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BY THE U.S. GENERAL ACCOUNTING OFFICE

**Report To The Chairman, Subcommittee On
Oversight And Investigations
Committee On Energy And Commerce
House Of Representatives**

**Implementation Of The Pacific Northwest
Electric Power Planning And Conservation
Act's Fish And Wildlife Provisions**

Concerned over how hydroelectric facilities on the Columbia River and its tributaries affect the region's fish and wildlife, the Congress moved to protect these natural resources through provisions of the Northwest Power Act. The act directed the Pacific Northwest Electric Power and Conservation Planning Council to prepare and adopt a regional fish and wildlife program.

Congressman John Dingell asked GAO to review actions taken by the Council, the Bonneville Power Administration, and others to implement the fish and wildlife program. This report responds to the Congressman's six questions pertaining to funding and staffing levels, costs, and program focus or emphasis.



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RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-214960

The Honorable John Dingell
Chairman, Subcommittee on
Oversight and Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

Your letter of September 19, 1983, requested that we review implementation of the fish and wildlife provisions of the Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839, Dec. 5, 1980) (Northwest Power Act). The act created the Pacific Northwest Electric Power and Conservation Planning Council and directed the Council to, among other things, prepare and adopt a fish and wildlife program to "protect, mitigate, and enhance fish and wildlife ... on the Columbia River and its tributaries." The Council was formed in April 1981 and issued its fish and wildlife program in November 1982.

Several federal and state agencies, Indian tribes, and other groups are responsible for implementing the Council's program, with the Department of Energy's Bonneville Power Administration (Bonneville) playing a major role. The Northwest Power Act requires Bonneville to finance measures in a manner consistent with the program, which "protect, mitigate, and enhance fish and wildlife to the extent [these fish and wildlife are] affected by the development and operation of any hydroelectric project [electricity-producing dams] of the Columbia River and its tributaries" The Bonneville expenditures are to be in addition to, not in lieu of, other authorized fish and wildlife expenditures of state, local, or other federal entities. The act gives the Council authority to review Bonneville actions to determine whether such actions are consistent with the Council's program.

In your letter, you also asked that we review selected actions by the Council, Bonneville, and others to implement the Council's program. Specifically, you asked that we provide answers to six questions concerning (1) Council funding and staffing for its fish and wildlife activities, (2) criticisms of the

Council's water budget¹ (3) Bonneville actions to implement the Council's program, (4) Bonneville funding for "meaningful, significant, and new" fish and wildlife projects, (5) Bonneville past and current levels and focus for fish and wildlife funding, and (6) other federal and state agencies' funding actions.

The objective, scope, and methodology are presented in appendix I. Your specific questions, along with detailed answers, are contained in appendixes II through VII, and summarized answers are presented below. Appendix VIII is our report to the Chairman of the Northwest Power Planning Council (B-214960; May 2, 1984) which discusses the Council's program development activities and concerns about program implementation expressed by several Northwest federal, state, local, and Indian entities about program implementation.

BACKGROUND

A fish and wildlife program was included in the Northwest Power Act's requirements primarily because of seriously declining anadromous fish populations and concerns over the continuing impacts on fish and wildlife from the construction and operation of hydroelectric facilities. In addition to assigning the Council responsibility for developing the program, the act gave the Council authority to monitor program implementation and required a detailed annual report to congressional committees to describe (1) Council actions taken to implement the act, (2) program effectiveness, and (3) potential program revisions or modifications.

The Council published its first program in November 1982. The program contains about 220 measures to protect, mitigate, and enhance fish and wildlife resources adversely affected by the construction and operation of hydroelectric facilities in the Columbia River Basin. The act requires that the program be periodically updated and a revised program is scheduled to be published in November 1984.

Specific program measures include such items as (1) increases in the water budget to improve river flow and speed the young fish downstream during their April-June migration period, (2) construction or improvement of dam bypass facilities to aid both downstream and upstream fish migrations, and expansion and improvement of natural spawning areas. In addition to measures that require

¹"Water budget" is the Council's term to describe a volume of water reserved for use from April 15 to June 15 to increase spring river flows and help speed young anadromous fish in their downstream migration to the ocean where they mature. (Anadromous fish are born in freshwater rivers and streams, migrate to the ocean to mature, and return to the freshwater rivers and streams to reproduce.)

needed physical changes, the program also identifies research projects and actions necessary to facilitate program coordination and promote program implementation.

