While the water supply enhancements in H.R. 1690 would improve instream flows, these flows could be improved substantially more and still provide significant TWSA improvements for other water uses. For example, the 900,000 acre-feet of enhanced TWSA which would result if level (1) in Section 5(a)(1) were achieved is proposed to yield a 600 cfs instream flow target. The cost sharing proposed in Section 3(e) would involve a federal grant of 35% for implementation of water conservation projects. If the federal share were applied to instream flows, an instream flow target of 1170 cfs would result. [The 35% of 900,000 AF could be shaped for instream flow releases over six months to maintain 870 cfs of flows in addition to the 300 cfs base which exists at current TWSA average conditions.]

- *It is technically feasible, and justified from a cost sharing perspective, to increase the instream flow targets in Section 5(a)(1) to reflect the federal government's contribution. Under this formula, the proposed instream targets would be revised as listed in Table 2 below.*

Table 2

TWSA – April thru September (MAF)	Target Instream Flows (cfs)
(1) 3.2	*1,170*
(2) 2.9	*880*
(3) 2.65	*650*

◆ **Water Transfers: market-based**

H.R. 1690 contains an excellent set of provisions enabling voluntary sales and leases to be utilized to enhance instream flows. Among the guidelines to be adopted by the Secretary of Interior in administering the Basin Conservation Program are "institutional and economic incentives to increase conservation and to promote more efficient use of water, which shall include the specification of procedures for the voluntary transfer of water within the Yakima River basin" (Section 3(d)(4)).

• *EDF supports this guideline -- it allows opportunities to implement market-based transfers water rights to instream flows.*

Among the conservation measures which are admissible for consideration for implementation in the Basin Conservation Program are water transfers and other innovative allocation tools. Section 3(g)(2) states "The Secretary shall, to the maximum extent possible under Federal and State law, cooperate with the State of Washington to facilitate water and water right transfers, water banking, dry year options, the sale and leasing of water, and other innovative allocation tools used to maximize the utility of existing Yakima River basin water supplies."

• *EDF supports this provision's inclusion of various market-based tools for water reallocation to instream flows as a component of the bill's conservation measures. The listing of conservation technologies (as in Section 3(g)(1)) as the only component would have forced the program to pick technologies rather than performance in terms of water transferred to instream flows. This provision avoids this needless constraint.*

Section 5(a)(3) states that "instream flows shall be increased for interim periods during any month of April through October to facilitate when necessary the outward migration of anadromous fish. Increased instream flows for such interim periods shall be obtained through voluntary sale and leasing of water or water rights."

• *While water sales and leases should certainly be a key option in providing outmigration flows, any other water made available from conservation should be potentially applicable to these flows as well. Water supplies made available from conservation projects*

which improve distribution efficiency and/or from land fallowing, crop switching, and other consumptive use reduction measures can and should be managed jointly for instream flows. An instream flow sub-account within the TWSA should be created to be managed for both minimum flows and outmigration flushes.

The bill provides market-based water transfer tools access to funds appropriated for the implementation of conservation measures. Section 3(g)(3) states that "The Secretary may, consistent with applicable law, use funds appropriated to carry out this section for the purchase or lease of land, water, or water rights from any entity or individual willing to limit or forego water use on a temporary or permanent basis."

- *The access to funds appropriated for all conservation measures is a critical requirement in the effective deployment of water leases and sales to reallocate water to instream flows. EDF supports this access, and proposes that a process be included in the bill to require side-by-side comparisons of various conservation projects on the one hand with water transfers through acquisitions on the other to determine relative cost-effectiveness in instream flow enhancement performance.*

Figure 5

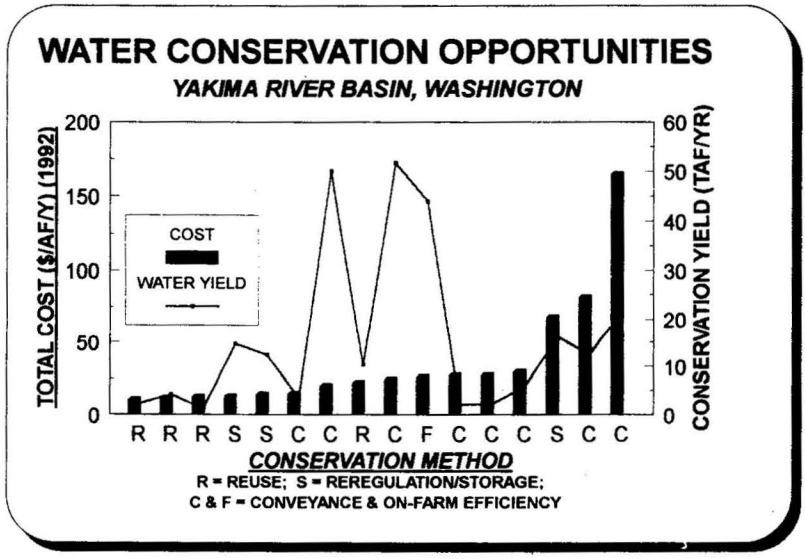
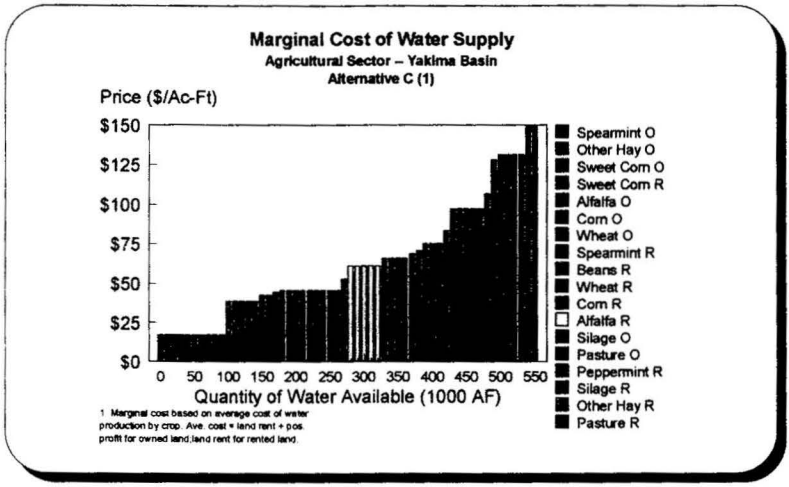


Figure 6



The two types of conservation are not strictly comparable from an instream flow perspective since the conservation projects primarily reduce diversions and return flows while land fallowing reduces diversions and consumptive use. Nevertheless, both approaches can yield water to enhance instream flows.

To emphasize the importance of this, the information in Figure 5 illustrates the estimated costs of a number of potential conservation projects in the Yakima Basin. This data, extracted from enhancement and conservation studies undertaken by the U.S. Bureau of Reclamation and the Washington Department of Ecology during the 1985-91 period, shows that the cost of producing diversion reductions through efficiency improvements can vary substantially -- from around $10/AF to over $100/AF annually. Similarly, Figure 6 displays data (from the EDF report cited above -- see Attachment 1 to this testimony) on the costs of water made available from leasing and fallowing land. These costs can vary over a similar range, depending on many factors. The overlap of these cost ranges indicates that a mix of both types of conservation may be the optimal expenditure of Program funds.

- *Cost-effective expenditures of Program funds require that opportunities within each type of conservation be considered to achieve the maximum instream benefit from Program funds.*

◆ **Financing: beneficiaries pay**

Section 3(h)(4) provides up to $6,000,000 for initial acquisition of water specifically for outmigration flows. It also requires that such funds shall not be subject to cost sharing provisions. The principle that federal funding be dedicated to instream flow enhancements underlying this provision is sound. Water users in the Yakima Basin benefit from public expenditures to enhance instream flows by reducing whatever legal liability they may have for environmental damages to the River's environment and fisheries. At the same time, as noted above, the dedication of the federal cost share to instream flows would significantly increase the amount of TWSA to be dedicated to instream flows in Section 5(a)(1).

• *EDF supports a cost sharing principle which dedicates all federal funds and grants to the securing of water supplies for instream flows.*

Section 3(e)(2) provides that expenditures by the Bonneville Power Administration to enhance fishery resources in the Yakima be counted as a non-Federal cost share. Since BPA's funding is provided primarily by electric ratepayers in the Northwest, this is a sensible provision. However, enhanced instream flows in the Yakima Basin have the potential to enhance hydroelectricity generation for BPA at the four Columbia River mainstem dams below the mouth of the Yakima River. BPA should have the option to cost share conservation projects in the Yakima based on this power benefit, and this should count as non-Federal cost share as well.

• *BPA's participation in Yakima projects should be encouraged for either fishery resources or power benefits, and resulting cost shares should be considered to be non-Federal.*

The bill proposes to rely entirely on traditional mechanisms for appropriations and cost sharing. Protections are needed for Program funding. The establishment of a mandatory Yakima River Environmental Trust Fund should be authorized to manage Program funds. H.R. 1690 should include a section authorizing water user fees in the Yakima Basin for all users -- out-of-stream; recreation; fish and wildlife; and sources of water pollution. Consultation with the House Ways and Means Committee on the establishment of a mandatory trust fund should be initiated.

• *A mandatory Yakima River Environmental Trust Fund should be established to manage funds from federal appropriations, state and local cost shares, and broad-based water user fees.*

◆ **Legal: consistent with state water laws**

Section 5(a)(1) provides that "the Secretary shall ... provide instream flows in accordance with the following criteria." While this provides the authority for the Yakima Project Superintendent to establish an instream flow account within the TWSA accounting system, it provides no protection from diversions of instream flows by other appropriators. To provide such protection under state law, the bill should authorize the Secretary to apply to the State of Washington to transfer water

rights underlying water supplies for instream flows to the Yakima Basin Trust Program pursuant to RCW 90.38. Under this program, the Washington Department of Ecology would hold in trust the instream flow rights, and would be responsible for enforcing their protection.

- *H.R. 1690 should authorize the Secretary to establish an instream flow account within the Yakima Project's TWSA accounts, and to transfer the water rights in the instream flow account to the Washington Department of Ecology to hold and protect in trust as instream flow rights pursuant to RCW 90.38.*

◆ **Institutional: irrigation district authorities**

Section 3(d)(3)(K) states a criterion for evaluating and prioritizing proposals for conservation plans and implementation of measures as "the existence of willingness of irrigation entities and other Basin Conservation Program participants to adopt procedures for incremental water pricing." There may be some question about the extent of the authorities of irrigation districts with federal water contracts to implement incremental pricing. The bill should clarify this authority for the irrigation districts.

- *The authorities of irrigation districts with contracts for federal water storage to implement incremental pricing should be clarified and made applicable to both fixed and variable rate components.*

[Attachment 1]

WATER MARKETING AND INSTREAM FLOW ENHANCEMENT IN WASHINGTON'S YAKIMA RIVER BASIN – PROCEDURES FOR DRY YEAR LEASING AND TRANSFER OF WATER

A DRAFT FINAL REPORT

BY THE ENVIRONMENTAL DEFENSE FUND

TO THE WASHINGTON STATE WATER RESOURCES ASSOCIATION AND THE U. S. BUREAU OF RECLAMATION

MAY 28, 1993

WATER MARKETING AND INSTREAM FLOW ENHANCEMENT IN WASHINGTON'S YAKIMA RIVER BASIN – PROCEDURES FOR DRY YEAR LEASING AND TRANSFER OF WATER

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WATER MARKETING AND INSTREAM FLOW ENHANCEMENT IN WASHINGTON'S YAKIMA RIVER BASIN – PROCEDURES FOR DRY YEAR LEASING AND TRANSFER OF WATER

A DRAFT FINAL REPORT
BY THE ENVIRONMENTAL DEFENSE FUND TO
THE WASHINGTON STATE WATER RESOURCES ASSOCIATION AND
THE U. S. BUREAU OF RECLAMATION,
MAY 28, 1993

Executive Summary

Inadequate streamflows in select tributaries of the Columbia River Basin have been identified for improvement to protect anadromous fisheries. The Phase I amendments to the Columbia River Fish and Wildlife Program adopted by the Northwest Power Planning Council call for water conservation projects to enhance instream flows to be planned and implemented by the end of 1993 and 1996 respectively. In early 1992, water resource and fishery agencies, along with the Yakima Indian Nation, identified the fluctuating flows in the lower reaches of the Yakima River as a problem that affects the anadromous fish resource. The establishment of a water leasing procedure to augment flows in the Yakima at critical times was called for by these groups.

The Washington State Water Resources Association and the U.S. Bureau of Reclamation have established a Yakima Basin Water Leasing Project under the cooperative direction of representatives of Yakima Basin water districts and landowners; the Washington Department of Ecology; the U.S. Bureau of Reclamation; and the Yakima Indian Nation. In late 1992, the Environmental Defense Fund (EDF) was invited to develop the procedures and information necessary for water leases and transfers to instream flows to occur in the Yakima Basin. This report by EDF contains the following elements:

◆ Principles governing the implementation of a Yakima Basin Water Leasing Program to enhance instream flows are stated for review and consideration by the Basin's water using communities.

◆ Key institutions in the implementation of a Yakima Basin Water Leasing Program are identified, and their respective roles in the Program are evaluated.

◆ The formation of two key entities is proposed for the successful implementation of a Water Leasing Program. The Yakima Basin Trustees would represent the instream flow "demand side" interests, with financial support for the Program being a prerequisite to Trustee membership. A Lease Oversight Committee would represent water rights holders in the Yakima Basin, and would serve as a reviewer of proposed leases to assure that no injury to other water rights holders would occur as a result of Program water leases.

◆ Economic elements of water lease contracting and pricing are analyzed, including sample estimates of lease prices and an explanation of how option contracting could be used for dry year water leasing for instream flow enhancement in the Yakima Basin. Estimates are provided of the financial requirements to undertake an illustrative Program of enhanced instream and smolt pulsing flows in the Basin.

◆ Alternative methods for the solicitation of water supplies and lessor asking prices are evaluated, with the choice among these methods identified as a key initial task of the Yakima Basin Trustees.

◆ A proposed agreement for a dry year lease -- along with an option to lease -- water for enhanced instream flows is presented. Included in the agreement are informational requirements which would also meet any legal conditions governing water transfers existing in Washington State water law and in the procedures of the Yakima Basin water rights adjudication contained in orders issued by the Superior Court of the County of Yakima.

◆ A survey is provided of pertinent legal factors governing a Yakima Water Leasing Program which currently exist in state and federal water laws as well as in the water rights adjudication proceedings.

◆ Five potential types of funding for the Yakima Water Leasing Program are identified and discussed, including federal spending authorities; federal user fees; authorized programs of the State of Washington; the programs of the Bonneville Power Administration; and models for public-private partnerships to acquire water or land for environmental purposes.

The impetus for this project and report is to initiate a process leading to the actual consummation of dry year leases to enhance instream flows in the Yakima Basin. An agenda for future actions to continue this process is as follows:

- Reconstitute the Yakima Water Leasing Working Group to include existing members of the group willing to serve on a Yakima Water Leasing Program Pilot Committee to oversee a Pilot Water Leasing Program during the 1993-95 period.

- Identify three to five funding entities willing to contribute both funds and a representative to a pilot Yakima Basin Trustees group during the 1993-95 period.

- Target one or more pilot water leases in the Yakima Basin with the potential to deliver at least 50 cfs of enhanced instream flows at the Parker gauging station for a 6 week period during the 1994 and 1995 water years.

- Raise at least $400,000 to cover the costs of the Pilot Program during the 1993-95 period, including the costs of both pilot water leases and of staffing the Pilot Program.

- Develop an educational packet of briefing materials based on the information in this report for use in discussions with members of the Yakima Basin's water using communities.

- Schedule and deliver a number of briefings for a broad spectrum of water using communities in the Yakima Basin as well as for pertinent state, federal, and private entities.

- Work with the U. S. Bureau of Reclamation's Yakima Project staff to develop an operating agreement suitable for use by the Trustees and lessor water districts in managing leased water supplies.

- Develop a long-term organizational plan for the Trustees, including the possible incorporation of a Yakima Basin Trustees organization in the State of Washington as a nonprofit public interest organization with the goals of enhancing instream flows in the Yakima Basin using voluntary water leasing and marketing.

Mr. ABERCROMBIE. Thank you. They were very succinct and clear. You mentioned the environmental trust fund. Who would administer that?

Dr. WILLEY. There could be many models, like the Interior Fish and Wildlife Trust Foundation. It could be put into the private sector as a nonprofit entity.

Mr. ABERCROMBIE. Do you have a recommendation?

Dr. WILLEY. I think most of the experience of the Federal Government is to have a federal agency oversee it.

Mr. ABERCROMBIE. Thank you.

Now Dr. Blackwelder, you are going to be our concluding testimony. We do have to move to the next bill. Mr. Williams is here and I believe he will have that time. Dr. Blackwelder, we appreciate your being here. Thank you.

STATEMENT OF DR. BRENT BLACKWELDER

Dr. BLACKWELDER. I am vice president of the Friends of the Earth. I will offer brief testimony today on their behalf as well as Sierra Club and the National Wildlife Federation.

I would also like to have included in the record a statement by David Ortman who is director of our Northwest Office which is located in Seattle. He has been involved in Yakima basin issues for a long period of time going back to 1977. We detail in this statement some of the input we have made over the years on issues pertaining to this basin.

[EDITOR'S NOTE.—The prepared statement of Mr. Ortman can be found in the appendix of this hearing record.]

Dr. BLACKWELDER. I would like to provide for the committee's use a copy of the report which I prepared along with my colleague, Peter Carlson in 1982. I know some of the members of the committee are new and we think that this bears upon the issues being discussed. This report describes varieties of water conservation programs in every single sector, irrigation, municipal and industrial use as well as home use.

Mr. ABERCROMBIE. Any and all submissions the people would like to present, either today or two weeks from today, we will be happy to receive them and they will receive, in turn, the committee's attention.

Dr. BLACKWELDER. Thank you, Mr. Chairman for the opportunity to appear today on behalf of Friends of the Earth. Friends of the Earth is a global environmental advocacy organization with affiliates in 50 other countries. The following statement is made on behalf of Friends of the Earth, the Sierra Club and National Wildlife Federation on H.R. 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project. According to the Bureau of Reclamation (FONSI, Fish Passage and Protective Facilities, Nov. 1984), historically the most significant fishery resource of the Yakima River basin has been anadromous fish. During the late 1800s, between 500,000 to 600,000 adult salmon and steelhead returned to the Yakima system annually. Runs of spring, summer, and fall chinook, coho, and sockeye salmon, as well as steelhead trout, were all present in the river and served as the basic resource base for several valuable commercial, sport, and tribal fisheries.

Current spawning migrations of anadromous salmonids in the Yakima basin have been severely depleted from historic levels; the spawning escapement in 1984 averaged about 2,000 fish of all species and some runs have become extinct. As organizations concerned with the health of Northwest rivers and the long overdue need to address real water conservation efforts in the Yakima River basin and to restore fish and wildlife resources in this system, we request that the House Natural Resources Committee address the following issues:

According to the Bureau of Reclamation (FEIS, Bumping Lake Enlargement, August 1979), the only formal agreements with the Bureau of Reclamation for minimum flows for fish enhancement involves a 1958 agreement with the then Bureau of Sport Fisheries and Wildlife to provide minimum flows over Prosser Dam.

These flows, however, are subject to maintaining prior existing water rights and water contracts. The existing Yakima Basin Project has been run for irrigation purposes to the detriment of other needs in the basin. The Yakima Basin Project must be amended to recognize the legitimate purposes of protection and enhancement of fish and wildlife and maintenance of instream flows.

The State of Washington has responsibilities under the 1917 Water Code and other water-related legislation. Due to the inactions of the State, however, the Yakima River basin remains overallocated and the ongoing water rights adjudication has not proven helpful in resolving issues in the basin.

In addition, impediments remain to ensuring that water savings can be allocated to instream flows. Further Federal expenditures in the basin should be made dependent on a finding by the Secretary that the State of Washington has made maximum use of its water authorities and removed impediments to designating water for instream flows needs.

Two related issues involve the resolution of the 1945 Federal Court Consent Decree, which affirmed the "obligations of the United States to deliver water from the natural flow of the Yakima River, and its tributaries, from storage in its various reservoirs on the Yakima watershed, and from other sources, to the plaintiffs, to the defendants, and to the lands within the Wapato Indian Irrigation Project" (1945 Consent Decree p. 2).

First, when this bill was drafted by former Rep. Morrison, the Cle Elem lake rise storage water was dedicated to instream flows. However, when confronted with the 1945 Consent Decree, the language was changed to its existing form, allocating the water savings to the total water supply of the basin, to be portioned out under the 1945 Consent Decree. In addition, because the Cle Elem Reservoir rise is a structural project in what is being promoted as a water conservation bill, we request that Subsection 5(b) and Section 6 of the bill be deleted.

Second, Section 5 is the heart of H.R. 1690, but it too assumes that a reduction in the Yakima basin water supply can take place, raising a similar conflict with the 1945 Consent Decree. Because the 1945 Consent Decree has proven to be a major stumbling block to efforts in the Yakima basin, the conflicts between Section 5 and the 1945 Consent Decree must be resolved.

Although both a previous Act of Congress (43 U.S.C. 930b) and the Northwest Power Planning Act Fish and Wildlife Plan call for the preparation of water conservation plans in the Yakima basin, no deadline was established for the completion of such plans. Future Federal expenditures in the Yakima basin should be conditioned on a 24-month deadline for the preparation of such water conservation plans. This would be consistent with the fourth objective of the Yakima River Basin Enhancement Project which was "Developing a comprehensive plan to enable efficient management of the basin's water supply." One additional possibility is to focus an intense water conservation efficiency program on the Wapato Irrigation District to assist the Yakima Indian Nation.

The issues raised above are critical ones. We remain willing to work with the committee and our Washington Congressional delegation on their resolution.

Mr. Chairman, thank you again for the opportunity to present this testimony. I would ask that a separate statement and attachments prepared by our Northwest Office be entered into the hearing record.

[Prepared statement of Dr. Blackwelder follows:]



JOINT STATEMENT OF

FRIENDS OF THE EARTH
SIERRA CLUB
NATIONAL WILDLIFE FEDERATION

Subcommittee on Oversight and Investigations
Committee on Natural Resources
U.S. House of Representatives

23 September 1993

on H.R. 1690 - To authorize certain elements of the Yakima River
River Basin Enhancement Project

Mr. Chairman and Members of the Committee, thank you for the opportunity to appear today on behalf of Friends of the Earth. Friends of the is a global environmental advocacy organization with affiliates in 50 other countries.

The following statement is made on behalf of Friends of the Earth, the Sierra Club and National Wildlife Federation on H.R. 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project.

According to the Bureau of Reclamation (FONSI, Fish Passage and Protective Facilities, Nov. 1984), historically the most significant fishery resource of the Yakima River basin has been anadromous fish. During the late 1800's, between 500,000 to 600,000 adult salmon and steelhead returned to the Yakima system annually. Runs of spring, summer, and fall chinook; coho; and sockeye salmon, as well as steelhead trout, were all present in the river and served as the basic resource base for several

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Jane Perkins, President

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* Two related issues involve the resolution of the 1945 Federal Court Consent Decree, which affirmed the "obligations of the United States to deliver water from the natural flow of the Yakima River, and its tributaries, from storage in its various reservoirs on the Yakima watershed, and from other sources, to the plaintiffs, to the defendants, and to the lands within the Wapato Indian Irrigation Project" (1945 Consent Decree p. 2).

First, when this bill was drafted by former Rep. Morrison,

the Cle Elem lake rise storage water was dedicated to instream flows. However, when confronted with the 1945 Consent Decree, the language was changed to its existing form, allocating the water savings to the total water supply of the Basin, to be portioned out under the 1945 Consent Decree. In addition, because the Cle Elem Reservoir rise is a structural project in what is being promoted as a water conservation bill, we request that Subsection 5(b) and Section 6 of the bill be deleted.

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* Although both a previous Act of Congress (43 U.S.C. 930b) and the Northwest Power Planning Act Fish and Wildlife Plan call for the preparation of water conservation plans in the Yakima Basin, no deadline was established for the completion of such plans. Future Federal expenditures in the Yakima Basin should be conditioned on a 24 month deadline for the preparation of such water conservation plans. This would be consistent with the fourth objective of the Yakima River Basin Enhancement Project which was "Developing a comprehensive plan to enable efficient management of the basin's water supply". One additional possibility is to focus an intense water conservation efficiency program on the Wapato irrigation district to assist the Yakima Indian Nation.

The issues raised above are critical ones. We remain willing to work with the Committee and the WA Congressional delegation on their resolution.

Mr. Chairman, thank you again for the opportunity to present this testimony. I would ask that a separate statement and attachments prepared by our NW Office be entered into the hearing record.

Mr. ABERCROMBIE. Thank you. Your testimony flows together with all of that right from the beginning, which is to say that we need to have some time limits here.

If this bill passes, it seems to me all the efforts to accomplish what you just talked about are there, but we need to actually do it; that is to say, it would not be any advantage to set in language what should be done and then have everything stand in limbo.

I believe that is a clear summary of your statement; would you agree?

Dr. BLACKWELDER. Yes. The year they began the water conservation plans was 1974. While there are some that have moved ahead, others are taking quite a leisurely time, so that emphasizes the need for deadlines.

If you can make these changes and come to grips with conflicts over the 1945 consent decree and deal with the Solicitor's opinion, which I also might provide for the record, dated January 2, 1979, then we can move ahead.

Mr. ABERCROMBIE. I quite agree with the necessity for getting this done; and to the degree that the bill does not establish it, I certainly would recommend that we set some time lines.

Dr. BLACKWELDER. For our support, the Friends of the Earth, needs these changes we are recommending. They need to be put in or clarified, where they are not as clear. We provided in that detailed statement what are at least our ideas as to how that should be done.

Mr. ABERCROMBIE. Very good. That is excellent. That will set the perspective for us.

Mr. Inslee.

Mr. INSLEE. Mr. Chairman, I would like to put in the record a letter from the King County Cattlemen's Association.

[EDITOR'S NOTE.—This document can be found in the appendix of this hearing record.]

Mr. ABERCROMBIE. Thank you very much. This has been enlightening to me. I can assure you that all the statements submitted will get our close attention. I believe it is the Chairman's intent to see to it that action is taken on this bill. Rest assured, all your efforts today will be rewarded with the passage of a bill that will benefit all parties concerned, including the taxpayers of the United States, and most certainly the region involved.

A mahalo for everybody being here today. Thank you very much.

We will move now to H.R. 1477. While we are getting set up, I believe Mr. Williams will be the Chair.

[Whereupon, the subcommittee proceeded to other business.]

H.R. 1477, TO PROVIDE FOR THE MANAGEMENT OF LANDS AND RECREATIONAL RESOURCES AT CANYON FERRY RECREATION AREA, MT, AND OTHER PURPOSES

THURSDAY, SEPTEMBER 23, 1993

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON NATURAL RESOURCES,
Washington, DC.

The subcommittee met, pursuant to call, at 12:15 p.m. in room 1324, Longworth House Office Building, Hon. Pat Williams presiding.

Mr. WILLIAMS. We will continue the committee's hearing on H.R. 1477.

[The text of the bill, H.R. 1477, follows:]

I

103D CONGRESS
1ST SESSION

H. R. 1477

To provide for the management of lands and recreational resources at Canyon Ferry Recreation Area, Montana, and other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 24, 1993

Mr. WILLIAMS introduced the following bill; which was referred to the Committee on Natural Resources

---

A BILL

To provide for the management of lands and recreational resources at Canyon Ferry Recreation Area, Montana, and other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Canyon Ferry Recreation, Tourism, and Economic Development Management Act".

SEC. 2. FINDINGS.

Congress finds and declares that—

(1) there is a Federal responsibility to provide opportunities for public recreation, tourism, and eco-

nomic development at Federal water projects, in partnership with other Federal and non-Federal interests;

(2) certain provisions of the Federal Water Project Recreation Act (Public Law 89–72 as amended) unduly restrict the management of the Canyon Ferry Recreation Management Area because the provisions do not allow for the increasing economic burden that construction and management of recreational facilities are placing on managing entities, especially at the State and local levels;

(3) non-Federal responsibility for a significant portion of all costs of operation, maintenance, and replacement of facilities on Federal lands at the Canyon Ferry Recreation Management Area as well as total management responsibility is an unfair burden on non-Federal managers, especially in instances where the facilities are old, undersigned, do not provide adequate access for the disabled, and are utilized by national and international publics, and responsibilities for complex fisheries reservoir management and for wildlife and wetlands management have been borne solely by the non-Federal entities, further increasing the overall management burden; and

(4) the recreational, tourism, and economic development needs at the Canyon Ferry Recreation Area can best be met through cooperative management efforts by the Bureau of Reclamation, the Bureau of Land Management, the State of Montana, and other appropriate entities.

SEC. 3. COOPERATIVE AGREEMENTS.

(a) AUTHORIZATION.—The Secretary of the Interior (hereafter in this Act referred to as the "Secretary"), acting through the Bureau of Reclamation and the Bureau of Land Management, may enter into such agreements as are necessary to carry out the purposes of this Act.

(b) CONTENTS OF AGREEMENTS.—Any management agreement entered into under this Act shall provide that the management responsibilities given to the Bureau of Land Management for lands withdrawn or acquired for reclamation purposes shall be accomplished in accordance with the statutory authority generally exercised by the Bureau of Land Management in the management of the public lands.

SEC. 4. PROTECTION OF AUTHORIZED PURPOSES OF RECLAMATION PROJECTS.

(a) NO ALTERATION OF PURPOSES OF CANYON FERRY UNIT.—Nothing in this Act is intended to change,

modify, or expand the authorized purposes of the Canyon Ferry Unit.

(b) ORIGINAL PURPOSE OF CANYON FERRY DAM AND RESERVOIR UNAFFECTED.—Nothing in this Act shall change the responsibility of the Bureau of Reclamation to meet the needs for which the Canyon Ferry Dam and Reservoir were originally constructed.

(c) NO AUTHORIZATION TO AFFECT WATER SUPPLY.—This Act is not intended to authorize any action or inaction by any person, including any person who has contracted for the water supply from a reclamation project, that reduces the quantity, or modifies the time and manner of availability, of the water supply from the Canyon Ferry Unit to project beneficiaries.

SEC. 5. MANAGEMENT.

(a) MANAGEMENT UNDER THE PLAN.—The Secretary shall manage all lands and facilities in the area associated with recreation, tourism, and related economic development pursuant to the Canyon Ferry Resources Management Plan, of 1993, and any amendments thereto.

(b) EXEMPTION FROM PROVISIONS OF THE FEDERAL WATER PROJECT RECREATION ACT.—Provisions of the Federal Water Project Recreation Act (16 U.S.C. 4601–12) that limit or prescribe costs that may be incurred by Federal and non-Federal entities for recreation

76-655 O - 94 - 5

planning, management, or facilities, or that require non-Federal management of recreation facilities or programs do not apply to the Area.

(c) RECREATION USER FEES.—All recreation user fees collected from the Canyon Ferry Recreation Area by the managing agency(ies) shall be retained by the managing agency(ies) and used exclusively to fund the operation, maintenance, and development of the Canyon Ferry Recreation Area for recreation, tourism, and economic development. Fees collected for cabin site permits, concession operations, entrance fees, and other special use fees are all considered to be recreation user fees.

(d) CONTENTS OF AGREEMENT.—The cooperative agreements shall provide that the responsibilities given to the Bureau of Land Management for the area will be carried out in accordance with the statutory authority generally exercised by the Bureau of Land Management in the management of the public lands.

○

OPENING STATEMENT OF HON. PAT WILLIAMS

Mr. WILLIAMS. I want to begin by welcoming the folks who have traveled here on behalf of Montana. These folks and many others understand these decisions about the management of Canyon Ferry are very important to our State, and I will be working with all of you to come to a final appropriate agreement about future management of Canyon Ferry.

As many of you know, the Canyon Ferry Project was authorized by the Flood Control Act of 1944 and construction was completed in 1954. The project provides 50,000 kilowatts of power, irrigation water to about 43,000 acres in and around the Helena Valley, and some of Helena's municipal drinking water.

In 1957, the State of Montana entered into a 30-year Memorandum of Understanding with the United States to manage the wildlife and recreation resources at Canyon Ferry, and over the years the lake has become one of Montana's most heavily used, and heavily fished, State-run recreation areas. The MOU was extended on three occasions, the last one expiring at the end of this month. The State of Montana has formally notified the Bureau that it will withdraw from Canyon Ferry if current conditions continue. In the face of severe budget difficulties, and facing dramatic needs to make major improvements to the recreation facilities at Canyon Ferry, the State of Montana concluded some time ago that its position as the sole recreation manager was untenable unless greater Federal involvement could be secured. In response, the Montana Department of Fish, Wildlife and Parks, the Federal Bureaus of Reclamation and Land Management, and representatives of local groups began discussions about the future management at Canyon Ferry.

The agreement which emerged from those discussions is implemented under the bill we are discussing today. This bill authorizes a three-way partnership in providing recreation at Canyon Ferry, and as of fairly recently the bill had the enthusiastic support of all the participants as well as virtually all Montanans who are concerned about the lake.

Under the agreement, and this bill, the BLM becomes the lead agency in managing the recreation facilities and the public lands at Canyon Ferry. BLM is heavily involved in providing recreational experiences across Montana and is particularly involved in sites along the Missouri River. Importantly, the agency has shown significant leadership in identifying how we can develop the great potential we have at Canyon Ferry.

The Bureau of Reclamation retains its historic responsibilities under the Pick–Sloan program to manage the power, irrigation and flow regime of the reservoir, and maintains its ultimate responsibility for management of all aspects of the Canyon Ferry Project.

The third leg of the agreement, the Montana Department of Fish, Wildlife and Parks retains its historic responsibilities to manage the fishery and wildlife resources, to administer the cabin leases, to be involved in the ongoing recreation site operations, and to collect all revenues associated with recreational use of the lake. So today we will hear whether or not these agreements are still honored by the various parties who signed the agreements. While there

may be a number of different ways to get us from here to there, there should be no misunderstanding about the final goal.

Canyon Ferry is one of the Treasure State's treasures and this legislation is a way, we think a good way, agreed upon by agencies of the Federal Government and the State, but maybe it is not the only way to significantly improve the quality of the recreational experience at that treasure. That's our bottom line. I am interested to know how our witnesses believe we can reach that bottom line.

[Prepared statement of Mr. Williams follows:]

PAT WILLIAMS
MONTANA

MAJORITY DEPUTY WHIP

2457 RAYBURN BUILDING
WASHINGTON, DC 20515
(202) 225-3211

Congress of the United States
House of Representatives
Washington, DC 20515-2601

COMMITTEES:
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AGRICULTURE
NATURAL RESOURCES

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LABOR-MANAGEMENT RELATIONS
CHAIRMAN
POSTSECONDARY EDUCATION
GENERAL COMMODITIES
NATIONAL PARKS AND PUBLIC LANDS
NATIVE AMERICAN AFFAIRS

OPENING STATEMENT
U.S. REP. PAT WILLIAMS
HR 1477

September 23, 1993

I want to first of all thank the Chairman, Mr. Miller, for scheduling this hearing on my bill, the Canyon Ferry Recreation, Tourism, and Economic Development Act. The Chairman's help in scheduling this hearing has helped us focus attention - here in Washington - on the problems, and their solutions, at Canyon Ferry as no other event could.

I want to welcome the folks who've traveled back here on behalf of Montanans to testify before the Committee. These folks understand that these decisions about the management of Canyon Ferry are terribly important to our state.

And at the outset I want to state very clearly that I firmly intend to keep the momentum that the Chairman has given us in scheduling this hearing, and that I will be working with all of you to come to a final agreement about the future management of Canyon Ferry at the earliest possible date.

The Canyon Ferry project was authorized by the Flood Control Act of 1944 and construction was completed in 1954. The project provides 50,000 Kilowatts of power, irrigation water to about 43,000 acres in and around the Helena Valley, and some of Helena's municipal drinking water. In 1957 the State of Montana entered into a 30 year memorandum of understanding with the United States to manage the wildlife and recreation resources at Canyon Ferry, and over the years the lake has become one of Montana's most heavily used, and heavily fished, state-run recreation areas. The MoA was extended on three occasions, the last one expiring at the end of this month. The State of Montana has formally notified the Bureau that it will withdraw from Canyon Ferry if current conditions continue.

In the face of severe budget difficulties, and facing dramatic needs to make major improvements to the recreation facilities at Canyon Ferry, the State of Montana concluded some time ago that its position as the sole recreation manager was

GREAT FALLS
COURTHOUSE ANNEX
325 2ND AVE N.
(406) 771-1242

BUTTE
RM 306, 305 W. MERCURY
(406) 723-4404

BILLINGS
214 N. 29TH STREET
(406) 256-1019

MISSOULA
302 WEST BROADWAY
(406) 549-5550

HELENA
316 N. PARK AVE.
P.O. BOX 1681
(406) 443-7878

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untenable unless greater federal involvement could be secured. In response, the Montana Department of Fish, Wildlife and Parks, the Federal Bureaus of Reclamation and Land Management, and representives of local groups began discussions about the future management at Canyon Ferry.

The agreement which emerged from those discussions is implemented under the bill we are discussing today. This bill authorizes a three way partnership in providing recreation at Canyon Ferry, and as of fairly recently the bill had the enthusiastic support of all the participants as well as virtually all Montanans who are concerned about the lake.

Under the agreement, and this bill, the BLM becomes the lead agency in managing the recreation facilities and the public lands at Canyon Ferry. BLM is heavily involved in providing recreational experiences across Montana and is particularly involved in sites along the Missouri River. Importantly, the agency has shown significant leadership in identifying how we can develop the great potential we have at Canyon Ferry.

The Bureau of Reclamation retains its historic responsibilities under the Pick Sloan program to manage the power, irrigation and flow regime of the reservoir, and maintains its ultimate responsibility for management of all aspects of the Canyon Ferry Project.

And the Montana Department of Fish, Wildlife and Parks retains its historic responsibilities to manage the fishery and wildlife resources, to administer the cabin leases, to be involved in the ongoing recreation site operations, and to collect all revenues associated with recreational use of the lake.

Today we will hear whether or not these agreements are still honored by the various parties. And while there may be a number of different ways to get us from here to there, there should be no misunderstanding about the final goal. Canyon Ferry is a treasure of the State of Montana, and this legislation is a way - perhaps not the only way - to **significantly** improve the quality of the recreational experience there. That's my bottom line, and I'm interested to hear, now, how the witnesses propose that we proceed.

PANEL CONSISTING OF DANIEL P. BEARD, COMMISSIONER, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY MIKE PENFOLD, ASSISTANT DIRECTOR FOR LAND AND RENEWABLE RESOURCES, BUREAU OF LAND MANAGEMENT; AND PATRICK J. GRAHAM, DIRECTOR, DEPARTMENT OF FISH, WILDLIFE AND PARKS, STATE OF MONTANA, HELENA, MT

Mr. WILLIAMS. We have a lot of friends here today. We are joined here by the Honorable—and it is a delight to refer to Dan Beard as Honorable—we are joined by the Honorable Dan Beard, Commissioner of the Bureau of Reclamation of the Department of the Interior.

It is good to see you.

STATEMENT OF DANIEL P. BEARD

Mr. BEARD. Thank you. I am accompanied by Mike Penfold, the Assistant Director for Land and Renewable Resources for the Bureau of Land Management.

Mr. Chairman, I am pleased to appear before the subcommittee to testify on H.R. 1477, a bill to provide for the management of lands and recreational resources at Canyon Ferry Recreation Area, Montana, and other purposes.

The bill would achieve these objectives through a cooperative management arrangement between the Bureau of Land Management, the Bureau of Reclamation, and the State of Montana. The legislation's goal of preserving and enhancing the important recreational opportunities available at Canyon Ferry is commendable.

As a new administration, we are looking into the many issues raised by the Federal/non-Federal management of recreation areas, including the Memorandum of Understanding for Canyon Ferry, which we believe needs to be amended. Pending completion of this review and consultation with our state and Federal partners, we believe enactment of this legislation is premature.

Mr. Chairman, since the Canyon Ferry legislation was first introduced in July 1992, several changes have occurred. Prior to enactment of P.L. 102–575 in late October 1992, expenditures for recreational development by the Bureau of Reclamation were limited by law to $100,000 per site.

In addition, there was no authority for the Bureau of Reclamation to enter into cost-sharing arrangements with non-Federal interests for the operation and maintenance of recreational areas.

Without question, those limitations restricted Reclamation's flexibility in working creatively with our non-Federal managing partners. Title XXVIII of P.L. 102–575, the Reclamation Recreation Management Act of 1992, lifted the $100,000 cap and provided specific authority for Reclamation to share up to 50 percent of the costs associated with operation and maintenance, as well as capital improvements for recreational facilities.

We are in the process of developing policies regarding sharing the management and financial responsibilities at all our reservoirs in the West. Keeping in mind the caps contained in the 1993 Omnibus Budget Reconciliation Act, this effort is part of a general review of the Reclamation program and implementation of the 1992 Reclamation Projects Authorization and Adjustments Act (P.L.

102–575). In addition, we are concerned with the imprecise language in Section 5(c), which may have PAYGO implications and may be inconsistent with the policy regarding fees collected at other federally administered sites.

It is my hope that State and local governments will respond positively to Reclamation's new authority to enter into cost-sharing arrangements with non-Federal site managers. We are willing to work with non-Federal entities and the Congress to preserve cooperative management of recreation at Reclamation sites.

I believe there is an important Federal responsibility to provide the public with recreational opportunities and facilities at our reservoirs which are safe, accessible to all, and which will add to the enjoyment of the recreating public.

I will be happy to answer any questions Members may have. Thank you.

Mr. WILLIAMS. Thank you.

[Prepared statement of Mr. Beard follows:]

STATEMENT OF DANIEL P. BEARD

COMMISSIONER, BUREAU OF RECLAMATION

BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE COMMITTEE ON NATURAL RESOURCES

ON H.R. 1477,

THE "CANYON FERRY RECREATION, TOURISM, AND ECONOMIC

DEVELOPMENT MANAGEMENT ACT."

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As a new Administration, we are looking into the many issues raised by the Federal/non-Federal management of recreation areas, including the Memorandum of Understanding for Canyon Ferry, which we believe needs to be amended. Pending completion of this review and consultation with our state and Federal partners, we believe enactment of this legislation is premature.

Mr. Chairman, since Canyon Ferry legislation was first introduced in July 1992, several changes have occurred. Prior to enactment of P.L. 102-575 on October 30, 1992, expenditures for recreational development by the Bureau of Reclamation were limited by law to $100,000 per site. In addition, there was no authority for the Bureau of Reclamation to enter into cost-sharing arrangements with non-federal interests for the operation and maintenance of recreational areas.

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of a general review of the Reclamation program and implementation of the 1992 Reclamation Projects Authorization and Adjustments Act (P.L. 102-575). In addition, we are concerned with the imprecise language in section 5(c), which may have PAYGO implications and may be inconsistent with the policy regarding fees collected at other federally administered sites.

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Mr. WILLIAMS. Before we go to questions, we will hear from the other member of this panel, the Director of Fish, Wildlife, and Parks for the State of Montana.

Pat, how are you?

STATEMENT OF PATRICK J. GRAHAM

Mr. GRAHAM. Thank you, I am fine. I am speaking on behalf of Governor Racicot, and I thank you for the opportunity to discuss this matter of urgency to Montana, and our nonresident visitors from across the country.

Canyon Ferry Reservoir provides the most visitor days of any of Montana's State parks, but its potential as a major national recreational facility is far from being realized.

For over 35 years the State of Montana has operated the recreation and wildlife management at Canyon Ferry under an agreement with the Bureau of Reclamation.

The Federal reservoir is located in southwestern Montana near the headwaters of the Missouri River. During the period of our operation the State has expended hundreds of thousands of State dollars with very little Federal financing to develop recreational facilities at Canyon Ferry.

Unfortunately, Montana can no longer afford to run this complex facility for the Department of the Interior. There have been significant increases in visitation since the mid-1980s, deteriorating infrastructure, and new Federal requirements. Many of the facilities do not meet minimum human health and safety standards and violate American Disabilities Act requirements, thus denying access to the disabled.

While we struggle to provide services and maintain State-owned facilities, we cannot justify continuing to also operate Federal-owned facilities without a substantial Federal partnership as embodied in this bill. Montana does not have dollars available for matching Federal dollars for capital improvements as provided under Public Law 102–575; therefore, new legislation and partners are needed.

A three-way partnership between the Bureau of Reclamation, Bureau of Land Management, and Montana can combine the strengths of all three agencies to provide what no single agency can do for our citizens. We have been pleased with the willingness of the Bureau of Land Management to join the partnership and serve the public. We also understood that the Bureau of Reclamation was a willing partner as evidenced by their signing of a three-way Memorandum of Understanding on August 23, 1993.

If H.R. 1477 fails and, thus, the partnership fails, the State of Montana will withdraw from managing the recreation at Canyon Ferry Reservoir, and the site will revert in total to the Department of the Interior.

Even the original MOU, which was developed back in the 1950s, referred to a reservoir development plan that stated, "Minimum basic facilities are justifiable as Federal costs."

Our decision to be or not be a partner will in no way change in our estimation the Federal responsibilities or liabilities at this site. Interior has the same responsibilities for meeting health, safety and disability standards that we would be expected to meet. These

needs are real and are detailed in a recently completed $200,000 Federal management plan for Canyon Ferry that was paid for by the Bureau of Reclamation.

The partnership embodied in H.R. 1477 is a cost effective and logical program to meet the needs of all agencies involved, and the citizens we serve. It is a model of what can be done to creatively solve an important problem and make government work.

I appreciate your favorable consideration of H.R. 1477.

Mr. WILLIAMS. Thank you.

[Prepared statement of Mr. Graham follows:]

Montana Department
of
Fish, Wildlife & Parks

Testimony presented to the
U.S. House of Representatives
Committee on Natural Resources
September 23, 1993

H.R. 1477

Presented by:

Patrick J. Graham, Director
Montana Department of Fish, Wildlife & Parks
1420 East Sixth Ave.
Helena, Montana

On behalf of Governor Marc Racicot, I thank you for the opportunity to discuss this matter of urgency to Montana, and our non-resident visitors from across the country. Canyon Ferry Reservoir provides the most visitor days of any of Montana's state parks, but its potential as a major national recreational facility is far from being realized. For over 35 years the State of Montana has operated the recreation and wildlife management at Canyon Ferry under an agreement with the Bureau of Reclamation. The federal reservoir is located in southwestern Montana near the headwaters of the Missouri River. During this period the state has expended hundreds of thousands of state dollars with very little federal financing.

Montana can no longer afford to run this complex facility for the Department of the Interior. There have been significant increases in visitation since the mid-1980s, deteriorating infrastructure and new federal requirements. Many of the facilities do not meet minimum human health and safety standards and violate American Disabilities Act requirements, thus denying access to the disabled.

While we struggle to provide services and maintain state-owned facilities, we cannot justify continuing to also operate federal owned facilities without a substantial federal partnership as embodied in this bill. Montana does not have dollars available for matching federal dollars for capital improvements as provided under PL 102-575, therefore, new legislation and partners are needed.

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If H.R. 1477 fails and thus the partnership fails, the State of Montana will withdraw from managing the recreation at Canyon Ferry Reservoir and the site will revert in total to the Department of Interior. Contrary to speculation that Montana is bluffing, we will take this action and be totally removed by January 1, 1994 at the latest. Since our lease runs out on October 1, 1993, we will have no legal obligation to remain.

Even the original MOU referred to a reservoir development plan that stated "minimum basic facilities are justifiable as federal costs." Our decision to be or not be a partner will in no way change the multi-million dollar obligation that BOR or the Department of Interior has for meeting health, safety and disability standards except there will be no partners to assist in this effort. These needs are real and are detailed in the recently completed $200,000 federal management plan for Canyon Ferry paid for by the Bureau of Reclamation.

The partnership embodied in H.R. 1477 is a cost effective and logical program to meet the needs of all agencies involved, and the citizens we serve. It is a model of what can be done to creatively solve an important problem and make government work.

I urge your favorable consideration of H.R. 1477.

Mr. WILLIAMS. We have a vote on in the House. After a few questions of this panel, we will break to vote and then come back for our second panel.

Dan, I recognize that this agreement was signed, in effect, in a previous administration and that each new administration, particularly the one that has not had the executive branch for a dozen years comes in and wants to make some necessary changes, as they see it. I think that is an appropriate thing in a democracy. But truly you understand the dilemma that is faced by the parties to the agreement by this. You know, by your testimony that says this agreement is not entirely appropriate under your new direction.

Can you walk down the other side of the street for a minute here and give folks some assurances, particularly people out in Montana, that this is just a pause in the process and that we are still going to try to move to a partnership, maybe this one or one that will be equally beneficial?

Mr. BEARD. Well, I think I can, Mr. Chairman. I don't want to be conclusionary because I think your phrase "pause in the process" is probably appropriate.

The three-way agreement in the legislation represented an understanding that was reached between the parties. Not being part of that process, I had a lot of questions when I came in. Others within the administration also had questions.

So what we have asked you for is a little bit of time to get an opportunity to sit down and look at this. I would say that the principles involved in both the legislation and in the MOU are principles that we support.

In other words, there ought to be a partnership between the Federal Government and non-Federal entities. We think such partnerships lead to the best recreational opportunities, and are the most effective and efficient way to operate. We also recognize that there is a need to improve the facilities at Canyon Ferry, which we are also very concerned about.

One of the reasons for my hesitancy, Mr. Chairman, is that we have approximately 300 recreation sites. I have 72 partners, 68 of them non-Federal partners. We have had several recreation facilities that have been turned back to us from those non-Federal partners. Since most non-Federal agencies are experiencing budget cuts and problems.

So I have to look at the overall picture, if you will, about what is the financial exposure for the entire system for which I am responsible.

What I can say though is that I think we can give assurances that we are more than willing to sit down with the State, and obviously with BLM and the local interests, and try to go through this so that we can get a better understanding of what is possible at this site.

Mr. WILLIAMS. I understand your review of these matters—not just your particular memorandum of understanding, but nationwide with these matters—will take past the first of the year.

This is an agreement that goes back prior to you and to their administration. Would you be willing to take a look at this agreement outside of your other review, the ones that are going to take until

after the first of the year? Could you separate this out and give it earlier consideration?

Mr. BEARD. Sure. I would be happy to.

Mr. WILLIAMS. Why wouldn't a three-way partnership be better on a facility of this magnitude than having it run by just one agency?

Mr. BEARD. Well, I think as an overall policy matter, at least for reclamation facilities, our preference is to have non-Federal partners operating these facilities for two reasons: First, they generally are closer to the needs and interests of the communities; and second, there are financial advantages.

In other words, under the laws by which we operate, non-Federal interests are authorized to keep the revenues derived from leases and other activities at our reservoir sites. If they are turned back to us, then revenues received must go back into the Treasury. So that presents a problem.

That is why we find it preferable when revenues derived at the project are then put back into the project.

Certainly, we have lots of facilities. BLM manages eight of our facilities across the West. We have sites managed by the Park Service, the Fish and Wildlife Service, as well as the Forest Service; and we have non-Federal partners involved in all these as well. It is certainly no problem to work out an arrangement between the Federal and State governments to operate this facility.

Mr. WILLIAMS. Assistant Director Penfold, even though you did not offer formal testimony, I appreciate your willingness to be here and to answer questions. Separating BLM out as an agency within Interior, are they still supportive of the cooperative agreement?

Mr. PENFOLD. It is good to see you, sir. We went into the agreement with some considerable enthusiasm. We support the Commissioner in this "pause," as he has called it, to review their activities. We have had a chance to look at our fiscal year 1994 and 1995 budgets.

We have a serious concern about whether we are going to be able to meet the tone and the degree of commitment that was originally laid out in that agreement. So it is appropriate that we kind of take another deep breath and take a hard look at what the best, constructive relationship should be during this period of time.

Mr. WILLIAMS. At the time of signing this agreement, was BLM unaware of the difficult financial constraints that probably faced it within the next few years? You have been facing them for a number of years. What magically changed on January 1 to make you realize that, gee, there is less money than we thought?

As I look at the budget, BLM does not have as much money as BLM fiscal analysts predicted.

Mr. PENFOLD. We have had some growth in some projects, but in fiscal 1995, we are looking at a flat program. Other things that happen to our budget have to do with other initiatives going on.

We have had a chance to review on a nationwide basis our commitments. We found it a fairly sobering picture when we looked a little more comprehensively.

Mr. WILLIAMS. Mr. Commissioner, do you have to leave right away? I have to go vote. I know we have extended the time because the last hearing went about 45 minutes longer than we expected.

Mr. BEARD. I will be happy to.

Mr. WILLIAMS. I will be back in about five minutes. We are in recess.

[Recess.]

Mr. WILLIAMS. The subcommittee will come to order.

Mr. Penfold, you mentioned the difficulty in the BLM budget which we all recognize as being real. Is your understanding the same as mine, and that is that the Memorandum of Understanding in this legislation anticipates that BLM's contribution would come out of BLM funds which would not require any earmarking by Congress in our appropriation legislation for BLM?

That is to say, the Memorandum of Understanding would not go forward; only if the Congress of the United States specifically earmarked BLM funds for these uses at Canyon Ferry—rather, if this legislation passed, BLM would use their own fund monies?

Mr. PENFOLD. The idea in the MOU as it was crafted would be that our participation would be subject to appropriation funds. The Bureau has the license—unless they are earmarked to move funds to particular projects. As you know, Congressman, sometimes Congress will earmark funds for a particular project and sometimes they do not. So within those earmarked funds, we have the ability to move those funds from one project to another depending on priorities.

The primary focus of the BLM obligations under the MOU as it was crafted, would be to do some of the investments and some of the refurbishing improvements where the State receipts coming from the area would have gone back into the day-to-day management of the area. So funds that we anticipated would have been used to do the reconstruction and refurbishing improvements primarily.

Mr. WILLIAMS. BLM does not have a matching fund requirement; is that correct?

Mr. PENFOLD. We do a lot of matching activities. In regards to management of a site like this, we do not have a specific requirement of how much, the percentage; that is correct.

Mr. WILLIAMS. Mr. Beard, does your agency have a matching fund requirement for activities of this sort?

Mr. BEARD. Yes. We are authorized only to provide up to 50 percent of the cost of operation and maintenance of the facility and 50 percent of the cost of construction of the facilities.

Mr. WILLIAMS. Mr. Graham, if we don't pass this bill or come up with something very similar by administrative direction, what do you foresee as the State's next step and what will be the ramifications for the users of the lake and the surrounding area?

Mr. GRAHAM. We have been working on an agreement for about four years now since our 30-year agreement expired and with the expectation that the State was not in good financial situation to provide what that recreation facility needed.

We are in actually worse financial condition now than we were then. We have done what we can on-site to meet our operation needs. We still fall about $75,000 to $80,000 short a year. We don't have resources to match with either Federal agency for the capital.

So our expectation would be that if we can't come to an agreement here, that the residents are not any better off if we stay in

it than if we walk away from it. Our expectation would be that we redirect our resources to our State park facilities and allow the Federal Government to make the choices they have to make about managing that recreation facility there.

The other two major Bureau of Reclamation projects in the State, Hungry Horse Reservoir and Yellow Tail Reservoir, are both currently operated with Federal partners. U.S. Forest Service manages recreation on Hungry Horse and that National Park Service manages recreation on Yellow Tail. This is the only Federal reservoir in the State like this that we currently manage.

It would be hard for me to determine what the impacts would be on the users until I knew what the Federal agency's intentions were about collecting fees or how they would manage the other facilities.

But I would expect that at some point the Federal agencies would be back in here looking for some support to do the same thing that we are asking for today, because those facilities in fact do not meet, in many cases, health and disability standards.

Mr. WILLIAMS. Mr. Beard, what is your agency's response if the State, as Mr. Graham says, redirects their attention elsewhere, which I think is another way of saying the State will walk away. What is your agency's response to that, and what do you think the ramifications of that will be to users and the like?

Mr. BEARD. First of all, I would say that I hope they would not do it, but that is a choice that they have to make based on their financial conditions.

I have talked with our personnel in the Montana Projects Office to make sure that on October 2 the gates are open and the facilities are available to the public under our management, should the State decide, as they have stated in their correspondence to us, not to continue the present arrangement.

I have been assured that the facilities will be operated and maintained correctly. I think the central issue we are really focusing on here, in my mind, is not who manages the recreation. The question is, how do we pay for the capital improvements that are needed to correct some of the deficiencies at the lake?

Are they going to be paid entirely by the State? Fifty percent by the State? If it is managed either with Reclamation or BLM without the State participation, then it would be 100-percent financed by the Federal Government, as opposed to 50 percent or not at all, if the State were to do it.

That is the central question. You see the ping-pong ball bouncing a little bit here. I think that is because each one of us faces budget constraints and difficulties in looking at, as I understand the showcase proposal brochure, approximately a $10 million plan that has been mapped out for improving the facilities. I don't know when that estimate was made, but it must be reexamined.

We are looking at a considerable expenditure of funds to improve the facilities. If we don't undertake those, then I think there will be deterioration in the facilities. Frankly, we cannot allow them to be substandard facilities. So the choices are you either approve the expenditures, operate them in a substandard way, or you close them. The managers will have to make that choice as we reach those points.

My hope is that we can find a way in which we can make the capital expenditure improvements that we need and continue a partnership arrangement with our non-Federal entity.

Mr. WILLIAMS. Mr. Graham, how would the State handle the 50/50 requirement that Mr. Beard's agency has as a mandate?

Mr. GRAHAM. We have sufficient funds that we could match the 50/50 operations. But we don't have funds to match with the 50/50 with capital. If we did, we would be more than happy to put those dollars into the project. We just don't have them.

Mr. WILLIAMS. We have another vote on in the House, unfortunately. Let me just ask as a final question—or I guess, request because I have already asked Mr. Beard if he could do this. But obviously we are in a very difficult situation here because we had an agreement between the State and two agencies. I don't hear anyone at the table saying we want to break that agreement.

You have requested a pause, and again I ask if that pause could be less prolonged than the pause that will be required by your entire review of similar situations. Also, I recall your answer; you said, yes, you could try to find a resolution to this fairly quickly.

We don't know what that resolution would be, but if I do have your commitment to place this at the top of the agenda, then we could pause in the legislative agenda here, and at least for a matter of weeks, we could delay further consideration on this bill until we saw what the administration might be proposing.

But I do understand that you are willing to place this at the top of the agenda and come to a decision quickly on it.

Mr. Beard.

Mr. BEARD. I would be happy to do so.

Mr. WILLIAMS. Mr. Penfold, inasmuch as your agency is party to this, I assume you, too, are willing to?

Mr. PENFOLD. Absolutely.

Mr. WILLIAMS. Mr. Graham, the State, I assume, is not happy about the possibility of renegotiation, but willing to move to try to resolve this matter quickly?

Mr. GRAHAM. If we can resolve it quickly, as you requested, we will certainly do everything that we can.

Mr. WILLIAMS. Mr. Graham, do you have anything else that you would like to speak to before this panel is concluded?

You have come a long way. You have put a lot of consideration and effort into this. If you have any exceptions or objections you would like to express here, or lay out any parameters with regard to future negotiations, this might be an appropriate time to do so, if you thought it was necessary.

Mr. GRAHAM. I appreciate that. I guess I have just two brief points. One would be that we talk a lot about what might be in the future. I guess we have to look back at the past 35 years at the State's commitment and the amount of money we have contributed to managing the facilities up to this point without the Federal management or support.

Now we are looking at some different kinds of waiting in that management system in terms of who would pick up what responsibilities. I don't think we can look from this point forward and say what is fair if we have to take into consideration how much of this load the State has carried for the last 35 years.

Second, there has been a lot of talk about reinventing government. I know that means different things to different people, but I think the partnership developed here brings in the expertise and resources of three agencies who can do what none of us could be able to do separately. I certainly hope we can find a way to make that work.

Mr. WILLIAMS. Well, we appreciate your coming back here. I am particularly appreciative and supportive of the State's position and your position. We will try to advocate for your position as we sit with all of you and try to work out a resolution to this.

Pat, Dan, Mike, thank you very much for being with us. We will dismiss this panel. You are invited to stay if you would like. If you have other things, I know you might have to leave, that will be fine. We will reconvene our next panel in just a few moments.

[Recess.]

Mr. WILLIAMS. The subcommittee will resume.

PANEL CONSISTING OF BLAKE J. WORDAL, LEWIS AND CLARK COUNTY COMMISSIONER, HELENA, MT; THOMAS A. BUDEWITZ, ESQ., BROADWATER COUNTY COMMISSION, TOWNSEND, MT; DAVID HEMION, EXECUTIVE VICE PRESIDENT, HELENA AREA CHAMBER OF COMMERCE, HELENA, MT; AND GREGG GROEPPER, ASSISTANT SUPERINTENDENT, OFFICE OF PUBLIC INSTRUCTION, STATE OF MONTANA, HELENA, MT

Mr. WILLIAMS. Mr. Wordal.

STATEMENT OF BLAKE J. WORDAL

Mr. WORDAL. Mr. Chairman and Members of the Committee on Natural Resources Subcommittee on Oversight and Investigations, thank you for the opportunity to testify today and to express the position of Lewis and Clark County on H.R. 1477 introduced by Montana Representative Pat Williams to provide for the management of lands and recreational resources at Canyon Ferry Recreational Area, which is located in Broadwater and Lewis and Clark Counties in Montana.

I believe that it is important for you to have some knowledge about our county in order to better understand our interest in this legislation.

Lewis and Clark County straddles the Continental Divide in western Montana and is home to our State capital, Helena. The county is fairly large, approximately 3,476 square miles, and over 70 percent of the county is publicly owned. Our major industries are agriculture, mining, timber, tourism and government.

The Missouri River traverses through 64.7 miles of our county, and three dams along the river corridor provide important power production for Montanans and major water resources for agricultural production, fish and wildlife habitat and recreation. These dams include one at Canyon Ferry currently managed by the Bureau of Reclamation and two which are privately managed by the Montana Power Company.

As is apparent, Lewis and Clark County has a significant interest in the future management of Canyon Ferry Reservoir, as well as a significant interest in our relationships with both Federal and

State agencies in managing public lands throughout our county. We are expressly interested in management of public lands along the Missouri River corridor.

Lewis and Clark County has worked with a wide array of Federal, State and local agencies and private parties to develop a management plan for Canyon Ferry. Specifically, we have worked with the Bureau of Land Management (BLM), National Forest Service, BOR, Montana Department of Fish, Wildlife and Parks and Broadwater County to strengthen and clarify management responsibilities there.

The major reason why our county made a commitment to participate in this process is because of the deterioration evident in the public recreational facilities at the Canyon Ferry Recreational Area. This area is known throughout Montana as one of the premier recreational facilities in the State and provides important recreational opportunities for the citizens of our county. Believe that it is important also to note the meaningful educational services provided by the Canyon Ferry Limnilogical Educational Institute for the upper Missouri River corridor. Because of the deterioration, we believed that a change was necessary.

During the past 40 years, the Federal presence at Canyon Ferry has been the BOR. Frankly, that presence has been minimal and inadequate. As a result, campgrounds are overcrowded; the public health is in danger because of insufficient planning for sewer and water replacement systems for the 266 leased parcels which are less than one-half acre in size; and water supplies at camping sites have tested deficient for bacteriological contamination.

This is in sharp contrast to the county's experience with the BLM. BLM manages a host of recreational sites and facilities throughout Montana. BLM serves as the lead Federal agency for improving recreational opportunities at the two privately operated dams in Lewis and Clark County. Our experience has been that BLM is generally open, flexible and solution-oriented.

The plan which was developed to manage Canyon Ferry by all of the interests involved, including both BOR and BLM, is embodied by H.R. 1477, and we endorse this legislation without hesitation.

I might add, Congressman, that in response to the testimony given earlier by BOR and BLM, we are more than happy to take a deep breath, but we hope that we are included in those discussions as well because we are parties, and I think important ones in the future of that area.

Any management plan that is developed by the consensus, which is an approach that I believe is best when dealing with such a myriad of agencies and responsibilities we will endorse. Lewis and Clark County urges your favorable consideration of H.R. 1477.

I am more than happy to respond to any questions which you may have.

[Prepared statement of Mr. Wordal follows:]

LEWIS AND CLARK COUNTY

City County Building
P.O. Box 1724
316 North Park
Helena, Montana 59624
Telephone 406/447-8304

Board of County Commissioners

September 23, 1993

H.R. 1477

TESTIMONY OF BLAKE J. WORDAL, LEWIS AND CLARK COUNTY COMMISSIONER

Mr. Chairman and Members of the Committee on Natural Resources Subcommittee on Oversight and Investigations:

Thank you for the opportunity to testify today and to express the position of Lewis and Clark County on H.R. 1477 introduced by Montana Representative Pat Williams to provide for the management of lands and recreational resources at Canyon Ferry Recreational Area which is located in Broadwater and Lewis and Clark Counties in Montana.

I believe that it is important for you to have some knowledge about our county in order to better understand our interest in this legislation.

Lewis and Clark County straddles the continental divide in western Montana and is home to our state capitol, Helena. The county is fairly large, approximately 3,476 square miles, and over 70 percent of the county is publicly owned. Our major industries are agriculture, mining, timber, tourism and government.

The Missouri River traverses through 64.7 miles of our county and three dams along the river corridor provide important power production for Montanans and major water resources for agricultural production, fish and wildlife habitat and recreation. These dams include one at Canyon Ferry currently managed by the Bureau of Reclamation (BOR) and two which are privately managed by the Montana Power Company.

As is apparent, Lewis and Clark County has a significant interest in the future management of Canyon Ferry Reservoir, as well as a significant interest in our relationships with both federal and state agencies in managing public lands throughout our county. We are expressly interested in management of public lands along the Missouri River corridor.

Lewis and Clark County has worked with a wide array of federal, state and local agencies and private parties to develop a management plan for Canyon Ferry. Specifically, we have worked with the Bureau of Land Management (BLM), National Forest Service, BOR, Montana Department of Fish, Wildlife and Parks and Broadwater County to strengthen and clarify management responsibilities there.

The major reason why our county made a commitment to participate in this process is because of the deterioration evident in the public recreational facilities at the Canyon Ferry recreational area. This area is known throughout Montana as one of the premier recreational facilities in the state and provides important recreational opportunities for the citizens of our county. I believe that it is important also to note the meaningful educational services provided by the Canyon Ferry Limnological Educational Institute for the upper Missouri River corridor. Because of the deterioration, we believed that a change was necessary.

During the past forty years, the federal presence at Canyon Ferry has been the BOR. Frankly, that presence has been minimal and inadequate. As a result, campgrounds are overcrowded; the public health is in danger because of insufficient planning for sewer and water replacement systems for the 266 leased parcels which are less than one-half acre in size; and water supplies at camping sites have tested deficient for bacteriological contamination.

This is in sharp contrast to the county's experience with the BLM. BLM manages a host of recreational sites and facilities throughout Montana. BLM serves as the lead federal agency for improving recreational opportunities at the two privately operated dams in Lewis and Clark County. Our experience has been that BLM is generally open, flexible and solution-oriented.

The plan which was developed to manage Canyon Ferry by all of the interests involved, including both BOR and BLM,is embodied by H.R. 1477, and we endorse this legislation without hesitation. It was developed by consensus, an approach that I believe is best when dealing with such a myriad of agencies and responsibilities. Lewis and Clark County urges your favorable consideration of H.R. 1477.

I am more than happy to respond to any questions which you may have.

Mr. WILLIAMS. Our next witness is from another town in Montana that is located very near Canyon Ferry and whose citizens have many uses for it.

Mr. Tom Budewitz, we are happy to have you here

STATEMENT OF THOMAS A. BUDEWITZ, ESQ.

Mr. BUDEWITZ. Thank you, Mr. Chairman. It is a delight to be here. I am an attorney in Townsend and I represent the Broadwater County Commissioners on a regular basis. They have asked me to come back here and speak in support of this bill. I am also speaking on behalf of a number of interest groups in Broadwater County, in Townsend, including the city of Townsend, Townsend Rotary Club Lions Club, Townsend Chamber of Commerce, Broadwater Stream and Lake Committee and numerous other groups and individuals in the area who have a particular interest in this great resource.

The primary industry in the county is agriculture, but this represents a opportunity to develop some economics in the country that frankly don't exist. It is a small county, only about 3,500 people. Townsend is only about 1,700 or 1,800. Townsend is located within a mile of the south end of Canyon Ferry Lake. We are at the opposite end from Helena. We are the closest town of any size at all to the lake

As would be expected in an area like this located in the Missouri Valley between two mountain ranges overlooked by 9,000-foot Mount Baldy, which was capped with snow when I left, and there will be snow on it when I get back. It is a beautiful area, full of elk, deer, antelope, birds of every kind and excellent fishing.

You will hear those from time to time who criticize who ever is running Canyon Ferry. It has been the State Fish and Game, Wildlife and Parks Department for a number of years, the degree of happiness of the locals with the State Fish and Game Department. It depends on how the fishing is generally.

There were a lot of promises made back 40 years ago when this facility was built. One of those included irrigation.

Oddly, the driest areas in Broadwater County are those areas immediately adjacent to Canyon Ferry Lake. There is no irrigation along the lake in Broadwater County. There is some indirect irrigation benefit on the Missouri River which flows between the Townsend Dam and the Canyon Ferry Dam for about 20 miles, but nothing directly from this lake.

Broadwater Country has been, frankly, left short for the last 40 years. There has been no economic development to speak of in Broadwater County, even though 75 percent of this lake lies within Broadwater County. If you look, there are some maps contained in the draft management plan that show where the various recreation areas are. Virtually all of them are located on the Lewis and Clark County side of the line.

I am not here to start a fight between Lewis and Clark and Broadwater Counties. What we are here to do is to support this plan which we believe would allow for increased economic development, increased development of the resource, which would undoubtedly flow on both sides of the county line, because it is needed on both sides.

It just so happens that for the last 40 years we haven't gotten much. That is despite the fact that virtually everyone that uses Canyon Ferry that comes from the south or east of the lake has to drive through Townsend to get to the lake.

The closest facility to get into the water where there is a boat ramp is at the Silos Recreation area approximately six miles from Townsend and there are no docks. So in order to use a boat dock at Canyon Ferry you have to drive through Townsend, another 30 miles up to the yacht basin on the north end or to Goose Bay or Confederate on the east side. Those are all located anywhere from 20–30 miles from Townsend.

Naturally, when we think of economic development in Broadwater County the obvious place to look is Canyon Ferry Lake. Any economic development there will improve business in Townsend, will be able to affect every business, motels, restaurants, bars, all the service industries, local automobile dealer, everyone gains. Over the last year there has been much more interest in economic development in Broadwater County. Every time there is talk about economic development on the local level, we in Broadwater County think how great it would be if some of that economic development happened here where there is such a natural resource available, such an obvious place to develop.

Now my friends in Broadwater County who sent me here to speak are hard-working folks who don't mind paying their fair share of taxes as long as they think they are getting their money's worth.

They have been generally pleased up to now with the management at the lake despite their unhappiness with management's inability or unwillingness to spend the money needed for improvements.

They support this resolution because it recognizes the Federal responsibility to provide opportunities for public recreation, tourism and economic development at Federal water projects and provides for a partnership with other interested parties, both Federal and State.

Likewise, it would make no sense at all to eliminate completely all State involvement in Canyon Ferry considering the expertise which the State Department of Fish, Wildlife and Parks has developed over the years and the interest of the people of Montana in a resource such as Canyon Ferry.

Likewise, both the Bureau of Reclamation and the Bureau of Land Management have their own expertise and experience which contribute to the value of this resource. Frankly, we are not sure why there are two agencies of the same department of government fighting over who is going to control this resource. We understand it is the nature of government that these kind of fights will happen. When it happens to us, however, it is small consolation.

We say, Don't let turf fights or gridlock interfere with what is otherwise the right thing to do. Don't let the Bureau of Reclamation delay the improvement of Canyon Ferry because it suddenly has an appetite for more authority. Don't let bureaucracy become the end instead of the means. Instead, pass this resolution and let the Bureau of Reclamation and the Bureau of Land Management solve their internal problems without hurting the people.

As an additional comment, I would simply like to say that based on what I heard this morning from BuRec and BLM, it appears that there is some room for speeding up their consideration of this project.

Frankly, I am not sure how I am going to go back to Townsend and explain to my friends, the folks up there, what really is going on. I don't know how I am going to explain to them how two government agencies can fight with each other within the same department.

They will understand that there are certain changes that happen when there is a change in administration. But they don't understand when it comes home, when it hurts them.

We support cooperation on Canyon Ferry. This document is a copy of the draft management plan. As I understand it, about $200,000 came from the Bureau of Reclamation to fund that plan. It was a cooperative effort. That is what happens with cooperation between the various involved agencies. This is what happens when they fight over it; "Crunch Time on Canyon Ferry," this is the headline from the *Townsend Star* last week.

This is a problem of real interest to the folks in Broadwater County, small as it may be. They are the closest ones to the lake, and they are the ones who probably care the most about what goes on out there.

Thank you for the opportunity to speak.

Mr. WILLIAMS. Thank you.

[Prepared statement of Mr. Budewitz follows:]

STATEMENT OF THOMAS A. BUDEWITZ

TO: THE U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON NATURAL RESOURCES regarding H.R. 1477.

I am Tom Budewitz, an attorney from Townsend, Montana. Approximately 75% of Canyon Ferry Lake is located in Broadwater County of which Townsend is the County Seat.

I am here on behalf of the Broadwater County Commissioners and also speak for a variety of local interest groups including the City of Townsend, Townsend Rotary Club, Townsend Lions Club, Townsend Chamber of Commerce, Broadwater Stream and Lake Committee and numerous other groups and individuals in the area.

The primary industry in the County is agriculture with many small farms and ranches. There are also two saw mills and a lime rock mining and processing plant. The County has a population of approximately 3,500 people, half of whom live in Townsend which is located about a mile from the south end of Canyon Ferry Lake.

As would be expected in an area like this located in the Missouri Valley between two mountain ranges overlooked by 9,000 foot Mount Baldy, which is capped with snow as I speak, the County is a prime recreational area with abundant elk, deer, antelope, birds of every kind and excellent fishing. The farmlands are generally very productive although thousands of acres of the richest farm and pasture land were covered by water when the lake was filled.

Oddly, the driest land in the County is located immediately adjacent to the lake despite promises at the time the dam was built that the lake would be a source of irrigation water. So too, those

thousands of acres were removed from the local tax base and the south end of the lake has received very little in the way of capital improvements necessary to attract people and economic development to the County. That is despite the fact that a percentage of Canyon Ferry's users are either from Broadwater County or travel through the County to get to the developed areas on the north end of the lake.

Broadwater County has, in short been left out for 40 years and it does not want to see that continue indefinitely. The recently completed study and draft management plan for Canyon Ferry contains a plan for capital expenditures at Canyon Ferry over the next 10 years. While we have been working at getting some changes in the plan which would have more direct impact on Broadwater County, we are generally happy with the idea behind the plan which would likely create real economic growth in all of the population centers surrounding the lake including Townsend. Every business in Townsend, the restaurants, motels, groceries stores, the Ford dealer, the hardware store and every other business benefits from more people using the south end of the lake. What we really want is a marina and boat docks at the Silos Recreation Area which is approximately seven miles from my house in Townsend. We won't have a marina, which would be privately owned and financed, until a breakwater is built and the bay deepened. Those improvements aren't fancy but they will cost a lot of money. The State doesn't have the money. For those who question whether the State really does have the money but doesn't want to spend it on Canyon Ferry,

I remind you of the recent national news stories that our Governor is the lowest paid in the country. At a time when our university system is facing severe financial cutbacks, it is not likely that any extra money will be found in State Government.

My friends in Broadwater County who have sent me hear to speak to you are hard-working folks who, don't mind paying their fair share of taxes as long as they think they are getting their money's worth. They have been generally pleased to now with the management at the lake despite their unhappiness with management's inability or unwillingness to spend the money needed for improvements. They support this resolution because it recognizes the Federal responsibility to provide opportunities for public recreation, tourism and economic development at federal water projects and provides for a partnership with other interested parties both Federal and State. It would make no sense at all to eliminate completely all State involvement in Canyon Ferry considering the expertise which the State Department of Fish, Wildlife and Parks has developed over the years and the interest of the people of Montana in a resource such as Canyon Ferry. Likewise, both the Bureau of Reclamation and the Bureau of Land Management have their own expertise and experience which contribute to the value of this resource.

Frankly, I am not sure why there are two agencies of the Department of Interior fighting over who is going to control this resource. I understand that it is the nature of government that such turf fights will happen. When it happens to us, however, we

say: Don't let turf fights or gridlock interfere with what is otherwise the right thing to do. Don't let the Bureau of Reclamation delay the improvement of Canyon Ferry because it suddenly has an appetite for more authority. Don't let bureaucracy become the end instead of the means. Instead, pass this resolution and let the Bureau of Reclamation and the Bureau of Land Management solve their internal problems without hurting the people for whose benefit they exist.

Mr. WILLIAMS. Our next witness is also from Helena, the executive vice president of the Helena Area Chamber of Commerce, Mr. David Hemion.

Thank you for being with us.

STATEMENT OF DAVID HEMION

Mr. HEMION. Thank you for the opportunity, Congressman Williams. I have submitted comments for the record, so I will briefly summarize those in the interests of time.

First, we support H.R. 1477, especially, as the title suggests, those objectives that deal with tourism and economic development and commend you for bringing forward this bill.

Canyon Ferry is extremely important to Helena and our tourism economy. It has about a $4 million annual impact on our economy. We also recognize that Canyon Ferry does not exist in a vacuum of local interest. It is an important recreational resource with unique visitor attractions such as its inland salmon fishery, Bald Eagle migration and other such attractions.

We believe Canyon Ferry can serve to reduce pressures on other nearby attractions like Yellowstone and Glacier National Parks. In fact, that objective is the central focus of the new tourism strategy which our chamber and others in Montana have joined, the Trail of the Great Bear. That links Yellowstone, Glacier Park and the crown jewels of Canada's National Park System, Banff and Jasper.

The initiative seeks not only to promote these prime attractions, but also to channel visitors to less well-known but equally spectacular places along this corridor such as Canyon Ferry.

In order to maximize the recreational opportunities available to tax payers and to capitalize on Canyon Ferry's potential additional Federal support is needed as has been indicated for improvements to the facilities at Canyon Ferry.

Briefly, in a related issue, we would also like to indicate our support for the efforts of the Canyon Ferry Limnilogical Institute, of which you will hear more, to access Federal facilities at Canyon Ferry in order to secure its future as an important scientific and educational organization.

Finally, I would just say that, speaking on behalf of the community of Helena, we would be extremely disappointed with an alternative that studies this problem and does not bring it forward to some quick action.

So we commend you also for urging a speedy resolution for whatever consideration by the agencies is required in order to resolve the problem.

Mr. WILLIAMS. Thank you very much.

[Prepared statement of Mr. Hemion follows:]

201 E. LYNDALE AVE. • HELENA, MT 59601 • 406-442-4120
HELENA AREA CHAMBER OF COMMERCE

STATEMENT BY DAVID HEMION
EXECUTIVE VICE PRESIDENT
HELENA AREA CHAMBER OF COMMERCE
BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
COMMITTEE ON NATURAL RESOURCES , U.S. HOUSE OF REPRESENTATIVES
SEPTEMBER 23, 1993

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM DAVID HEMION, EXECUTIVE VICE PRESIDENT OF THE HELENA AREA CHAMBER OF COMMERCE. IT IS AN HONOR TO HAVE BEEN ASKED TO COME TODAY TO REPRESENT THE VIEWS OF OUR ORGANIZATION AND OUR COMMUNITY REGARDING H.R. 1477, THE CANYON FERRY RECREATION, TOURISM AND ECONOMIC DEVELOPMENT MANAGEMENT ACT.

IT IS OUR HOPE THAT THIS COMMITTEE WILL RECOMMEND PASSAGE OF H.R. 1477, AS THE ACT WILL ENHANCE THE PUBLIC'S ABILITY TO ENJOY A RECREATIONAL RESOURCE IT ALREADY OWNS, WHILE HAVING A MOST POSITIVE ECONOMIC BENEFIT TO OUR STATE AND THE HELENA AREA.

HELENA IS THE STATE'S CAPITAL CITY AND IS LOCATED ABOUT 15 MILES WEST OF CANYON FERRY. ACTIVITIES AT CANYON FERRY HAVE A DIRECT IMPACT ON OUR LOCAL ECONOMY.

CANYON FERRY RESERVOIR IS A PROMISE WAITING TO BE FULFILLED. IN ITS NEARLY FORTY-YEAR HISTORY, IT HAS NEVER BEEN ALLOWED TO BE MANAGED AND DEVELOPED TO THE EXTENT THAT THE PUBLIC COULD RECEIVE THE MAXIMUM RECREATIONAL BENEFITS THEY ARE ENTITLED TO FROM THEIR INVESTMENT. DURING THAT TIME THE PRIMARY MANAGEMENT RESPONSIBILITY FOR CANYON FERRY HAS BEEN LEFT WITH THE STATE OF MONTANA, A SITUATION WHICH HAS STRETCHED THE RESOURCES OF ONE OF THE POOREST STATES.

PLEASE CONSIDER THAT MONTANA IS THE NATION'S FOURTH LARGEST STATE IN AREA, BUT IS 44TH IN POPULATION. THE AVERAGE WAGE IN MONTANA RANKS FOURTH FROM THE BOTTOM OF THE STATES, A FULL THIRD LESS THAN THE NATIONAL AVERAGE. (1992 FIGURES, U.S. DEPT. OF LABOR; MONTANA: $19,378, U.S.: $25,903). THE COMBINATION OF THESE FACTORS LEAVES THE STATE IN A PRECARIOUS POSITION TO FUND ITS PUBLIC OBLIGATIONS. AS YOU KNOW, THE STATE OF MONTANA HAS INDICATED IT CANNOT CONTINUE TO ABSORB THE COST OF MINIMALLY MAINTAINING RECREATION AT CANYON FERRY, MUCH LESS ENHANCE AND EXPAND CANYON FERRY TO MEET THE PUBLIC'S DEMAND FOR USAGE OF THIS RESOURCE.

THE ECONOMIC FORECAST FOR OUR STATE AND REGION UNFORTUNATELY DO NOT INDICATE THAT THIS SITUATION WILL IMPROVE. TRADITIONAL MONTANA INDUSTRIES SUCH AS TIMBER ARE DECLINING AS SOURCES OF EMPLOYMENT.

MINING EMPLOYMENT IS CYCLICAL AND INCREASINGLY LESS LABOR INTENSIVE. IN HELENA OVER THE COMING TWO YEARS WE ARE FACING THE LOSS OF HUNDREDS OF OUR HIGHEST PAYING JOBS DUE TO THE CONSOLIDATION OF TELECOMMUNICATIONS AND FINANCIAL SERVICES AND THE DOWNSIZING OF GOVERNMENT.

EMPLOYMENT IN THE TOURISM INDUSTRY WILL HELP OFFSET SOME OF THIS DECLINE AND THIS ACT CAN BE A VERY POSITIVE STIMULUS TO THAT END. TOURISM SERVICES HAS BEEN A GROWTH INDUSTRY FOR MONTANA AND THE HELENA AREA. WITH AN ENHANCED RESOURCE AT CANYON FERRY WE CAN LOGICALLY EXPECT TO ATTRACT MORE TOURISTS WHOSE SPENDING WILL BENEFIT THE LOCAL ECONOMY.

FROM STUDIES CONDUCTED AS A PART OF THE RECENTLY COMPLETED CANYON FERRY MANAGEMENT PLAN, WE KNOW THAT TOURISM AT CANYON FERRY HAS A FOUR MILLION DOLLAR IMPACT ON OUR AREA IN DIRECT PURCHASE AND INDIRECT BENEFITS. CURRENTLY ABOUT 25 PERCENT OF THOSE VISITING CANYON FERRY ARE FROM OUT OF OUR STATE. THIS IS IMPORTANT, BECAUSE IT INDICATES THAT FEDERAL TAXPAYERS FROM OTHER STATES ARE BENEFITING FROM THIS RESOURCE. VISITORS ARE DRAWN BY THE INCREDIBLE MOUNTAIN SCENERY AND THE OPPORTUNITY TO ENJOY UNIQUE FEATURES, SUCH AS A PROLIFIC INLAND SALMON FISHERY AND THE PRESENCE OF HUNDREDS OF MIGRATORY BALD EAGLES.

LOOKING TOWARD THE FUTURE WE CAN SEE CANYON FERRY BECOMING AN INCREASINGLY IMPORTANT NATIONAL AND INTERNATIONAL RECREATIONAL RESOURCE. WE HAVE RECENTLY ENTERED INTO A TOURISM PROMOTIONAL STRATEGY KNOWN AS "THE TRAIL OF THE GREAT BEAR". THE OBJECTIVE OF THIS EFFORT, WHICH IS A COLLABORATION OF THE STATES OF MONTANA, WYOMING AND THE PROVINCE OF ALBERTA, IS TO ACQUAINT TOURISTS WITH TRAVEL AND RECREATIONAL OPPORTUNITIES ALONG A CORRIDOR STRETCHING FROM CANADA'S BANFF AND JASPER NATIONAL PARKS THROUGH THE WATERTON-GLACIER INTERNATIONAL PEACE PARK AND ON TO YELLOWSTONE NATIONAL PARK.

AN IMPORTANT PART OF THIS STRATEGY IS TO ATTRACT VISITORS TO THE AREAS ADJOINING AND IN BETWEEN THE WELL-KNOWN PARKS, THEREBY LESSENING THE DETRIMENTAL IMPACTS OF INCREASING NUMBERS OF VISITORS TO THESE FRAGILE ECO-SYSTEMS. CANYON FERRY PLAYS A KEY ROLE IN THIS STRATEGY, AS A RESOURCE WHICH COULD ABSORB ADDITIONAL VISITATION.

IN ORDER TO ACCOMMODATE THIS ROLE, HOWEVER, CANYON FERRY NEEDS UPGRADING. ITS WATER, ROAD AND CAMPING FACILITIES NEED TO BE MODERNIZED AND EXPANDED. WHILE THE STATE OF MONTANA HAS PROVIDED SOME IMPROVEMENTS, IT DOES NOT HAVE THE RESOURCES TO MAINTAIN AND EXPAND CANYON FERRY AS IT SHOULD BE DONE.

ONE FINAL ISSUE WHICH THE HELENA CHAMBER WOULD LIKE TO ADDRESS IS THE FUTURE OF THE CANYON FERRY LIMNOLOGICAL INSTITUTE. WE HOPE THIS BILL WILL ALLOW THE INSTITUTE TO CONTINUE TO ACCESS BUREAU OF RECLAMATION FACILITIES AT CANYON FERRY RESERVOIR. THE INSTITUTE IS PROVIDING OPPORTUNITIES TO TRAIN STUDENTS FOR CAREERS IN THE SCIENCES, AN IMPORTANT FACTOR IN OUR NATION'S FUTURE. WHILE IT BEGAN AS A PROJECT FOR LOCAL HELENA STUDENTS, ITS ENROLLES NOW COME FROM ACROSS THE NATION AND EVEN FROM FOREIGN COUNTRIES. WITHOUT CONTINUED ACCESS TO THIS SITE, THE INSTITUTE WILL BE IN JEOPARDY. THE MANAGEMENT PLAN FOR CANYON FERRY MUST RECOGNIZE THE IMPORTANCE OF THE LIMNOLOGICAL INSTITUTE AND PROVIDE SUITABLE SUPPORT AS POSSIBLE.