COUNCIL AND BONNEVILLE STAFFING,
FUNDING, AND IMPLEMENTATION
ACTIVITIES FOR FISH AND WILDLIFE

Four of your questions (1, 3, 4, and 5) concern Council and Bonneville staffing, funding, and implementation activities for fish and wildlife. Generally, Council and Bonneville efforts for fish and wildlife activities have increased annually since 1981. After the Council published its program in November 1982, the focus of both the Council and Bonneville shifted from research and information gathering to a greater emphasis on construction projects and implementation of the Council's Program. (See apps. II, IV, V, and VI.)

Council actions for
fish and wildlife

Staffing

In November 1982, when the program was issued, the Council had 5 staff (3 full time and 2 part time) involved in fish and wildlife activities out of a total staff of 33. In February 1984 the Council had committed 6 of its 40 full-time staff (five professional and one administrative) to fish and wildlife activities. The professional staff have relevant academic backgrounds and/or work experiences.

Staffing levels were adequate to adopt and publish the initial fish and wildlife program. This was done, as specified in the Northwest Power Act, within 1 year of receiving recommendations from all interested parties (Indian, federal, state, and local).

According to the Council's chairman, the present staffing level, supplemented with three additional persons, should be adequate for fiscal year 1984, but this level may need to be increased if the Council's monitoring, coordinating, and evaluating efforts required during program implementation are greater than currently anticipated. The Council is uncertain about the level of coordinating and monitoring effort required to assist the numerous agencies in carrying out specific program measures. (See app. II).

Funding

Bonneville provides funds for Council activities and then recovers the cost from its customers through charges for electricity. Council funding for fish and wildlife activities for fiscal years 1981 through 1983 was \$0; \$247,000; and \$288,000; respectively. Estimated funding for fiscal years 1984 and 1985 is

B-214960

\$630,000 and \$860,000, respectively. Approximately 85 percent of the Council's fish and wildlife budget has been, and is projected to be, devoted to salaries and contract services. (See app. II.)

Activities

Before November 1982, Council fish and wildlife staff activities centered on efforts to develop a fish and wildlife program according to procedures specified in the Northwest Power Act. According to the Council, its staff had focused their efforts after November 1982 on (1) coordinating, monitoring, and evaluating agency implementation of the Council's program, (2) coordinating and monitoring fish and wildlife research efforts, and (3) collecting and analyzing data for a revised, updated program scheduled to be published in November 1984. (See app. II.)

Bonneville actions for fish and wildlife

Staffing

Bonneville fish and wildlife staff manage biological study contracts; develop Bonneville's fish and wildlife standards and policies; and review Bonneville's policies, plans, and actions for consistency with the Northwest Power Act and the Council's program. About 100 of the Council's approximately 220 program measures are assigned to Bonneville.

In June 1982, Bonneville elevated the status of fish and wildlife activities through a change in organizational structure from a program coordination staff to a Division of Fish and Wildlife. Additionally, the staff increased from 1 to 21 members since 1980, and 5 additional positions were authorized and expected to be filled during fiscal year 1984.

The Director of the Fish and Wildlife Division conducted an analysis of the division's staffing needs in October 1983 and concluded that staff levels should increase from 21 to 38 to meet Bonneville's responsibilities under the act. At the completion of our review, Bonneville management concluded that an increase of this magnitude was not necessary and, although they authorized 5 additional positions, Bonneville had no plans to add the other 12 positions.

In November 1981 congressional testimony, we said that Bonneville's organization did not reflect the purposes of the Northwest Power Act. We recommended that the Department of Energy--with advice from Bonneville, the Council, and the region's ratepayers--examine and adjust Bonneville's organization, programs, and staffing to ensure their consistency with the act. Earlier, in April 1981, we wrote a letter to the Department of Energy suggesting that it, in conjunction with Bonneville, comprehensively examine

Bonneville's organization and thoroughly study organizational alternatives, program options, priorities, and funding levels. In June 1983 congressional testimony, we again endorsed a comprehensive organizational and staffing study. Bonneville has not conducted such a study because it believes it has made--and will make--incremental organizational changes to accomplish the same results. Without such a study, we are not in a position to judge how many fish and wildlife staff members are required or what their skill, experience, and education levels should be. (See app. IV.)