Mr. WILLIAMS. Our final witness is the assistant superintendent of the Helena Office of Public Instruction.

STATEMENT OF GREGG GROEPPER

Mr. GROEPPER. Today I am here to support the legislation, representing Nancy Keenan, State Superintendent of Public Instruction. I am here to support the legislation and ask consideration for a small amendment to guarantee a long-range environmental education center at Canyon Ferry, specifically at the Canyon Ferry Village site.

You may hear later, after the Bureau of Reclamation has had a chance to look at that, that BuRec is opposed to this piece of legislation because it sets a precedent requiring BuRec to pay for recreation management at the lake.

We in Montana look at this bill as an important first step in compensating Montana for all the unfulfilled promises by BuRec under the original Pick-Sloan Plan for the 1944 Flood Control Act.

Originally, there were promises under that Act of 17 hydro facilities, we have 26.

There were promises of 758 MW of power; there are over 3,000 MW being generated.

The estimate of electric power value was only going to be $3.8 million; it is over, $160 million.

While the navigation use of that facility, that drainage, was supposed to be 20 million tons; it is only averaging about 2.2 million tons average.

Montana was promised 970,000 acres of irrigation; to date we only have 73,000 acres of irrigation.

We will reserve the 104 megawatts of irrigation power, we are only using 14 megawatts of irrigation power.

The storage of these facilities along the Missouri have increased from 41 million acre-feet to 74 million acre-feet.

More importantly, Montana generates 21 percent of the power for this entire project and receives only 6 percent. That is important to us because that power is very inexpensive.

Montana has been significantly shorted on every promise under this plan, while the system generates substantially more revenue than anticipated.

Congressman Williams, you are to be commended for bringing the bill. We think it is a good first step toward compensating Montana for the unfulfilled promises of Pick-Sloan.

The other reason I appear before you today is, I guess, reluctantly I came all the way to Washington, DC, to ask your help in resolving what has been a four-year problem in Montana for the Montana Office of Public Instruction. It gets back a little bit to some of the testimony you have already heard.

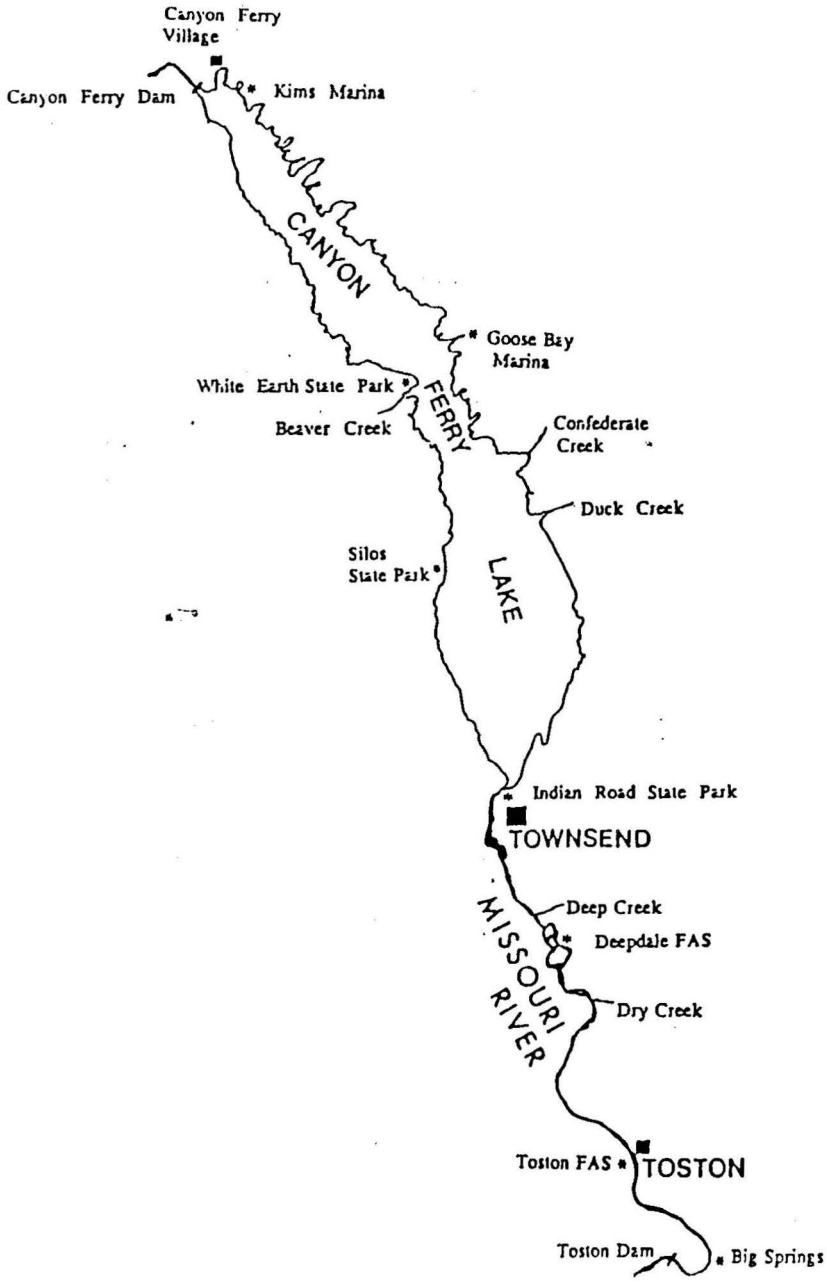
We have tried in Montana in the Office of Public Instruction for over four years to get a long-term commitment for environmental education at the Canyon Ferry Village site. I have been personally involved in those negotiations for over four years and, Mr. Chairman, I appreciate your interest in environmental education as you evidenced throughout your term here in Congress.

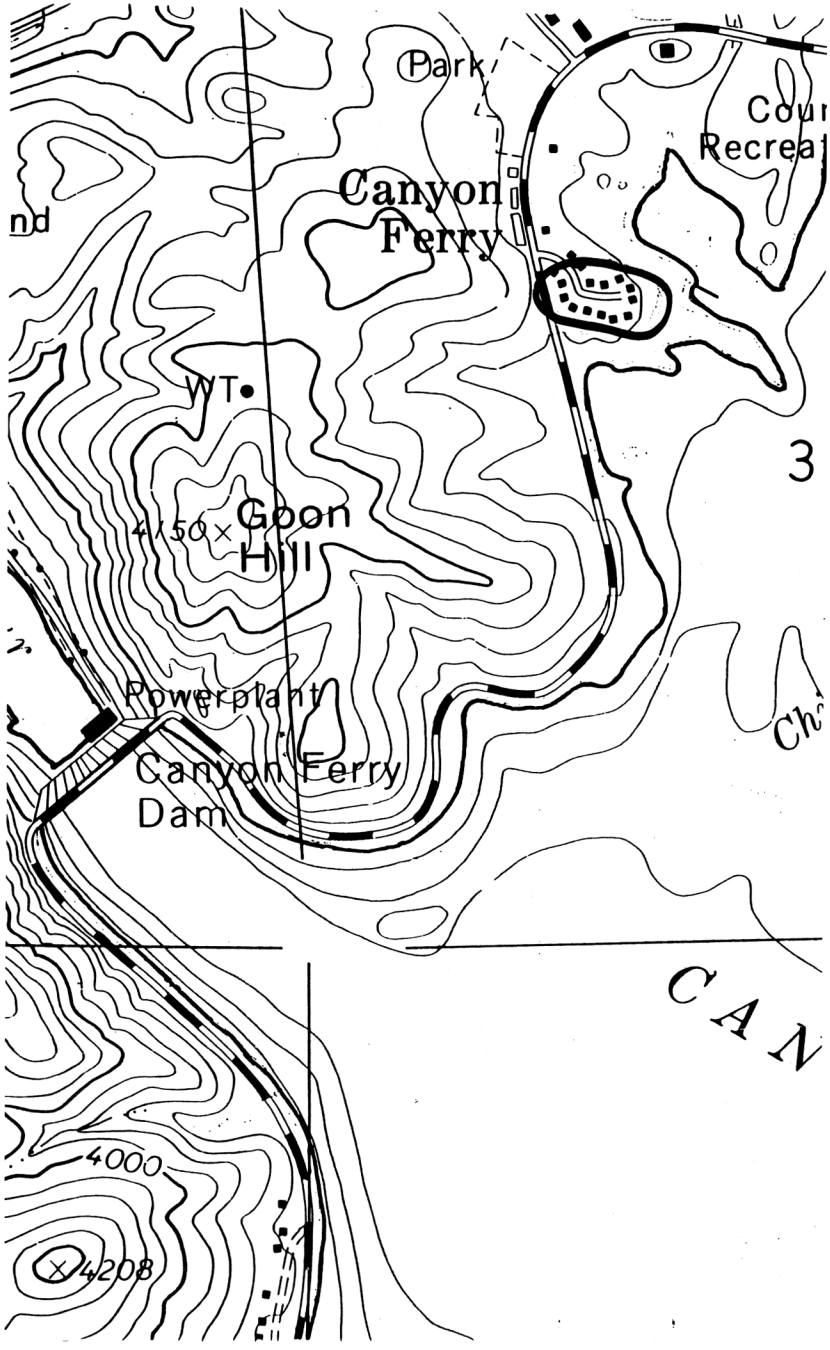
Yet in spite of the specifically stated goal of the Bureau of Reclamation "to further public education and involvement in resource

management, development and protection," and I get that quote, Mr. Chairman, out of the Bureau of Reclamation's strategic plan from June of 1992, this is not an old document, but in spite of that promise, all we have now is an agreement with BuRec, we only have a commitment to use the Canyon Ferry Village site for education purposes through December of 1995; then they told us we have to vacate the buildings we are using, so BuRec can tear them down and build an administrative complex.

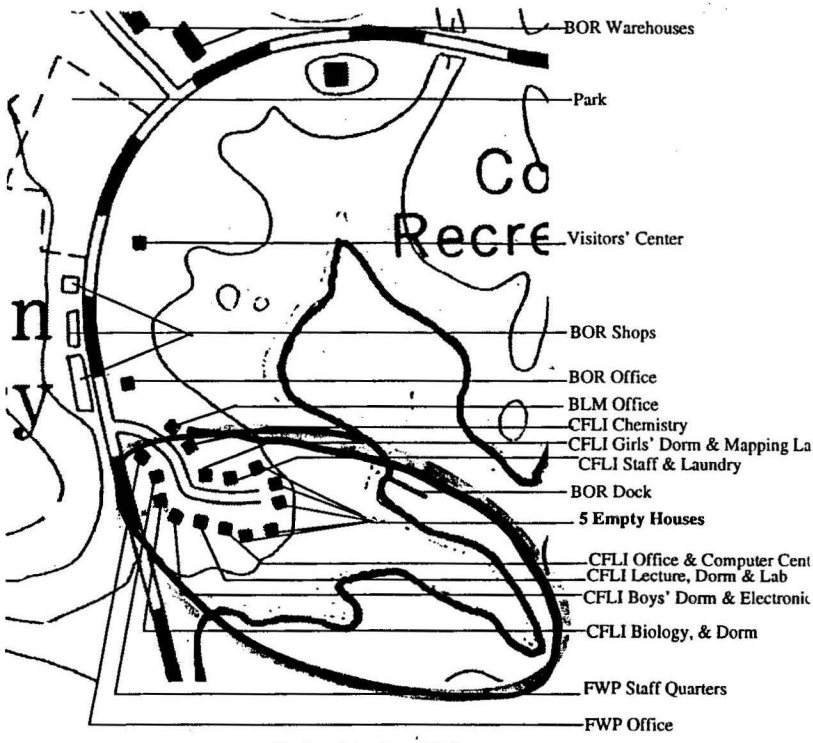
Perhaps I could explain what the Office of Public Instruction and through its contractor, the Canyon Ferry Limnilogical Institute, is doing at this site. You have three maps, that I ask to have put into the record.

[The maps follow:]


Canyon Ferry Village
Canyon Ferry Dam
Kims Marina
CANYON
Goose Bay Marina
White Earth State Park
FERRY
Beaver Creek
Confederate Creek
Duck Creek
Silos State Park
LAKE
Indian Road State Park
TOWNSEND
Deep Creek
Deepdale FAS
MISSOURI RIVER
Dry Creek
Toston FAS
TOSTON
Toston Dam
Big Springs


Park
Canyon
Ferry
nd
WT
4150
Goon
Hill
3
Powerplant
Canyon Ferry
Dam
CAN
4000
4208

Canyon Ferry Village Area



Scale: 1 inch = 350 feet

This is the point of land which contains the cul 'd sac and houses built in the late 1940's and early 1950's to house employees constructing Canyon Ferry Dam and subsequently working there. Employees no longer occupy these houses. Two are used by MT Fish Wildlife and Parks, one by BLM, and seven by the Canyon Ferry Limnological Institute to deliver its educational program. Five houses are empty. Additional houses are needed for laboratories and dormitories. The dormitories currently accommodate 15 people, utilizing both bedrroms, living room and kitchen as sleeping quarters. The institute is fully occupying all space in these seven buildings, even using garages for conference rooms and laboratories. All basements are also fully utilized for laboratories, except for the basement which is utilized as a laundry for participants.

Mr. GROEPPER. Just to put into perspective our request here, the first map shows Canyon Ferry Lake in scale and then at the top of the map you will see a little box that it says Canyon Ferry Village.

If you turn to the second map—and the scale, each one of those boxes, is about a mile, Mr. Chairman—it shows the dam, and there is a little green circle on the right that shows a portion of the Canyon Ferry Village site that we are currently using in conjunction with the Limnilogical Institute for Environmental Education.

The third page is a more expanded scale of that small area on the second page. I circled in green the area we are talking about to try to get some guarantee for long-term use of environmental education. The lake is over 30 miles long. It has over 78 miles of coastline. The site we are talking about, in total, comprises just a few acres, and I guess just a thousand feet of shore line.

What is going on at this site right now, the Office of Public Instruction has a lease with the Bureau of Reclamation to use eight buildings and access to the bay. Our annual lease cost is now over $5,000 a year plus electricity.

We, in turn, subcontract with the Canyon Ferry Limnilogical Institute (CFLI), a private, nonprofit education corporation. Under the subcontract, CFLI does environmental education teacher training, runs a summer science camp, coordinates teachers and students in seven States who are monitoring water quality in the entire Missouri River basin, and they have presently under way teacher and student exchanges with Russia through Moscow University.

The faculty of CFLI has three Presidential awardees, two McAuliffe Fellows, one State Biology Teacher of the Year, and one Western regional "Search for Excellence Awardee."

I call your attention to a document that is also in the record. On the back of that you will see there the accomplishments of some high school students who went through this institute in the summer.

We have Westinghouse Talent Search winners. We have Congressional Accommodation Presidential winners. We have Presidential Scholars, a number of significant scientific achievements.

We are only able to operate this project in the summer right now. What we are looking to have is a long-term commitment so the Office of Public Instruction can work with the Canyon Ferry Linmilogical Institute, to develop Montana's first magnet science and environmental education center. But we have to have a long-term commitment before we can do that.

Once we can set that center up, we can have children in Montana, grades K–12 attending year round, taking access of the tremendous scientific equipment that is out there and expanding the use of this facility.

So, Mr. Chairman, what we would really like to see is something in the bill. We appreciate a pause, a time to look at this, but we are concerned that if we don't have something in the bill, we will have another four years of dealing with bureaucracy trying to establish a long-term commitment here. Without that long-term commitment of the site, we cannot get funding for the Canyon Ferry Limnilogical Institute for private sources.

What we are asking for is not unusual. The Department of Agriculture in Montana has made a long-term lease with Western Montana College for facilities at $1,000 a year for 20 years.

The Forest Service has a long-term lease with educational facilities for use of the Big Creek Ranger Station, and they are currently talking about a 50-year lease.

We would like a guarantee in the bill that the Office of Public Instruction could have a similar long-term commitment for the unoccupied buildings at the Canyon Ferry Village site, along with access to the Bay.

We think the public interest is better served dedicating these empty buildings to education instead of tearing them down, at some government expense, and building an administrative complex.

Thank you, Mr. Chairman.

Mr. WILLIAMS. Thank you.

[Prepared statement of Mr. Groepper and attachment follow:]

Gregg Groepper
Assistant Superintendent

Representing Nancy Keenan
State Superintendent of Public Instruction

I'm here to support the legislation and ask consideration for a small amendment to guarantee a long range environmental education center at Canyon Ferry, specifically at the Canyon Ferry Village site.

1. You may hear later that BuRec is opposed to this piece of legislation because it sets a precedent requiring BuRec to pay for recreation management at the lake.

We in Montana look at this bill as an important first step in compensating Montana for all the unfulfilled promises by BuRec under the original Pick-Sloan Plan.

Promises	Results
17 Hydro facilities	26 Hydro facilities
758 MW of power	3,116 MW
Electric power value $3.8M	$160.0M
Navigation use 20M tons	2.2M tons average.
970,000 acres of irrigation	73,000 acres
104 MW irrigation power	14MW
Storage of 41 M acre feet	74M acre feet

In addition:
Montana generates 21% of the power and receives only 6%

Montana has been significantly shorted on every promise while the system generates substantially more revenue than anticipated.

Congressman Williams is to be commended for bringing the bill before you. It's a good first step toward compensating Montana for the unfulfilled promises of Pick-Sloan.

The other reason I appear before you today is to ask your consideration in stabilizing a frustrating problem specific to the Montana Office of Public Instruction.

Our office has tried for over four years to get a long term commitment for environmental education at the Canyon Ferry Village site. Environmental education has long been an interest of Congressman Williams as evidenced by his support of the Rattlesnake Wilderness area near Missoula.

Yet, in spite of the specifically stated goal of BuRec to "further public education and involvement in resource management, development, and protection" we only have a commitment through December of 1995 then we have to vacate the buildings we are using so BuRec can tear them down and build an administrative complex.

Perhaps I could explain what we are doing at this site.

First to put the site in perspective I have a couple maps for your information.

The lake is over 30 miles long and has over 78 miles of coastline. The site we're talking about is only a few acres.

What's going on:

The Office of Public Instruction has a lease with BuRec for use of 8 buildings and access to the bay. The annual lease cost is now over $5,000 a year plus electricity. We in turn subcontract with the Canyon Ferry Limnilogical Institute (CFLI), a private non-profit education corporation. Under the subcontract CFLI;

does environmental education
teacher training
runs a summer science camp
coordinates teachers and students in 7 states who are monitoring water quality in the Missouri River basin.
teacher and student exchanges with Russia through Moscow University.

The Faculty has:
3 Presidential awardees
2 McAuliffe Fellows
1 state biology teacher of the year
1 Western regional "Search for Excellence Awardee"

Where our office would like to go is to develop Montana first magnet science school on a year round basis so more Montana students can take advantage of the great facilities.

Students have been very successful as evidenced by the handout. I'd draw special attention to 3 Presidential scholarships and a Congressional commendation for research affecting public health.

Since we have been unable to achieve a long term commitment through over 4 years of discussion, we'd ask the committee to include language in the bill requiring long term use by the Montana Office of Public Instruction of the residences and the point, as long as the property is used for education purposes.

The Department of Agriculture has made a long term lease with Western Montana College for $1,000 per year. The Forest Service has long term lease for use of the Big Creek Ranger Station, and a 50 year lease is under consideration. We'd like a guarantee, in the bill, for long term use of the facilities we're presently using, along with the point of land described in the maps and access to the Bay.

We think the public interest is better served dedicating these empty buildings to education instead of tearing them down, at some government expense, and building an administrative complex.

AFFILIATES

Organization	Provision
Montana Office of Public Instruction	Supervision
US Bureau of Reclamation	Housing
Montana State University	Credit
Natural Products Institute	Mentorship/Equip
Missouri Western State College	Downstream Coord
Moscow State University, Russia	Professors

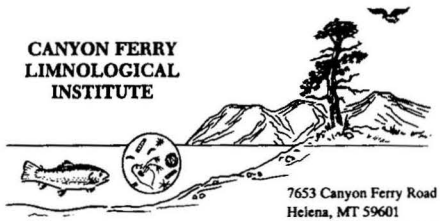
MT Dept. of Helath, Water Quality Bureau Technical Support

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Ray Hamilton	Chemist
Ernie Nunn	US Forest Service, Retired
Ed Johnson	Statistician
Robert Briggs	MT Systemic Initiative for Mathematics & Science

ACCOMPLISHMENTS of STUDENTS

Westinghouse Science Talent Search - 1 in Top 10, 1 in Top 40, 3 in Honors Group
Junior Science & Humanities Symposium
National - 1 1st place, 2 2nd places
Regional - 4 1st places, 4 2nd places, 28 Delegates
DOE Fellowships - 4 Fellowships
Junior Academy of Sciences
National - 3 presenters
State - 6 1st places, 1 2nd place, 2 3rd places
Published in Proceedings of the Montana Academy of Sciences - 3 high school students
USA TODAY ALL American Academic Team - 1 1st Team, 1 2nd Team, 3 College 1st Team, 1 Honorable Mention
American Cancer Society Fellowships - 5 Fellowships
ACS Chemistry Olympiad - Montana Section, 2 1st Places
International Science Fair - Environmental Science 1st Place, 3rd place Grand Award, American Water Works Assoc. 1st place, Department of the Interior/Bureau of Reclamation 1st place, 1st & 4th place Grand Award in Microbiology, 2nd in Biochemistry, 1st place Fish & WildlifeService
American World of Water - 1st place
Montana Engineering Society Award - 1st place
Congressional Commendation for research affecting public health - 1 high school student
Tandy Scholar - 1st place
National Horticulture Award - 1st place
Barry Goldwater Scholarship - 2 students
Presidential Scholarships - 3 students
Research published in Montana Clearwater - 1 student
National Youth Science Camp - 1 student
Ford Foundation Award - 1 student
American Lung Association Award - 1 student
Summer Intern Research Asst. at Brookhaven National Lab 1 high school student
Fellowship at Brandeis University - 1 student



7653 Canyon Ferry Road
Helena, MT 59601
Ph. (406) 475-3638
FAX (406) 475-3871

The Canyon Ferry Limnological Institute, Inc., is a public, nonprofit, 501 (c)(3) Montana corporation formed in 1991 to offer science research and educational opportunities to students, professionals, and citizens. Most of our efforts are centered around the aquatic environment, although studies involving land and air are also considered. We operate through an agreement with the Montana Office of Public Instruction in facilities provided by the US Bureau of Reclamation.

The Canyon Ferry Limnological Institute does not discriminate on the basis of race, gender, color, creed, religion, national origin, age, physical or mental handicap, political belief, or marital or parental status, unless based on reasonable grounds as provided by law. The program provides educational and programmatic services free of stereotype, bias, harassment, or intimidation.

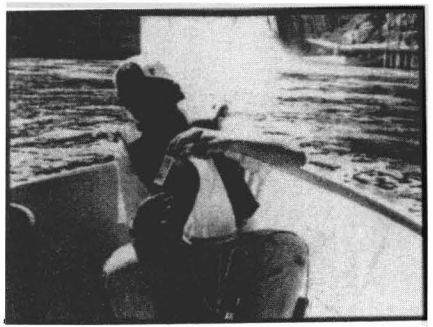
MISSION

- **Interest students in careers in science, engineering, and technical fields to help meet America's needs.** This is accomplished by involving students in hands-on science projects that are meaningful, yet within their range of capability.

- **Enhance teachers' scientific understanding and laboratory competence.** This is accomplished by involving them in the use of standard and cutting edge laboratory and field equipment as they design and conduct projects they can implement in their own classrooms.

- **Increase scientific literacy.** This is accomplished by involving citizens in programs which expand their knowledge of scientific, social, political, and economic issues which involve the environment, especially water.





LOCATION

Located 18 miles east of Helena, Montana, on the shores of Canyon Ferry Reservoir, our site at Canyon Ferry Village is made available through a US Bureau of Reclamation special use agreement with the Montana Office of Public Instruction, which contracts with us to provide educational services.

Our location on the uppermost large impoundment of the Missouri River provides unique opportunities for investigating the river and its headwaters before the Missouri River merges with the Mississippi River 2700 miles downstream.

PROGRAMS

We are currently engaged in offering educational programs to students in grades 7-12, to inservice teachers, to graduate students doing research, and to Montana citizen volunteers monitoring the water quality of lakes outside the Flathead Basin. We coordinate students and teachers in seven states who are involved in monitoring the Missouri River. We are also developing a Russian teacher and student exchange program through Moscow State University.

Current Programs and Funding Sources

Waters of the West	9-12	NSF
Missouri Riv. Water Qual. Net.	Teachers	NSF
Lakeshore Logic	7-8	Tuition
Independent Research	9-Univ	Tuition
Montana Clean Lakes Program	Citizens	EPA/WQB
Various Inservice Workshops	Teachers	Tuition



Mr. WILLIAMS. Mr. Graham, would you grab a chair and come back to the witness table, please? I want to begin by asking the State's opinion and view of Mr. Groepper's suggestion about a long-term commitment for the continuation of the Linmilogical Institute, but more an environmental education center on that site. Does the State have a opinion about that—that is, a legislated solution?

Mr. GRAHAM. No, we don't. I am certainly familiar with the Institute and the people that run it. We support it. We put money into it. When it comes to the facilities and those kind of questions, those are Federal facilities and we have not taken a position.

I think it would be well if we could resolve the issue. I appreciate the frustration of the Institute not being able to get firm commitments from the Federal Government there. Whether putting it in the bill is an adequate way to go or if there is some other way to go about it, I cannot say.

Mr. WILLIAMS. Mr. Groepper, in the discussions that went forward between the State and the two agencies, was Superintendent Keenan's office involved in those discussions?

Mr. GROEPPER. Mr. Chairman, we were involved in the discussions with the Bureau of Reclamation. It was since 1992 that we have been involved in the discussions. I would have to say they are some of the most frustrating sets of discussions I have ever been party to.

Mr. WILLIAMS. With regard to the discussions on the Memorandum of Understanding, was the Superintendent's office involved in that?

Mr. GROEPPER. Mr. Chairman, we are not involved at all. We were talking with BuRec. It was never brought to our attention that there was a discussion going on about this or that we should be a party to that discussion.

Mr. WILLIAMS. I have had communication with BuRec about this and they have been resistant, as you know, to the Institute's long-term use of the current site. I have managed to get some flexibility out of them through the years, working with both your office and with Gil about it.

It is my sense that the agencies would not support legislation that required or that instituted a legislative solution to the problem.

Now, inasmuch as the Memorandum of Understanding may—and I emphasize "may"—during this pause be reopened for further negotiations, then that happy news in that sad situation is that it might allow another party, namely the Superintendent and the folks from the Limnilogical Institute to enter the negotiations to see if we could not find a legislative solution for them.

I would be happy to pursue that with you and with Nancy Keenan, to see if we can get you a seat at the table.

Mr. GROEPPER. Mr. Chairman, I believe at this point we would be happy for any involvement. I guess what I was trying to address earlier, the negotiations heretofore have been frustrating because it is apparent that the Bureau of Reclamation wants to reserve the site of land where those buildings are for a future administrative complex.

We have had better discussions and a more amiable sense of resolving this with the Bureau of Land Management, quite frankly,

than we have had with the Bureau of Reclamation, but we certainly would be willing participants at the table to try to keep this science camp going on a long-term basis.

Mr. WILLIAMS. Mr. Budewitz, are you recommending any changes in the Memorandum of Understanding to try to improve the reservoir's benefit to Townsend? I have noticed, as well, through the years that Lewis and Clark County has received more of the benefits, at least with the site development, than has Broadwater; but I am uncertain whether you are making recommendations with regard to a new Memorandum of Understanding.

Mr. BUDEWITZ. I don't think it would require any changes in the Memorandum of Understanding. What it will require is money. The difficulty had always been, as I understand it, in the past, that fish and game in the State of Montana simply don't have the money for the development of any additional facilities at Canyon Ferry. If there is going to be any new money spent, it is going to have to come from the Federal Government, from one of the two Federal agencies.

We are generally satisfied with the proposals contained in the draft management plan. Through the course of the public legislation that was held last spring, we made known some requested changes and modifications in that plan. The final draft of the plan, I don't think has been adopted yet. But we think that the priority says that the expenditure of money can be handled within the management plan, rather than through legislator, through any amendments to the MOU. Once this resolution is passed, that enables the BLM to spend money at Canyon Ferry.

The projects that are identified in this management plan, I have been told would cost about $10 million. They are talking about spending perhaps $1 million a year for 10 years. It is a 10-year plan. That is fine. We would like to see it $20 million or $30 million, but $10 million is more than has been spent for quite some time in the development of additional sites or the improvement of existing sites at Canyon Ferry. We are happy with that.

We are not asking for Cadillacs. We want the expenditure of some money by an agency that has some money at Canyon Ferry, and we will take our chances on getting our fair share.

Mr. WILLIAMS. Well, I would address my response to you, as well as Mr. Hemion and Mr. Wordal and that is that it is almost a certainty that whichever of the two agencies here, BLM or BuRec, takes the lead in this, the facilities at Canyon Ferry are going to receive additional money and the burden on the State is going to be reduced.

One of the real questions before us is. Will the Federal contribution require a match from the State or not? I know each of you is sensitive to deficit problems because you come from a State, our State, that has a deficit, as do three dozen other States in this country. You come to address a Federal Government that also has a deficit.

Let me ask you a somewhat rhetorical question. I do this not to try to influence in any way the rewriting of the Memorandum of Understanding, because my own preference is that this Memorandum of Understanding go forward.

By the way, before this hearing closes, I ought to be sure I make that clear. I am for this bill as it sits. A pause is one thing; changing the language of the legislation is entirely another matter. I have agreed only to the pause.

Having said that, and given the deficits both in your State and in our Nation, is it fair or unfair—and fairness is always in the eye of the beholder—to ask the Federal Government to pay virtually the entire cost of this with no match from the State? What are the benefits that each of you could speak to that are received by Montanans that are worth a match from the State of Montana?

Mr. Wordal, you are the Commissioner in the county that enjoys the greatest benefit.

Mr. WORDAL. Mr. Chairman, I think it is important to point out what the Director of Fish, Wildlife, and Parks mentioned in his testimony, and that is that we need to focus on this, not just from this day forward but from the past. The State has spent a great deal of money on facilities at Canyon Ferry that have not been matched by BuRec.

The county, as well, spends a great deal of money that is not recognized. In fact, you could not reach Canyon Ferry Reservoir if it were not for county roads. We have built them; we maintain them. People would not be able to use the recreational facilities or even approach the dam itself if it were not for those county roads. That is part of the money that we contribute to this partnership.

I think that often that county element is overlooked, that with better recreational opportunity there will be more use of those roads. More use of those roads means that they deteriorate quicker.

We are willing to deal with that part that is ours in this grand reawakening of Canyon Ferry, as we have done down on the Bear Tooth to other recreational facilities—in cooperation, I might mention, with Fish, Wildlife, and Parks, BLM, and the National Forest Service. We are more than happy to pull our own weight.

But when it comes to the capital expenses that are needed at Canyon Ferry, Lewis and Clark County does not have the resources, and I know the State does not have the resources; those capital improvements are expensive.

Mr. WILLIAMS. Mr. Budewitz, you mentioned and I alluded to my agreement with you that your county and the city of Townsend has had the short side of the benefits and improvements at Canyon Ferry. How would you respond to a match rather than entire Federal contribution?

Mr. BUDEWITZ. Personally, I would echo Blake's comments and say not only do we supply roads in access to the lake, but fire service, law enforcement service and other impacts. But I will tell you, Mr. Chairman, that frankly, in considering the draft management plan—that is, before we attended the various public hearings that were held on this plan—in my discussions with the Broadwater County commissioners, one of the principal interests in Broadwater County at Canyon Ferry, probably the major thing that we want at Canyon Ferry is the construction of a breakwater at the Silos Recreation Area.

The Silos are located about six miles from the front door of my house in Townsend. There are no docks. You can put a boat in the water at the Silos at the ramp, but you cannot dock your boat there

even temporarily. There are no docks. The reason is that there is no breakwater. There has to be a breakwater constructed there, a permanent one; they tried a temporary one a few years ago, and it didn't work.

There has to be a permanent breakwater. I don't know what that will cost to build. The commissioners may have in the context of discussing this plan and identifying that that is what has to be built there. In order to really, truly develop the Silos area, they have talked about the possibility of even private funding or raising money locally—if not tax money, private money—by voluntarily supplying materials, by matching Government grants in that fashion if those types of grants were available.

So I say, the folks in Broadwater County would obviously prefer that. The Federal Government must recognize it is a Federal facility that was built 40 years ago, based on promises that have not all been kept; and it is time for the Federal Government to do some of the things that should have been done for the last 40 years.

But I say that, while at the same time recognizing that we are not begging for money. What we want is enablement. What we want is a plan that will allow development at Canyon Ferry. If the money becomes available, that is great. That is a windfall to us.

What we want is enablement. We want a system set up so that there is a plan such as this that provides for the development perhaps in stages and based on a prioritization of available money over a period of time—put that in place first, and then if the money becomes available and under what circumstances the money becomes available is another problem and we will deal with that.

Mr. WILLIAMS. Mr. Hemion, the Chamber of Commerce, both Montana and other States and particularly nationally, has been an aggressive proponent of reduced Federal expenditures and, as I recall, was supportive of the kinds of ideas that came out a number of years ago in the Grace Commission Report, a number of proposals, many of which have been accepted by the Congress and encouraged by the U.S. Chamber. That is an effort to reduce the Federal deficit.

Included in those reports were significant increases in fees on local people who use recreation areas or a no less than 50/50 match and some went to an 80/20 match, 80 local and States, and 20 Federal.

Grace's logic was that local people use the areas, local people ought to be the ones to pay for it. The Congress has resisted that through the years, I have resisted myself, but now we have a democratic administration newly arrived that is taking this MOU and others similar to it and saying, hold it, we are going to stop the open-ended, no-match expenditure of Federal money and, interestingly enough, moving toward what the Grace Commission asked for.

What do you think, given that?

Mr. HEMION. Philosophically I would tend to agree that there probably needs to be a more direct relationship between the users of facilities and what it takes to run those. That is probably no surprise coming from this perspective. However, the reality is different, that we have a Federal facility, as has been stated, that has been basically carried by the State in terms of its recreational obli-

gations for the history of the project, and that situation, I think, has to be looked at somewhat uniquely.

There are certainly, I wouldn't say significant increases in fees, but I think some increases in fees may need to be looked at if there are benefits that are derived from those fees.

For example, the Park Service has just agreed to start collecting fees at the entrance points where they have where they have abandoned those points in the past because the fees they collected had to revert to the Treasury instead of back to the Park Service even to provide payment to the people collecting the fees.

So if some kind of a relationship on a more beneficial use of those fees could be directed at Canyon Ferry, I don't think you would see a resistance from local people in paying more, if the facilities were well maintained, if they were brought up to code and if they were expanded to do the things that Canyon Ferry has the potential to do in the mix of regional tourism for that part of the country.

On the other hand, I don't think the fees will be able to carry the burden alone and there is a sense that this situation ought to be looked at a little more in isolation in terms of the Federal participation.

Mr. WILLIAMS. Mr. Graham, you spoke to this some in my earlier question to you, but given the testimony that has preceded, what is your view of the State accepting a match?

Mr. GRAHAM. A couple of things.

We have been aggressive in trying to get some of that local contribution back into the management of that reservoir. In the last ten years, we have tripled our revenues from all the various sources that we have, including creating an entrance fee, raising camping fees, raising leases for cabin site owners and concession fees.

So the four areas that we have available to raise revenues and turn the money back into the site we have used and increased as well as an increasing amount of use.

The other point I would like to make is that we manage the fishery, the wildlife, through management of the pond system, the Dust Abatement program there. All those are State-funded programs that the State does without any compensation back from the Federal Government.

So from our perspective, I think we are providing quite a bit of State side to this program that we are not getting 50/50 cost-shared for.

Looking at the bigger picture, we are putting a fair amount of resources into the project.

Mr. WILLIAMS. Thank you.

I want to place into the record at this point two letters that we have received. One is from the Townsend Area Chamber of Commerce over the signature of Mary Alice Upton; and the other letter of testimony that will be included in the record is from the Canyon Ferry Recreation Association over the signatures of Mr. McLaughlin and Mr. Leary.

[EDITOR'S NOTE.—These documents can be found in the appendix.]

Mr. WILLIAMS. I want to say again that I am supportive of the memorandum. I am supportive of the MOU and of this legislation which would authorize that agreement. We recognize full well that any legislation that is to pass and ultimately be signed into law must have the support of the administration.

I am hopeful that in this pause we can arrive at support for this legislation. But we do have to consider that the Congress doesn't sign bills into law; the President signs bills into law. So we have an Executive Branch to negotiate with here, and so we will do that. I have decided that if the negotiations begin to drag, or we are unable to reach any agreement, then I will propose to move the legislation as is possible with amendments for the Limnological Institute and the education center. But let's see first if we can't find agreement with the administration, and just as importantly, with the leadership of this committee and the House.

My two colleagues, Senator Baucus and Senator Burns, will of course need to get the same type of unanimity with the administration and with their leadership in order to move the bill over there as well.

Again I want to thank all of you for coming back. Your counsel has been very important to us and I appreciate seeing all of you and hearing your testimony.

Thank you very much.

The hearing is adjourned.

[Whereupon, at 1:40 p.m., the subcommittee was adjourned.]

APPENDIX

YAKIMA RIVER BASIN

September 23, 1993

ADDITIONAL MATERIAL SUBMITTED FOR THE HEARING RECORD

WATER MARKETING AND INSTREAM FLOW ENHANCEMENT IN WASHINGTON'S YAKIMA RIVER BASIN – PROCEDURES FOR DRY YEAR LEASING AND TRANSFER OF WATER

A DRAFT FINAL REPORT

BY THE ENVIRONMENTAL DEFENSE FUND

TO THE WASHINGTON STATE WATER RESOURCES ASSOCIATION AND THE U. S. BUREAU OF RECLAMATION

MAY 28, 1993

WATER MARKETING AND INSTREAM FLOW ENHANCEMENT IN WASHINGTON'S YAKIMA RIVER BASIN – PROCEDURES FOR DRY YEAR LEASING AND TRANSFER OF WATER

A DRAFT FINAL REPORT BY THE ENVIRONMENTAL DEFENSE FUND TO THE WASHINGTON STATE WATER RESOURCES ASSOCIATION AND THE U. S. BUREAU OF RECLAMATION, MAY 28, 1993

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WATER MARKETING AND INSTREAM FLOW ENHANCEMENT IN WASHINGTON'S YAKIMA RIVER BASIN – PROCEDURES FOR DRY YEAR LEASING AND TRANSFER OF WATER

A DRAFT FINAL REPORT
BY THE ENVIRONMENTAL DEFENSE FUND TO
THE WASHINGTON STATE WATER RESOURCES ASSOCIATION AND
THE U. S. BUREAU OF RECLAMATION,
MAY 28, 1993

Executive Summary

Inadequate streamflows in select tributaries of the Columbia River Basin have been identified for improvement to protect anadromous fisheries. The Phase I amendments to the Columbia River Fish and Wildlife Program adopted by the Northwest Power Planning Council call for water conservation projects to enhance instream flows to be planned and implemented by the end of 1993 and 1996 respectively. In early 1992, water resource and fishery agencies, along with the Yakima Indian Nation, identified the fluctuating flows in the lower reaches of the Yakima River as a problem that affects the anadromous fish resource. The establishment of a water leasing procedure to augment flows in the Yakima at critical times was called for by these groups.

The Washington State Water Resources Association and the U.S. Bureau of Reclamation have established a Yakima Basin Water Leasing Project under the cooperative direction of representatives of Yakima Basin water districts and landowners; the Washington Department of Ecology; the U.S. Bureau of Reclamation; and the Yakima Indian Nation. In late 1992, the Environmental Defense Fund (EDF) was invited to develop the procedures and information necessary for water leases and transfers to instream flows to occur in the Yakima Basin. This report by EDF contains the following elements:

- Principles governing the implementation of a Yakima Basin Water Leasing Program to enhance instream flows are stated for review and consideration by the Basin's water using communities.

◆ Key institutions in the implementation of a Yakima Basin Water Leasing Program are identified, and their respective roles in the Program are evaluated.

◆ The formation of two key entities is proposed for the successful implementation of a Water Leasing Program. The Yakima Basin Trustees would represent the instream flow "demand side" interests, with financial support for the Program being a prerequisite to Trustee membership. A Lease Oversight Committee would represent water rights holders in the Yakima Basin, and would serve as a reviewer of proposed leases to assure that no injury to other water rights holders would occur as a result of Program water leases.

◆ Economic elements of water lease contracting and pricing are analyzed, including sample estimates of lease prices and an explanation of how option contracting could be used for dry year water leasing for instream flow enhancement in the Yakima Basin. Estimates are provided of the financial requirements to undertake an illustrative Program of enhanced instream and smolt pulsing flows in the Basin.

◆ Alternative methods for the solicitation of water supplies and lessor asking prices are evaluated, with the choice among these methods identified as a key initial task of the Yakima Basin Trustees.

◆ A proposed agreement for a dry year lease -- along with an option to lease -- water for enhanced instream flows is presented. Included in the agreement are informational requirements which would also meet any legal conditions governing water transfers existing in Washington State water law and in the procedures of the Yakima Basin water rights adjudication contained in orders issued by the Superior Court of the County of Yakima.

◆ A survey is provided of pertinent legal factors governing a Yakima Water Leasing Program which currently exist in state and federal water laws as well as in the water rights adjudication proceedings.

◆ Five potential types of funding for the Yakima Water Leasing Program are identified and discussed, including federal spending authorities; federal user fees; authorized programs of the State of Washington; the programs of the Bonneville Power Administration; and models for public-private partnerships to acquire water or land for environmental purposes.

The impetus for this project and report is to initiate a process leading to the actual consummation of dry year leases to enhance instream flows in the Yakima Basin. An agenda for future actions to continue this process is as follows:

- Reconstitute the Yakima Water Leasing Working Group to include existing members of the group willing to serve on a Yakima Water Leasing Program Pilot Committee to oversee a Pilot Water Leasing Program during the 1993-95 period.

- Identify three to five funding entities willing to contribute both funds and a representative to a pilot Yakima Basin Trustees group during the 1993-95 period.

- Target one or more pilot water leases in the Yakima Basin with the potential to deliver at least 50 cfs of enhanced instream flows at the Parker gauging station for a 6 week period during the 1994 and 1995 water years.

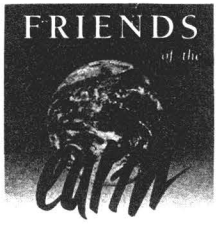
- Raise at least $400,000 to cover the costs of the Pilot Program during the 1993-95 period, including the costs of both pilot water leases and of staffing the Pilot Program.

- Develop an educational packet of briefing materials based on the information in this report for use in discussions with members of the Yakima Basin's water using communities.

- Schedule and deliver a number of briefings for a broad spectrum of water using communities in the Yakima Basin as well as for pertinent state, federal, and private entities.

- Work with the U. S. Bureau of Reclamation's Yakima Project staff to develop an operating agreement suitable for use by the Trustees and lessor water districts in managing leased water supplies.

- Develop a long-term organizational plan for the Trustees, including the possible incorporation of a Yakima Basin Trustees organization in the State of Washington as a nonprofit public interest organization with the goals of enhancing instream flows in the Yakima Basin using voluntary water leasing and marketing.



WRITTEN STATEMENT OF

FRIENDS OF THE EARTH

David E. Ortman
Director
Northwest Office
Friends of the Earth

before the Subcommittee on Oversight and Investigations
Committee on Natural Resources
U.S. House of Representatives

23 September 1993

on H.R. 1690 - To authorize certain elements of the Yakima River Basin Enhancement Project.

Thank you for the opportunity to submit these written comments for the hearing record on H.R. 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project, and for other purposes.

My name is David E. Ortman, Director of the Northwest Office of Friends of the Earth, 4512 University Way N.E., Seattle, WA 98105. We have been intimately involved in Yakima River Basin issues for the past two decades. In April of 1977, on behalf of Friends of the Earth, I testified before the Bureau of Reclamation on a Draft Environmental Impact Statement in opposition to a proposed Bumping Lake Enlargement project. In April of 1979, I testified before the House Committee on Interior and Insular Affairs in WA D.C. on H.R. 3489, a bill to authorize an enlarged Bumping Lake Dam (which we opposed) and H.R. 2757, a bill which we helped write to establish the original Yakima River Basin Water Enhancement Project legislation which passed as P.L. 96-162.

On 6 July 1982, I submitted a report to the N.W. Regional Power Council on the Proposed Yakima River Basin Fish and Wildlife Recommendations under the Pacific Northwest Electric Power Planning and Conservation Act of 1980. On 20 September 1982, I submitted written comments to the BuRec on its Phase 1 Study Team Report on the Yakima River Basin Water Enhancement Project reevaluation of potential storage reservoirs. In June of 1986, I submitted comments to the BuRec on its Phase 2 Status Report.

In addition, I testified before the Subcommittee on Water and Power of the U.S. Senate at two Yakima, Washington field hearings. The first on 1 July 1986 on S. 2519 and the second on 19 October 1987 on S. 1435.

The Yakima River is an overallocated basin. In our view, the State of Washington has not carried out its responsibilities for efficient water management. A recent State Supreme Court case has further clouded the issue of the state's role. Furthermore, the Yakima Indian Nation has been poorly served by the Bureau of Reclamation's Yakima Basin Project. In addition, we are extremely concerned about the status of anadromous fish runs in the Yakima River Basin. In our view, several of these runs should now be listed under the Endangered Species Act.

Since neither a State or Federal Environmental Impact Statement has been prepared, it is incorrect to say that a Yakima River Basin Enhancement Project exists or has been agreed to. Since 1979, the joint work of the U.S. Bureau of Reclamation (BuRec) and the WA Department of Ecology (Ecology) to carry out P.L. 96-162 has, however, revealed several non-controversial elements which appear to have merit, regardless of any total resolution of the complex issues in the Yakima River Basin.

The first such identified element was the need to rehabilitate fish passage facilities at existing irrigation facilities in the Yakima Basin. In 1982, we supported H.R. 5301, a bill to rehabilitate the Yakima River Basin anadromous fish runs. As passed by Congress, the bill corrected decades long functional design problems which had plagued upstream anadromous fish passage.

These efforts have not, however, dealt with the fundamental misallocation of water resources in the Yakima River Basin. Nor have they lead to increased instream flows for fish and wildlife.

For example, roughly half the Wenatchee National Forest is in the Yakima River Basin. In 1986, we reviewed the Wenatchee National Forest DEIS and Proposed Land and Resource Management Plan. We were dumbfounded to find that the U.S. Forest Service proposed, through additional clearcutting, to increase annual water yield 13,300, 19,100, and 23,900 acre-feet in the first, second and fifth decades. Yet the Wenatchee National Forest made no effort to determine when this increased water yield will take place. If it occurs during times of peak runoff, this water yield will be wasted. If, however, water yields from the forest

could be delayed longer into summer by retaining snowpack, instream flows would receive additional benefits.

In our view, the Yakima River Basin is like a sponge and that sponge should be squeezed tightly before additional dams are built. It is our position, that the primary reason for the existing difficulties in the basin lies in the fact that under the 1945 Federal Court Consent Decree, of the three major needs (senior irrigators, junior irrigators and instream flows) only senior irrigators get their allotment, come hell or low water. All water interests could co-exist over the long haul, if the occasional water short year were shared. Certainly, instream-flows and junior irrigators have borne the brunt of shortages in the past. If the shortages were shared along with the senior irrigators, new dams in the basin could be avoided. Water conservation remains the least environmentally damaging alternative.

The Yakima River Basin Enhancement Project was authorized with four objectives. Objective four was "Developing a comprehensive plan to enable efficient management of the basin's water supply." Nearly fifteen years have passed and the BuRec has yet to make any progress on meeting this objective.

As we noted in 1986, one reason for the lack of certainty concerning remaining water conservation benefits is that Section 390jj(b) of Public Law 97-293 has still not been carried out:

"Each district that has entered into a repayment contract or water service contract pursuant to Federal reclamation law or the Water Supply Act of 1958, as amended (43 U.S.C. 390b), shall develop a water conservation plan which shall contain definite goals, appropriate water conservation measures, and a time schedule for meeting the water conservation objectives."

The N.W. Regional Power Planning Council recognized the importance of water conservation and required in its 1984 Columbia River Basin Fish and Wildlife Program:

"Each Yakima River Basin irrigation district that has entered into a repayment contract or water service contract pursuant to federal reclamation law or the Water Supply Act of 1958, as amended (43 U.S.C. 390(b), will promptly develop a water conservation plan which will contain definite goals, appropriate water conservation measures, and a time schedule for meeting the water conservation objectives." (904(a)(4)(B).

However, the Power Council did not set a deadline by which such plans should be prepared. We would request that the Committee obtain from the BuRec a list of all conservation plans prepared to date.

The current discussion bill is deficient for the following reasons:

The purpose section should be amended to the following proposed language:

Section 1. CONGRESSIONAL FINDINGS AND PURPOSE

The Congress finds that -

(a) The Bureau of Reclamation's Yakima Basin Project was created primarily to provide irrigation water from the Yakima River for agricultural production in the basin.

(b) While the Bureau has established a significant record and successful history of agricultural production, the Yakima Basin project, in combination with Congressionally authorized dams on the lower Columbia River, has had a longterm adverse impact on fish and wildlife resources in the Yakima basin.

(c) A number of trends and changing circumstances require a reevaluation of the Bureau's mission and its priorities for the Yakima Basin.

(d) The era of constructing large federally financed water projects is over.

(e) More attention must be given to alternative means of supplying water through improved system management, joint use of surface and ground-water supplies, and reevaluating priority of use.

(f) Conservation of water, restoration and enhancement of wetlands, restoration of anadromous fish and wildlife and protection of the environment are major public concerns and are made purposes of the Yakima Basin Project.

(g) This act implements Phase 2 of the Yakima River Basin Water Enhancement Project (Hereinafter called the Enhancement Project). The Enhancement Project feasibility study was authorized in the Act of December 28, 1979 (93 Stat. 1241).

(h) Fish passage and protective facilities (Phase 1) were authorized by the Act of August 17, 1984 (98 Stat. 1940), and August 22, 1984 (98 Stat. 1379).

(i) It is the objective of the Enhancement Project to carry out the purposes set out below with minimal adverse impact upon environmental and cultural resources.

(j) The purposes of Phase 2 are:

(1) to protect, mitigate, restore and enhance fish and wildlife by optimizing instream flows;

(2) to improve water quality and restore natural instream flows within the basin;

(3) to improve the efficiency of water delivery and water use for irrigation purposes through studies, implementation, and evaluation of a basin water conservation program;

(4) to determine the amount of basin water useage that can be met through water conservation measures;

(5) to provide for the implementation by the Yakima Indian Nation of an irrigation demonstration project on the Yakima Indian Reservation.

(6) to encourage the State of Washington to make maximum use of its water authorities to help meet the purposes of this act.

SECTION 3

This entire section is built upon the faulty premise that irrigation districts which now claim priority of ownership of water rights in the basin will be attracted to a voluntary program of water conservation. For example, the development of water conservation plans by irrigation districts, state conservation districts, water purveyors, other areawide entities, and individuals not included within an areawide entity should be required, not merely encouraged, as is presently the case in 3(b)(1). In the absence of water conservation plans, the entire water conservation program falls apart.

Subsection (b)(1) change "consistent with guidelines" to "consistent with regulations promulgated by the Bureau of Reclamation, after public notice and comment."

Subsection (c) We object to the Yakima River basin irrigators having two seats on a Conservation Advisory Group. If one person can represent both counties and cities in the basin, then one person can represent the irrigation interests. We also note that the State of Washington is not represented on this Advisory Group.

Subsection (d) We recommend changing the word "guidelines" to regulations in this section. What is the point of asking an Advisory Group to assist in the preparation of "guidelines", when such guidelines may not be implemented or enforced? The process for the public to review the "guidelines" is also faulty. The Secretary should be instructed to provide a responsiveness summary to all substantive comments, not merely include a summary of public comments to the "guidelines" report.

As regulations, the areas to be addressed such be amended as follows:

Subsection (d)(1) add: "Such plans shall be carried out within 24 months of the enactment of this legislation."

New Subsection (d)(M) "the extent to which each measure will contribute to the restoration of fisheries and wildlife and their habitat".

Subsection (e)(1) should be amended by adding: "Funding for any phase of the Basin Conservation Program shall be based on the extent to which non-Federal interests have entered into binding agreements with the Secretary to fund 50 per centum of the total water conservation planning and feasibility study costs. 25 per centum shall be payable in cash prior to initiation of such plans and studies. The remainder may be met with in-kind contributions.

Subsection (e)(2) amend to read "The construction of facilities or other expenses incurred to restore and mitigate anadromous fish runs in the Yakima Basin shall be allocated 50 per centum to the Yakima Basin Project and 50 per centum to the Bonneville Power Administration. The construction of facilities or other expenses to enhance resident fishery resources in the Yakima Basin shall be allocated 50 per centum to be paid by the State of Washington and 50 per centum to the Federal Government. The construction of facilities or other expenses to enhance anadromous fish runs shall be paid by the Federal Government.

New Subsection (e)(4): Within three years of the enactment of this Act, a 50% water delivery surcharge shall be assigned to any portion of the Yakima Basin Water Project for which an adjudicated water right has not been secured.

(h) Authorization of Appropriations.

A new subsection (6) as follows: "There is hereby authorized to be appropriated to the Secretary $300,00 for environmental ~rcompliance activities including;

(1) the preparation of a programmatic environmental impact statement on the Enhancement Project

(2) an investigation of wildlife resources and their habitat which could be impacted by the enhancement project and proposals for habitat replacement or restoration;

(3) an evaluation of the water conservation opportunities which could be achieved on the Wenatchee National Forest and which would display the positive water conservation impacts of managing the Wenatchee National Forest to retard water runoff from snowmelt in order to better meet instream flow needs in the Yakima Basin;"

(4) an analysis of how the existing storage reservoir system could best be managed to maximize benefits for Senior irrigation districts, Junior irrigation districts and instream flow needs;

In order to address the problems associated with the State of Washington existing water law programs, the following New Subsection (7) should be included:

"No funds shall be appropriated by the Secretary for any modifications to the Yakima Basin Project until the Secretary has issued findings, after notice and comment that the State of Washington has made maximum use of its various water authorities, including enforcement of the State's water code, to help meet the purposes of this act."

SECTION 4. Yakima Indian Nation.

While we do not speak for the Yakima Indian Nation, we are extremely interested in whether the improvements and appropriations proposed for the Wapato Irrigation Project might

not afford the centerpiece of a water conservation project for the Yakima Basin. Congress should look closely at how Section 4 might serve as a model for the Bureau of Reclamation to carry forward its mission of water conservation and efficiency improvements.

SECTION 5. Operation of Yakima Basin Projects.

This is section is the weakest portion of the bill. Subsection (3) makes clear that any increased instream flows for such interim periods shall be obtained through voluntary sale and leasing of water or water rights.

The criteria which appears in the chart under subsection (a)(1)(B) is essentially the status quo. According to subsection 2, "reasonable fluctuations from these target flows are allowed". Therefore, the entire application of this section is dependent on the whims of the Bureau of Reclamation. How big a target miss is allowed? What remedy is available if the target is not met? The concept of target flows should be replaced with instream flows figures that must be achieved at the two division points.

In addition, if the concept of minimum flows is to have any real meaning, the criteria in the chart should be amended to eliminate the 300 cfs target flows for less than line 3 water supply.

Significant problems exist in subsection (4). Any attempts to adjust downward the full supply figures must be "mutually determined". This means that the Yakima River basin irrigators can permanently block any adjustments. P.L. 96-162 carved out a role for the U.S. Geological Survey to analysis water supply data in the basin. Adjustments to the criteria tabulation could involve a review by the U.S. Geological Survey and binding recommendations to the Secretary by U.S.G.S.

If the full supply figures are adjusted downward, the Yakima Project is suppose to be operated by the Yakima Project Superintendent in accordance with such adjusted criteria. We question how this can provide certainty given the status of the Federal District Court 1945 Consent Decree. This Consent Decree allocated the entire water supply of the basin in low water years to the irrigation districts. In the past we have suggested that a filing be made by the irrigation districts to supplement the Consent Decree. To date, the districts have been unwilling to

consider this alternative.

SECTION 6. Sec. 6 Lake Cle Elum and Subsection 5(b). We are opposed to the inclusion of the Cle Elum dam rise at this time.

Modifying the radial gates at Cle Elum Dam is a storage augmentation project. As such, its inclusion raises difficulties in selling this as a non-structural non-storage water conservation package. Former Rep. Morrison, in his early drafts of this bill attempted to allocate "additional storage capacity" to instream flows. However, the 1945 Consent Decree affirms the "obligations of the United States to deliver water from the natural flow of the Yakima River,and its tributaries, from storage in its various reservoirs on the Yakima watershed, and from other sources, to the plaintiffs, to the defendants, and to the lands within the Wapato Indian Irrigation Project, are as set forth hereafter in this judgment." (1945 Consent Decree - page 2.)

As a result, in this legislation the water from any Cle Elum rise is considered a part of the basin's water supply to be allocated to the irrigators as set out in the Consent Decree.

SECTION 7.

In our view, this Section contains too many opportunities for water right owners to block any enhancement program undertaken in any tributary. Subsection (a)(1) establishes that an enhancement program shall be contingent upon the agreement of appropriate water right owners to participate. These impediments should be removed.

SUMMARY

In conclusion, based on our past extensive involvement in this issue, we are skeptical that voluntary arrangements are going to translate into increased instream flows for wildlife and anadromous fish. We strongly urge the Committee to resolve the uncertainties involved in guaranteeing instream flows in the Yakima River Basin.

SURVEY OF WATER CONSERVATION PROGRAMS

in the

FIFTY STATES

Model Water Conservation Program for the Nation

Brent Blackwelder

Peter Carlson

August 1982

(Reprinted April, 1984)

ENVIRONMENTAL POLICY INSTITUTE

SURVEY OF THE WATER CONSERVATION PROGRAMS IN THE FIFTY STATES

MODEL WATER CONSERVATION PROGRAM FOR THE NATION

Brent Blackwelder

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August, 1982

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Prepared for:
United States Department of the Interior
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DISCLAIMER

This report has been reviewed by the Office of Water Research and Technology of the Bureau of Reclamation, U.S. Department of the Interior and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Department of the Interior, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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Abstract

A survey was made of the water conservation programs in each of the fifty states to determine whether each state had a water conservation program or requirements in each of the following thirteen areas: public education, plumbing codes, retrofitting with low-water-use fixtures, metering, leak detection, rate structures, drought contingency planning, reuse and recycling, outdoor use, groundwater management, industrial use, agricultural use, and government buildings and grants. A brief description of statewide or local programs of significance was prepared for each state. While awareness of water conservation measures is increasing, there is still substantial room for increases in efficiency in water use. The most comprehensive programs are being carried out in California, Massachusetts, Minnesota, and Maryland. Drawing upon the most successful water conservation programs around the country, we prepared a model water conservation program for domestic and municipal use, industrial use, and agricultural use. Our model program can cut domestic and municipal use between 15 percent and 70 percent. The model program for industrial use categorizes various methods for reducing industrial withdrawals and consumption of water and outlines success stories in the steel, chemical, and paper industries. The model program for agricultural use identifies the various techniques for improving the efficiency of water use, describes the potential savings from instituting such measures, points out the barriers to efficient use, and suggests ways to overcome the barriers.

Executive Summary

The purpose of this research project was first to ascertain what each of the 50 states was doing in the area of water conservation. The Environmental Policy Institute attempted to ascertain where the most innovative and successful programs were occurring. Based upon our findings, we next undertook to draft model municipal, industrial, and agricultural water conservation programs.

While awareness of water conservation measures is increasing, there is still substantial room for increases in efficiency in water use. The most comprehensive water conservation programs are being carried out in California, Massachusetts, Minnesota, and Maryland. Most states, however, could do substantially more by adopting some of the programs and measures that are working in these four states.

The Environmental Policy Institute recommends the following thirteen-point program for water conservation in the municipal sector:

1. Plumbing code changes to require low-flow fixtures and appliances and insulation of hot water pipes.
2. Retrofit of existing buildings and homes with low-water-use fixtures.
3. Leak repair within buildings and homes.
4. Leak repair in the water distribution system.
5. Metering all areas and checking of meters for accuracy.
6. Revision of rate structure.
7. Public education program.
8. Outdoor water use codes.
9. Drought contingency plan.
10. Program for recycling and reuse.
11. Pressure reducing valves.
12. Watershed protection and planning.
13. Selected changes in personal habits.

Carrying out these measures can reduce water use in this sector by 15 to 70%. The extent of the reduction can be very large in areas where there is substantial leakage in buildings and in the distribution system.

Executive Summary

The Environmental Policy Institute finds that substantial water conservation in the industrial sector is already occurring because the requirements of the Clean Water Act make it far more economical for industries to recycle many times before discharge. The largest use of water in manufacturing is for cooling and there is ample opportunity for recycling of cooling water. Other measures that help reduce industrial water use include:

1. Pressure reducing valves.
2. Increased efficiency in application of process water.
3. Use of the wastewater from one product as process water for another product.
4. Leak detection and repair.
5. Use of all the techniques of residential water conservation to reduce water use by employees.
6. Modification of process to reduce or eliminate water use.
7. Substitution of salt or brackish water for fresh water.

The Water Resources Council (WRC) projection of a sharp decline in water withdrawls by manufacturing from 51.2 billion gallons a day (bgd) in 1975 to only 23.7 bgd in 1985 correctly indicated the extent of the water recycling and reuse being undertaken by industry. We find the WRC projection for water use by steam electric power plants, however, to be in error because this estimate was based on an old forecast of rapid demand growth made by the Federal Power Commission (now the Federal Energy Regulatory Commission). Events of the past decade have rendered this estimate obsolete. Even though the WRC projects a drop in water withdrawls by steam electric power plants, the drop will be far more substantial as a result of the sharp decline in energy growth.

Continued development of recycling and reuse technology, combined with enforcement of the Clean Water Act, can enable the nation to handle problems of water supply for industry. The Environmental Policy Institute also recommends that each industry conduct a water "audit" or thorough

investigation of places in each plant to cut waste or to install new and more water efficient equipment.

Irrigated agriculture accounts for 47.5% of the water withdrawls and 82.8% of the water consumption in the nation. The Department of Interior and the Department of Agriculture have described a substantial number of methods for increasing the efficiency of water use in agriculture, as has the American Society of Agricultural Engineers. These measures consist of the appropriate selection of irrigation method (drip, sprinkler, or gravity) and the use of techniques both on the farm and in the water distribution system to the farm. Laser leveling of fields in certain parts of the West has produced significant reductions in water use. Modern irrigation scheduling techniques can tell a farmer exactly when to irrigate and how much water to apply to a given crop.

Even though many techniques for increasing the efficiency of water use in agriculture have been developed, there are substantial barriers that prevent these techniques from being adopted. The Environmental Policy Institute found that the barriers include: (1) certain features of Western water law; (2) the subsidized price of irrigation water from federal projects; and (3) the attitudes and lack of knowledge among irrigators. To overcome these barriers we suggest four approaches: (1) continue changes in state water law to regulate groundwater withdrawls and to allow the sale or leasing of water rights and water banking; (2) increase efforts to price water from federal projects at its market value; (3) provide increased incentives (tax credits or low-interest loans) for putting more efficient measures into place; and (4) institute disincentives such as pump taxes and stiff fines for violators of water codes and condition eligibility for federal farm program help (such as price supports, set-asides, and disaster loans) on the adoption of appropriate water conservation measures.

If the conservation measures we have suggested for the municipal, industrial, and agricultural sectors are put into place, the Environmental Policy Institute believes that the nation not only will be able to avert a water crisis, but will reap substantial benefits. Federal leadership, both

through agency programs and through water conservation grants, is essential for the success of a nationwide water conservation effort.

JAN 0 2 1979

Memorandum

To: Deputy Assistant Secretary
Policy, Budget and Administration

From: Associate Solicitor, Energy and Resources John D. Leshy

Subject: Bumping Lake Enlargement

This responds to your October 23, 1978 memorandum on this subject to the Solicitor.

I have reviewed the Bumping Lake Enlargement proposal and the 1945 consent decree and have determined that, at present, there is no definitive way to assure that the fishery releases from the enlarged Bumping Lake can be protected from diversion by senior appropriators on the Yakima River under the 1945 consent decree. The terms of the decree are ambiguous in this respect and a clarification, either through litigation or amendment of the decree itself, is necessary to secure the fishery flows as contemplated in the proposed feasibility report.

The 1945 consent decree establishes the obligation of the United States to make deliveries of natural flow and stored water to irrigation districts in the Yakima River Basin. The decree defines "total water supply available" for distribution as the "natural flow of the Yakima River and its tributaries, from storage in the various government reservoirs on the Yakima watershed and from other sources...." It is this definition which leads me to believe that the newly stored water in the enlargement may be subject to allocation under the decree. The pivotal question is whether the decree was intended to affect future reservoirs constructed by the United States or to only those existing in 1945.

It is my opinion that a formal Solicitor's Opinion on this issue at this time would be of very little value regardless of the conclusion reached. Whatever determination the Solicitor reached, the ultimate decision would have to be made by the Federal District Court as an interpretation of the decree. In addition, there is substantial litigation ongoing in

the Yakima Basin over water rights involving Indians, private interests and Federal claims including those of the Bureau of Reclamation and other agencies within the Department. If the Solicitor were to issue a final opinion on this issue it might restrict his options in these other circumstances while at the same time not finally resolving the issue.

My recommendation is that if the Secretary determines to send the report out for review this issue should be specifically raised and discussed in the transmittal letter. Also, the report should be sent to each district which is a party to the decree and their views on this issue be solicited. From their responses it should be clear whether the decree may be amended to clarify the point or whether the water user will make claims to the additional storage. It is my view that these responses would be much more helpful in analyzing the project's capability to assure the fishery flows than would a Solicitor's opinion on the issue

NATIONAL WILDLIFE FEDERATION
Suite 512 921 S.W. Morrison Portland, Oregon 97205
503-222-1429
Fax: 503-222-3203

September 27, 1993

Subcommittee on Oversight and Investigations
Committee on Natural Resources
U.S. House of Representatives
Washington, D.C. 20515

Re: Testimony on H.R. 1690, a bill to authorize certain elements of the Yakima River Basin Water Enhancement Project

Dear Mr. Chairman and Members of the Committee,

Thank you for the opportunity to submit testimony on behalf of the Western National Resource Center of the National Wildlife Federation. NWF is the nation's largest conservation organization, with members in Washington State and throughout the United States. We are deeply concerned about the health and productivity of Pacific Northwest river basins. We strongly support legislative efforts to protect water quality and quantity in the Yakima River Basin. However, H.R. 1690 as written does not ensure that real water conservation will occur. We urge you to address the following issues in your consideration of the bill:

1) H.R. 1690 purports to resolve water allocation problems in the Yakima Basin and offer conservation opportunities. However, the existing Yakima Basin project has benefitted senior irrigation districts at the expense of instream flows for anadromous fish, and the bill will not rectify this situation. We ask that you amend the Yakima River Basin Project to ensure adequate instream flows to protect and enhance fish and wildlife.

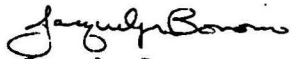
2) No dates are established for the development of water conservation plans by the irrigation districts. We urge the Committee to set a two-year deadline for preparing water conservation plans for the Yakima Basin.

3) The bill does not provide adequate flow protection for the remaining runs of wild anadromous fish in

the river. The Yakima River is overallocated, and ongoing water rights adjudication has not brought the State of Washington any closer to meeting its responsibilities under the 1917 Water Code and related legislation. Further federal spending in the basin should be conditioned upon a finding that the State of Washington has acted to ensure adequate water for instream flows.

NWF would like to work with the Committee and the Washington delegation to pass a water conservation bill for the Yakima Basin. Such a bill, however, should truly offer conservation opportunities. Thank you again for the opportunity to submit testimony.

Sincerely,



Jacquelyn Bonomo
Center Director, NWF Western Natural Resource Center

KENNEWICK IRRIGATION DISTRICT
P.O. Box 6900 • Kennewick, Washington • 99336-0401

October 6, 1993

Chairman of the Committee
on National Resources
U.S. House of Representatives
1324 Longworth Building
Washington, D.C. 20515

Honorable Chairman Miller and Representatives:

I thank you for the invitation to address the Subcommittee on the Enhancement Bill, HR1690, and in particular appreciate the efforts of our representative, Jay Inslee, in his proposing this Bill. I am Dr. William Kinsel, Coordinator of Mechanical Engineering at Washington State University, Tri Cities Branch in Richland, Washington. I am also a farmer who irrigates approximately 200 acres in southeast Washington state. I am the President of the Board of Directors of the Kennewick Irrigation District which receives its water at the lower end of the Yakima River in conjunction with the Bureau of Reclamation Yakima Reclamation Project.

The Yakima Reclamation Project serves five operating divisions including the Kennewick Division. The Kennewick Irrigation District is within the Kennewick Division. My comments address several particular topics including the following:

1. The issue of return flows as they effect not only the Kennewick Irrigation District, but all other operating divisions of the Yakima Reclamation Project.

2. The electrification of hydropumping stations including the Chandler facility.

3. The variety of causes which effect salmon populations.

4. The need for scientific studies of various proposals as they relate to maintenance or enhancement of fish life and review of scientific studies which have already been addressed and provided to the Bureau of Reclamation and other entities.

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RETURN FLOWS

The Yakima Reclamation Project has the storage capacity to service four of the five operating divisions. That is, the project design anticipates providing four of the five operating divisions with waters from storage reservoirs. The design anticipates delivery of waters to the fifth division, namely Kennewick, from return flows. Return flows are those water quantities that have already been diverted for irrigation, municipal or industrial uses and are again available for reuse for similar or other purposes. Return flows are, of course, of paramount interest to the Kennewick Irrigation District as a water supply identified specifically in the Bureau of Reclamation - Kennewick Irrigation District contract. The availability of return flows are also of grave importance to the remaining four divisions. Should return flows diminish to the point of requiring the Kennewick Irrigation District to receive water from storage reservoirs, any such releases would directly impact the storage relied upon by the remaining four divisions. An issue of concern then regarding this legislation in HR1690, is both the effect of conservation on return flows and the disposition of water savings realized from such conservation.

There are indications that return flows have diminished over the past twenty years. The Bureau likely has information which would shed light on the expected impact of conservation on return flows. That likelihood has not been developed to date to the knowledge of the Kennewick Irrigation District. These must be studied so that considered decisions can be made with regard to the ultimate impact of conservation. To that end, individuals from the Kennewick Irrigation District will indeed be in contact with the appropriate Bureau of Reclamation personnel. It is also anticipated that individuals from the other four Yakima Project divisions will give consideration to this issue.

The issue of the disposition of saved waters from conservation efforts is given new perspective in light of the possibility that conservation may result in reduced return flows. Reduced return flows equates to storage demand by the Kennewick Irrigation District. Should sufficient storage not be available, then all divisions within the Yakima Project would have to prorate the waters available. The return flow issue leads directly to a consideration of the total storage water supply (TWSA). Waters saved from conservation, if returned to TWSA, would assist the Yakima Project in meeting its supply obligations. Saved water, if returned to the river only, would obviously not assist the Project in meeting its obligations and would thus leave the five divisions exposed to water short years on a greater number of occasions.

Thus, the issue of impact on return flows from conservation must be examined. That examination may well influence decisions made with regard to the disposition of saved water to TWSA.

THE ELECTRIFICATION OF HYDROPUMPING STATIONS INCLUDING THE CHANDLER FACILITY

The proposed Bill refers to the electrification of hydropumping plants. The irrigation supply received by the Kennewick Irrigation District is diverted at the Chandler hydropumping station. The Chandler station is at the end of a power canal some eleven miles downstream from the Prosser dam. The hydropumps are operated by water pressure. Some one and one-quarter units of water are required to pump each unit of the Kennewick Irrigation District's supply. The possibility of electrification of these hydraulic pumps has been discussed over the years and has been recently raised again by the Bureau of Reclamation.

The issue of electrification must be considered in light of the present adjudication of water rights in the Washington State Superior Court Case of State of Washington vs. James Aquavella. The Aquavella case has been pending since 1977. Water rights are presently being decided with regard to major irrigation districts. Water rights testimony for the Kennewick Irrigation District is scheduled for mid-1994.

A principal element of the water rights concerns the irrigation delivery system. That system is described in detail in the 1953 USBR-KID Repayment Contract. The contract states the principal facilities of the Kennewick Irrigation District irrigation system include the Prosser-Chandler power canal, and the Chandler hydraulic pumping plant, in addition to other irrigation system components. Other aspects of the contract refer to Chandler and the hydraulic pumping plant. Thus, it is highly likely that the adjudication will determine that an element of the Kennewick Irrigation District's water right is constituted of the Chandler power canal and hydropumping system.

Thus, this particular issue must be considered in light of the presently pending litigation. However, the District does not preclude the potential of other arrangements and has indeed discussed alternative diversion points with the Bureau of Reclamation and other entities. Alternate diversion points downstream from the power canal located within the McNary pool have been discussed. However, the impact of such changes on existing water rights is complex and will require substantial consideration and perhaps resolution with interested parties including the United States and the State of Washington.

CAUSES OF REDUCTION OF SALMON POPULATIONS

Several comments made at this hearing have suggested that irrigation is the primary cause of the reduction anadromous fish population. However, the scientific community recognizes multiple causes which result in impacts on anadromous fish populations. Some of the conditions and factors in and outside

Yakima River Basin which impact or affect Yakima River Basin anadromous fish populations include the following:

(a) Commercial ocean, high seas drift net, and lower Columbia River fishery.

(b) Sport fishery.

(c) Indian fishery.

(d) Columbia River Dams - Mainstem, juvenile, adult, passage mortality.

(e) Over wintering.

(f) Predation (squawfish, seals, etc.)

(g) Temperature, instream flow.

(h) Loss of habitat not caused by low flows.

(i) Mixed stock fishery (upriver indigenous naturally spawning vs. hatchery supplemented lower river).

(j) Disease.

(k) Lack of agency, government coordination, cooperation.

(l) Poor land management activities (logging, grazing, etc.).

(m) Ocean conditions (El Nino, availability of feed).

(n) Tagging, sampling, research mortality.

(o) Flooding.

It is unrealistic to assign irrigation to the role as a principal cause of a decline in salmon populations. Due consideration must be given to a multitude of causes lest a particular group be singled out with drastic changes made only to later learn that other causes have had a far wider and continue to assert enormous impact on salmon population.

Additionally, points of interest with regard to declining salmon populations were considered by the State Superior Court in the State of Washington vs. James Aquavella. Those points focused on the water right which remained as it relates to fish interests. Yakima County Superior Court ruled in 1990 that a water right remained in an amount sufficient to maintain fish life. The Court clearly distinguished between the purpose of the remaining water right and water which might be considered for the purpose of "enhancement" (increasing fish population). The issue of the Yakima Indian Nation having received compensation through the Indian Claims Commission for particular fishing rights was an integral part of the Court's 1990 decision. The 1990 decision

was upheld by the Washington State Supreme Court in 1993. No appeal was taken to the United States Supreme Court.

SCIENTIFIC STUDIES

Decisions regarding river management should be scientifically based. The entire ecological system should be considered. However, economic and societal impacts must not be overlooked. I appreciated Commissioner Beard's reference to the need for studies. I am aware that the BPA has conducted studies. I note that Dr. Willey's comments, today, refer to the need for additional studies commenting on the need to examine a temperature cap for the river and making reference to "flushing flows" for assistance in out-migration of spring Chinook smolts. The irrigation community agrees with the need for a scientific basis in pursuing not only river operations and management but also evaluation of activities relating to the salmon issues. To that end, a coalition of Yakima Basin Irrigation Districts has developed and analyzed data relating to the effect, if any, of storage releases on the out-migration of spring Chinook smolts. Storage releases related to this issue would be requested in the May to June timeframe. The principal purpose of such requests is to assist and facilitate out-migration of smolt. There is an obvious impact on irrigation in the release of storage water. Obviously any waters released are not then available to meet the Bureau's obligations and the irrigation communities needs when storage control is commenced.

Demands for release from the storage, made on the basis of need related to out-migration of smolt, have been discussed and immanent during years past. Such releases have not yet been made. Nevertheless, such demands have been expected. Demands have been urged as having a basis in common knowledge of facilitating out-migration of Chinook smolts. However, neither data or scientific analysis have been readily produced by individuals or entities making or proposing such storage release demands.

In response the contention that storage releases facilitate out-migration, the irrigation community has undertaken both data gathering and analysis of the relationship, if any, between out-migration and storage releases. Dr. William McNeil, (Dr. McNeil's Curriculum Vitae is included herein for the Committee's consideration as Exhibit "A") has undertaken the principal analysis. The analysis concludes that there is not a correlation between the release of pulses of storage waters (referred to by others as "flushing flows") and an increase in out-migration of spring Chinook smolts. Copies of the analysis have provided to the Bureau of Reclamation during the spring of 1992 and again in 1993. The materials have also been made to other entities including the Yakima Indian Nation. A copy of Dr. McNeil's study, as released to the Bureau, is incorporated herein and included for the Committee's consideration as Exhibit "B."

It should be noted that the irrigation community has requested data and analysis which supports the contention that flushing flows indeed facilitate migration of smolts. These demands have been made directly to Mr. Bob Tuck, biologist for the Yakima Indian Nation, in his capacity on the Yakima River "system operation advisory committee". Such demands were actually made in early 1992. There has been no response as of the date of this testimony.

CONCLUSION

The concept of conservation and indeed enhancement of fish populations is at first blush very appealing. The concepts certain are deemed worthy of very serious consideration and pursuit. However, complexities exist which must be examined.

I would conclude with several comments relating in general to the proposed enhancement bill as follows:

1. The demonstration project indicated for the Wapato Irrigation Project should be met in kind with demonstration projects for other irrigation districts and divisions within the Yakima Project.

2. There are at least two types of conservation including on-farm conservation which is largely under the control of the particular consumer or irrigation district client, and conservation within the irrigation district focused primarily on irrigation district delivery systems. The on-farm conservation would principally take the form of consumer adaptation to different types of irrigation means. Irrigation district conservation efforts may focus on utilization of irrigation canal lining and in replacement of irrigation canals with piped systems. Conservation efforts, as noted above, may impact return flows. Impacts on ground water and indeed wells may also occur and require consideration.

3. The enhancement bill contemplates the formation of a committee for the use and implementation of proposals. The Kennewick Irrigation District and division should be a member of that committee. The District's concern with return flows, and its highly urbanized nature demonstrates needs which are different from those of other districts within the project.

4. The District would support the construction of additional reservoir storage as a means of providing waters available for "enhancement" purposes.

I am honored to have been invited to address the Committee. Thank you very much for your attention. Both salmon and irrigated agriculture are of significant importance to the State of Washington. Actions which effect either or both can certainly have wide-spread effects on a large percentage of the state's population. Thus, I commend you to give due consideration to the

many complex issues to be considered and hope to be of assistance should further questions need be addressed.

Sincerely,

William Kinsel, PhD
President, Board of Directors
Kennewick Irrigation District
Coordinator of Mechanical
Engineering, Washington State
University, Tri-Cities Branch
Farmer

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EXHIBIT A

CURRICULUM VITAE

MCNEIL, WILLIAM J., Professor of Fisheries and Fisheries Consultant

ADDRESS: Oregon State University
Hatfield Marine Science Center
Newport, OR 97365 **PHONE:** (503) 867-0100
or
P. O. Box 104
Newport, Oregon 97365

EDUCATION:

B.S. in fisheries, Oregon State University (1952); M.S. in fisheries, Oregon State University (1956); Ph.D. in fisheries, University of Washington (1962)

EMPLOYMENT:

Self-employed consultant (1988 -present); Professor, Coastal Oregon Marine Experiment Station (1990-present);Professor of Fisheries and Director, Cooperative Institute for Marine Resources Studies, Oregon State University (1985-1990); General Manager, Oregon AquaFoods, Inc., Weyerhaeuser Co. (1976-1985); Program Manager, Alaska Salmon Investigations, National Marine Fisheries Service (1972-1976); Associate Professor Fisheries, Oregon State University (1966-1972); Supervisory Fishery Research Biologist, U.S. Bureau of Commercial Fisheries (1962-1966); Research Associate, Fisheries Research Institute, University of Washington (1956-1962)

PROFESSIONAL RECOGNITION:

Lectures -- Norwegian Society for Aquaculture Research and Directorate for Nature Management (Norway) (1990); Washington State University (1988); Instituto Profesional de Osorno (Chile) (1987); Lewis and Clark College (1985, 1987, and 1989); University of Oregon (1980-1984); Portland State University (1983); Willamette University (1983); TINRO (USSR) (1976, 1978, and 1990); University of Alaska (1974-1976 and 1989).

Symposia -- Keynote Speaker, Fisheries Bioengineering Symposium (1988); Convenor, World Salmonid Conference (1986); Keynote Speaker, Salmonid Reproduction Symposium (1983); Convener, Panel on Ranching, World Mariculture Society (1982); Convener, Symposium on Salmonid Ecosystems of the North Pacific (1978); Steering Committee, North Pacific Aquaculture Symposium (1980); Steering Committee, World Technical Conference on Aquaculture (1976); Convener, Conference on Marine Aquaculture (1968).

Advisory and Executive Committees and Societies -- Scientific Advisory Committee for Prince William Sound (Alaska) Ecological Research Center (1989-present); Secretary, Oregon Governor's Salmon Advisory Committee (1981-1986); Advisor, Alaska Department of Commerce (1984 and 1985); Member, Bonneville Power Admin. Research Review Panels (1985 and 1989); Member, N.W. Power Planning Council Committee on Genetics Policies (1989); President, Oregon Chapter American Fisheries Society (1982 and 1983); Executive Committee, National Sea Grant Assoc. (1980-1983); Chairman, Governor's Alaska Fisheries Council (1975-1978). Chairman, Fisheries Technical Advisory Committee, Sheldon Jackson College (1974-1977); Advisor,

National Academy of Sciences Committee on Aquaculture (1977); Fellow American Institute of Fisheries Research Biologists (since 1972).

CONSULTING: Current and recent consulting activities.

Client	Years	Topic
Wash. Water Power	Since 1992	Dams and salmon in Clearwater River, ID.
Direct Service Industries	Since 1989	Endangered Species Act and salmon in the Columbia Basin
Yakima River Basin Coalition	Since 1989	Irrigation and salmon in Yakima River, WA.
Grant County PUD	Since 1989	Passage of juvenile salmon at two mid Columbia R. dams
Oregon Forest Industries Council	1991-1992	Forestry and salmon in the Pacific Northwest
Oregon Coastal Zone Mgt. Assoc.	Since 1990	Restoration plan for Tillamook Bay, OR.
Prince William Sound Aquaculture Corp.	1989-90	Impact of Exxon Valdez oil spill on hatchery salmon
Pope Resources	1988-89	Evaluation of Hood Canal/Port Ludlow properties for aquaculture

PUBLICATIONS: Approximately 80 published reports on subjects related to salmonids.

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pink salmon redds. *In* Sheridan, W.L. Proceedings of the 1966 Northeast Pacific Pink Salmon Workshop. Alaska Dept. of Fish and Game, Information Leaflet 87: 19-40.

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EXHIBIT B

STREAM DISCHARGE AND SEAWARD MIGRATION OF STREAM-TYPE CHINOOK SALMON IN THE YAKIMA RIVER

By Dr. William J. McNeil

Reports of: April 25, 1992
May 12, 1992
March 15, 1993

STREAM DISCHARGE AND SEAWARD MIGRATION OF STREAM-TYPE CHINOOK SALMON IN THE YAKIMA RIVER

March 15, 1993

By Dr. William J. McNeil

EXECUTIVE SUMMARY

Analyses of inter-annual variability in passage time of juvenile stream-type chinook and flow at Prosser Dam on the Yakima River contradict an assertion that migration is delayed in years of low flow and advanced in years of high flow. The null hypothesis which states that there is no association between annual passage time and flow is accepted based on results of the analyses presented herein.

Analyses of intra-annual variability in passage time of juvenile stream-type chinook and flow at Prosser Dam fail to support an assertion that increased daily passage is largely synchronized with increased daily flow. The null hypothesis which states that there is no association between increased numbers of juveniles passing Prosser Dam on a daily basis and increased daily flow is accepted based on results of the analyses presented herein.

INTRODUCTION

This report addresses relationships between migration of stream-type[1] juvenile chinook salmon at Prosser Dam and stream flow.

Two kinds of variability associated with migration are assessed:

- Inter-annual to address an assertion that annual migration is advanced by high flow.
- Intra-annual to address an assertion that daily migration is associated with daily pulses of high flow.

INTER-ANNUAL VARIABILITY

A null hypothesis that passage time is not associated with flow at Prosser Dam is tested with linear correlation. Passage of juveniles at Prosser Dam[2] in the ten-year period 1983 through 1992 are correlated with daily discharge. Discharge is measured before irrigation water is diverted at Prosser Dam.

The procedure involves the following steps:

Step 1. Determine for each year of observation the Julian dates on which the daily cumulative passage reaches 20, 50, and 80 percent of the total annual cumulative passage.

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[1]Stream-type juvenile chinook remain in freshwater for at least one year before migrating to sea.

[2]The daily counts are estimated by the Yakima Indian Nation as a part of Bonneville Power Administration Project 82-16.

Step. 2. Calculate mean dates for 20th, 50th, and 80th percentiles of cumulative passage.

Step 3. Calculate for each year the 20-day average flow preceding Julian dates corresponding to the 20th, 50th, and 80th percentiles of cumulative passage[3].

Step 4. Test the null hypothesis that there is no association between a numeric expression of passage time and flow.

Two methods are employed here to test the null hypothesis. The first method treats time as a constant and allows percentile of cumulative passage to vary. The second method treats percentile of cumulative passage as a constant and allows time to vary. By treating cumulative passage as a constant, day length (= smoltification) may become a confounding variable. However, by treating time as a constant, potential confounding effects from day length (= smoltification) are avoided through design of the analytical methodology.

The method where cumulative passage is treated as a variable is compared to the method where time (Julian date) is treated as a variable in Table 1. The examples in Table 1 pertain to the 50th percentile of cumulative passage.

The r-values (Table 1) are of opposite sign. If the assertion that passage time is advanced by high flow is correct, the association between variables will be direct (positive r-value) by the method where cumulative passage varies and inverse (negative r-value) by the method where time varies. However, signs of r-values in Table 1 are opposite to expectation based on the popular belief (assertion) that migration is advanced by high flow and delayed by low flow. Nevertheless, r-values obtained by each method are not significantly different from $r = 0$. Therefore, the null hypothesis is accepted and the alternative hypotheses[4] are rejected.

Correlation coefficients obtained for the 20th, 50th, and 80th percentiles of cumulative passage by the two methods are compared in Table 2. The r-values are consistently lower for the method where cumulative passage varies (time is constant) than for the method where time varies (cumulative passage is constant). Perhaps this at least partly results from removal of bias due to day length (= smoltification) from the method where cumulative passage varies.

None of the r-values are significantly different from $r = 0$. There is no basis to reject the null hypothesis of no association between passage time and flow at Prosser Dam based on observed inter-annual variability.

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[3]The twenty-day period for averaging flow begins on day (k-19) and ends on day k (the date cumulative passage attains the 20th, 50th, or 80th percentile).