Funding

As shown by table 1, Bonneville's funding of fish and wildlife activities has increased since 1981--the first year following passage of the Northwest Power Act. The table also reflects Bonneville's increased emphasis on construction projects. In fiscal year 1981 nearly 96 percent of Bonneville's fish and wildlife funds were devoted to studies, investigations, research, and miscellaneous restoration measures. Funds obligated in fiscal years 1982-83 and the estimated obligations for fiscal years 1984-85, however, show a steady decline in this percentage, and it is estimated that by the end of fiscal year 1985 less than 48 percent of the funds will be obligated for these activities.

Table 1

Bonneville's Funds Obligated for
Fish and Wildlife Activities for Fiscal Years 1981-85

<u>Activity</u>	<u>Actual</u>			<u>Budgeted</u>	
	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85^a</u>
	----- (millions) -----				
Studies, investigations, research, and miscel- laneous restoration	\$2.2	\$3.8	\$6.3	\$11.1	\$12.1
Construction projects, habitat improvements, and other	<u>0.1</u>	<u>0.4</u>	<u>2.0</u>	<u>9.6</u>	<u>13.6</u>
Total	<u>\$2.3</u>	<u>\$4.2</u>	<u>\$8.3</u>	<u>\$20.7</u>	<u>\$25.7</u>

^aAt the completion of our review, Bonneville was revising its 1985 budget to request about an additional \$5 million, most of which is planned for projects in Washington's Yakima Basin.

More detailed information on specific fish and wildlife measures that Bonneville has funded is contained in appendixes V and VI.

Activities

Bonneville has taken several actions to fulfill its fish and wildlife responsibilities under the Northwest Power Act and the Council's program including: (1) creating and staffing its Division of Fish and Wildlife, (2) increasing funding levels for fish and wildlife measures each fiscal year since passage of the act, (3) issuing proposed procedures outlining Bonneville's consultation responsibilities, and (4) submitting proposed amendments to the program in response to the Council's request for comments.

Most of the 100 measures assigned to Bonneville in the Council's program direct it to fund individual projects or research proposals. Other measures direct Bonneville to consult with interested parties and consider the Council's program at relevant stages in Bonneville's decisionmaking processes. Bonneville is in various stages of implementing the measures assigned to it. While some activities have been funded and are underway, others are still being studied.

CRITICISMS OF THE WATER BUDGET
AND THE COUNCIL'S RESPONSE

The Northwest Power Act required the Council to provide water "... flows of sufficient quality and quantity ..." between dams to improve fish survival, and the Council adopted a "water budget" (see footnote 1, p. 2.) to meet this requirement. The Council also recommended in its program that Bonneville provide funding for two managers to oversee water budget operations. Your second question dealt with criticisms of the Council's water budget.

Water budget concerns expressed by
the Pacific Northwest Utilities
Conference Committee

The Pacific Northwest Utilities Conference Committee is a voluntary association of Pacific Northwest utilities (both investor-owned and public) and industrial customers who receive their electrical service directly from Bonneville. While the utilities committee recognizes that some increased level of river flow is needed to assure reasonable survival of anadromous fish, it is concerned that available scientific data do not adequately define the river flow/fish survival relationship.

Additionally, the utilities committee believes that the water budget should provide lesser amounts of water for fish in years of low water flows (less than 20 percent of all years on record) and provide water at the proposed water budget rates when flows are higher (the remaining 80 percent of the time). According to the executive director of the utilities committee, this change would substantially lessen the economic cost of the water budget to the ratepayers while still providing major improvements to fish survival.

Bonneville and the utilities committee has each prepared an estimate of revenue losses attributable to the water budget. Bonneville's estimate is about \$60 million a year and the utilities committee's estimate is \$160 million to \$250 million a year. The Bonneville estimate assumed that the region will have a surplus of electricity for the foreseeable future and no replacement energy will be needed. The utilities committee, on the other hand, estimated that the region's current electricity surplus will eventually become an energy shortage and the lost energy will need to be replaced. The utilities committee estimates that besides the \$60 million decrease in power sales revenue, an additional amount (\$100 million to \$190 million) will be needed to replace the energy that could have been produced had not the water been diverted from power use to the water budget.

According to the Council's executive administrator, the Council used the best scientific information available to establish a water budget for the program, but the Council recognizes the need to gather additional scientific data to more precisely define the relationship between water flow levels and fish survival. To meet this requirement and address the utilities committee concern, the Council included several measures in its program for research studies, which the staff of the water budget center are currently conducting. According to the Council's chairman, however, the utilities committee's suggestion of reduced water for fish in low-water years is contrary to the water budget concept because it is during low-water years that the additional water flows are needed to enhance fish survival.

FISH AND WILDLIFE FUNDING BY
OTHER FEDERAL AND STATE AGENCIES

Your sixth question asked us to identify any significant funding reductions of major Columbia River fish and wildlife activities by federal and state agencies as a result of the Council's fish and wildlife program and determine the funding status of the Columbia River Fisheries Development Program. This program, administered by the National Marine Fisheries Service of the Department of Commerce, was established under the 1938 Mitchell Act to conserve, develop, and enhance anadromous fish resources.

We reviewed the fish and wildlife efforts of several federal and state agencies. We found that since the Congress passed the Northwest Power Act (1) state funding has increased in Idaho, Montana, and Oregon, and has remained fairly constant in Washington and (2) federal funding levels for fish and wildlife declined for Department of the Interior's Bureau of Reclamation, fluctuated for the Department of the Army's Corps of Engineers and increased for the Department of Commerce's National Marine Fisheries Service. According to agency officials, the decreases are the result of programmatic changes unrelated to Bonneville's funding of the Council's program. (See app. VII.)

Concerning funding for the Mitchell Act, the administration's 1985 budget proposals excluded funding for fisheries program activities to conserve, develop, and enhance anadromous fish resources. The administration suggested that Bonneville finance the fisheries program since the program's primary beneficiaries are Pacific Northwest residents and economies. According to the Council, transferring responsibility for funding Mitchell Act activities to Bonneville would be inconsistent with the Northwest Power Act because the act requires that Bonneville expenditures for fish and wildlife "be in addition to, not in lieu of, expenditures authorized or required from other entities under other agreements or provisions of law."

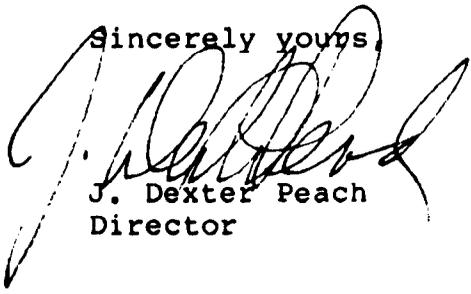
On March 7, 1984, a bill was introduced in the Congress (H.R. 5052) to transfer funding responsibility for operating and maintaining Mitchell Act hatcheries from the National Marine Fisheries Service to Bonneville. At the completion of our review, no action had been taken on the bill and, in the meantime, both the House and Senate Appropriations Committees have voted to put the necessary funds back into the National Marine Fisheries Service's budget for fiscal year 1985.

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As agreed with your office, we did not submit this report to Bonneville, the Council, or others for review and comment. We did, however, discuss the contents of this report with top level officials of Bonneville and the Council. These officials' comments concerning the basic message of the report have been incorporated where appropriate.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of issuance. At that time we will send copies to interested parties and make copies available to others upon request.