[4] The alternative hypotheses are that (1) migration is advanced by high flows and delayed by low flows and (2) migration is advanced by low flows and delayed by low flows.

Table 1. Comparison of two methods to evaluate association of passage time with flow at Prosser Dam, 1983 through 1992.

Year	Time is Constant[5] and Cumulative Passage is Variable		Cumulative Passage is Constant[6] and Time is Variable	
	Percentile of Cumulative Passage	Flow (kcfs)	Time (Julian date)	Flow (kcfs)
1983	0.52	5.45	113	5.45
1984	0.35	3.85	124	3.85
1985	0.38	4.92	119	4.92
1986	0.42	3.73	115	3.73
1987	0.53	3.01	113	3.01
1988	0.51	3.13	113	3.13
1989	0.51	6.06	113	6.06
1990	0.85	5.16	106	5.16
1991	0.69	3.06	111	3.06
1992	0.88	2.21	100	2.21
	r (8 d f) = -0.259		r (8 d f) = +0.277	

[5] Time is fixed at Julian day 113 (April 23).

[6] Cumulative passage is fixed at the 50th percentile (median).

INTRA-ANNUAL VARIABILITY

Intra-annual variability addresses within year fluctuations of flow and the association of such fluctuations with migration. The methodology for evaluating intra-annual variability and its association with flow is different from that used in the previous discussion of inter-annual variability.

The methodology involves the following steps:

Step. 1. Determine Julian dates of observations which encompass the five to ninety-five percent cumulative number of juveniles passing Prosser Dam in each of the 10 years of observations. The analyses consider, therefore, the mid ninety percent cumulative passage.

Step 2. Calculate the fraction of the total number of juveniles annually passing Prosser Dam but remaining upstream of Prosser Dam on day (k-1) and passing Prosser Dam on day k. The purpose is to obtain estimates of daily fractions of migrants corrected for bias due to "sampling without replacement".

Step 3. Determine the daily difference (positive or negative) in the estimated fraction of juveniles (from step 2) passing Prosser Dam. A positive value indicates increased daily migration. A negative value indicates decreased daily migration.

Step 4. Calculate the daily incremental change (positive or negative) in fraction of existing standing stock of juveniles migrating daily. For example, a value of -0.10 means that the fraction of juveniles observed to migrate on day k is 10 percent less than the fraction observed on day (k-1). Conversely, a value of +0.10 means that the fraction observed on day k is 10 percent more than the fraction observed on day (k-1). These calculated fractions represent the "daily incremental change".

Step. 5. Calculate the daily incremental change (positive or negative) in observed daily stream discharge at Prosser Dam before water is diverted to the irrigation canal. The daily incremental change in stream discharge is expressed as a fraction which is similar to that calculated for daily migration of juveniles.

Statistical associations between daily incremental change in juvenile passage and daily incremental change in stream discharge are first examined by comparing frequency of positive and negative signs. Single-sample chi-square tests make use of signs (positive or negative) and do not require numeric values. Single-sample chi-square tests also require no assumptions about underlying distributions since they are nonparametric tests. The approach used here is to compare the frequency of occurrence of positive incremental change in juvenile passage at Prosser Dam with a positive incremental change in stream discharge under the null hypothesis that daily incremental changes in

Table 2. Comparisons of linear correlation coefficients where time is constant (variable cumulative passage) and where cumulative passage is constant (variable time) at Prosser Dam, 1983 through 1992. Flow is variable for both methods.

r-values where time is constant at			r-values where cumulative passage is constant at		
4/11	4/23	5/6	20%	50%	80%
-0.232	-0.259	+0.081	+0.391	+0.277	-0.149

Note that none of the r-values differ significantly from r = 0.

numbers of juveniles are not associated with daily incremental changes in stream discharge.

A popular alternative hypothesis asserts that positive incremental change in numbers of juveniles passing Prosser Dam are associated with positive incremental change in stream discharge. Should this be correct, the chi-square goodness of fit tests presented here should reject the null hypothesis that daily incremental changes in juvenile migration and daily flow are not associated.

The null hypothesis is tested by assuming that each of four conditions occur with equal frequency:

- Positive daily increment of juveniles with positive daily increment of flow (+/+).
- Positive daily increment of juveniles with negative daily increment of flow (+/-).
- Negative daily increment of juveniles with negative daily increment of flow (-/-).
- Negative daily increment of juveniles with positive daily increment of flow (-/+).

Test results where a positive daily increment of juveniles and flow occur together are given in Table 3 for the case where both variables are measured on the same day. Table 4 gives similar test results for the case where incremental change in juveniles is measured on day (k-1) and incremental change in flow is measured on day k.

There is no basis to reject the null hypothesis that the frequency of positive incremental changes in numbers of juvenile migrants and flow are not associated. Chi-square values are not significant for either the case where incremental change is determined on the same day for both variables (Table 3) or the case where migration response is delayed by one day (Table 4). The chi-square value was considerably higher (although not significant) in the second than in the first case. The higher value of chi-square in the second case results from consistently lower observed values of positive incremental changes in migration and flow than expected -- suggesting a possibility that increased flow may have a minor inhibitory influence on daily migration measured one day after a flow event.

No attempt has been made up to this point to focus on associations between relatively large daily incremental changes in migration, which occur infrequently, and daily incremental changes in stream discharge. If one defines a daily incremental increase of 0.50 and greater in the fraction of the standing stock of juveniles passing Prosser Dam on a daily basis as a "migration spike", it is interesting to note that "spikes" in association with increasing and decreasing stream discharge occur at similar frequencies (Table 5).

Based on the above assessment of intra-annual variability in migration of juvenile stream-type chinook, it is concluded that daily incremental juvenile passage (positive or negative) has little or no association with daily incremental flow (positive or negative) at Prosser Dam.

Table 3. Chi-square one-sample test comparing positive daily incremental change in migration on day k with positive daily incremental change in stream discharge on day k at Prosser Dam.

Year	Frequency of (+) change in migration with (+) change in discharge	
	Observed	Expected[7]
1983	10	11.25
1984	14	13.25
1985	13	12.00
1986	14	12.00
1987	9	9.75
1988	7	9.25
1989	15	13.50
1990	8	9.00
1991	11	9.75
1992	10	11.00

chi-square (9 d f) = 1.73 (n s)

[7] Expected values are one-fourth of the total frequency of daily incremental changes regardless of sign, in number of migrants and flow, omitting comparisons where there are no daily incremental changes in either the number of migrants and/or flow.

Table 4. Chi-square one-sample test comparing positive daily incremental change in migration on day (k-1) with positive daily incremental change in stream discharge on day k at Prosser Dam.

Year	Frequency of (+) change in migration with (+) change in discharge	
	Observed	Expected[8]
1983	9	11.25
1984	9	13.25
1985	12	12.00
1986	12	11.75
1987	3	9.75
1988	7	9.25
1989	10	13.50
1990	4	9.25
1991	9	9.75
1992	9	11.00

chi-square (9 d f) = 11.35 (n s)

[8] Expected values are one-fourth of the total frequency of daily incremental changes regardless of sign in number of migrants and flow, omitting comparisons where there are no daily incremental changes in either the number of migrants and/or flow.

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Table 5. Frequency of "migration spikes" (daily incremental counts of juveniles increase by 0.50 or more) with increasing and decreasing daily incremental discharge.

Year	Observed frequency of "Migration Spikes" where Daily Incremental Discharge is	
	Positive	Negative
1983	4	7
1984	6	4
1985	5	6
1986	12	5
1987	7	6
1988	3	7
1989	12	7
1990	6	7
1991	4	2
1992	6	7
Total	65	58

DISCUSSION AND CONCLUSIONS

The ten years of data on passage time of juvenile stream-type chinook at Prosser Dam is among the most extensive available to examine associations between migration and flow. An assessment of inter-annual variability which treats the percentile of cumulative passage as a variable and time (date) as a constant removes possible confounding effects of day length (= smoltification) from the analysis. The results of such an analysis reported herein provide a basis to accept the null hypothesis that there is no association between inter-annual measurements of passage time and flow.

Assessments of intra-annual variability in daily migration and flow presented herein are based on data which have been corrected for sampling without replacement. This is necessary because the total number of juvenile migrants passing Prosser Dam in any given year is finite. Daily removals from the standing stock remaining upstream from Prosser Dam reduce the number of fish in the denominator for calculating daily fractions of the population that actually pass Prosser Dam. After making corrections for sampling without replacement, it is concluded that daily incremental increases in fractions of juveniles passing Prosser Dam are largely unrelated to daily incremental increases in flow. The null hypothesis that there is no association between intra-annual daily migration and flow is, therefore, accepted.

P.O. Box 1104
Newport, Oregon 97365

May 12, 1992

To: Floyd Ivey and Charles Flower
From: Bill McNeil
Re: Daily fluctuations in yearling chinook smolt passage at Prosser Dam vs. daily fluctuations in discharge.

This memo summarizes some additional preliminary results of my assessment of daily smolt migration vs. daily discharge. I am reporting herein the results of preliminary analyses based largely on chi-square goodness of fit for one-sample tests. The data are examined from two perspectives:

1) Frequency of occurrence of positive change in incremental fractions of smolts migrating daily versus positive change in daily discharge.
2) Frequency of occurrence of negative change in incremental fractions of smolts migrating daily versus negative change in discharge.

The purpose of this assessment is to address assertions by SOWAC that migration of yearling chinook smolts is regulated by stream discharge, i.e. increased discharge stimulates migration and vice versa.

My methodology involves the following steps:

Step 1. Determine Julian dates of observations which encompass the five to ninety-five percent cumulative number of smolts passing Prosser Dam in each of the eight years of observations. The analysis considers, therefore, the annual mid ninety percent cumulative passage.

Step 2. Calculate the fraction of the total number of smolts migrating annually which remain upstream of Prosser Dam on day (k-1) and which pass Prosser Dam on day k. This provides estimates of daily fraction of migrants corrected for bias due to "sampling without replacement".

Step 3. Determine the daily difference (positive or negative) in the estimated fraction of smolts (from step 2) passing Prosser Dam. A positive value indicates increased daily migration. A negative value indicates decreased daily migration.

Step 4. Calculate the daily incremental change (positive or negative) in fraction of smolts migrating daily. For example, a value of -0.10 means that the fraction of smolts observed on day k is 10 percent less than the fraction observed on day (k-1); whereas, a value of +0.10 means that the fraction observed on ~~in~~ day k is 10 percent more than the fraction observed on day (k-1). These calculated fractions represent the "daily incremental change".

Step 5. Calculate the daily incremental change (positive or negative) in observed daily stream discharge at Prosser Dam before water is diverted to the irrigation canal. The daily incremental change in stream discharge is expressed as a fraction which is similar to that calculated for daily smolt migration.

Daily incremental change in smolt migration and stream discharge can be compared for possible statistical associations. A preliminary approach taken here is to compare the frequency of occurrence of positive incremental change in migration with a positive incremental change in stream discharge and a negative incremental change in migration with a negative incremental change in stream discharge. The single-sample chi-square tests make use of signs (positive or negative) and ignore numeric values. They require no assumptions about underlying distributions.

SOWAC asserts that increases in migration are associated with increases in stream discharge and decreases in migration are associated with decreases in discharge. The chi-square goodness of fit tests presented here should lead to rejection of the null hypotheses that daily incremental changes in migration are not associated with daily incremental changes in discharge if the SOWAC assertions are to be supported. This implies that the frequency of positive and negative values are equal. Table 1 summarizes test results where positive daily incremental change in migration is

Table 1. Chi-square one-sample test comparing positive daily incremental change in migration with positive daily incremental change in stream discharge.

Year	Frequency of (+) change in migration and (+) change in discharge	Total observations[1]
1983	10	24
1984	13	24
1985	13	26
1986	14	26
1987	9	21
1988	7	21
1989[2]	--	--
1990	9	17
1991	11	21

Chi-square (7 df) = 1.93 (ns)

[1]Total observations include those in the second column above plus the number of observations where positive change in migration was paired with negative change in discharge.

[2]Data not available.

compared to positive daily incremental change in stream discharge. Table 2. summarizes test results where negative daily incremental change in migration is compared to negative daily incremental change in stream discharge.

The low chi-square value from Table 1 suggests that there is no statistical association between positive daily incremental change in migration and positive incremental change in stream discharge, where the expected number is one-half of total observations. However, the chi-square value from Table 2 provides a result which is equivocal. One would reject the null hypothesis that smolt migration is unaffected by discharge at $\alpha = 0.05$ and accept the null hypothesis at $\alpha = 0.02$. Closer examination of the individual yearly frequency distributions in Table 2 reveals that the large chi-square value is due mainly to 1984 when only two observations related a negative change in migration to a positive change in discharge. If the 1984 data are removed from the analysis, the resulting value of chi-square (6 df) becomes 5.12 ($P' = 0.50$) (ns). Thus, with the exception of 1984, it appears that declining daily smolt migration is not associated with declining stream discharge. Without exception of any of the years of observation, it appears that increased smolt migration is not associated with increased daily stream discharge.

Another set of observations which cast doubt over the correctness of SOWAC assertions that migration is stimulated by increasing stream discharge and inhibited by decreasing stream discharge relates to periodic surges in smolt migration past Prosser Dam. If one defines a daily incremental increase of 0.50 and greater in the fraction of smolts passing Prosser Dam as a "migration spike", it is interesting to note that "spikes" in association with increasing and decreasing stream discharge occur at about the same frequency (see Table 3).

I see no scientific basis at this point of our understanding of relationships between smolt migration and discharge to accept SOWAC assertions on the subject.

Table 2. Chi-square one sample test comparing negative daily incremental change in migration with negative daily incremental change in stream discharge.

Year	Frequency of (-) change in migration and (-) change in discharge	Total observations[3]
1983	12	21
1984	24	26
1985	12	22
1986	16	22
1987	9	18
1988	10	16
1989[4]	--	--
1990	16	20
1991	11	18

Chi-square (7 df) = 14.43 ($0.02 < P < 0.05$)

[3]Total observations include those in the second column above plus the number of observations where negative change in migration was paired with positive change in discharge.

[4]Data not available.

Table 3. Frequency of "migration spikes" with increasing and decreasing daily incremental discharge.

Year	Frequency of "Migration Spikes"	
	Positive incremental discharge	Negative incremental discharge
1983	4	7
1984	6	4
1985	5	6
1986	12	5
1987	7	6
1988	3	7
1989[5]	--	--
1990	6	7
1991	4	2
Total	47	44

[5]Data not available

STREAM DISCHARGE AND SEAWARD MIGRATION OF STREAM-TYPE CHINOOK SALMON IN THE YAKIMA RIVER

Report of Progress

by William J. McNeil

for Yakima River Basin Coalition

April 25, 1992

EXECUTIVE SUMMARY

Year-by-year differences in seaward migration of juvenile stream-type[1] chinook salmon passing Prosser Dam are not associated with stream discharge based on Spearman rank and linear correlation analyses. Day-by-day fluctuations in migration rate past Prosser Dam are also not associated with stream discharge based on a chi-square one-sample test.

INTRODUCTION

Much of the runoff entering the Yakima River is collected in storage reservoirs for agriculture. A proposal to supplement discharge in the April/May migration period of stream-type juvenile spring chinook[2] has raised questions about the affect of increased discharge on migration timing. Purpose for increasing discharge would be to advance the time of smolt migration and reduce time in transit through the Yakima River. It has been hypothesized that increased discharge will stimulate migratory behavior of smolts and expedite seaward mo[illegible]ent. It has also been asserted that mortality of [illegible] would be lessened through a reduced period of contact with [illegible]ors.

In this report, I attempt to evaluate four topics which relate to time of migration of juvenile stream-type chinook observed to pass Prosser Dam on the Lower Yakima River:

(1) Annual patterns in migration timing;
(2) Annual patterns in stream discharge;
(3) Correlation of annual patterns in migration timing to stream discharge; and
(4) Association of fluctuations in daily migration to daily discharge.

---

[1] Stream-type juveniles reside in fresh water for more than one year before migrating to sea.

[2] Letter from Systems Operations Advisory Committee (SOAC) to Ray Nelson dated May 7, 1991.

Data used in this report are for daily estimated numbers of spring chinook smolts passing Prosser Dam and daily stream discharge at Prosser Dam for the eight years 1983, 1984, 1985, 1986, 1987, 1988, 1990, and 1991. I have no explanation for the missing 1989 data other than they appear not to have been released by the fishery agencies responsible for data collection. Discharge data at Prosser Dam include both spill water and irrigation diversion water.

MIGRATION TIMING

Ninety-seven percent of estimated number of stream-type chinook smolts pass Prosser Dam in the 70-day period April 1 through June 9. Average percentages of the migration over ten-day intervals are given in Table 1 for the eight years of record.

Another measure of migration timing involves the daily summation of the number of smolts passing Prosser Dam in a given year. I will refer to this measure as "cumulative passage".

Cumulative passage begins with zero percent and ends with 100 percent of the total number of migrating smolts. The curve of cumulative passage has a sigmoid shape (figure 1). I will make use of dates corresponding to nine percentages (10, 20, 30, 40, 50, 60, 70, 80, and 90) of cumulative passage for correlation analyses relating smolt passage dates to stream discharges at Prosser Dam. The fifty percent cumulative passage identifies the median.

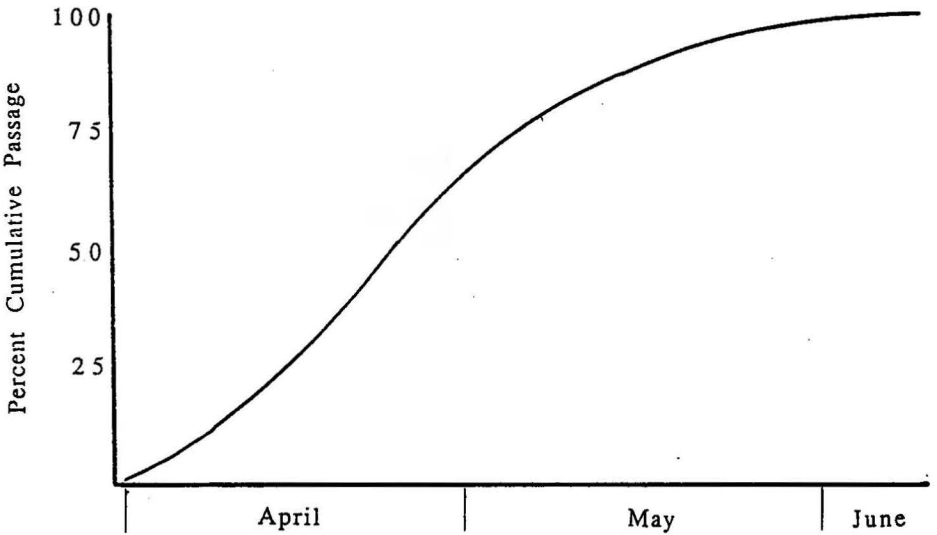


Figure 1. Mean cumulative passage of juvenile stream-type chinook at Prosser Dam for eight years of observation.

Table 1. Mean percentage of the total estimated number of stream-type chinook smolts passing Prosser Dam in 10-day intervals for 1985 through 1991 (1989 is missing).

Interval of time	Mean Percentage
April 1-10	12%
April 11-20	30%
April 21-30	24%
May 1-10	12%
May 11-20	10%
May 21-30	6%
May 31-June 9	3%
	97%

Stream discharge is highly variable among years. Discharge is expressed here in thousands of cubic feet per second (kcfs) in the Yakima River immediately upstream from Prosser Dam.

Statistics on stream discharge used in this report for correlation with date of migration are average values for five days--the date on which a given cumulative passage had been reported plus the four preceding days. For example, if x percent cumulative passage had been observed on day k, the corresponding stream discharge would be the average of observations on days k, (k-1), (k-2), (k-3), and (k-4). Purpose of the five-day averaging is to smooth short-term fluctuations in recorded daily stream discharge. Variability among years for stream discharge corresponding to selected percent cumulative passage at Prosser Dam is shown in Table 2.

MIGRATION AND DISCHARGE

A functional relationship between stream discharge (or water velocity) and time of migration has been hypothesized[3]. This hypothesis implies that early migration is controlled by high discharge and late (delayed) migration by low discharge.

Two correlation techniques are used here to test for an association between annual patterns in smolt passage date at Prosser Dam and annual patterns in stream discharge--Spearman rank correlation coefficient and linear correlation coefficient. Both correlation coefficients are used with the same data to test the null hypothesis that annual passage date (i.e. migration timing) and annual stream discharge are not associated.

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[3] See, for example, Berggren and Filardo. 1991. An analysis of variables influencing the migration of juvenile salmonids in the Snake and lower Columbia rivers. Fish Passage Center, Columbia Basin Fish and Wildlife Authority, Portland, OR, March 7, 1991.

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Table 2. Variability among years for discharge corresponding to percent cumulative passage of stream-type chinook smolts at Prosser Dam, Yakima River, over eight years of observation.

Variable	Stream Discharge Corresponding to Cumulative Passage								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
Average five-day Discharge (kcfs)	4.0	4.0	3.7	3.3	3.4	3.5	3.3	3.4	3.6
Standard Deviation	1.4	1.3	1.4	1.2	1.5	2.0	1.6	1.9	1.4
Coefficient of Variation[4] (%)	34	32	39	35	43	57	48	54	40

[4] The coefficient of variation is the standard deviation expressed as a percentage of the mean.

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Spearman Rank Correlation Coefficient

This technique provides a nonparametric measure of association between two variables. The variables used here are Julian date corresponding to selected percentages of cumulative passage and stream discharge. The selected percentages of cumulative passage are 10, 20, 30, 40, 50, 60, 70, 80, and 90, which encompass the mid 80 percent of the total number of stream-type chinook smolts estimated to pass Prosser Dam in each of the eight years of observation. Stream discharge values corresponding to dates of cumulative passage are averages of five daily discharge measurements at Prosser dam as previously described.

Observations used to rank Julian dates of cumulative passage (earliest to latest) are given in Appendix Table I. Observations used to rank stream discharge (highest to lowest) are given in Appendix Table 2. The calculated Spearman rank correlation coefficients (r_S) are given in Table 3.

Based on the calculated Spearman rank correlation coefficients (Table 3), I accept the null hypothesis that date of annual smolt passage at Prosser Dam and stream discharge are not associated. Years of early migration are not statistically associated with years of high stream discharge and vice-versa.

The Spearman rank correlation coefficient is a distribution-free (nonparametric) method of evaluating statistical associations. As with numerical correlation methods (e.g. linear correlation), values of the Spearman rank correlation coefficient range form +1.0 to -1.0. Values of +1.0 or -1.0 indicate perfect association between variables. A plus sign indicates direct order of variables and a minus sign reversed order. Not only are values of r_S (Table 3) weak, but there is some (two out of nine cases) reversal of signs, a further indication that annual migration timing is not associated with annual stream discharge.

Table 3. Values of the Spearman rank correlation coefficient (r_s) for associating annual Julian date of cumulative passage of stream-type chinook smolts with annual stream discharge at Prosser Dam, Yakima River.

Percent Cumulative Passage	Spearman Rank Correlation Coefficient
10	r_s= +0.012 (ns)[5]
20	r_s = +0.500 (ns)
30	r_s = -0.482 (ns)
40	r_s = +0.333 (ns)
50	r_s = +0.566 (ns)
60	r_s = +0.333 (ns)
70	r_s = +0.262 (ns)
80	r_s = +0.137 (ns)
90	r_s = -0.238 (ns)

[5] r_s is not significantly different from r_s = 0 at the five percent level of probability for all levels of cumulative passage.

Linear Correlation Coefficient

Linear correlation (r) is a numeric method of testing the association between two variables. The two numeric variables of interest are Julian dates corresponding to the previously selected percentages of annual cumulative passage and stream discharge. Julian dates for cumulative passage are given in Appendix Table 1. Data on stream discharge are given in Appendix Table 2. Spearman rank correlation coefficients and linear regression coefficients presented in this report are calculated from the same sets of data (Appendix Tables 1 and 2). The values of calculated linear correlation coefficients (r) are given in Table 4. Results are similar to those reported for Spearman rank correlation coefficients which is to be expected since the same observational data were employed in each test.

There does not appear to be a basis to conclude from linear correlation that annual migration timing of stream-type chinook smolts at Prosser Dam is controlled by stream discharge. There is a reversal of sign in two cases out of nine (Table 4), which further weakens arguments that time of annual migration is controlled by stream discharge. For the hypothesis that early migration is associated with high stream discharge to be supported, linear correlation coefficients should approach unity and possess a negative sign.

DAILY FLUCTUATIONS

The previous correlation analyses provide insights into among-year associations between migration timing and stream discharge. However, a question has been raised about the influence of within-year (daily) fluctuations of discharge on migration. It has been hypothesized by SOAC (see footnote 1) that daily patterns of migration closely follow daily patterns of stream discharge. This hypothesis implies that daily increases in stream discharge are accompanied by increases in migration and vice versa. To evaluate this hypothesis, daily observations on the estimated percentage of stream-type chinook smolts which are present upstream from Prosser Dam on day (k-1) and which migrate past Prosser Dam on

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Table 4. Values of linear correlation coefficients (r) for associating annual Julian date of passage of stream-type chinook smolts with annual stream discharge at Prosser Dam, Yakima River.

Percent Cumulative Passage	Linear Correlation Coefficient
10	r = -0.028 (ns)[6]
20	r = -0.365 (ns)
30	r = +0.378 (ns)
40	r = -0.274 (ns)
50	r = -0.287 (ns)
60	r = -0.152 (ns)
70	r = -0.072 (ns)
80	r = -0.215 (ns)
90	r = +0.217 (ns)

[6] r is not significantly different from r = 0 at the five percent level of probability for all levels of cumulative passage.

day k are paired with stream discharge on day k. These pairings are recorded for each year between dates for ten and 90 percent cumulative passage. Pairings expressing the same direction of change (i.e. increased fraction migrating with increased discharge and decreased fraction migrating with decreased discharge) are classified as "same". Pairings expressing opposite direction of change (i.e. increased fraction migrating with decreased discharge and decreased fraction migrating with increased discharge) are classified as "opposite". The relatively few observations where either the fraction of smolts passing Prosser or stream discharge or both are unchanged are omitted from the analysis. The hypothesized 50-50 split in the two frequencies ("same" and "opposite") is based on the assumption that the percentage of migrants remaining upstream from Prosser Dam on day (k-1) and migrating past Prosser Dam on day k is independent of discharge. The daily population remaining above Prosser Dam is calculated by subtracting cumulative daily estimated numbers of smolts migrating past Prosser from the seasonal total.

The null hypothesis that there is no difference in the expected number and the observed number of pairings which are classified as "same", beyond that occurring by chance, is tested with a chi-square one-sample test. Observed and expected frequencies for each of the eight years of observation are given in Table 5. The value chi-square (7 df) = 8.00 leads me to accept the null hypothesis. There is no significant statistical association between daily fluctuations in migration rate and stream discharge where the calculation of migration rate is based on the number of migrants estimated to be present upstream of Prosser Dam on the day preceding the date that migrants are counted.

CONCLUSIONS

Based on observations of stream discharge corresponding to each of the nine cumulative passages listed in Appendix Table 2, it is apparent that year-to-year differences in stream discharge at Prosser Dam exceed 200 percent. Even so, no statistically significant association between stream discharge and time of migration of stream-type chinook smolts is demonstrated by any of the methods described in this report. It is concluded that neither annual (among

year) nor daily (within year) migration patterns are significantly affected by stream discharge.

Table 5. Observed and expected frequencies of paired observations on changes in daily fractions of juvenile chinook migrants passing Prosser Dam and changes in daily stream discharge.

Year	Number of Cases Where the Daily Fraction Migrating and Daily Discharge Change in the Same Direction		
	Observed Frequency	Expected Frequency	Total Number of Cases
1983	16	17.5	35
1984	35	24.0	48
1985	23	21.0	42
1986	30	25.0	50
1987	14	15.5	31
1988	19	15.5	31
1990	17	14.0	28
1991	15	16.0	32

Chi-square (7 df) = 8.00 (0.50>Prob.>0.30).

Appendix Table 1. Observations on cumulative passage of stream-type chinook smolts at Prosser Dam, Yakima River.

Cumulative Passage	Julian Date for Cumulative Passage in Year							
	1983	1984	1985	1986	1987	1988	1990	1991
10%	99	99	101	98	94	102	94	97
20%	107	107	102	100	101	104	98	102
30%	109	111	106	108	105	106	105	104
40%	111	117	116	113	107	108	106	109
50%	113	124	119	114	112	113	106	111
60%	116	135	123	120	117	118	106	112
70%	121	137	128	127	119	129	106	113
80%	125	140	138	138	120	133	107	119
90%	136	148	145	149	127	134	120	128

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Appendix Table 2. Observations on discharge corresponding to dates of cumulative passage of stream-type chinook smolts at Prosser Dam, Yakima River.

Cumulative Passage	Discharge (kcfs)[7]							
	1983	1984	1985	1986	1987	1988	1990	1991
10%	5.6	3.8	4.6	5.7	2.6	1.9	4.5	3.2
20%	4.4	4.0	5.0	5.5	3.5	1.7	5.3	3.0
30%	4.6	4.6	6.5	2.7	2.6	2.5	3.3	2.6
40%	5.5	3.3	2.1	2.2	2.6	4.3	3.6	2.9
50%	6.7	2.7	2.2	2.3	2.8	4.4	3.6	2.9
60%	8.1	3.3	2.4	1.8	2.2	3.7	3.6	2.9
70%	6.7	4.4	2.4	2.1	2.5	1.9	3.6	3.0
80%	6.8	5.2	2.2	1.8	3.1	1.7	4.4	2.2
90%	5.2	5.3	3.9	2.8	4.6	2.2	3.7	1.3

[7] Discharge is an average of five days which include the day of cumulative passage (day k) and the four preceding days (day k-1, k-2, k-3, and k-4).

GLOSSARY

Chi-square distribution. A family of probability density functions used to evaluate statistical associations.

Chi-square one-sample test. A nonparametric statistical test which may be used to test a hypothesis which calls for drawing one sample to evaluate a significant difference between observed and expected proportions.

Cumulative passage. The summation of daily fractions of the total population of juvenile migrants passing an index point (e.g. Prosser Dam).

Distribution-free. See nonparametric.

Expected frequency. A theoretical or hypothesized frequency of proportions used in statistical tests such as the chi-square one-sample test.

Julian date. A calendar in which days of the year are numbered sequentially from January 1 (Julian day 1) to December 31 (Julian day 365).

kcfs. Thousands of cubic feet per second.

Linear correlation coefficient. A parametric measure of the linear relationship between two numeric variables. Values range from -1.0 to +1.0, i.e. from perfect negative to perfect positive correlation. Correlation coefficient of zero means no correlation.

Nonparametric. A statistical method not requiring assertions about parameters or about the form of the underlying distribution.

Null hypothesis. A hypothesis of no differences which is frequently formulated for the purpose of being rejected.

Spearman rank correlation coefficient. A nonparametric measure of association between two variables. Values range from -1.0 to +1.0, i.e. from perfect correlation of reverse rankings (-1.0) to perfect correlation to identical rankings (+1.)). Correlation coefficient of zero means no correlation.

Standard deviation. A measure of dispersion in a frequency distribution, equal to the square root of the mean of the squares of the deviations from the arithmetic mean of the distribution.

Stream-type chinook. A life-history type of chinook salmon where juveniles remain in fresh water for more than one year before migrating to the ocean.

KITTITAS COUNTY CATTLEMEN'S ASSOCIATION

ELLENSBURG, WASHINGTON

U. S. House of Representative
Committee of Natural Resources
Subcommittee on Oversight and Investigations

Subject: Yakima Enhancement Bill
Hearing, 23 September 1993

From: Kittitas County Cattlemen's Association

Our association supports this bill as a significant step toward solving the water problems of our valley and the Yakima Basin. The Kittitas Valley is unique in that we have excellent habitat for fish and wildlife, a large agricultural base and rely upon water storage (more that 2/3 from the snowpack) and many tributaries of the Yakima River for water.

The Yakima Basin is also unique, having no dams that seriously impede fish passage during migration. Water storage originally built for agriculture use has been used for fish enhancement. This has caused some consternation in the agricultural community. This bill will address efficiency of water use which we hope will indicate imaginative ways to use water and perhaps allay some of the apprehension of present water users.

The need for water in the Yakima Basin exceeds the supply in water-short years and this bill will address the role of conservation in the system picture. We realize the need for determining the impact of conservation practice upon the available water supply. Present allocations exceed the supply, the conservation practices can reduce this shortfall.

Implementation of this bill may establish a baseline of water quantity. This can be compared to the needs to show the additional water needed in the basin. Only then can we properly address ways to get more water., Improving the water cycle by proper land management is a way. Approaches could include good grazing practices, reforestation, and small dams or ponds in the headwater and mountain areas. Large dams may be a viable option when the tradeoffs are done. All these actions require the results of the Yakima Enhancement Bill and we urge you to recommend passage of the bill.

Very truly yours,

Bob Greene

Bob Greene, President
Kittitas County Cattlemen's Association
Rt 3, Box 1021
Ellensburg, WA 98926

KITTITAS COUNTY IRRIGATORS ASSOCIATION
ROUTE 1, BOX 950
ELLENSBURG WA 98926

US HOUSE OF REPRESENTATIVES
COMMITTEE OF NATURAL RESOURCES
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

SUBJECT: YAKIMA ENHANCEMENT BILL
HEARING, 23 SEPTEMBER 1993

DATE: 17 SEPTEMBER 1993

FROM: KITTITAS COUNTY IRRIGATORS ASSOCIATION

OUR ASSOCIATION HAS BEEN INVOLVED IN DEVELOPMENT OF THIS BILL FOR SEVERAL YEARS AND SUPPORT IT AS A STEP TOWARD SOLVING THE WATER NEEDS OF THE YAKIMA VALLEY. THE KITTITAS COUNTY IRRIGATORS ARE USERS OF TRIBUTARY WATERS AS WELL AS THE YAKIMA RIVER. OUR IRRIGATION IS FROM LARGE SYSTEMS, SMALL SYSTEMS AND INDIVIDUAL DIVERTERS FROM THE YAKIMA OR ITS TRIBUTARIES. WE URGE YOU TO RECOMMEND PASSAGE OF THIS BILL AS A STEP TO A SYSTEM SOLUTION OF WATER USAGE IN THE YAKIMA BASIN.

THE YAKIMA BASIN IS A HIGHLY PRODUCTIVE BASIN FOR ANADROMOUS FISH, AS WELL AS FOOD AND TIMBER. THE FIRST TWO ITEMS NEED WATER TO SURVIVE IN THIS SEMI-ARID AREA. WATER NEEDS AND ALLOCATIONS EXCEED WEATHER-DRIVEN WATER AVAILABILITY AS A FUNCTION OF THE CALENDAR. STORAGE HAS BEEN BUILT, WHICH HAS HELPED, BUT DOES NOT MEET NEEDS. THE NEXT LOGICAL STEP IS A RATIONAL EVALUATION AND IMPLEMENTATION OF A CONSERVATION PROGRAM. THE BILL DOES THIS.

BASIN WATER STORAGE WAS BUILT ABOUT 60 YEARS AGO AND MEETS ABOUT ONE THIRD OF OUR NEEDS. NATURAL STORAGE OF THE SNOW PACK IS SUPPOSED TO MEET MOST OF THE REMAINING NEEDS. NEW NEEDS ARE BEING DEFINED NOW THAT WERE NOT PREVIOUSLY APPRECIATED. ONE CONCERNS FISH. THE INSTREAM FLOW NEEDED FOR FISH IS BEING QUANTIFIED. THIS FLOW IS NEEDED FOR INCUBATION OF FISH NESTS, HIGH SHORT TERM FLOW WHICH MAY STIMULATE DOWNSTREAM MIGRATION, SUFFICIENT FLOW TO MAINTAIN FISH-LIVABLE WATER TEMPERATURES, AND ADEQUATE FLOW TO PROTECT YOUNG FISH FROM PREDATORS. THE YAKIMA BASIN IS UNIQUE IN THAT IT IS THE ONLY BASIN IN THE COLUMBIA SYSTEM THAT HAS NO DAM IMPEDIMENTS TO FISH RUNS AND SPAWNING AREAS. WE CAN HELP IN THE MITIGATION OF HOSTILE SITUATIONS ON THE MAIN STEM OF THE COLUMBIA RIVER.

KITTITAS COUNTY IRRIGATORS ASSOCIATION
ROUTE 1, BOX 950
ELLENSBURG WA 98926

AGRICULTURE HAS CHANGED OVER THE YEARS. MUCH OF THE YAKIMA BASIN HAS PRORATABLE WATER ALLOCATIONS, OR JUNIOR WATER RIGHTS. JUNIOR WATER RIGHT HOLDERS MUST REDUCE THEIR WATER USAGE IN WATER-SHORT YEARS TO INSURE THAT SENIOR WATER USERS CAN GET THEIR FULL ALLOCATION. EARLY ON, FARMERS COULD TAKE ONE CROP A YEAR FROM THE LAND AND SURVIVE ECONOMICALLY. NOW, WITH VERY NARROW OPERATING MARGINS IT BECOMES VIRTUALLY MANDATORY THAT WE GET TWO CROPS PER YEAR FROM OUR INVESTMENT. IF WATER USAGE IS RESTRICTED MANY SMALL FARMS WILL BE FORCED INTO ALTERNATE USES.

IT IS VERY IMPORTANT THAT THE YAKIMA BASIN SURVIVES AS A SYSTEM. WE PRODUCE FISH, FOOD AND TIMBER PLUS HAVE A REASONABLE INDUSTRIAL BASE. THESE ARE ALL WATER DEPENDENT TO A SIGNIFICANT DEGREE. WE URGE PASSAGE OF THE YAKIMA ENHANCEMENT BILL AS AN IMPORTANT STEP IN RESOLUTION OF THE WATER REQUIREMENTS OF THE YAKIMA BASIN. WE UNDERSTAND THE REALITY THAT THIS RESOLUTION REQUIRES THE ROLE OF CONSERVATION TO BE WELL DEFINED BEFORE THE NEED FOR ADDITIONAL WATER CAN BE QUANTIFIED.

WHEN THIS IS COMPLETE WE MUST EXAMINE HOW ADDITIONAL WATER CAN BE MADE AVAILABLE AT THE CORRECT TIME. IMPROVING THE WATER CYCLE BY REFORESTATION AND PROPER RANGE MANAGEMENT IS ONE APPROACH, STORAGE BY DAMS IS ANOTHER APPROACH. SMALL DAMS, DISTRIBUTED ON TRIBUTARIES OR LARGE DAMS ON MAJOR WATERWAYS MUST BE COMPARED. THE GOAL MUST BE TO USE THE WATER THAT NOW FLOWS TO THE SEA DURING TIMES WHEN IT CAN NOT BE USED OR IS EVEN A BURDEN ON THE ENVIRONMENT. WE MUST RESTORE AND CONTROL OUR ENVIRONMENT TO PERMIT SATISFACTION OF OUR WATER NEEDS. PASSAGE OF THIS YAKIMA ENHANCEMENT BILL IS A NEEDED STEP IN THE PROCESS. WE AGAIN URGE YOU TO RECOMMEND PASSAGE OF THIS BILL.

VERY TRULY YOURS,

Jim Schnebly

JIM SCHNEBLY
PRESIDENT

Jerome Kaufman Dec. Roy Thomas

Roger Sprague Dec

Donald Eason

September 30, 1993

The Honorable Congressman Jay Inslee
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Inslee,

My name is Karen Poulsen and I am a fourth generation full-time farmer from the Kittitas Valley. I am presenting this written testimony on HR 1690, The Yakima River Basin Enhancement Project. I would like to have had time to more fully review this bill as written, but I understand that this brief comment period ends October 1st. My questions and comments are referenced by both page and line number as written in the bill.

1. First a comment. The Yakima Basin Bureau of Reclamation Project was established for the sole purpose to supply a reliable source of irrigation water for agriculture.

2. Will the monies being paid back to the Federal Government by irrigation districts for the installation of the original Bureau Project be reduced when "conserved waters" stored in the bureau reservoir's are used for other purposes, i.e. protect, mitigate and enhance fish and wildlife...? (reference page 1, lines 5 thru 9).

3. The total available water supply averages over 3 million acre feet per year. The annual usage is about 2.2 million acre feet. Water storage available in the basin is about 1.1 million acre feet. This basin has a smaller percent of it's total annual needs met from storage than almost any where else in the west. Other areas have up to two-year's worth of storage. The water runoff from this basin, even during years of drought, like 1993, exceeds the appropriative water rights. The timing of the runoff and the location and size of the storage is what determines whether water needs can be met each year. The Kittitas valley acts as a giant storage reservoir, absorbing water early in the year and releasing it through springs, drains and seepage, back into the system later in the season when storage is at it's lowest point. If stringent conservation measures are implemented in this valley, where will these conserved waters be stored for late season use?

4. If water's are leased or sold for wildlife enhancement or in stream flows, those waters will have to travel through the system without being diverted by downstream water users. These water's will be commingled with return flows from fields and drains. All down stream users that currently divert existing return flows will now be forced to install at their own expense new water diversion facilities that will have the capability of metering these wildlife enhancement and in stream flow waters past their diversion points. This is not acceptable! (reference page 6, lines 21 thru 24).

5. Diverting funds from agricultural production to meet the 30 percent local cost sharing requirements will have a severe economic impact to agriculture. This is especially true if there is no guarantee that even 30 percent of the saved water, based on the 30 percent of the cost borne by the water user, will be available for his own use. There is a great push in this valley for conversion of agriculture lands to housing. This will certainly accelerate that conversion! (reference page 9, line 10 and page 10, line 12).

6. Over 30,000 acres of timothy hay with a gate value of $19 million is grown in the Kittitas Valley. Due to climatic conditions, Timothy is the only profitable crop that most of the land in this valley will produce. Timothy is a water intensive crop and requires a large amount of water in order to grow the quality that has gained it world wide demand. Incremental pricing of water as are power rates, is in effect placing a tax on it's use. To price the water needed out of reach for timothy growers will again encourage conversion of land to houses. (reference page 9, lines 16 thru 19).

7. Irrigators in the Yakima Basin are being sued under Acquevella to sort out water rights claims. In addition, many irrigators are already operating under limiting agreements in times of short water. The "benefits" irrigators were supposed to receive for signing the original limiting agreements in which substantial water rights were given up are now having to be fought for in court at their own expense. Due to this, there is no way that I and many other irrigators would give away part of our current water rights to be a participant in this enhancement project. We don't trust our government!

8. Questions that need answering:

Why doesn't the Demonstration Project on the Yakima Indian Reservation require the Indians to fund at least part of the cost themselves as the rest of us will have to do if we participate in this project? We are already paying federal taxes to fund the government's portion.

Why are the Indians guaranteed all of the "saved water" from their project to use as they wish, when the other participants are given no such guarantee? (reference page 11, lines 17 thru 20 and page 14, lines 13 thru page 17, line 22).

9. Where are the guarantees that water leased or sold with possible changes in use or diversion points will not adversely affect water users, wildlife habitat, or instream flows? (reference page 21, lines 1 thru 5).

10. There are guarantees written into this document that water rights will not be imperiled or delivery of water impeded for both participants and non participants to this project. How does

one get redress, and at who's cost when these guarantees are not met? (reference page 22, line 16 thru page 29).

11. I have grave concerns that $200 million and the passage of ten to fifteen years will find this basin still short of water. it will not be due to the lack of total available water, but rather the lack of storage for the water we have.

Thank you Congressman Inslee for accepting my comments. I am not alone in my feelings about this legislation. I know of many other irrigators here that have concerns about this project and would appreciate the opportunity to comment about this major piece of legislation. With this in mind, I would like to request a field hearing in the Ellensburg area concerning this legislation. Without this opportunity, I am fearful that many water users will be unable to support to HR 1690 as currently written.

Sincerely,

Karen Poulsen

Karen Poulsen
Rt 3, Box 1380
Ellensburg, Wa 98926
Phone: (509)925-6357

cc:
Senator Slade Gorton
Darrell Turner, President Washington State Farm Bureau

STAN GRACE
CHAIRMAN
Montana

John N. Eichart
Montana

Jay L. Webb
Idaho

Robert (Bob) Saxvik
Idaho

NORTHWEST POWER PLANNING COUNCIL
851 S.W. SIXTH AVENUE, SUITE 1100
PORTLAND, OREGON 97204-1337

Phone: 503-222-5161
Toll Free: 1-800-222-3355
FAX: 503-795-3370

R. TED BOTTIGER
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Oregon

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Oregon

September 23, 1993

Testimony of the Northwest Power Planning Council
Before the Subcommittee on Oversight and Investigations
Committee on Natural Resources
United States House of Representatives

Good morning, Mr. Chairman, and thank you for the opportunity to testify today. My name is Stan Grace, and I am Chairman of the Northwest Power Planning Council. I am here to support H.R. 1690. The Council supports the emphasis on water conservation in this legislation, and we believe it would provide benefits for salmon and steelhead in the Yakima River and its tributaries and help the ongoing effort to rebuild those fish populations.

The Northwest Power Planning Council

The Council is an agency of the states of Idaho, Oregon, Montana and Washington. The states created the Council in April 1981 under the authority of the Pacific Northwest Electric Power Planning and Conservation Act of 1980. The Act directed the Council to prepare a long-range electric power plan to assure the Pacific Northwest of an adequate, efficient, economical and reliable power supply. The Act directed the Council to prepare a program to protect, mitigate and enhance fish and wildlife, including related spawning grounds and habitat, located on the Columbia River and its tributaries. The Act also directed the Council to involve the public in its decision-making processes. When preparing or amending the fish and wildlife program, the Council is directed to request recommendations for program measures from the federal and the region's state fish and wildlife agencies and from the region's appropriate Indian tribes. The Act says the program shall consist of measures to protect, mitigate and enhance fish and wildlife affected by the development, operation and management of hydroelectric facilities while assuring the Pacific Northwest an adequate, efficient, economical and reliable power supply. Under the Act, customers of hydropower pay for measures designed to mitigate the impact of hydropower dams.

Since the Northwest Power Planning Council approved its first Columbia River Basin Fish and Wildlife Program in 1982, significant efforts and money have been directed toward protecting and rebuilding salmon and steelhead populations.

The Council and the Yakima River Basin

The Yakima Basin has been of special interest to the Council since the first fish and wildlife program in 1982. At that time, the Council identified the Yakima Basin as having broad areas of underutilized but largely intact salmon and steelhead habitat. The program identified the Yakima Basin as an area with perhaps the greatest potential in the Columbia River Basin for production of salmon and steelhead. Valuable agricultural crops are grown in the basin, thanks to a series of irrigation diversion dams, canals and ditches. Three irrigation dams also divert water for hydroelectric generation. However, in low-water years the demand for irrigation water for farming and ranching still exceeds the water supply. Available water must be allocated among competing uses, and the provision of streamflows sufficient to support anadromous and resident fish historically has received a lower priority.

The Council recognizes that the water needs of the Yakima Basin, including provision of adequate flows for fish, cannot be satisfied without additional storage, changes in existing storage operations and/or modification of water management practices. The Council encourages more efficient use of water in the basin and greater flexibility in water management.

Since 1982, Bonneville Power Administration ratepayers have made significant investments in passage and habitat improvements in the Yakima Basin, and the anadromous fish runs have seen important increases. The Council is continuing to explore a $31.9 million Yakima Production Project, which could increase salmon and steelhead production in the basin even more.

The importance of water conservation in salmon rebuilding efforts

In September 1992, we amended into the Columbia River Basin Fish and Wildlife Program our *Strategy for Salmon*, which is a long-range plan to improve salmon survival at every stage of the salmon life cycle. The strategy includes measures to amend river operations, increase salmon productivity, repair salmon habitat and refine salmon harvests. It is designed to balance competing river uses while strengthening and rebuilding salmon and steelhead runs throughout the basin. The Council's aim is to make future Endangered Species Act petitions unnecessary, and ultimately to produce healthy and harvestable populations of fish.

Among the many measures in the *Strategy* that aim to improve river conditions for salmon are several concerning water conservation. Salmon and steelhead need adequate river flows for spawning, rearing and migration. With growing development pressures on streams, there is a need to find innovative ways to leave more water in streams. More efficient out-of-stream water use may be a fruitful strategy.

Water conservation should play a role in the salmon recovery effort in the Yakima Basin. We see H.R. 1690 as an important test of the idea that water conservation measures can increase flows for salmon and steelhead. The bill would be a landmark in the region's

efforts to rebuild salmon and steelhead runs, if the link between conservation and instream flows can be established.

To help establish that link, our *Strategy* called on the federal Bureau of Reclamation to initiate a cooperative effort with the states of Idaho, Oregon and Washington, and with irrigators, to select and design at least four demonstration water conservation projects to provide additional in-stream flow and enhanced water quality for production of weak salmon and steelhead stocks. In Washington, the Bureau initiated a project in the Yakima River Basin. The project area includes about 13 miles of the river between the confluence of the Naches River and Sunnyside Dam. At times there is no flow in the river below the dam, and the diversion to Sunnyside is not met. The proposed conservation project will consist of a regulating reservoir adjacent to the Yakima River immediately downstream of Union Gap, and a leasing program to obtain water for streamflows, according to the Bureau. A second phase will consist primarily of developing water-leasing procedures.

While that project is designed specifically to improve river conditions for salmon, the Bureau also has undertaken a separate water enhancement project in the Yakima Basin. The Yakima River Basin Water Enhancement Project is designed to improve water availability for agriculture while protecting fish and wildlife. In the first phase of the project, fish passage facilities are being installed at smaller water diversions. In the second phase, the emphasis is on water management changes and on structural improvements to reduce the amount of water diverted.

H.R. 1690 addresses the second phase of the project. The legislation would create the "Basin Conservation Program," which would coordinate decision-making among state, federal, tribal and local water managers. The Council supports this approach as a creative way to improve the often-contentious water allocation process.

In a related effort, in 1991 the Yakima Indian Nation, along with state and federal fishery agencies, called for establishment of a water leasing procedure to protect salmon and steelhead in the lower Yakima River from fluctuating flows. Recently, the Environmental Defense Fund, a partner in this effort, completed a draft report on procedures that would be necessary to lease or transfer water in dry years to enhance flows for fish. The Council's *Strategy for Salmon* calls for such leases to begin in 1996, and we are hopeful that the policy concerns and mechanics of dry-year leasing in the Yakima Basin can be developed in time to meet the Council's goal.

The importance of H.R. 1690

As I mentioned, H.R. 1690 is part of the Yakima River Basin Water Enhancement Project, developed by a group of local, tribal, state and federal entities. The project generally is supported by the State of Washington, the Yakima Indian Nation and local irrigation districts.

Certain appropriations that would be made under the legislation are of interest to the Council, particularly those that aim to improve river flows to aid salmon and steelhead through water conservation and dry-year water leases. We also support the proposed allocation of about $20 million for projects on tribal land to conserve water, improve water management practices and integrate the management of agriculture, fish, wildlife and cultural resources. We support the proposed appropriation of about $2.9 million to increase water storage capacity at Lake Cle Elum, provide for shoreline protection and construct juvenile fish passage facilities. Coincidentally, our fish and wildlife program includes a project to determine the feasibility of re-establishing sockeye salmon in the lake. Results to date have been promising, but permanent passage facilities are needed.

The Yakima project is important to the Council for other reasons, as well. First, it should lead to improved water quantity and quality in the Yakima Basin. Second, if conserved water is used as intended, it would improve streamflows for salmon and steelhead in the Yakima. The legislation could increase the benefits of a separate program that is intended to improve fisheries in the Yakima Basin. Finally, the legislation could serve as a model for other watersheds with similar problems.

Mr. Chairman, H.R. 1690 brings together a broad coalition of state, local and tribal interests. The Council is pleased to be a part of that coalition. On behalf of the Council, I urge you to support the bill.

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STAN GRACE
CHAIRMAN
Montana

John N. Etchart
Montana

Jay L. Webb
Idaho

Robert (Bob) Saxvik
Idaho

NORTHWEST POWER PLANNING COUNCIL
851 S.W. SIXTH AVENUE, SUITE 1100
PORTLAND, OREGON 97204-1337

Phone: 503-222-5161
Toll Free: 1-800-222-3355
FAX: 503-795-3370

R. TED BOTTIGER
VICE CHAIRMAN
Washington

Tom Trulove
Washington

Ted Hallock
Oregon

Angus Duncan
Oregon

September 3, 1993

The Honorable George Miller, Chairman
House Committee on Natural Resources
Room 1328, Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Miller:

I write to express the Council's support for H.R. 1690, the Yakima River Basin Water bill.

The Yakima Basin has been of special interest to the Council since the first fish and wildlife program in 1982. At that time, the Council identified the Yakima Basin as having broad areas of underutilized but largely intact salmon and steelhead habitat. Since then, ratepayers have made significant investments in passage and habitat improvements, and the runs have seen important increases. The Council is continuing to explore a $31.9 million Yakima Production Project, which could increase salmon and steelhead production in the basin even more.

Water conservation should play a role in the recovery effort. We see the Yakima River Basin Water bill as an important test of the idea that water conservation measures can increase flows for salmon and steelhead. The water conservation bill would be a landmark in the region's efforts to rebuild salmon and steelhead runs, if the link between conservation and instream flows can be established.

The bill has brought together a broad coalition of state, local, and tribal interests. The Council is pleased to be a part of that coalition. We urge you to give favorable consideration to H.R. 1690.

Very truly yours,

Stan Grace
Chairman

cc: The Honorable Jay Inslee



STATEMENT FOR THE RECORD

OF F. LORRAINE BODI

AND KATHERINE RANSEL

CO-DIRECTORS, NORTHWEST OFFICE

AMERICAN RIVERS, INC.

ON H.R. 1690

BEFORE THE SUBCOMMITTEE ON

OVERSIGHT AND INVESTIGATIONS

HOUSE COMMITTEE ON NATURAL RESOURCES

OCTOBER 7, 1993

NORTHWEST REGIONAL OFFICE
4518 UNIVERSITY WAY, N.E.
SUITE 312
SEATTLE, WA 98105
206-545-7133
206-545-7144 (FAX)

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American Rivers is a national, non-profit organization dedicated to the protection and restoration of America's rivers. American Rivers was founded in 1973, and has its national office in Washington, D.C. and two regional offices in Seattle, Washington, and Phoenix, Arizona. It fosters watershed and river organizations all over America and is the nation's leading river conservation organization.

The Northwest regional office of American Rivers houses the organization's Endangered Salmon Project. The purpose of American Rivers' Endangered Salmon Project is to protect and restore the wild salmon runs of the Pacific Northwest. One of the rivers of particular concern to American Rivers' Endangered Salmon Project is the Yakima River, which is the focus of H.R. 1690.

Earlier this year, American Rivers named the Columbia-Snake system as the second most endangered river in North America. It featured the Yakima as one of the system's most troubled tributaries.

The Yakima River basin is the largest drainage within Washington state. After the Snake River, the Yakima was the largest contributor of salmon and steelhead to the once great Columbia-Snake watershed. The Columbia basin, which encompasses an area as large as France, is the nation's second largest drainage and once was home to the largest wild salmon runs in the world. That fishery, with fewer than two percent of its historical wild fish, is now on the verge of collapse.

Dams and diversions in the Columbia system, both for irrigation and hydropower, have wreaked havoc on the life cycle of this once plentiful renewable resource. In the false dilemma that has been posed in the debate about jobs and the environment, the salmon crisis serves as the prime example of their interdependence. Even in their fragile condition, salmon contribute over $1 billion and 60,000 jobs annually to the regional economy.

What has happened in the Yakima basin is, unfortunately, typical of many other drainages of the once mighty Columbia-Snake system. It is time to find our way back to naturally renewable resources and economies in the Northwest, and in the nation as a whole.

We thus welcome the opportunity to submit this statement in support of the purposes and intent of H.R. 1690. This bill presents the Committee with a critical opportunity to correct what can only be described as a tragic situation for the anadromous fishery of the Yakima River and the Yakima Indian Nation.

We commend Congressman Inslee on his initiative to resolve the longstanding resource conflicts in the Yakima River basin. Unfortunately, the bill, as currently written, falls short of its water conservation and fish enhancement missions.

American Rivers supports the bill's provisions on water sales and leasing, and its provisions authorizing on-reservation programs for the Yakima Indian Nation. American Rivers believes the bill should be substantially amended, however, to include specific provisions to guarantee that the laudable goals of water conservation and fish enhancement -- the fulfillment of which has eluded the Yakima River basin for decades -- will finally be realized.

The Present Situation on the Yakima Must Be Changed.

For thousands of years, the Yakima River Basin's most spectacular feature was its abundance of salmon and steelhead estimated at between 600,000 and 960,000 fish.[1] Every creek, tributary and lake supported at least one stock of chinook, coho, sockeye or steelhead. For the indigenous people of the region, salmon was the mainstay of not only their diet, but also their economy, culture and religion.

Development over the past century, however, has shriveled and polluted the river, decimating wild salmon and steelhead runs. In particular, irrigation has exacted a lethal toll. The Yakima River basin today is one of the most heavily irrigated areas in the United States, due, in part, to water development projects sponsored by the Bureau of Reclamation. The basin contains six storage reservoirs, fourteen major diversion dams and more than 1,900 miles of diversion canals. Dams and diversion built with inadequate fish passage or none at all have caused a drastic drop in fish populations, as have the effects of Bureau of Reclamation-sponsored irrigation withdrawals.

Intensive irrigation has left the river vastly overappropriated. So little flow is found in certain reaches of the river's tributaries that they are completely dry in the summer. Low flows exacerbate other problems. Low water volume causes summer water temperatures to be at bathwater level, which cannot sustain a healthy fishery. Agricultural return flows contain a panoply of organochlorines, heavy metals and other toxins which are concentrated in what little water remains in the river.

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[1] Bonneville Power Administration (BPA), Yakima/Klickitat Production Project Preliminary Design Report and Appendices (1990).

As a result, anadromous fish in the Yakima now average about 9,100 adults, fewer than two percent of their historical numbers.[2] Indeed, the effects of water and agricultural development have already led to the extinction of three Yakima River stocks: summer chinook, coho and sockeye salmon.[3]

The remaining runs are imperiled. There is simply insufficient free-flowing water in the Yakima River and its tributaries to support the remaining stocks. This is especially the case in the critical months from March through October, when federally subsidized irrigation withdrawals directly conflict with fish migration flow needs.

At particular risk are three Yakima River wild, native stocks:[4] spring and fall chinook and summer steelhead.[5] We have prepared an assessment of the status of these stocks that shows that these populations may qualify for listing under the Endangered Species Act, 16 U.S.C. §1531 et seq. We would be happy to share that assessment with the Committee.

Spring chinook, for example, historically numbered about 200,000 fish.[6] Present populations, however, are severely depressed: from 1957 to 1992, the number of returning adult fish ranged from between 166 to 8,072. The average annual return from 1981 to 1989 was 3,839.[7] Fewer than four percent of their historical numbers survive.

Fall chinook fare no better. The average number of fall chinook in the Yakima River basin ranged from 757 to 4,440 fish from 1983

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[2] U.S. Department of Energy, Bonneville Power Administration (BPA), Yakima River Basin Fisheries Project: Draft Environmental Impact Statement, Portland, Oregon (October, 1992)(hereinafter "DEIS") at 1.6.

[3] DEIS at 1.7.

[4] A stock is a genetically distinct group of fish that spawns in a particular location in a particular season and which do not interbreed with other fish. Washington Departments of Fisheries and Wildlife, 1992 Washington State Salmon and Steelhead Stock Inventory (hereinafter "SASSI") at 83.

[5] SASSI at Table 11, Columbia River Salmon and Steelhead Stock List at 65.

[6] DEIS at 3.15.

[7] BPA, Yakima Spring Chinook Enhancement Study (1991).

through 1991, a shadow of the former estimated run size of 132,000 fish.[8]

Likewise, Yakima Basin summer steelhead are estimated to have once numbered between 80,000 and 100,000 fish. The current population has fluctuated from 64 to 2,198 between 1981 and 1989, with the average number of summer steelhead for the same period at 852 fish. Thus, only approximately one percent of the historical run has survived.[9]

The Yakima Basin Irrigation System Is a Major Cause of Salmon Decline.

The Yakima basin irrigation system harms salmon in at least two very basic ways: First, the system diverts so much water from the Yakima River that stream flows are simply inadequate to sustain their spawning, rearing and migration cycles. Second, water pollution in the Yakima is exacerbated by low flows.

Since the turn of the century, the Yakima River basin has been an oasis for agriculture; for almost as long, however, the Yakima has been overappropriated, that is, more rights to divert water have been granted than there is water available in the basin.

Beginning in 1905, the Bureau of Reclamation sought to end the conflicts between irrigators due to over-appropriation of the Yakima's natural flows by creating "new water" through massive water development projects. As part of the Bureau project, fifty appropriators signed agreements voluntarily limiting their respective diversions to certain maximum monthly quantities--those quantities were then, and are still today, considered non-proratable.[10]

With these agreements in hand, the Bureau proceeded to build, from 1909 to 1933, six major water storage dams in the Yakima basin: Keechelus, Kachess, Cle Elum, Bumping, Clear Creek and Tieton. During this same period, the Bureau of Reclamation constructed the water works for the five primary irrigation

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[8] SASSI at 173; Confederated Tribes and Bands of the Yakima Indian Nation, et al., Yakima River Subbasin: Salmon and Steelhead Production Plan, Toppenish, Washington (September 1, 1990) (hereinafter "YIN") at 55-56, 178.

[9] DEIS at 3.22; YIN at 55-56; SASSI at 178.

[10] United States Department of the Interior, Bureau of Reclamation, C.R. Lentz Review Yakima Project Water Rights & Related Data, Preliminary Record (Pacific Northwest Region, Yakima Project, Washington, December, 1974) (hereinafter "Lentz") at 2-3.

districts in the basin.[11] See Attachment A, a map of the Yakima basin.

Despite this massive infusion of federal money into the basin to create "new" water, legal battles ensured over the competing claims of proratable and non-proratable water rights appropriators. A 1945 federal court consent decree set out the respective allotments of all users in the valley, and assigned the highest priority to non-proratable entitlements. In years of water shortages, non-proratable users receive their full entitlement, while the remaining water is rationed between the proratable users. The water supply for two of the larger irrigation districts, the Sunnyside and Yakima-Tieton, are respectively 69 percent and 67 percent non-proratable.[12]

While the decree brought some temporary peace among junior and senior appropriators, it did not bring any relief to the Yakima River fishery. Indeed, it merely cast into judicial decree past Bureau policy regarding native salmon and steelhead: the fish receive whatever is left over after proratable and non-proratable needs are met.

Nor is this dismal situation likely to improve once the sixteen-year-old general adjudication of water rights in the Yakima River Basin, Department of Ecology v. Acquavella, No. 77-2-01484-5 (Yakima County Superior Court) is finally resolved. The court in that case has determined that beneficial use of Yakima River water is synonymous with the allotments which water rights users receive under Bureau contracts. This cements the status quo ante: the biological requirements of anadromous fish are met only after the needs of non-proratable and proratable users are satisfied.

Critical Low Flows

As a direct result of the legal relationship of the non-proratable and proratable users, water supply in the Yakima is severely overtaxed. Subject to only a few, paltry exceptions,[13]

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[11] Lentz at 3.

[12] YIN at 52.

[13] The Bureau of Reclamation's Yakima Project has agreed with the U.S. Fish and Wildlife Service to provide minimum flows each year below Prosser Dam as follows: 200 cfs from March 1 to July 10 (smolt out-migration and spring chinook and steelhead spawning run), and 200 cfs from September 1 to November 30 (fall chinook, coho and steelhead spawning run). All other times of year, the agreement only calls for 50 cfs to be maintained below

the water left for instream flows to foster anadromous fish represents the difference between available water--reservoir storage capacity plus runoff--and irrigation and other demands. In an oversubscribed system like the Yakima, this means that instream flows are rarely as high as the fish require anywhere in the basin, and, worse still, during low water years, instream flows are catastrophic for fish production.[14]

Irrigation diversions also account for critical low flows in many of the Yakima's tributaries, which are worse even than in the mainstem. Indeed, the lower reaches of the Teanaway River and Taneum, Mamstash, Big, Wenas, Swauk, and Ahtanum Creeks are virtually or actually dewatered by late spring or early summer.[15]

Plainly, this situation cannot sustain the anadromous fishery, for which a Bureau-sponsored report recommended flows ranging from a low of 100 cfs to a high of 1400 cfs, depending on the river reach and month in question.[16] See Attachment B hereto. The majority of the flow recommendations range from 600 to 1000 cfs.

Moreover, the U.S. Fish and Wildlife Service (USF&WS) conducted an IFIM study to determine instream flow requirements needed to sustain the fishery in the Yakima River basin, the results of which were submitted to the court in the Acquavella adjudication. The chart submitted by USF&WS in that proceeding with recommended flows for the reaches of the river below Prosser, Sunnyside, Roza and Easton dams is Attachment C hereto. Those recommendations range from 250 cfs to 11,150 cfs, depending on river reach and month of the year. Most range from 900 to 1000 cfs.

Prosser Dam.

An additional court-ordered minimum flow exists for egg incubation in the Yakima between Easton Dam and the Teanaway. YIN at 8, 46-47.

[14] YIN at 8.

[15] YIN at 9.

[16] Parametrix, Inc., for the U.S. Department of Interior, Bureau of Reclamation, Initial Flow Recommendations, Yakima River Basin, Final Report (October 1984) at 21, Table 6, Attachment B hereto).

Critical Water Pollution

Irrigation has also caused serious and perhaps deadly water pollution in the Yakima River basin. At least three sources of pollution affect the Yakima and its salmon runs:

- The first is chemical pollution from pesticide contamination of the river in concentrations above levels considered safe for chronic exposure to fish. The Washington Department of Ecology has identified over fifteen organochlorine compounds and metabolites, including DDT, DDE, dieldrin and PCB-1260, as well as mercury, in concentrations above those considered safe for aquatic life in the Yakima and some of its tributaries.[17]

  It is possible that the high levels of pesticides contribute to the very low egg-to-smolt survival rates of fall chinook spawning in two locations: above Prosser Dam, especially those in and just downstream of Marion Drain, and downstream of Prosser Dam.[18]

- Second, low water volumes contribute to high water temperatures and cause thermal pollution in the river.[19] High water temperatures pose a serious threat to migrating adults and juvenile salmon. Temperatures in the river have reached lethal levels during the spring migration as recently as May of 1992, when tens of thousands of migrating chinook were lost.

- Sedimentation resulting from a combination of irrigation return flows, low instream flows and logging in the Wenatchee National Forest create a third factor afflicting the fishery. In particular, low instream flows in the Yakima from Union Gap to Kiona during the irrigation season cause deposition of fine sediments on fall chinook spawning beds in the lower Yakima.[20]

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[17] See also generally U.S. Geological Survey, Open-File Report 91-453, Surface Water Quality Assessment of the Yakima River Basin, Washington: Analysis of Available Water Quality Data through 1985 Water Year (1992) (hereinafter "USGS") and p. 173-174.

[18] YIN at 7-8.

[19] USGS at 174.

[20] Id. at 173.

Over-appropriation and pollution of the Yakima River Basin have given rise in the past two decades to new rounds of legal battles and a series of well-meaning, but ineffective attempts at legislative "quick fixes." Unfortunately, none has solved the problems we describe.

As presently drafted, this bill, we fear, will only follow suit. With some key changes, however, it could decisively enhance water conservation and improve the viability of salmon and steelhead in the Basin, rescuing this once plentiful renewable resource from endangered species status and upgrading the health of the river generally.

H.R. 1690 Should Be Modified to Provide Clear Commitments for Water Conservation and Fish Enhancement.

American Rivers urges the Committee to amend H.R. 1690 so that it can accomplish its stated goals. We believe the bill's goals can only be realized through amendments that would:

- require a comprehensive water management plan for the Yakima;
- require the adoption and implementation of effective water conservation measures; and
- guarantee that water conserved at federal expense will remain in the river to protect and enhance the river's dwindling stocks of wild salmon and steelhead and improve water quality of the river generally.

Adoption of a Comprehensive Plan to Guide Improved Water Management in the Yakima Basin

The Yakima River Enhancement Project, enacted by the Congress in 1979, authorized development of a comprehensive plan to enable efficient management of the basin's water supply. Unfortunately, the Yakima Basin still lacks such a plan today.

The need for such a plan is both obvious and critical. The resource conflicts in the Yakima simply cannot be allowed to continue. A comprehensive plan which addresses both irrigation and fish flow needs, using creative approaches to encourage and mandate water efficiencies, must be developed as soon as possible. Absent such a plan, it is impossible to assess whether the expenditures authorized by H.R. 1690 will resolve water use conflicts in the basin.

American Rivers recommends that H.R. 1690 be amended to require the Secretary to develop a comprehensive water management plan

for the Yakima basin within 12 months of enactment. At a minimum, the plan should address:

- the average annual water delivery of the river;
- the amount of water beneficially used by individual irrigation districts, irrigators and municipalities;
- the amount of waste in the system;
- the amount of conserved water that could be made available through the implementation of conservation measures;
- the types of conservation measures that will be most effective in the Yakima Basin, including agricultural programs, such as crop rotation, fallowing and switching, which would be effective to conserve water;
- efforts by the Bureau and the Department of Agriculture to discourage production of surplus crops and to encourage the above kinds of agricultural programs (e.g., a shift to low-water crops in the basin);
- the circumstances under which the Bureau and irrigation districts may adopt incremental pricing of water to encourage conservation;
- the programs, rules, and incentives that could be developed to encourage voluntary water transfers; the identification of any inhibitions to such transfers, and recommendations for their modification or elimination;
- adjustments to the water allocation system that could be made to ensure that junior appropriators receive a pro-rata share of water during droughts.

Committing Conserved Water to Fish Flows

One of the primary purposes of H.R. 1690 is "to protect mitigate, and enhance fish and wildlife through improved water management, improved instream flows, improved water quality, protection, creation and enhancement of wetlands, and by other appropriate means of habitat improvement."

Instead of setting out a path that leads to the fulfillment of this goal, however, the present legislation merely authorizes the Secretary to propose guidelines for the development and implementation of voluntary conservation plans by Yakima basin irrigators. Moreover, despite the fact that these plans are only voluntary, a million dollars of federal funds are authorized to support their development.

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We recommend that the bill be redrafted as follows:

- First, the conservation guidelines suggested in section 3 of the bill should be developed as part of the comprehensive water management plan. They should then be adopted as regulations rather than guidelines.

- Second, federal funding of conservation improvements should be conditioned on the prior development of conservation plans by Yakima basin irrigators. Moreover, deadlines should be set for the adoption of conservation plans for funding under the new law. That such plans should be required, rather than voluntary, and that deadlines ought to be set for their submission is critical.

  The Reclamation Reform Act of 1982, 43 U.S.C. § 390aa et seq. is instructive. Section 390jj of the Act and its implementing regulations call for irrigation districts with Bureau contracts to prepare water conservation plans. The Act specified neither the contents of the conservation plans nor deadlines for their development, however, and consequently the conservation planning requirement has been virtually ignored.

- Third, H.R. 1690 should explicitly dedicate water conserved by the implementation of federally funded conservation measures to instream flows for fisheries, wildlife, and other uses. The state of Washington's Trust Water Rights program allows for the dedication of conserved water to instream flows with the retention of the original priority date of the water right from which such conserved water is derived. By tying water conserved by federally funded conservation measures to the Washington Trust Water Rights Program, the Congress can be assured that it will remain in stream for the benefit of fish, wildlife, and other downstream uses (if those instream rights are properly enforced by the State of Washington).

- Finally, the bill should authorize all water made available by virtue of this legislation to be used to satisfy biologically based instream flows for the fishery. The bill should not limit the source of fishery flows to any particular source, such as limiting outmigration flows to water obtained from the sale or lease of water rights, as it appears section 5(a)(3) does.

Minimum Instream Flows for the Fishery

H.R. 1690 fails to establish clear commitments for minimum flows for fish in the Yakima. It is particularly essential that such

flows be established for the period from March through October, the critical migratory and reproductive period for spring chinook, summer steelhead and fall chinook.

First, the suggested "target" flows in section 5(a)(1) are inadequate. As we noted above, both a Bureau-sponsored report and the U.S. Fish and Wildlife Service have identified substantially higher flows for the threatened stocks of the Yakima. These recommendations are at least purportedly based on the biological requirements of the fish at critical life stages, determined by use of the state-of-the-art "IFIM" methodology.[21]

By comparison, the "target" flows suggested in section 5(a)(1) do not appear to be biologically-based. Indeed, they appear simply to be a restatement of the status quo in the river, which is demonstrated by the figures in the minimum flow table in section 5(a)(1) of the currently proposed bill. These figures throw into serious question whether enactment of H.R. 1690 would result in any change in current river conditions and provide the fishery with its basic biological needs.

A second, equally serious shortcoming of H.R. 1690 is the absence of language dedicating conserved water permanently to biologically based instream flows. As now proposed, all conserved water simply re-enters the total water supply of the basin. The present version of the bill only permits the Secretary to increase instream flows when necessary during April through October to assist fish migration with water obtained through voluntary sale and leasing programs with irrigators, not with "new" water attributable to conservation (Section 5(a)(3)).

And, indeed, if the total water supply falls below 2.65 acre feet, the bill permits the Bureau to drop instream flows to a target of 300 cfs. Even the 300 cfs is not guaranteed, however. Section 5(a)(2) emphasizes that the allotments to instream flows are merely "targets" from which "reasonable fluctuations . . . are anticipated in the [Bureau's] operation of the Yakima Project."

In short, Section 5(a)(2) weakens even the inadequate standard of flows purportedly reserved to the fish in Section 5(a)(1) by defining them as mere "targets" and permitting "reasonable fluctuations" from them. In other words, the discretion granted to the Bureau by this bill in the operation of the Yakima project is so broad that there is absolutely no assurance of improved water conditions for fish as a result of expenditures under the bill.

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[21] "IFIM" means instream flow incremental methodology.

There are, however, remedies for both of these deficiencies. First, section 5(a)(1) should be revised to establish a biologically-based flows in the Yakima River. Although the Parametrix report and the U.S. Fish and Wildlife recommendations differ, we note that the Parametrix report noted severe data limitations in its work. Moreover, one thing is obvious from both recommendations: the "target" flows in the bill are far below what scientists have recommended.

The comprehensive plan that we urge for the river should thus also require an up-to-date, state-of-the-art determination of the biological needs of the fishery. While it certainly may build on the prior studies we have mentioned and any others that exist, it should be conducted taking into account the current conditions of the fishery.

Second, section 5(a)(2) should be deleted. Until the needs of the fishery are met, water conserved by federally funded conservation measures under this legislation should be dedicated to meeting the biologically-based flow needs of the fishery. Moreover, water conserved under the bill should be in addition to, and not in lieu of, the inadequate flows currently being provided in the river.[22]

The Conservation Advisory Group Provisions Should be Amended

Section 3(c) of H.R. 1690 authorizes the Secretary to appoint a conservation advisory group comprised of the following members: two representatives of Yakima Basin irrigators; one representative of the Yakima Nation; one representative of counties and cities in the Yakima River basin; and one representative of environmental interests. American Rivers seeks two changes to the membership of the group.

First, we question why more than one representative of non-tribal irrigators should belong to the group. The interests of irrigators in the water of the Yakima basin are not greater than other interests in the basin, which have only one representative. Thus, we recommend that the non-tribal irrigators have the same representation as others in the advisory group.

Second, the membership of the group as presently conceived is incomplete. To serve the Secretary properly, it is critical that the group reflect the interests of all parties involved in and affected by how the Yakima River is operated. Crucial interests

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[22] See footnote 13, supra. Other agreements between the Bureau and the fish managers set flow targets (not minimum flows, but "goals") of 200 cfs below Sunnyside Dam and 100 cfs below Easton Dam. YIN at 46-47.

not represented in the current group are the region's fisheries agencies, the Washington Department of Ecology, and non-tribal fishery interests.

The state and federal fisheries agencies should be represented on the advisory group. This includes the Washington Departments of Fisheries and Wildlife; the U.S. Fish and Wildlife Service; and the National Marine Fisheries Service. Because H.R. 1690 is designed to protect and enhance the Yakima River fishery, it is essential to have the necessary expertise to guide the implementation of that goal. One representative should be appointed to represent the interests of those agencies.

Likewise, the Washington Department of Ecology (DOE) has plenary authority to "regulate and control the diversion of water in accordance with the rights thereto". RCW 23.21A.064(3). DOE issues all water rights permits and regulates the exercise of those rights. In that capacity, DOE instigated and actively participates in the Acquavella adjudication.

Moreover, the State of Washington has a further interest in conservation advisory group membership to fulfill its responsibilities under the public trust doctrine and state law implementing that doctrine. For instance, DOE is required to establish minimum instream flows to preserve the public interest in productive fisheries. RCW 90.22.010. See also Orion Corp. v. State, 747 P.2d 1062 (1987); Wilbour v. Gallaher, 462 P.2d 232 (1969)(discussing the state's public trust obligation, including the public's rights to fishing, boating, swimming).

Both state law and the state's longstanding participation in the Yakima water rights general adjudication, therefore, make necessary the state's participation in the group.

Finally, non-tribal fishing interests should also be represented in the group. The Yakima River was once one of the most fertile fish-producing tributaries of the Columbia. Maintenance and restoration of the Yakima River basin fishery is of critical economic importance to the Columbia river fishery, which is worth millions of dollars a year to the regional economy.

These interests should be added to the Conservation Advisory Group.

A Comprehensive Plan Must be Adopted Before Raising Lake Cle Elum.

Section 6 of the bill allots approximately 3 million dollars to modify the radial gates at Cle Elum Dam to add 14,600 acre-feet of storage capacity in Lake Cle Elum. In plain terms, the Secretary is authorized to raise the dam to create new storage capacity, even though new storage is not a purpose of the bill stated in Section 1.

Although Section 1 deems conservation of water and enhancement of fish and wildlife among the bill's primary purposes, the new water supply created from raising Cle Elum Dam is not dedicated to these purposes. Instead, the additional 14,600 acre-feet of water is, pursuant to 5(b), put back into the Yakima and is subject to appropriation under state law.

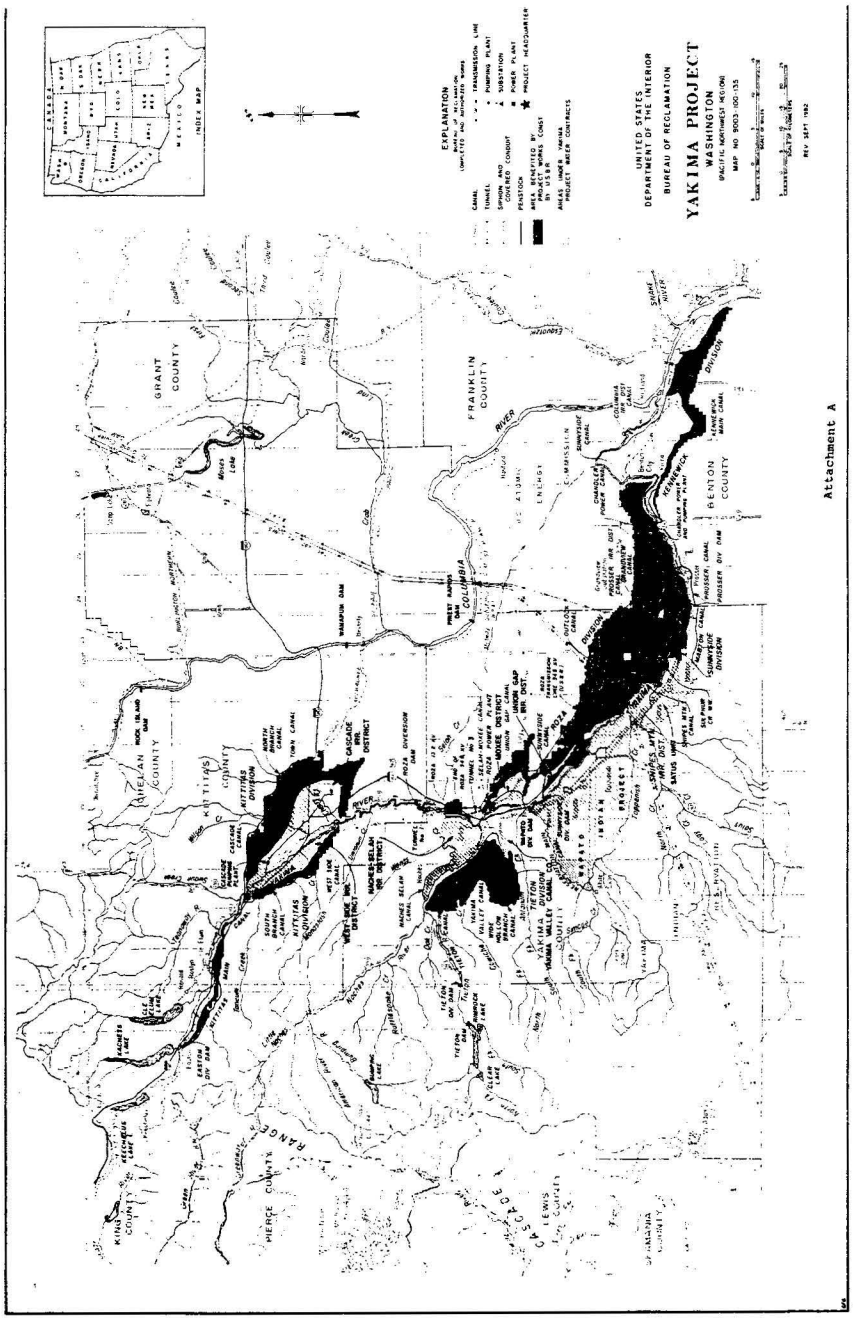
While the demands on the Yakima River basin water supply system, both for raising instream flows to biologically-sustainable levels for fish, and for satisfying junior appropriators' needs during droughts, may require creating new capacity by raising Cle Elum Dam, that action is premature until it is first determined whether conservation and reallocation of existing capacity will satisfy those demands.

Before authorizing the raising of Cle Elum Dam, the Congress should direct the Bureau to devise a comprehensive plan for the Yakima River basin, as required by the Yakima Basin Enhancement Project Act of 1979. Adding additional capacity to the Yakima system is premature until the Bureau conducts a comprehensive study of the basin that answers basic questions about how the Yakima River basin irrigation system operates.

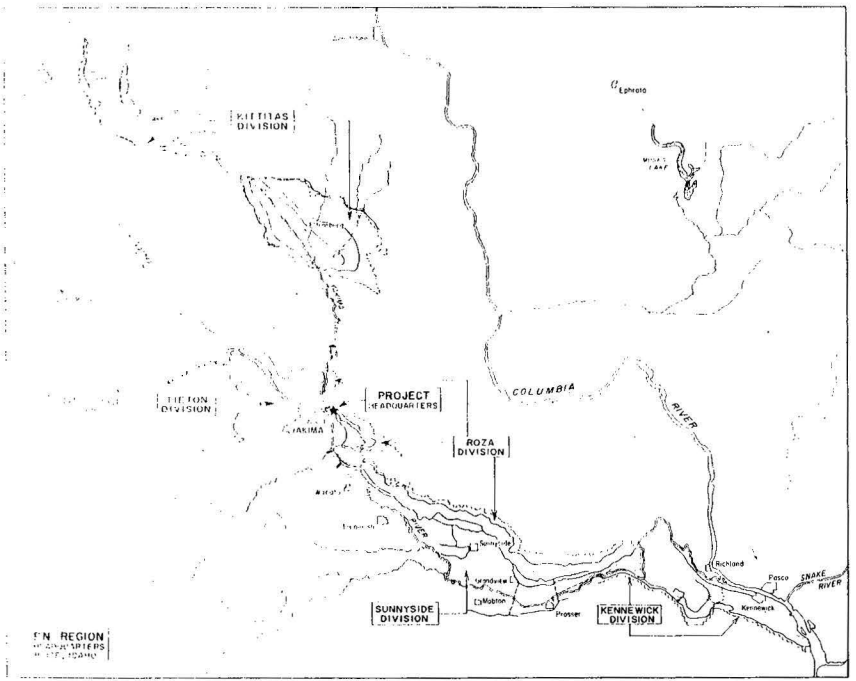
Conclusion

American Rivers supports the basic intent of H.R. 1690 to conserve water in the Yakima River basin and to resolve longstanding resource conflicts between irrigation and other consumptive uses of the Yakima River and the biological needs of its economically and culturally significant anadromous fish runs and water quality.

We stand ready to assist the Subcommittee and the full Committee in any way that we can to realize the goals of Mr. Inslee's bill.



Attachment A



FACTUAL DATA ON THE YAKIMA PROJECT

LOCATION

The Yakima Project is situated on the eastern slope of the Cascade Mountains in south-central Washington. The irrigated area of the Yakima Valley extends from the towns of Easton on the northwest to Kennewick on the southeast—a distance of 175 miles.

CLIMATIC CONDITIONS

The climate is mild and free from extreme weather conditions. At Yakima, centrally located on the project, the average rainfall is 7.86 inches and the average length of growing season is 195 days.

WATER SUPPLY

Water is obtained from natural flow of the Yakima River and its tributaries, supplemented by six reservoirs having a combined capacity of 1,070,700 acre-feet. The area of the drainage basin is 6,062 square miles, and the mean annual runoff is 3,040,000 acre-feet. The reservoirs and their storage capacities in acre-feet are as follows:

Bumping	33,700
Kachess	239,000
Keechelus	157,800
Clear Creek	5,200
Rimrock	198,000
Cle Elum	436,900

Water is distributed through the river channels to the headworks of 16 irrigation districts and 18 individual water users. The topography is generally sloping or rolling, affording good natural drainage except in a few spots along the valley bottoms. Project lands range in elevation from a low of 400 feet on the Kennewick Division to a high of 2,200 feet on the Kittitas Division.

CROPS AND LIVESTOCK

There are approximately 60 kinds of fruit, vegetable, seed, grain, forage, and specialty crops grown in the Yakima Valley. Yakima County, of the 3,072 counties in the United States, ranks first in the production of apples, mint, and hops, and fifth in total agricultural production.

The mild winters are favorable for the breeding and production of beef cattle, dairy cattle, and sheep.

PRINCIPAL MARKETS

Agricultural products are processed in the valley and distributed throughout the Nation. Many industries, such as canneries, fruit packing plants, spud warehouses, meat-packing plants, creameries, wineries, grape juice and cheese factories, and a sugar factory provide local markets and distribution of the many crops grown.

PROJECT FEATURES

The project features constructed by the Bureau of Reclamation include 1,046 miles of canals and lateral, 6 storage dams, 4 diversion dams, 2 hydroelectric powerplants (Chandler, 12,000 kilowatts and Roza 13,500 kilowatts), transmission lines (Grand Coulee, 132 kilovolts, 232 miles, and Tieton, 66 kilovolts, 25 miles), and 36 pumping plants. The features of the Wapato Indian Project, which is operated by the Bureau of Indian Affairs, are in addition to the above-mentioned ones.

IRRIGABLE LANDS

Upon completion of the project, the total area under irrigation on the valley will approximate 464,000 acres, of which about 12,000 acres are now irrigated. The irrigable lands and their irrigable acreage served by government financed facilities are as follows:

Division	Acreage
Sunnyside	87,000
Tieton	20,000
Kittitas	50,000
Roza	72,000
Kennewick	104,000
Wapato	130,000

Water for the remaining irrigable land is supplied through Warren Act contracts and by individuals diverting from small streams.

SOILS AND TOPOGRAPHY

The predominant soil is a deep, rich, fine, silty texture of considerable depth, usually underlaid with gravel or decomposed basalt.

Initial Flow Recommendations
Yakima River Basin
Final Report

U.S. Department of Interior
Bureau of Reclamation

Parametrix, Inc.
13020 Northup Way, Suite 8
Bellevue, Washington 98005

Attachment B

Table 6. Summary of flow recommendations for the Yakima Basin. Each cell contains three numbers: top = recommended flow, middle = optimum flow, bottom = low target flow.

YAKIMA RIVER

Reach	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Keechelus Dam -	125	125	100	100	100	125	125	125	125	100	100	100
Easton Dam	125	125	100	100	75	150	150	125	125	75	75	75
	85	85	70	70	70	105	105	105	105	70	70	70
Easton Dam -	400	400	350	350	275	275	275	275	275	225	225	225
Cle Elum R.	250	400	250	250	250	250	250	250	250	225	225	250
	225	225	200	200	200	200	200	200	200	175	175	175
Cle Elum River*	250	250	250	250	250	250	250	225	225	150	150	150
	150	150	150	150	150	250	250	200	200	150	150	150
	120	120	120	120	120	175	175	175	175	100	100	100
Cle Elum R. -	650	650	600	600	525	525	500	500	500	600	600	600
Teanaway R.	600	550	800	800	800	600	600	800	800	800	800	800
	300	300	300	300	300	400	400	400	400	400	400	400
Wilson Ck. -	750	1000	1000	750	750	900	900	750	750	750	750	750
Roza Dam	750	900	900	750	750	900	900	750	750	750	750	750
	500	750	750	500	500	750	700	600	600	500	500	500
Roza Dam -	1000	800	800	1000	1000	900	900	1000	1000	1300	1300	1300
Naches R.	1200	800	800	1200	1200	800	1100	1200	1200	1300	1300	1300
	750	550	550	550	500	600	750	900	900	900	900	900
Sunnyside Dam -	800	700	700	700	700	600	700	800	800	800	800	800
Marion Dr.	900	800	800	900	900	600	800	800	800	900	900	900
	500	500	500	500	500	500	500	500	500	500	500	500
Prosser Dam -	800	1000	1000	800	800	800	800	700	700	800	800	800
Chandler PH	750	1000	1000	1400	1400	1400	1400	750	750	750	750	750
	500	450	450	500	500	500	500	500	500	500	500	500
Horn Rapids Dam-	900	1300	1300	900	900	900	900	800	800	800	800	800
Columbia R.	1000	1500	1500	1000	1000	1000	1000	1000	1000	1000	1000	1000
	400	850	850	400	400	400	400	400	400	400	400	400

*Recommended flow is based on SOAC agreement and is subject to change based on the results of the new transect added to the study site.

IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON

IN AND FOR YAKIMA COUNTY

IN THE MATTER OF THE DETERMINATION OF THE RIGHTS TO THE USE OF THE SURFACE WATERS OF THE YAKIMA RIVER DRAINAGE BASIN, IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 90.03 REVISED CODE OF WASHINGTON,	
THE STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. JAMES J. ACQUAVELLA, et al., Defendants.	No. 77-2-01484-5 AFFIDAVIT OF DELL SIMMONS

I, C. Dell Simmons being first duly sworn on oath, depose and say that I have been employed as a fishery biologist with the U.S. Fish and Wildlife Service (USFWS), Fisheries Assistance Office in Vancouver, Washington, since 1978. I have been assigned since 1981 to conduct an Instream Flow Incremental Methodology (hereinafter referred to as "IFIM") study to determine instream flow requirements needed to sustain the treaty reserved fishing rights of the Yakima tribe in the Yakima River basin. It is my understanding that I will be called on to testify on the above matter in this litigation.

The Yakima River system currently supports very small runs of spring chinook, fall chinook, and steelhead. All of these fish rely on the Yakima system to provide habitat for both adult and juvenile fish. Adult fish require water adequate to

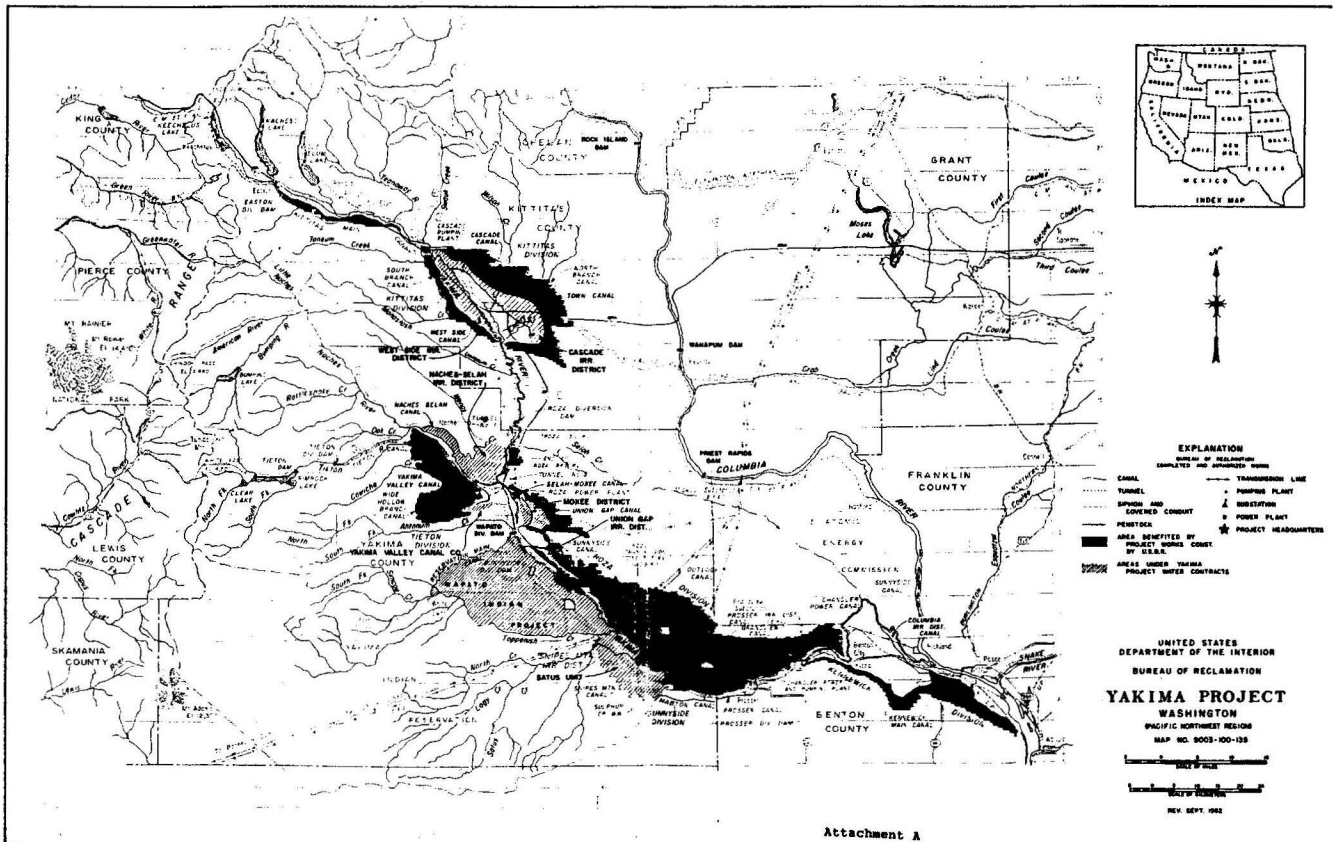
attachment 1. My recommendations take into consideration the life histories of anadromous fish and their locations in the basin at various times of the year. The recommendations ensure that lower river water temperatures remain sub-lethal, and that enough water remains in the river to stop the buildup of sediments on the river bottom.

My recommend instream flows below Prosser Dam, Sunnyside Dam, Roza Dam, and Easton Dam are as follows:

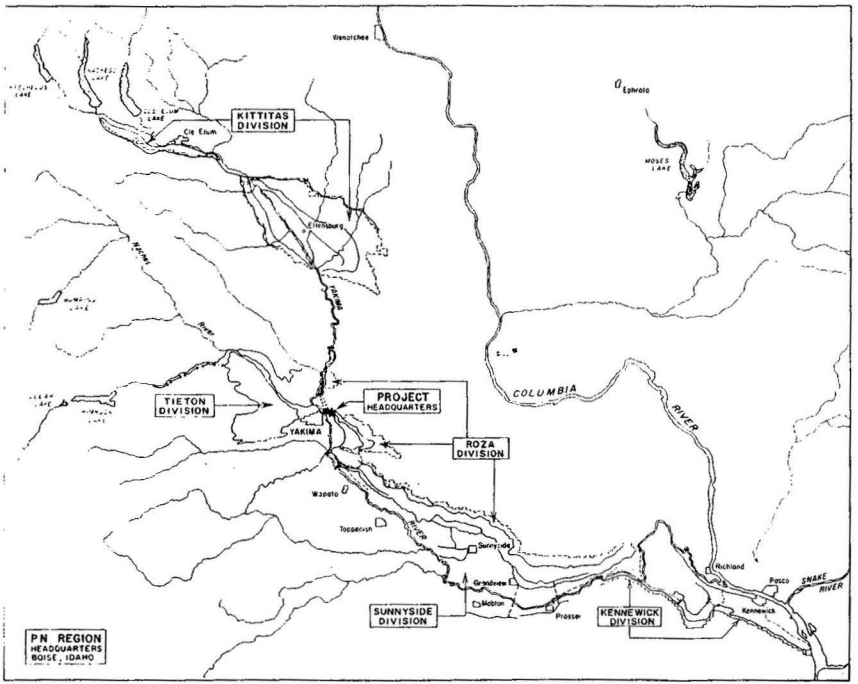
	Below Prosser	Below Sunnyside	Below Roza	Below Easton
Oct	1,500 cfs	1,455 cfs	900 cfs	375 cfs
Nov	1,500 "	1,420 "	900 "	375 "
Dec	1,000 "	920 "	1,000 "	375 "
Jan	1,000 "	920 "	1,000 "	300 "
Feb	1,000 "	820 "	900 "	275 "
Mar	1,000 "	820 "	900 "	275 "
Apr	5,800 "	5,900 "	4,100 "	845 "
May	9,800 "	11,150 "	7,000 "	1,465 "
Jun	7,900 "	8,510 "	5,400 "	1,215 "
Jul	1,000 "	955 "	1,000 "	250 "
Aug	1,000 "	955 "	900 "	250 "
Sep	1,000 "	965 "	825 "	220 "

These recommended flows are based on the biological requirements of anadromous fish at various times and various locations in the Yakima River basin.

I have reviewed the Partial Summary Judgment that has been entered in this proceeding concerning water rights for the maintenance of fish and aquatic life in the Yakima River basin. It is my opinion that the minimum flows over Prosser Dam as described in part IV 3c.(2) would most certainly not maintain fish and aquatic life in the basin. During summer, 50 cfs of water over Prosser will cause average daily water temperatures



Attachment A



FACTUAL DATA ON THE YAKIMA PROJECT

LOCATION

The Yakima Project is situated on the eastern slope of the Cascade Mountains in south-central Washington. The irrigated area of the Yakima Valley extends from the towns of Easton on the northwest to Kennewick on the southeast—a distance of 175 miles.

CLIMATIC CONDITIONS

The climate is mild and free from extreme weather conditions. At Yakima, centrally located on the project, the average rainfall is 7.86 inches and the average length of growing season is 195 days.

WATER SUPPLY

Water is obtained from natural flow of the Yakima River and its tributaries, supplemented by six reservoirs having a combined capacity of 1,050,700 acre-feet. The area of the drainage basin is 6,062 square miles, and the mean annual runoff is 3,040,000 acre-feet. The reservoirs and their storage capacities in acre-feet are as follows:

Rimping	33,700
Kachess	239,000
Keechelus	157,800
Clear Creek	5,200
Rimrock	198,000
Cle Elum	196,900

Water is distributed through the river channels to the headworks of 16 irrigation districts and 15 individual water users. The topography is generally sloping or rolling, affording good natural drainage except in a few spots along the valley bottoms. Project lands range in elevation from a low of 400 feet on the Kennewick Division to a high of 2,200 feet on the Kittitas Division.

CROPS AND LIVESTOCK

There are approximately 60 kinds of fruit, vegetable, seed, grain, forage, and specialty crops grown in the Yakima Valley. Yakima County, of the 3,072 counties in the United States, ranks first in the production of apples, mint, and hops, and fifth in total agricultural production.

The mild winters are favorable for the breeding and production of beef cattle, dairy cattle, and sheep.

PRINCIPAL MARKETS

Agricultural products are processed in the valley and distributed throughout the Nation. Many industries, such as canneries, fruit-packing plants, quick-freeze plants, meat-packing plants, creameries, a winery, grape juice and cheese factories, and a sugar factory provide local markets and distribution of the many crops grown.

PROJECT FEATURES

The project features constructed by the Bureau of Reclamation include 1,946 miles of canals and laterals, 6 storage dams, 3 diversion dams, 2 hydroelectric powerplants (Chandler, 12,000 kilowatts and Roza 11,250 kilowatts), transmission lines (Roza, 13.2 kilovolts, 7.2 miles, and 44.0 kilovolts, 61 miles), and 30 pumping plants. The features of the Wapato Indian Project, which is operated by the Bureau of Indian Affairs, are in addition to the above-mentioned ones.

IRRIGABLE LANDS

Upon completion of the project, the total area under irrigation in the valley will approximate 360,000 acres, of which about 475,000 acres are now irrigated. The irrigation districts and their irrigable acreages served by government financed facilities are as follows:

Division	Acreage
Sunnyside	104,550
Tieton	27,473
Kittitas	55,709
Roza	72,541
Kennewick	19,171
Wapato	106,000

Water for the remaining irrigable land is supplied through Warren Act contracts and by individuals diverting from small streams.

SOILS AND TOPOGRAPHY

The predominant soil is volcanic ash of fine, silty texture of considerable depth, usually underlain with gravel or decomposed basalt.

BURKE & SONS
HEREFORDS
HC 61 BOX 1410 • CLE ELUM, WASHINGTON 98922
(509) 857-2331

SEPTEMBER 25, 1993

NATURAL RESOURCES COMMITTEE
HOUSE OF REPRESENTATIVES

GENTLEMEN:

MY NAME IS MARY BURKE, I RESIDE IN THE YAKIMA RIVER BASIN, KITTITAS COUNTY, AT THE ABOVE ADDRESS. I MUCH APPRECIATE THIS OPPORTUNITY TO PRESENT COMMENT ON HR. 1690, CONGRESSMAN INSLEE'S LEGISLATION.

BOTH I, AND THE ASSOCIATIONS OF WHICH I AM A MEMBER, THE NATIONAL CATTLEMEN'S ASSOCIATION AND THE WASHINGTON CATTLEMEN'S ASSOCIATIONS HAVE PRESENTED TO BOTH THE HOUSE AND SENATE SUGGESTIONS FOR LANGUAGE IN PROVEMENT AND COMMENT IN PREVIOUS YEARS ON LEGISLATION TO FOSTER SOLUTIONS TO THE LACK OF WATER IN THE YAKIMA BASIN. I TRUST YOU WILL AGAIN HEAR FROM THESE ORGANIZATIONS AND CONSIDER THEIR RECOMMENDATIONS.

I AM ATTACHING TO THIS TESTIMONY THIS PREVIOUS COMMENT BUT WOULD CALL YOUR PARTICULAR ATTENTION TO THE RECORD OF CONGRESSMAN JONES IN 1905, THE YEAR IN WHICH THIS FEDERAL PROJECT WAS TO BE PUT IN PLACE. HIS REMARKS ON THE NECESSITY OF CERTAINTY OF TITLE AND CESSATION OF LITIGATION ARE PROBABLY MORE PERTINENT TODAY THAN IN HIS TIME AND I MOST EARNESTLY ASK YOU TO CONSIDER THEM.

IT WOULD SEEM TO ME THAT THIS LEGISLATION SHOULD CONTAIN A FIRST SECTION FINALLY UPHOLDING THE CONTRACT OF THE UNITED STATES TO RECOGNIZE THOSE RIGHTS OF THE TERRITORIAL SETTLERS, THOSE TO WHOM IT ASKED TO FARM AND RANCH THE BUREAU OF RECLAMATION LANDS, AND TO PROVIDE FURTHER STORAGE TO MEET THESE NEEDS IF NECESSARY OR TO MEET THOSE NEEDS NOW APPARENT.

THE STORAGE FACILITIES NOW IN PLACE IN THE YAKIMA BASIN ARE FOR IRRIGATION ONLY USES. IF CONGRESS WISHES TO PROVIDE FISH FLOWS THEN NEW STORAGE FOR THESE ADDITIONAL NEEDS NEEDS TO BE INCLUDED.

IT HAS BEEN SAID THAT CONSERVATION PROVISIONS WILL ALLEVIATE THE NEED TO LIST SALMON AS AN ENDANGERED SPECIES. I FIND NO LANGUAGE IN THIS BILL WHICH EVEN IMPLIES ANY SUCH ACTION. THOSE OF US WHO HAVE LIVED WITH THE SPOTTED OWL THREAT TO OUR TREE FARMS FIND THIS OMMISSION UNACCEPTABLE. IF YOU CAN INCLUDE SUCH LANGUAGE IT WOULD BE REALLY HELPFUL IN RESOLVING THIS DILEMNA AND I WOULD SUPPORT YOUR EFFORTS.

OUR CONTRACT WITH THE BUREAU CALLS FOR DELIVERY OF WATER UNTIL THE FIFTEENTH OF OCTOBER; THIS WATER WILL BE SHUT OFF THIS WEEK GIVING US THREE WEEKS LESS OF PASTURE AND WATER DELIVERY. WE THINK THIS CONTRACTUAL OBLIGATION SHOULD BE MET BEFORE NEW USES ARE CONTEMPLATED.

I WOULD BE HAPPY TO ANSWER ANY OF THE COMMITTEE'S QUESTIONS OR TO SUPPLY CONGRESSMAN INSLEE WITH ANY FURTHER INFORMATION. THANK YOU FOR ALLOWING US IN THE STATE TO BE ABLE TO COMMENT.

Clipping from The Yakima
Daily Republic
December 18, 1905

Settlement of Water Rights Now Sure

Only a few more feet to be obtained by the committee before the slate is clean for the Yakima Project

"There is no intention on the part of the government to take care of any excess. As a matter of fact it is the idea of the department that they will recognize the claims of our people to everything that is in the river and no more, and our people must adjust this among themselves. If we should get it down to 25 or 30 cubic feet I do not know whether the government would go ahead or not. We must not, and cannot assume, that the government will take care of a foot. It is now up to our people to do something and I certainly hope that they will do it." - W. L. Jones.

The water question is not yet settled. But it is believed that it will be settled to the satisfaction of the secretary of the interior. The secretary in his communication last week to Congressman Jones says that the people of the Yakima valley must present a clean slate before he will spend a dollar for irrigation work.

The slate is almost clean, but the last mark must be wiped out before the people have done their part. There is now a shortage of under 50 cubic feet in the whole valley from the Columbia river to the Cascade mountains. This shortage must be made up.

The shortage is all below the Union Gap. The slate from that point up stream is clear. Kittitas county has done her part in every particular. The people above Union Gap in Yakima county have done their part. Their task is not finished, however, for they must make up the shortage for the canals below.

The soliciting committee summed up their figures at a meeting Saturday evening and this morning two of the members got together again, to make sure that they were right. With the result as it is some of the canals above the gap are getting too much water, more than they diverted last summer.

It is believed by some of the users that the government will settle on this basis, but the secretary of the interior has not intimated that he would. Congressman Jones says that he will not do anything until a clean slate is presented. The above letter from Mr. Jones on this question to President Lombard of the Commercial Club, under date of December 13, is plain enough. Every foot of the shortage must be wiped out. The people cannot step at the 50 foot mark. If the 50 feet that is short below cannot be secured there it must be taken from the users at this end. The soliciting committee is still at work and are hopeful that a satisfactory settlement will finally be reached this week.

The letter from Mr. Jones to the committee is as follows:

Washington, D. C. Dec. 12, 1905

The Irrigation Committee, North Yakima, Wash: Gentlemen - It was a great pleasure to me to send you a telegram today notifying you that the secretary of the interior had approved the Ticton project and had allotted therefore one million dollars and the Sunnyside project and had allotted therefor $750,000.

It has taken hard work to secure $750,000 more than the amount in our restricted fund but we have done it. I herewith hand you a copy of the letter from the secretary of the interior which will show what has to be done. The first, second and sixth conditions are practically the same. These are things that will have to be done by our people. The Sunnyside and the Indian reservation proposition are matters largely that are to be adjusted here and I feel that it will be very easy to take care of both of these if our people do their part. It would seem that it ought not to be difficult to secure a satisfactory adjustment of the fourth proposition. I should think that our state officials, when they are convinced that the secretary means business and intends to begin work in our valley and state if things are adjusted will not stand in the way of this great enterprise. I do not anticipate any trouble in this respect and would suggest that our people take this matter up with the state officials, and especially with Mr. Ross, at once. The secretary of the interior assured me unequivocally that he would do everything in his power here to help us along to get this work under way. This, in my judgment, insures the satisfactory adjustment of the Indian reservation so that the claims of the Indians will never disturb the rights of present irrigators and also insures the bringing under irrigation of many thousands of acres of land which otherwise would lie idle.

This leaves for settlement at home by our people the claims of those who are now irrigating from the river and its tributaries and of those who are using the water of the river for power purposes. The government will not adjust the claims of power as it was suggested in the Republic a few days ago. That is a claim that we will have to settle just the same as the claims of all other private users of the waters of the stream. The matter is now squarely up to us. Heretofore we have not had the approval of the secretary. We now have his approval and his assurance that if the difficulties in the way are settled construction will be begun. The settlement of these difficulties alone will be of incalculable benefit to our people and to our valley. It makes the water rights absolutely sure for all time to come; avoids law suits and will promote good feeling throughout the whole valley. The commencement of the work means not only the

reclamation of the lands under the Tieton and Sunnyside projects but ultimately, and as rapidly as the work can progress and the money is available, the reclamation of 60,000 acres in the Kittitas and over 200,000 acres in what is known as the Leadbetter project at a total cost of eight, ten or twelve million dollars. The expenditure of this money alone will be worth millions in business and the increase in our population of thousands of people. The reclamation of the lands means thousands of settlers and thousands of people in the towns and cities. With these thousands of people will come manufacturing establishments of which we have not heretofore dreamed. It is almost inconceivable that any man will be unwilling to concede much in order that this great work can go on. To everyone who owns property it means a doubling in value. If this is true, and I believe it is, we can concede twenty-five or even fifty per cent and still be ahead financially and otherwise.

If we let this opportunity pass we are plunged into an endless and expensive litigation which will either directly or indirectly involve every water user from Kennewick to Cle Elum. At the end, the court - one man - will distribute the water that is in the river (and he cannot distribute any more) to those whom he finds entitled to use it. In this distribution he will spread out the water just as thinly as possible. He will make it go just as far as he can, the most economical use will be required and very likely each man will be told just when he can use his water - as was done in the Wenas. It seems to me that the people themselves ought to be able to make a better distribution than any court, and especially when so much will accrue from an amicable settlement. We should emulate our friends in Kittitas county. Without half the incentive that we have, they have come much nearer the proper settlement, for with their project not yet specifically approved, they have made concessions which, if followed by our people, would soon solve one of our most difficult problems. I am glad that they are so situated that they will get a great benefit from the expenditure of much of this money in the construction of reservoirs without having to wait for actual work on their project. Private capital cannot come into our territory with the water rights unadjusted even if the projects could be found which it could handle. Therefore, we cannot expect much further development. This is the time when the whole valley should get together and work. It is now that our business men should wake up to the importance of this matter. It is not the time for sharp practice or for attempts to get the best of some one or of the government. The government says just what it will do and we know just what we must do. Our part really needs to be done first because the Sunnyside option cannot be cared for without the adjustment of our matters nor can the Indian reservation matter be taken up without this. Therefore, it is very important that our people should proceed at once. The Sunnyside option expires January 1 and, unless an extension of time can be secured we must adjust our rights by that time. I would suggest that our people take up the matter of the extension with Mr. Blaine at once. The secretary is willing to give

us all the time possible but the extension of the option rests with Mr. Blaine. I cannot help but believe that with the approval of the Sunnyside project by the secretary Mr. Blaine will be perfectly willing to extend his option possibly one or two months longer. This is a matter that our people should take up at once if they want more time. I cannot say more than already has been said of the importance of this matter to our people. Everyone certainly appreciates it. As your representative I have done my part except as I may be able to help in the adjustment of matters which can be adjusted here and in this I certainly shall not relax any efforts that may be necessary for success. The responsibility rests now with the people at home. If there is failure in this I cannot be blamed.

Some have criticised me in the past for not having done anything for our section. I feel now that I have done more for this section than I have done, or ever can do, for any other section of the state. The people of Bellingham are determined to raise $1,400,000 in order to secure a railroad. If the spirit that animates them could permeate our whole valley this matter would be settled very shortly. Kennewick, Kiona, Prosser and Sunnyside should unite as one man with North Yakima in endeavoring to secure the hearty cooperation of all our people.

The reclamation officials will be at liberty to give you such information as they may have which will assist you in your work.

Trusting to receive a telegram in the near future that your work is done, I am

Most respectfully yours,

W. L. Jones.



NATIONAL CATTLEMEN'S ASSOCIATION

1301 Pennsylvania Avenue, N.W.
Suite 300
Washington, D.C. 20004
(202) 347-0228

TESTIMONY

before the

United States Senate
Committee on Energy & Natural Resources
Subcommittee on Water & Power

regarding

Yakima River Basin Water Enhancement Project

S. 2322

by

J. Burton Eller, Jr., Vice President
Government Affairs & Policy Coordination
NATIONAL CATTLEMEN'S ASSOCIATION

June 28, 1988

The National Cattlemen's Association is the national spokesman for all segments of the beef cattle industry--including cattle breeders, producers and feeders. The NCA represents approximately 230,000 cattlemen. Membership includes individual members as well as 49 affiliated state cattle associations and 23 national breed associations.

Thank you for this opportunity to testify about S. 2322, Yakima River Basin Water Enhancement Project Authorization. I am here testifying on behalf of the National Cattlemen's Association and also the Washington State Cattlemen's Association.

We understand that this bill was filed with the intention that substantial changes in its language would be made. We are also advised that discussion redrafts are being provided to our people in the country. In consequence, our comments here today will necessarily be of a general nature.

The NCA holds that existing individual water rights must be preserved in all circumstances. Traditional individual water rights are fully private property rights and so recognized and protected by the Constitution. Our cattlemen members possess water rights of many kinds in many geographical circumstances. It is of paramount importance that all of these individual rights be fully recognized, protected, and given certainty. We support the efforts of this subcommittee and the Congress to give certainty to its previous actions whether it means the 1877 Desert Land Act with its water and land patents, the recognition of its Territorial Governments, Enabling Acts of Statehood, or Bureau of Reclamation contracts with water users. We look forward to language in this bill that will accomplish this.

Water rights are a property right and so recognized by states, Congress, and the courts. In arid and semi-arid sections of our country, the application of water to the land is what made possible settlement and economic development. In some areas of the West both private and governmental irrigation development and expeditious use of water is, at this very time, avoiding the drought disaster occurring in the farm belt.

The availability of agricultural water, as we are sure you are aware, has fortunately limited the federal assistance required in adverse circumstances. However, the water must be available without legal threats or arbitrary diversions to other uses.

One of the most vehement discussions in water short areas concerns water "banking." There are as many proposals about how to do this as there are definitions of what "banking" really means. Whatever may be proposed, the first necessity is certainty of the water right entitlement before "banking" or other uses can be discussed at all. If this bill will provide absolute certainty of existing water rights to users, this subcommittee will have taken a great and necessary step in future water relationships in much of the United States.

Of equal importance is the pontification of Indian claims and their settlement. The responsibility of meeting Treaty claims is a Federal responsibility and we would support language in subsequent drafts of S. 2322 that will recognize this responsibility. However, the Federal government cannot use the private resources of individual citizens to meet federal obligations. Any Federal settlement of Indian claims for off-reservation water use must not, in anyway, restrict or interfere with existing, privately owned and state adjudicated water rights. Any new water allocated, including instream flows must derive from non-previously allocated sources.

Our National Cattlemen's Association policy provides that "agreements involving individual private land and water rights shall be solely a decision of individual private property owners." We urge that language be incorporated in this bill to ensure that individuals rights are protected, that contracts are not abrogated, that future agreements are between only willing persons and any agency, that any measures for increased efficiency or conservation are funded by government appropriation up front, that all entitlements of water are legally and physically served, and that no land or water uses are impacted including future management options.

We also support the continued sovereignty of the states in water rights allocation. We have some concern that the present language in S. 2322 is deficient in this regard and further confuses the issues in the Northwest states by references to "Northwest Power Planning Council." We hope these problems are corrected in the next draft.

We have previously presented testimony at several hearings on Yakima Enhancement legislation; these are included for the record today. We appreciate this opportunity to testify and look forward to discussions concerning further language. We will be happy to provide you with specific written comments following the review of the redraft by our members in the West, but we strongly oppose any movement of this Bill until the problems to which this testimony refers are resolved in Committee.

NATIONAL CATTLEMEN'S ASSOCIATION
1301 Pennsylvania Avenue, N.W. • Suite 300 • Washington, D.C. 20004 • (202) 347-0228

National Headquarters
5420 S. Quebec St. • P.O. Box 3469 • Englewood, CO 80155 • (303) 694-0305

TESTIMONY

on behalf of

NATIONAL CATTLEMEN'S ASSOCIATION

before the

United States Senate
Energy & Natural Resources Committe
Water and Power Subcommittee

October 19, 1987

on

Yakima River Basin

by

Mary Burke
Chairman, Water Rights & Resources Subcommittee

The National Cattlemen's Association is the national spokesman for all segments of the beef cattle industry--including cattle breeder, producers and feeders. The NCA represents approximately 230,000 cattlemen. Membership includes individual members as well as 49 affiliated state cattle associations and 23 national breed associations.

The National Cattlemen's Association appreciates the opportunity to comment on S. 1435. My name is Mary Burke, Chairman of the NCA Water Rights and Resources subcommittee on whose behalf I present these comments.

We support your introductory statement to the Senate on June 25, 1987 that legislation is sorely needed. Since you noted on that date the imminence of pro-ration we have experienced a shortfall of six weeks of water delivery in some districts.

We feel S. 1435 is improved over earlier versions, particularly in the inclusion of storage components. We would urge you to also include in this authorization, at the least, feasibility monies for the construction of Bumping Lake and Wymer in addition to Cabin Creek.

You and Congressman Morrison have repeatedly urged the water users of this basin to agree with the Yakima Nation on storage sites, and solutions and you will now find agreement between the Tribe and irrigators ofr the consideration of Bumping Lake, Cabin Creek, and Wymer as reflected in the Off-Reservation Site Selection Work Group report to the Policy Group. We ask you to move forward on these sites by including them in S. 1435.

Although there have been some language changer from S. 2519, we would submit the NCA comments on that bill for expediency's sake today.

We would call top your attention two other recent proposals affecting this basin that must be now addressed in S.1435. First is the Northwest Power Planning Council proposal to build an outplanting hatchery to plant anadromous fish in the Yakima tributaries. Thius will expand the problems, controversies, and water shortages you have an opportunity to solve on the mainstem by federal legislation, more than 50 fold into that many tributaries. We therefore ask that in Sec. 1. (a) the reference to the Northwest Power Planning Act be deleted.

Second, the Bureau of Reclamation has announced a plan to change its Congressional charge and direction. Whilke the NCA has not formulated a response to the Bureau, we feel it is immensely important that the solution to the Yakima project problems not preclude inclusion in the Bureau's future plans and operations and that existing right of users and contractual obligations of the Bureau be specifically defined in S. 1435 so that water rights holders are not assessed additional monies for waters already allocated and that new assessments apply only to new waters.

We would suggest that Sec. 1. (3) (b) referring to conservation plans for "recipients of irrigation water," be rephrased to reflect the understanding that this refers to only new waters over and above present Bureau obligations. We would refer you to the Conservation Work Group report which is considering "system improvements" and perhaps this language could be substituted.

There is also a confusing cross reference in Sec. 2 as to how the "Yakima Enhancement" operation and maintenance will be coordinated with the existing Yakima Project and whether that includes Bureau built districts, only proratables, or all to whom water is delivered. Because of the new Bureau proposals and the Aquavella adjudication we suggest this be clarified to specifically enumerate and recognize existing Bureau contracts, state and Territorial water rights. We would wish to avoid a technical solution that would cause a bookkeeping or legal impossibility.

Mr. Jones, Congressman, was quoted in a letter to the Yakima Daily Republic, December 18, 1905 when he announced approval by the Secretary of Interior of the Tieton and Sunnyside projects and urged the immediate completion of the signing of the limiting agreements so that the Yakima Project could get underway:

> "The secretary of the interior assured me unequivocally that he would so do everything in his power here to help us along to get this work under way. This, in my judgement, insures the satisfactory adjustment of the Indian reservation so that the claims of the Indians will never disturb the rights of present irrigators and also insures the bringing under irrigation of many thousand of acres of land which otherwise would lie idle.

This leaves for settlement at home by our people the claims of those who are now irrigating from the river and its tributaries and of those who are using the water of the river for power purposes. The government will not adjust the claims of power as it was suggested in the Republic a few days ago. That is a claim that we will have to settle just the same as the claims of all other private users of the waters of the stream. The matter is now squarely up to us. Heretofore we have not had the approval of the secretary. We now have his approval and his assurance that if the difficulties in the way are settled construction will be begun. The settlement of these difficulties alone will be an inculable benefit to our people and to our valley. The commencement of the work means not only the reclamation of the lands under the Tieton and Sunnyside projects but ultimately, and as rapidly as the work can progress and the money is available, the reclamation of 60,000 acres in the Kittias and over 200,000 acres in what is known as the Leadbetter project at a total cost of eight, ten, or twelve million dollars."

Congress and the Department of Interior in building the Yakima Project signed agreements to prevent the controversies we are now discussing--the limiting agreements with prior water rights owners and contracts with those under the new Bureau projects. To the extent any problems exist or litigations is pending, the United States has the obligation to see neither affects these prior agreements or state water laws. We feel you have an opportunity in S. 1435 to solve these problems by reaffirming the Federal obligations and recognize existing rights, provide storage for irrigation and fishery needs, both to citizens and the Yakima Nation, and remove any reason for further litigation.

Thank you for this opportunity to testify.

NATIONAL CATTLEMEN'S ASSOCIATION
5420 South Quebec Street • P.O. Box 3469 • Englewood, Colorado 80155 • (303) 694-0305

NCA

1
July 8, 1986

Honorable Senator Daniel J. Evans
702 Hart Building
Washington, D. C. 20510

Dear Senator Evans:

The National Cattlemen's Association appreciates the opportunity to testify on S. 2519. My name is Mary Burke, Chairman of the NCA Subcommittee on Water Rights and Resources on whose behalf I am presenting these comments. We have three general comments:

1. S. 2519 gave congress the opportunity to quantify reserved water rights and we are disappointed you have avoided that issue.

2. The language does not adequately protect and recognize existing water rights and adds confusion.

3. The costs are not borne by the beneficiaries.

Specifically, in Sec. 1, we find the first sentence extremely confusing. The word "enhancement" is unnecessary, the prepositional phrases can apply to one noun or several, and the primary responsibility of the bureau of reclamation to deliver irrigation water seems to be legislatively lost. We would prefer that this section read "the Secretary of Interior is authorized to design, construct, operate and maintain pursuant to Federal Reclamation Law and Washington State Water Laws". People of the Pacific Northwest have been repeatedly assured that the Pacific Northwest Electric Power Planning and Conservation Act (94 Stat. 2697) has only planning authority and we object to giving it regulatory power. We believe the Bureau of Reclamation should reaffirm its primary responsibility of delivering irrigation water in references to the operation of fish passage facilities. We would suggest the deletion of the term "wildlife" in this act as there are no facilities proposed to this purpose and it further complicates the management of waters by the bureau. In order to correct the grammatical awkwardness of the first sentence we would suggest it read "that (a) for purposes of protection of irrigation, fish life, and system improvements, the secretary" delete "NWEPPCA" and substitute "Washington State Water Law". The term "water conservation" is not an accurate description of the projects proposed and there are presently so many problems with the loss of water rights caused by the 1985 Farm Bill using the "conservation" we find it a confusing and unacceptable term.

Honorable Senator Evans
July 9, 1986
Page two

In Sec. 2 the first sentence should either be deleted until storage is built or state plainly that no waters from any existing rights will ever be used for fish passage facilities. Why does the word "valid" appear at all and only before "contract rights of irrigation users"? This can only be viewed as a bias. In the last sentence we would suggest the inclusion of the words "Territorial Rights", recognizing those rights vested during the various homestead acts. This is becoming particularly important since these rights can be threatened by the increasing fish plantings in both the mainstream and the tributaries.

We found Sec. 3 and 4 very confusing. In Sec. 3 Rosa (a) and (b) Wapato, the waters "shall be available". Does this mean these waters will supercede the 1945 decree and become "non-profitable"? Where will they be stored? The waters in (c) Sunnyside "shall be allocated". The waters in Sec. 4, Cle Elum Dam and the Lakes Pipeline, "shall become features of the existing Yakima Project". It has been the understanding of the people of Kittitas County that the Lakes Pipeline was for the purpose of making the fish passage facilities at Lake Eaton possible. This section does not provide that the cost be borne by fisheries interests. The NCA strongly opposes confusion of water rights allocations as appears in this section. Our membership has many of the oldest rights in this nation, as well as new water development, and we urge precise definitions of all rights and responsibilities. We also oppose land and water rights owners being burdened with costs accruing to other beneficiaries. If rights and costs are spelled out now we eliminate legal problems later.

Sec. 7 and 8 also indicated funding requirements from irrigators. We can find no additional water available through this bill. It also does not address the return of "Quakanbush Flows" which are in fact the property of existing water rights holders used now instream.

Sec. 9 should state specifically that only this section and not the entire act gives priority to fish.

We would ask that these sections be explicit in funding requirements and that only new waters, additional to bureau delivery contracts, be subject to irrigation repayment; this bill would require that irrigators pay twice for the same delivery. The bill is also silent about the necessity of amending irrigation contracts as required by the 1982 Reclamation Reform act.

Sec. 10, unless you do plan to quantify federal reserved rights or build storage and alleviate the need for an adjudication, we question the wisdom of including "ground water" (3) at this time. We have no problem with this as a sensible practical project, but the inclusion of ground waters into a surface water issue compounds our legal problems.

Honorable Senator Evans
July 9, 1986
Page three

The last Sec. 11, is improved over some proposals but we do not understand what jurisdiction the Yakima Indian Nation has over any waters or streams or groundwater outside the reservation boundaries. Please clarify or delete this.

In conclusion, we must oppose the bill as written but are disappointed that it was not used as an opportunity to resolve and clarify problems. We feel it is further confusing and complicating the issues in this basin and would be a most regrettable precedent for other states, particularly as irrigation and andromous fish issues are addressed in Oregon, Idaho, and Montana.

Thank you very much for this opportunity to testify.

Sincerely,

Mary Burke

Mary Burke, Chairman
NCA Water Rights Subcommittee

MB:lc

cc: Senator Slade Gorton
Congressman Sid Morrison

BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
OF THE UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON NATURAL RESOURCES

AFFIDAVIT OF KENT D. RICHARDS, Ph.D.
IN SUPPORT OF TESTIMONY BY REPRESENTATIVES
OF YAKIMA RIVER BASIN IRRIGATION DISTRICTS
RE: HR-1690 AND S-1411

STATE OF WASHINGTON)
: ss.
County of Kittitas)

KENT D. RICHARDS, on oath, states:

I am a history professor at Central Washington University, Ellensburg, Washington, over legal age, competent to testify in this proceeding, and submit this "Affidavit" based on my personal knowledge of the following facts.

A "Vitae" containing information about my present and past academic and professional activities, experience, service, awards, research, publications, papers, grants and assignments is attached as Exhibit "A" and incorporated in this "Affidavit".

I have conducted extensive research and written about Isaac I. Stevens, who conducted the negotiations which culminated in execution of the 1855 "Yakima Indian Treaty". One of my publications, Isaac I. Stevens: Young Man in a Hurry, is attached as Exhibit "B" and, to the extent Exhibit "B" relates to the historical background, contemporary circumstances and understanding as well as events occurring before and after execution of the 1855 "Yakima Indian Treaty", Exhibit "B" is also incorporated in this "Affidavit".

LAW OFFICE OF
FLOWER & ANDREOTTI
SUITE 1, YAKIMA LEGAL CENTER
303 EAST "D" STREET
YAKIMA, WASHINGTON 98901
(509) 248-9084

At the request of attorneys for a number of Yakima Basin irrigation district attorneys, I conducted research, examined numerous historic documents and prepared a copyrighted report to them which is entitled "The Yakima Indians and United States Indian Policy to 1914" which is also attached as Exhibit "C", incorporated in this "Affidavit", and is submitted to the U.S. Congress for consideration with the irrigation districts' testimony re: HR-1690 and S-1411.

KENT D. RICHARDS

SUBSCRIBED AND SWORN to before me this 5th day of October, 1993.

NOTARY PUBLIC in and for the State of Washington.
My commission expires: 7/15/94

LAW OFFICE OF
FLOWER & ANDREOTTI
SUITE 1, YAKIMA LEGAL CENTER
303 EAST "D" STREET
YAKIMA, WASHINGTON 98901
(509) 248-9084

BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
OF THE UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON NATURAL RESOURCES

AFFIDAVIT OF CHARLES C. FLOWER
IN SUPPORT OF TESTIMONY BY REPRESENTATIVES
OF YAKIMA RIVER BASIN IRRIGATION DISTRICTS
RE: HR-1690 AND S-1411

STATE OF WASHINGTON)
: ss.
County of Yakima)

CHARLES FLOWER, on oath, states:

I am a member of the Washington State Bar Association, No. 143, member in good standing, and admitted to practice in the Courts of Washington State as well as various Federal (U.S.) Courts including the United States Supreme Court, over legal age, competent to testify in this proceeding, and submit this "Affidavit" based on my personal knowledge of the following facts.

I have participated in Department of Ecology vs. Acquavella, et al., ("Acquavella"), Yakima County No. 77-2-01484-5, since its filing in 1977 and submit for consideration by the United States Congress with the irrigation districts' testimony re: HR-1690 and S-1411, correct, accurate copies of the following Acquavella documents attached as Exhibits "A" - "D" to this "Affidavit" and incorporated herein:

1. Exhibit "A" - 11/29/90 "Amended Partial Summary Judgment Entered as Final Judgment Pursuant to Civil Rule 54(b)" affirmed by the Washington State Supreme Court in

LAW OFFICE OF
FLOWER & ANDREOTTI
SUITE 1, YAKIMA LEGAL CENTER
303 EAST "D" STREET
YAKIMA, WASHINGTON 98901
(509) 248-9084

Department of Ecology, et al. vs. Yakima Reservation Irrigation District, et al., 121 Wn.2d 257; 850 P.2d 1306 (1993), from which there was no appeal,

2. Exhibit "B" - 5/22/90 "Memorandum Opinion Re: Motions for Partial Summary Judgment",

3. Exhibit "C" - 10/22/90 "Amendment to Memorandum Opinion Re: Motions for Partial Summary Judgment Dated May 22, 1990", and,

4. Exhibit "D" - 1/31/45 "Judgment" in Kittitas Reclamation District, et al. vs. Sunnyside Valley Irrigation District, et al., Federal Eastern District of Washington No. 21.

Mark Flower
CHARLES C. FLOWER

SUBSCRIBED AND SWORN to before me this 6th day of October, 1993.

Patricia A. Kester
NOTARY PUBLIC in and for the
State of Washington.
My commission expires: 5-15-96

LAW OFFICE OF
FLOWER & ANDREOTTI
SUITE 1, YAKIMA LEGAL CENTER
303 EAST "D" STREET
YAKIMA, WASHINGTON 98901
(509) 248-9084

Summary and Estimation of the Historic Run-Sizes of Anadromous Salmonids in the Columbia and Yakima Rivers

by Karen E. Kreeger
William J. McNeil, Ph.D.

for the Yakima River Basin Coalition

October 1, 1993

EXECUTIVE SUMMARY

1. Estimates of historic runs of anadromous salmonids range from about four to 35 million adults entering the Columbia Basin and from about 300,000 to 800,000 entering the Yakima Subbasin.

2. Even though estimates of historic Columbia River runs vary nearly nine-fold, most estimates lie in the range of 7 to 8 million adults. We accept this range as the most likely representation of historic abundance.

3. Estimates of historic runs into the Yakima River are more speculative than those for the entire Columbia Basin since there are no early statistics on catch and/or escapement. We calculate our estimates of 300,000 adults in the historic run to the Yakima River as a percentage (4%) of the total Columbia River run. Four percent is the approximate ratio of the Yakima watershed to the total Columbia Basin watershed available to anadromous salmonids before dams.

4. Declining abundance of anadromous salmonid spawners in Columbia Basin streams, including the Yakima River, began well before the development of large-scale irrigation of agricultural crop lands. An intensive commercial fishery was the primary factor responsible for historic declines in abundance of spawners in the Yakima and other subbasins of the Columbia River.

I. INTRODUCTION

We have compiled agency reports and journal articles to summarize estimates of historic run-size of anadromous salmonids in the Columbia and Yakima River basins. The documents we reviewed date from the 1880s to the present, providing a view of present run-sizes in light of past harvest records. This report is divided into two principal sections. The first section summarizes run-size estimates for the Columbia River. We present a detailed account of the history of catch statistics, critique the methods used by previous authors to estimate abundance, and calculate a range of historic run-sizes based on five year running-averages. The second section discusses previous estimates for the Yakima River, and compares these estimates to our calculations of historic abundance in the Yakima Subbasin. We assume that historic runs into the Yakima Subbasin were proportional to watershed areas which were historically available to anadromous salmonids.

II. Estimates for the Columbia River

A. History of Catch Statistics

There are no statistics on catches by Native Americans prior to the colonization of the Columbia Basin by Europeans. Catches by Native Americans are reported to have decreased precipitously after settlement of the Columbia Basin by European immigrants, largely due to the decimation of the indigenous population of humans from introduced diseases (Chapman, 1986).

Small amounts of commercial harvesting by non-native Americans occurred in the Columbia Basin from about 1820 to the early 1860s. Spranger and Anderson (1988) describe the increase in salmon canneries in the mid-1860s:

> In the 1860s, the process of canning salmon was perfected, permitting the fish to be transported over long distances, stored for extended periods, and kept palatable for consumers. The first cannery on the Columbia River appeared in 1866 and produced 272,000 pounds of canned salmon in its first year. As Eastern markets developed an insatiable demand for canned salmon, the fishing and canning industry expanded rapidly. Canneries arose on both banks of the river and less than 20 years later, 55 canneries were operating on or near the Columbia. (Spranger and Anderson, 1988, p. 4).

Richards (1989) provides additional information concerning the intensity of effort during early phases of the Columbia River commercial fishery as follows:

> By 1888, the Corps of Engineers reported there were 1,600 fish nets in use, averaging 1800 feet in length; this amounted to about 2,888,000 feet or 545 miles of net. There were also 136 fish traps on the lower Columbia and an unknown number of seines. The first fish wheel had been put into use at The Dalles in 1878 and ten years later there were a total of seven at that place or the Cascades. Critics denounced the wheels as murderous devices that took all fish regardless of size or species. An 1894 report on Columbia River fishing said, 'it is indeed, a matter of surprise that any salmon have been able to elude the labyrinth of nets which bar their course to the upper Columbia'. A few years later Bill Charley, a Wishram, apparently financed by salmon packers, constructed two fish wheels at the Tum Water fishery, and a lengthy dispute ensued with those who used the traditional methods of dip nets and spears. (Richards, 1989, p. 78).

Figure 1 depicts the five-year running average of the commercial catch of all anadromous salmonids combined, from 1866 -1936 prior to construction of dams on the mainstem Columbia and Snake rivers. Most fish were entangled in gillnets from sail-powered boats; trap nets and purse seines were also used on the lower Columbia. Between 1879 and 1926, fishwheels, situated in areas of swift current and heavy concentrations of fish, added to the increasing commercial catch. By 1883, there were more than 1700 boats contributing to the commercial catch on the Columbia, pulling in a maximum annual catch of 43 million pounds. In 1883, the catch was composed entirely of chinook, predominantly summer-returning races. Fishery biologists visiting the Pacific Northwest in the late 1800s described declining runs of salmon returning to the Columbia and of salmon canneries switching to less desirable fall chinook and other species of anadromous salmonids (Stone 1878, 1883; McDonald, 1895; Evermann, 1896). In one of many accounts of the declining runs, Livingston Stone quotes:

> Fewer chinook salmon now make their appearance in the upper rivers, but this sufficiently accounted for by the fact that such a vast quantity are now netted in the main river on their way up. On the Willamette River, the fishermen claim that the salmon have very much diminished, and that they caught only twenty or thirty now where they used to catch a hundred (Stone 1878, p. 803).

Cannery records and catch statistics from individual types of fishing gear provide an idea of the fluctuation in salmon abundance (McDonald, 1894; Craig and Hacker, 1940); however, the most complete record of commercial catch statistics is in a 1976 report by Kurt Beiningen. Beiningen tabulates catch statistics by species and year from 1866, the start of the salmon cannery industry on the Columbia, to 1976. Catch statistics from cannery records and individual gear-types closely agree with those reported by Beiningen (1967); therefore, we used the values in Beiningen's report for our calculations and representations of historic run-size.

B. Summary and Critique of Previous Run-Size Estimates

The abundance of anadromous salmon returning to the Columbia Basin prior to heavy development by Europeans is estimated using two approaches: habitat-based and catch-based (Northwest Power Planning Council 1986).

1. Habitat-Based Approach. Historic abundance is calculated from the miles of stream formerly available to rearing, migrating, and spawning fish (Pacific Fishery Management Council 1979). "Formerly" is defined as the time before dams blocked access to streams and before habitat was altered. This approach estimates about 5.2 million adult anadromous salmonids were produced in the Columbia River Basin -- 3.4 million chinook, 1.2 million coho, and 650,000 sockeye. (Chum salmon have been excluded since their historic distribution was confined mostly to Columbia Basin tributaries downstream from the Yakima River confluence). This estimate by the Pacific Fisheries Management Council (PFMC) fails to include an estimate for steelhead. Using Fulton's (1970) ratio of 1.7 to 1 steelhead to coho habitat, the Northwest Power Planning Council (NWPPC) calculated potential steelhead production to be just over 2 million.

Adding the habitat-based estimate to the steelhead figure, the estimated salmon and steelhead abundance in the mid-1800s was about 7.3 million adults, excluding chum salmon. The NWPPC considers the habitat-based estimate to be a conservative calculation of abundance; however, we do not know whether the number is thought to be low because of how it was calculated or because it happens to be on the lower end of the range of estimates summarized by the NWPPC (1986).

2. Catch-Based Approaches. Estimates of historic run-size have been derived from the record of harvest by Native and non-Native Americans. Most of the catch-based estimates from non-Native fisheries are based on peak harvest statistics, not potential production (as in the habitat-based approach) or average

run-size, an alternative approach we will suggest later. Four catch-based methods are explained below.

a) Calculated harvest by Native Americans before colonization by European immigrants. The NWPPC (1987) summarized the assumed magnitude of aboriginal catch in the Columbia Basin before 1850. Craig and Hacker (1940) estimated 18 million pounds of salmon were harvested per year (50,000 Indians eating an average of 1 pound of salmon per day). Hewes (1947, 1973), using revised population numbers and caloric content per pound of salmon estimated that "the total annual aboriginal catch for the Columbia in pre-contact times would be more than 22 million pounds". A NWPPC (1987) report makes three adjustments to the Hewes estimate: 1) revision of per capita consumption by some groups, 2) inclusion of a caloric loss in the salmon's flesh due to fasting during upstream migration, and 3) inclusion of a waste factor to account for uneaten salmon. After making adjustments to account for these changes, the NWPPC estimates about 41` million pounds (4.5 to 5.6 million salmonids) were caught by Native Americans prior to settlement by Europeans. The Craig and Hacker (1940) and Hewes (1973) estimates are about one-half the NWPPC estimate.

Chapman (1986) asserted that Native Americans harvested about one-third of the adult salmon returning to the Columbia River prior to colonization by Europeans. Total calculated run-sizes, based on an assumed 33% harvest rate and an average weight of 11 pounds across all species, range from a minimum of 5 million (Craig and Hacker, 1940) to a maximum of 17 million (NWPPC, 1986) adults.

b) Maximum chinook catch in 1883 (NWPPC, 1986). This method (NWPPC - 1986) computes that the Columbia River has a total capability to produce 9.6 to 16.3 million salmon, an estimate 1.2 to 8 million fish greater than the habitat-based figure. The estimate is based on 3 assumptions: 1) the maximum chinook catch in 1883 is an accurate measure of potential production, and an accurate indicator of the general condition of the Columbia River prior to major development, 2) the ratio of summer to fall chinook is the same in the 1880s as in 1920 (2:1), and 3) the ratio of spring to fall chinook is 1:1. This method calculates total run-size by summing the maximum number of fish caught in each species/race and dividing by a range of likely proportions of the run caught (0.85, 0.67, and 0.50). For example, if the number of salmon caught totals 8,161,000 and 85% of the total run was caught, the total run-size would equal 9,601,000 (8,161,000 / 0.85).

Authors of the NWPPC report state that this is a less conservative estimate than obtained from the habitat-based approach. We feel that basing an estimate on the maximum recorded catch over-estimates a more typical, sustainable run-size. It is not clear whether increased catch is due to increased effort by commercial fishers or truly due to increased production.

The ratio of summer : fall chinook is probably not the same from the 1880s to 1920 (and may be under estimated) since many historic accounts state that

summer chinook were overfished and depleted by the mid-late 1880s (Stone, 1878; McDonald, 1984; Smith 1895). We are unable to determine the basis of the proportions of summer : fall: spring chinook from the available literature, so we cannot adequately critique this assumption.

c) Catch by fish wheels. The Bonneville Power Administration (BPA 1984) calculated that the annual Columbia Basin salmon and steelhead run was as large as 35 million fish. This estimate is based on an assumption that fish wheels operating on the Columbia between 1889-1934 took about 5% of the total run (Donaldson and Cramer 1979). The basis for this exploitation rate is not clearly explained. However, using actual catch data from fish wheels (Craig and Hacker, 1940) to calculate our own run-size estimate, we believe this figure is a gross over-estimate. For example, the average annual biomass of salmonids caught by fish wheels for 1889-1892 and 1895 was 3,856,000 pounds. Assuming an average weight of 11 pounds per fish, all species and races combined (Chapman 1986), we calculated an average 350,545 salmon and steelhead caught in wheels for 1889-1892 and 1895. If this catch number represents 5% of the total run-size, as suggested by BPA, the total run equals 7,010,900 fish, not 35 million. This discrepancy represents a five-fold over-estimate of abundance.

d) Five-year mean peak harvest. Chapman (1986) estimated the peak catch by "averaging the harvest for the five consecutive years that yielded the highest combined total harvest". For example, the maximum average five-year catch for fall chinook, 1.1 million fish, occurred between 1915-1919. He calculated the maximum number of anadromous salmonids caught for each species/race by this method: spring chinook -- 400,000, summer chinook -- 1,700,000, fall chinook -- 1,100,000, sockeye -- 1,905,000, coho -- 605,000, and steelhead -- 382,000, totalling 6,092,000 adults. (Chum salmon have been excluded from our evaluation since their historic distribution was limited largely to the Columbia River below Bonneville Dam.) Assuming an 85% harvest rate, the total run-size would equal about 7.2 million (6,092,000 / 0.85).

The assumption of an 85% catch efficiency may be realistic. Early fish biologists agree that overfishing caused declines in abundance of anadromous salmonids in the 1880s (McDonald, 1895; Smith, 1895). This estimate also agrees with the revised fish wheel estimate of about 7 million fish. We feel that Chapman's method provides the most realistic estimate thus far, since it uses an average peak catch and provides well-documented assumptions for harvest rate; however, it is still based on maximum catch only.

C. Our Estimate of Historic Run-Size Based on a Five Year Running-Average (1866-1936)

Our estimate of historic abundance of anadromous salmonids is based on five year running-averages of annual catches from Table 1 in Beiningen (1976). For example, in Figure 1, each point on the trend line for five year running-averages represents the average of all salmon caught on the Columbia River for five years. The first data point is the average catch from 1866-1870, the second

point is the average catch from 1867-1871, and so forth. This method of successively averaging in each new year "smooths" out the maximum and minimum catch figures on the trend line for actual catch data. Our method is similar to Chapman's maximum five-year mean peak harvest estimates except that we provide a range of abundance estimates based on these five-year means. The period included in this assessment begins with the first commercial catch statistics (1866) and ends with the completion of Rock Island Dam (1835), the first dam on the Columbia River mainstem.

Harvest rates associated with catch statistics from the late 1800s cannot be directly calculated. Surveys to measure the number of fish escaping harvest to spawn were not conducted until 1938. Rich (1942) reports data on the adult anadromous salmonid runs of 1938, the first year that salmon and steelhead were counted at Bonneville Dam. Based on his counts, the harvest rates for salmonids were calculated as follows: chinook -- 71%, sockeye -- 77%, and steelhead -- 67%. Prior to 1938, all species of salmonids already showed declines in harvest (Figure 1), and we believe that exploitation rates were probably higher, possibly as high as 90%, during periods of declining abundance. Chapman (1986) used harvest rates as high as 88% in his calculation of run-size.

Figures 2,3,4, and 5 show the five year running-averages of catch of chinook, coho, sockeye, and steelhead, respectively, from 1866 to 1936. These four species either use the Yakima River subbasin currently or were found there historically. Chum salmon were not included in these calculations because there is no documentation that they used the Yakima River subbasin.

Table 1 provides estimates of run-size assuming the 70% and 90% harvest rates during the period of heaviest fishing pressure for each species or race. The "period of maximum exploitation" was gleaned from the historical fisheries literature and Figures 2 through 5. Figure 2 shows the combined catch for all races of chinook. Summer chinook were fished exclusively until the late 1880s when fishers began to harvest the less desirable fall and spring races in the 1890s. We have divided the chinook harvest by assuming that summer-run fish were harvested largely before 1890 and spring/fall-run fish largely after 1890. Other salmon species became more important in the total catch after the turn of the century. The last two columns in Table 1 compare our estimates to those in Chapman (1986). The harvest rates he used range from 69-88% and the most probable harvest rates were 80-85%.

Chapman believes that his estimates of pre-development runs were conservatively high. His estimates of run-size using probable harvest rates closely agree with our estimates derived from assumed 70% and 90% harvest rates and five-year running averages of catch.

We feel that our calculations and those of Chapman (1986) reflect historic run-size more realistically than the NWPPC (1986). We provide a range of run-sizes, based on assumed high and low exploitation rates and high and low catch statistics, instead of just a single figure of maximum catch.

Table 1. Estimated abundance in thousands of Columbia River salmon and steelhead based on five year running-averages (see figures 2 through 5) compared to mean catches in the five consecutive years of maximum total harvest used by Chapman (1986).

Species or Race	Period of Maximum Exploitation	Our Estimates		Chapman Estimates	
		High	Low	High	Low
Summer Chinook	1876-1886	3031	2358	2500	2000
Fall & Spring Chinook	1890-1920	2263	1760	1838	1750
Coho	1906-1930	1133	881	618	560
Sockeye	1906-1922	580	451	2623	2253
Steelhead	1912-1930	617	480	554	449
Total		7624	5930	8133	7012

III. Estimate for the Yakima River Subbasin

A. Historical Information

According to Richards, salmon were first used for food by humans on the Southern Plateau of Washington about 8,000 years ago. Shellfish, wild game, and wild, edible plants were also consumed. Regarding the Yakima region, Richards states:

> It is uncertain when the first prehistoric settlers appeared in the Yakima River basin, but sites have been excavated near Goldendale and on the Palouse River that are about 7,000 and 10,000 years old, respectively, ... As at other sites throughout the Plateau, hunting preceded fishing as the major subsistence activity with reliance on deer, mountain sheep, and elk. ...At one site near present Selah, it is estimated that ninety percent of the subsistence came from shellfish and hunting. Around 3,000 B.C., the people on the Yakima and Columbia Rivers shifted to roots and fish to supplement game and shellfish (Richards, 1989, p. 2).

During this time, for some groups of Native Americans, salmon and other fish were not as much of a staple as other sources of food. Richards further states:

> The bands of the Columbia Plateau relied on roots and plants for one-third to one-half of their diet, for they were one resource that never failed. ...It is estimated that sixty percent of caloric needs came from roots and plants. ...Salmon and other fish comprised one-third to one-half the diet for Plateau people, although for groups such as the Wishram and Wasco it could be as high as ninety percent and for others, including the Yakima, it could be less than one-third (Richards, 1989, p. 6).

More specifically, Richards states that the Yakima people relied more on hunting and gathering than fishing, as compared to the bands closer to the Columbia:

> For the Yakima, fish were not as dependable as roots, because the salmon runs varied greatly from season to season and year to year. Hunting was equally variable due to the ecological cycle and was in a general decline by about 1840. Before this time, the Kittitas and Yakima Valley Indians relied more than others on hunting for their areas were rich in deer, elk, antelope, mountain sheep, and mountain goats. The Yakima controlled prime hunting areas, but were willing to give permission to others to enter; the same was true of those bands with good fishing and gathering locations. The Yakimas did not have sufficient fishing areas in their locality, but could trade hunting rights for use of fishing areas. ...They compensated for the decline of the local habitat by using the horse to ride long distances to hunt buffalo (Richards, 1989, p. 6-8).

Most subsistence fishing by Native Americans of the Columbia Plateau was on the mainstem of the Columbia River, at sites between The Dalles and Celilo Falls, for chinook. The local bands controlled the prime locations, but in years with abundant runs, there was enough salmon for families from outside who traveled to the Columbia sites.

Angelo Anastassio's population estimates, as stated in Richards (1989, p. 10-11), for the Yakima people are: 3000 in 1805, 2500 in 1845, and 2000 in 1853.

Records of historic salmon runs are anecdotal. Thompson (1976) claims that, prior to 1880, about 160,000 salmon were caught by 4,000 members of the Yakima, Klickitat, and Priest Rapids tribes. The Priest Rapids people historically lived near the mainstem Columbia; they were "river people tied more closely to the Columbia River fisheries than the Yakima-Kittitas-Klickitat groups" (Richards, 1989, p. 12). There are questions about not only which bands to logically group together but also about how to estimate how many salmon were caught by them.

The anthropological and historical evidence amassed by Richards indicates that prime fishing locations for the Yakimas were on the mainstem Columbia River, not on the Yakima River:

> A.J. Splawn fixed the principal fishing places in eastern Washington at Wishram, Priest Rapids, and Kettle Falls (the latter used by natives in the northern and eastern portion of the region). In 1888-1889, Special Agent George Gordan made an investigation of fishing sites used by tribes in the Northwest. For the Yakima bands named in the 1855 Treaty, he found twelve sites along the Columbia and Snake Rivers from Cascades to Priest Rapids. Most of these sites were occupied or used by bands named in the Treaty who had never moved to the Reservation. Those living on the Reservation made the most use of the locations at Celilo and Tum Water (at Wishram about four miles from Celilo). Another Special Agent reported that everyone familiar with the history of the Yakima Reservation knew "for the purposes of fishing, their fishery is at Celilo on the Columbia and between there and the Dalles" (Richards 1989, p. 77).

In 1883, Robert Milroy the Yakima agent noted.

> ...About 3,000 Indians were assigned to the Agency, but that one-half were habitually absent as they move about from one locality to another as their necessity for supply of fish, game, roots, or berries may demand. ...Even salmon are in short supply. A special agent was told by Indians living at the Celilo Falls fishery, 'the salmon are running in very much less numbers than formerly" (Richards, 1989, p. 59).

Richards further notes:

> Fish from the Yakima River and its tributaries did not constitute a major portion of the Yakimas' total diet or of the percentage that came from fish. The fishing that had taken place on streams within the Reservation or on the Yakima River declined by the 1880s due to the large number of fish taken from the Columbia. A report of the United States Commissioner of Fish and Fisheries found in 1894 that there were no artificial obstructions to spawning salmon on the Yakima River and ample spawning beds were available. The fact that 'very few [salmon] make their appearance' was attributed to overfishing on the lower Columbia. When Lynch expressed concern about the Sunnyside diversion dam in 1891, he said, 'I don't think the dam, if built on the plan submitted and described in letter of the chief engineer, will seriously interfere with the right of the Indians guaranteed by treaty of 1855 in regard to fishing'. He added, 'the Indians do not obtain but a small portion of their food from the Yakima River'. References to fishing after this time usually refer to nonanadromous fish particularly trout. Lynch complained of whites interfering with Yakima trout fishing at the juncture of Ahtanum Creek and the Yakima River. One of his successors said that the western portion of the Reservation, 'is the mountainous part, covered by timber, and which contains practically all the fishing streams'. He indicated these streams were noted for 'large quantities of trout' (Richards, 1989, p. 79).

Fishery biologists visiting the Yakima River in the 1880s-90s and Indian agents living near the Yakima River had observed declining runs of salmon due to the burgeoning commercial fishery on the lower Columbia River. In an 1894 report to the U.S. Commission on Fish and Fisheries about the decrease of salmon escaping to the head waters of the Columbia, Dr. O.P. Jenkins, an assistant of Professor Evermann, makes the following report about the Naches River, a tributary of the Yakima:

> Those acquainted with the facts state that formerly, up to about 1885, salmon of three or four kinds, including the quinnat, ran up the stream to this valley and spawned in the river in great numbers; at present very few make their appearance (McDonald, 1895, p.155).

Europeans began settling in the Yakima River basin about 1860. According to Lavier (1976 a), most of the irrigation development in the Yakima occurred after 1900 well after declines in abundance were reported due to overfishing in the mainstem of the Columbia. Lavier goes on to state:

> One of the first reported attempts to irrigate in this area was by an Indian named Kamiakin, who diverted water from Ahtanum Creek in 1852 to grow a vegetable garden. In 1872 a white man, Joseph Scannon, dug a canal from the Naches River to the original site of the city of Yakima at Union Gap. In 1881 the Konewock Canal was dug, and was later enlarged until by 1891 it had been developed into a great canal system.

> In 1880 a Federal land office was opened in the area and homestead filing increased. The Northern Pacific Railroad reached Yakima in 1886 and was completed through the basin in 1888, providing a means of marketing the produce from irrigated lands. Despite this early start, irrigation development was slow during the next 25 years. For the most part it was limited to small individual ventures (Lavier, 1976 a, p. I-2).

Irrigation development cannot be solely or primarily blamed for the decrease in runs of anadromous salmonids to the Yakima, especially when substantial run declines were first reported in 1883-1885 (McDonald, 1885; Richards, 1989). Commercial overfishing from the 1860s to the early 1900s clearly was the major contributor to declining abundance of anadromous salmonids in the Yakima River. Lavier (1976 a) asserts that salmon and steelhead populations had declined to about 10% of their former abundance by 1905. Lavier (1976 a) also states that the irrigated areas expanded from 125,000 acres in 1905 to about 460,000 acres in 1953. This major expansion in irrigation occurred, therefore, after salmon and steelhead escapements had declined precipitously.

B. Run Size .

It is frequently claimed that "as many as" 800,000 anadromous salmonids returned to the Yakima River prior to European settlement (Lavier 1976 a; Tuck 1989; NWPPC 1990, Anon 1990). Methods for estimating historic runs of 800,000 adults are described in Anon 1990. Since there are no historic estimates of catch and/or escapement of Yakima River anadromous salmonids, it is difficult to verify accuracy of claims concerning historic runs to the Yakima River.

Area of the Yakima watershed is 6,155 square miles (Anon 1990). Total area of Columbia Basin watersheds historically available to anadromous salmonids is addressed by Thompson (1976):

> ...prior to modern man's influence, some 163,200 square miles of watershed contained habitat ideal for salmon and trout.

Watershed area of the Yakima River subbasin comprises 3.8% of the Columbia Basin watershed area [(6,155 sq. mi) (163,200 sq. mi)$^{-1}$]. If it is assumed that the potential of a subbasin to produce anadromous salmonids is proportional to watershed area, we can approximate the total abundance of adult anadromous salmonids returning to the Columbia River. For example, if we assume that the Yakima River subbasin has an average capacity to produce salmon and steelhead per unit watershed area and historically produced 790,000 adults (see Table 6 in Anon 1990), the total Columbia Basin run (all species) would number 20,800,000 [(790,000) (0.038)$^{-1}$]. On the other hand, if one assumes that anadromous salmonids returning to the Columbia River historically numbered 7 million (see Tables 1 and 2 of this report) and those returning to the Yakima River subbasin 790,000, the Yakima River would contribute three times as many fish per unit of watershed area (11.3% versus 3.8%) than the average of all subbasins within the Columbia Basin.

Table 2. Summary of historic run-size estimates (excluding chum salmon) and their method of calculation.

Source	Method	Historic Run Size (millions)
BPA	Catch Analysis	35
NWPPC	Catch Analysis	10-16
NWPPC	Pre-immigration Harvest by Native Americans	14-17 (33% harvest)
Craig & Hacker (1940)	Pre-immigration Harvest by Native Americans	5-6 (33% harvest)
Hewes (1972)		
PFMC & NWPPC	Habitat Assessment	7
Chapman (1986)	Catch Analysis	7-8
This report	Catch Analysis	6-7

We will base our provisional estimate of historic abundance of anadromous salmonids in the Yakima River subbasin on our highest estimate of run size to the Columbia Basin (7.6 million -- Table 1) and an assumption that the capacity of the Yakima River subbasin to reproduce salmon and steelhead per unit watershed area is about average. By this method we estimate that the historic average run size was 289,000 [(7.6 million) $(0.038)^{-1}$]. Our estimate is only 37% of that given in Anon 1990.

Run size of anadromous salmonids to the Yakima River subbasin is much reduced over historic levels. Wild populations of three species/races -- coho, sockeye, and summer chinook -- are presently functionally extinct in the Yakima River subbasin.

- Wild coho are functionally extinct throughout the Columbia Basin. Existing populations are sustained by hatcheries. Overfishing in the ocean and in the Columbia River is largely responsible for virtual extinction of wild coho salmon (Johnson et al 1991).

- Wild anadromous sockeye are functionally extinct in the Yakima River. Declining abundance was probably initiated by intense commercial harvesting in the late 1800s. However, construction of dams without adult fishways at Lake Kachess (1904), Lake Cle Elum (1905), Lake Keechelus (1906) and Bumping Lake (1910) has prevented reproduction of anadromous forms of sockeye salmon. Fresh water forms possibly remain in the four lakes that historically produced anadromous runs.

- Wild summer chinook are seriously depressed throughout the mid-Columbia Basin and are functionally extinct in the Yakima Subbasin. These fish were historically more abundant in the Columbia Basin than either spring or fall chinook. They were targeted by intensive river fisheries beginning in the 1870s and continuing through 1973. Protective regulations have attempted to prevent river harvest beginning in 1974. Harvest undoubtedly continues today in the mixed stock ocean fisheries from California into Alaska.

The three extinct species/races probably contributed more adults to historic runs into the Yakima River subbasin than the three surviving species/races -- spring chinook, fall chinook, and steelhead. The extinction of three species/races by overfishing (coho and summer chinook) and dams (sockeye) has contributed inordinately to the current depression of salmon runs to the Yakima River subbasin.

It is generally assumed, though not proved, that harvest rates of Columbia Basin spring chinook and steelhead by combined ocean and river fisheries are currently low to moderate. Combined ocean and river harvest rates on Columbia Basin fall chinook, on the other hand, have ranged upwards of 70 percent in recent years (See for example the biological opinion on 1993 operation of the Federal Columbia River Power System prepared by NMFS, Washington, D.C., May 26, 1993). Any weakness in survivorship of Yakima

River fall chinook from natural and man-induced mortality could place them in jeopardy by mixed stock ocean and river fisheries on stronger populations.

IV. Conclusions

Table 2 summarizes seven estimates of run-size to the Columbia River, including our own. It is interesting to note that there is a five-fold difference in run-size among the seven estimates. It is generally assumed that the BPA estimate is too high. On the other hand, the estimates generated by Chapman (1986) and this report are typically lower than catch-based estimates provided by the NWPPC.

The PFMC estimate from habitat assessment (7 million fish) agrees with estimates from catch analyses by Chapman (7-8 million fish) and by this report (6-7 million fish). Estimates (10-16 million fish) based on catch analyses by the NWPPC are about twice as high as from other sources (excluding BPA estimates). We believe that an estimate of 6 to 8 million fish returning to the Columbia Basin is the best available, given the limitation of the data base.

Our estimate of historic run-size to the Yakima River subbasin is about 300,000 for all species combined. This estimate is considerably lower than estimates from other sources. We base our estimate of historic Yakima run-size on an assumed direct proportionality between run size and watershed area.

Declining abundance of anadromous salmonid spawners in Columbia Basin streams, including the Yakima River, began well before the development of large-scale irrigation of agricultural crop lands. An intensive commercial fishery was the primary factor responsible for historic declines in abundance of spawners in the Yakima and other subbasins of the Columbia River.

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Figures 1 through 5

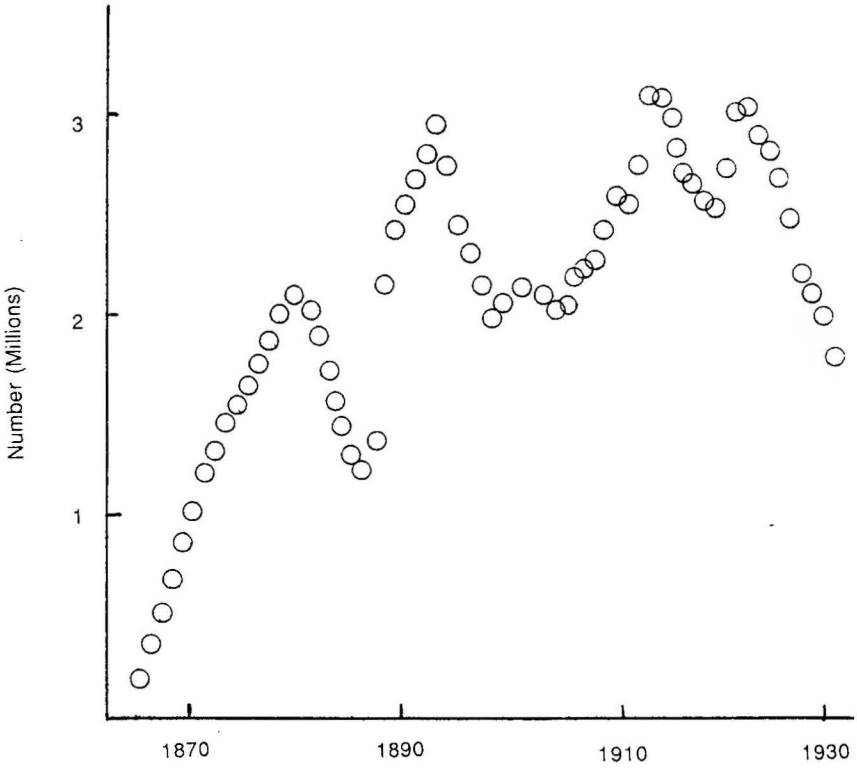


Figure 1. Five-year moving average of catch of anadromous salmonids in the Columbia River, 1866-1936.

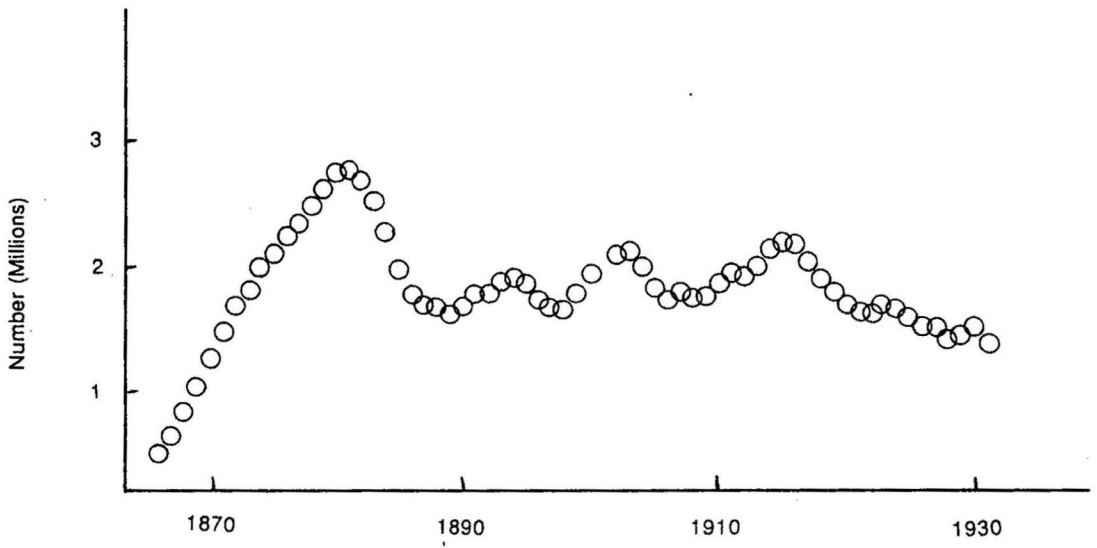


Figure 2. Five-year moving average of catch of chinook salmon in the Columbia River, 1866-1936.

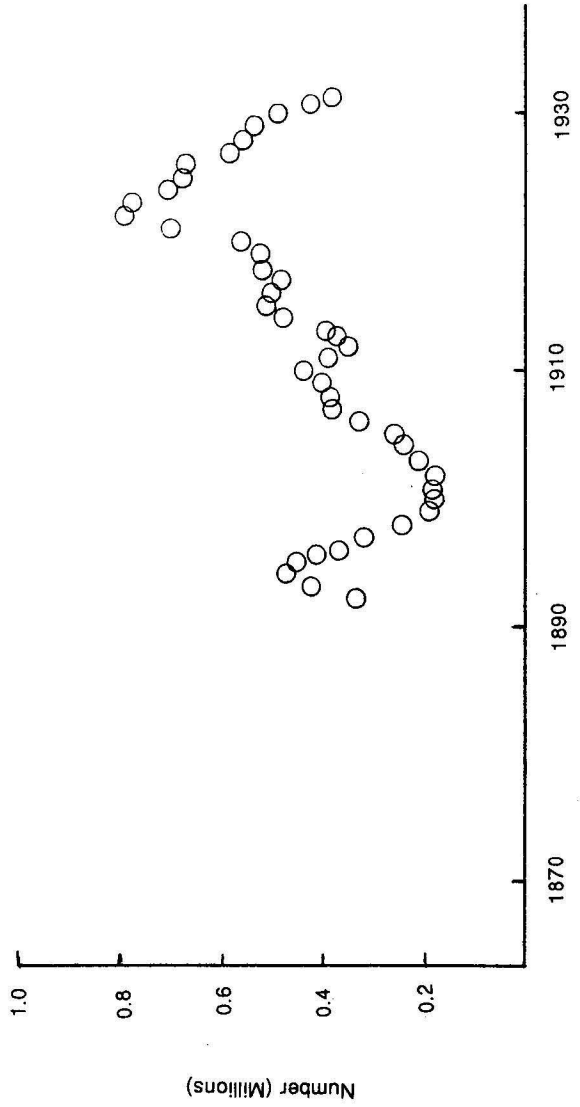


Figure 3. Five-year moving average of catch of coho salmon in the Columbia River, 1866-1936.



Figure 4. Five-year moving average of catch of sockeye salmon in the Columbia River, 1866-1936.

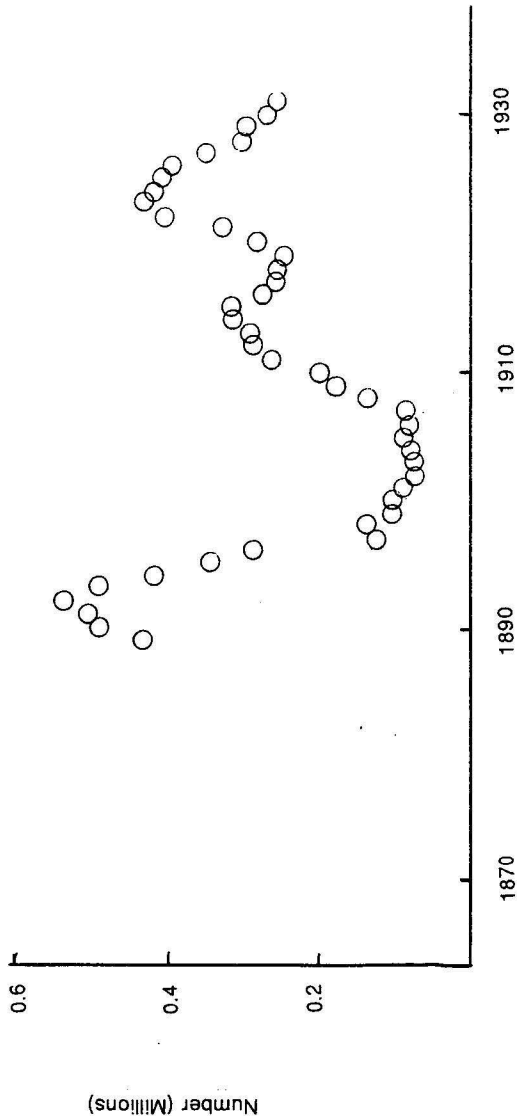


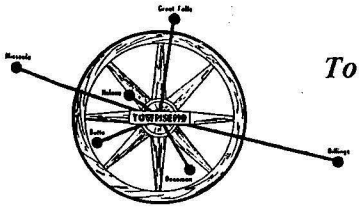
Figure 5. Five-year moving average of catch of steelhead in the Columbia River, 1866-1936.

APPENDIX

CANYON FERRY RECREATIONAL AREA

September 23, 1993

ADDITIONAL MATERIAL SUBMITTED FOR THE HEARING RECORD



Townsend Area Chamber of Commerce

First City on the Missouri River

P. O. Box 947

Townsend, MT 59644-0947

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Sept. 9, 1993

Rep. Pat Williams
2457 Rayburn
House Office Building
Washington, D.C., 20515

Dear Rep. Williams:

The Townsend-Area Chamber of Commerce fully supports continuation of the three-way Canyon Ferry management plan between the Bureaus of Reclamation and Land Management and the Montana Department of Fish, Wildlife and Parks. The union of the three agencies, with the BLM in the lead role, is too far along to change.

Though we understand and appreciate Reclamation's willingness to assume the lead role, any stipulation that includes a 50-50 sharing of the financial burden between the federal agency and the MDFWP is not only impossible in Montana's dire financial condition, we feel a shift in the plan at this time will only further delay action on desperately needed improvements along Canyon Ferry. The needs are immediate, and if the Bureau of Reclamation had a better plan, it needed to be voiced earlier than this. We are confused over Reclamation's reversal of stance after the agency agreed to the three-way plan in a memorandum of understanding.

The Oct. 1 deadline is near. The potential for massive tourism growth at Canyon Ferry has always been imminent. In terms of visitor hours, it is Montana's most popular, and, unfortunately, most under-developed, recreation area. Major infrastructural and safety improvements are needed before that potential is realized, and even more enhancements can be made by adding recreational facilities along the 76-mile shoreline.

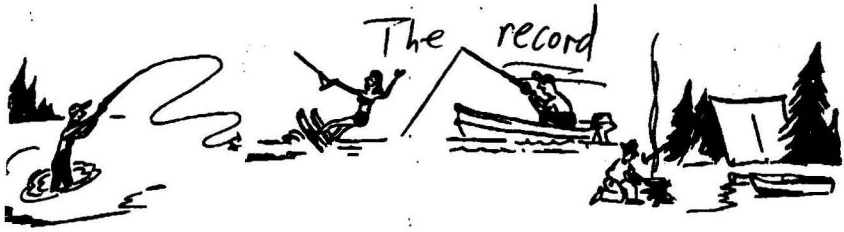
Since Canyon Ferry Dam was built in 1954, the people of Broadwater County have been waiting for promised economic recovery for the land flooded by the reservoir. Now that a plan for that repayment has come so close to reality, we do not want to see it changed or progress delayed.

Sincerely,

Mary Alice Upton

Townsend Area Chamber of Commerce

Charles Holling, President
Mary Alice Upton, Secretary
Jeff Stoffer, Sandy Montague, Kathy McNulty, Sharon Obrigewitch, Dalyce Flynn, Bill Kearns, Al McMilin, Steve Ward, Steve McCullough, Nancy Dundas, Barb Shaffer, and Paul Winslow, Directors



CANYON FERRY RECREATION ASSOCIATION

Representative Pat Williams
2457 Rayburn House Office Building
Washington,D.C. 20515

Sept. 23, 1993

Re: H.R. 1477 - Canyon Ferry Recreation
Tourism, & Economic Development Management Act

Dear Congressman Williams:
We are writing this letter in behalf of the 283 members of the Canyon Ferry Recreation Association to reinforce our support of Bill H. R. 1477.

While we are certain you have received at least two letters from our President, Don Johnson, we are not certain the Chairman of the House of Natural Resources Committee(Repr. George Miller) has see our letters. Therefore, we would request that you present this letter to the committee at the hearing Sept. 23, 1993 and ask that it be made part of the record.

At the August 28, 1993 meeting of the Canyon Ferry Recreation Board, the Board voted to approve and support Bill H.R. 1477 as it was originally introduced by you. As the Bill specifies, the Bureau of Land Management would be the lead agency in the three-way management plan for this area. We feel this would be a positive step forward in the development of this area. Wesincerely hope the other two agencies, Bureau of Reclamation and the Mont. State Dept. of Fish, Wildlife & Parks Will Support H. R. 1477. Given consideration to the amount of time, money and effort put into this plan by the three groups it would well advised to have them continue in this effort.

Due to the cost involved in having a representative at the hearing on Thursday, 9-23-93, and since our president is in China, we ask that you accept this letter as another expression of our support.

Sincerely:
Margaret McLaughlin
Margaret McLaughlin
Vice-President CFRA
William E. Leahy
William E. Leahy
Treasurer, CFRA

cc: Representative George Miller
Chairman, House Natural Resources Committee
U.S. House of Representatives
Washington D.C. 20515-0507

3318 East Shore Drive
Helena, MT 59601
September 13, 1993

Representative George Miller, Chairman
Committee on Natural Resources
Room 1324, Longworth Building
United States House of Representatives
Washington, D.C. 20515

Dear Representative Miller,

We would like to have the following included in the official record of the hearing of H.B. 1477:

At its August 28 meeting, the Board of Directors of the Canyon Ferry Recreation Association went on record in support of H.B. 1477.

The Association feels, however, that all ownership and management responsibilities at Canyon Ferry be vested in the Bureau of Land Management.

We feel the BLM is THE agency most qualified to manage Canyon Ferry. Its expertise is management. It knows and understands working with groups such as ours. In short, the needs of Canyon Ferry will be better served by the BLM than by the Bureau of Reclamation.

The BLM, working in conjunction with the Montana Department of Fish Wildlife and Parks, can create a unique, fiscally sound Canyon Ferry....an arrangement beneficial to everyone.

Sincerely,

Donald K. Johnson, President
Canyon Ferry Recreation Association

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