Sincerely yours



J. Dexter Peach
Director

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V	QUESTION 4: Please examine the current level of Bonneville funding for both mitigation and enhancement, including the extent to which the funding projects are meaningful, significant, and new. I am particularly concerned that you examine Bonneville's recent rate case, including the background thereof, concerning Bonneville's efforts to utilize rates for funding fish and wildlife activities, with particular attention paid to Bonneville's discussions with utilities to gain their consensus. Also, please examine the impact of section 4(h)(10)(B), particularly the \$1 million limit, on fish and wildlife. I understand that Bonneville plans to use that provision for several capital projects. 19

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ABBREVIATIONS

GAO General Accounting Office

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our review was to provide answers to the six questions raised in your letter (see app. IX). The steps we took to obtain these answers are summarized below.

For funding questions, we studied Pacific Northwest Electric Power and Conservation Planning Council and Bonneville Power Administration financial plans, budget documents, and reports for fiscal years 1980-85. To determine the status of Mitchell Act funding, we examined the National Marine Fisheries Service's fiscal year 1985 budget and interviewed agency officials. We also examined the proposed legislation that would transfer program funding responsibility to Bonneville. To find out whether federal and state agencies had reduced funding for fish and wildlife programs as a result of the Council's fish and wildlife program, we interviewed federal, state, and Council officials concerning program funding plans and reviewed state and federally supplied financial data.

With regard to staffing and organizational questions, we reviewed Bonneville and Council activities and organizational structures and compared them with the responsibilities and duties assigned to each entity in the Northwest Power Act and the Council's Fish and Wildlife Program. To ascertain the Council staff's qualifications, we reviewed personnel records concerning their academic backgrounds and work experiences. We also interviewed state and federal officials to obtain their personal perceptions of Bonneville and Council activities.

For the question about Bonneville's actions to implement the act, we reviewed the act and the fish and wildlife program to determine Bonneville's responsibilities and compared them with actions the agency had taken or planned to take. We examined various reports, records, and correspondence showing Bonneville's implementation activities and interviewed officials within Bonneville to determine actions the agency had taken or planned to take. We also interviewed officials at other federal and state agencies and tribal organizations to obtain their opinions regarding Bonneville's implementation actions.

For the question relating to the water budget, we reviewed pertinent provisions of the act, its legislative history, and the fish and wildlife program to determine the appropriateness of the program measures. We also interviewed Pacific Northwest Utility Association, Bonneville, and Council officials and the water budget managers. In addition, we examined applicable reports and correspondence to obtain an understanding of the water budget, the related concerns, and the responses to the concerns.

Except for not obtaining agency comments, our review was performed in accordance with generally accepted government auditing standards. Our review was conducted from May 1983 to June 1984.

QUESTION 1

"How has the Council funded and staffed its fish and wildlife related activities? Is that funding and staffing adequate, both quantitatively and qualitatively?"

BACKGROUND

The Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839) (Northwest Power Act) became law on December 5, 1980. Section 4 of the act created the Pacific Northwest Electric Power and Conservation Planning Council. The Council was established in April 1981 and consists of eight members--two appointed from each of the four Northwest states of Idaho, Montana, Oregon, and Washington.

The act directed the Council to, among other things, prepare and adopt a fish and wildlife program (program) to "protect, mitigate, and enhance fish and wildlife . . . on the Columbia River and its tributaries." The act stipulated that the Council request recommendations from affected federal, state, local, and Indian entities on what should be included in the program. Additionally, the act stated that a final program was to be developed within one year after receipt of the recommendations. From June to November 1981 the Council received over 400 recommendations that the Council staff analyzed and discussed in public meetings. The final program was issued on November 15, 1982, within the time frame prescribed in the act.

FUNDING FOR THE COUNCIL'S
FISH AND WILDLIFE ACTIVITIES

The Department of Energy's Bonneville Power Administration (Bonneville) provides funds for Council activities and then recovers the cost from its customers through charges for electricity. Council funding for fish and wildlife activities is shown in table 1 on the following page.

Table 1Council Funding for Fish and Wildlife Activities

	<u>Actual</u>			<u>Budgeted</u>	
	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85</u>
	----- (000 omitted) -----				
Salaries	\$ -	\$ 72	\$147	\$256 ^a	\$442 ^b
Travel	-	5	34	43	70
Contract services	-	139	90	270	305
Administrative services	-	31	17	61	43
Total	\$ -	\$247	\$288	\$630	\$860

^aDoes not include salaries of three additional fish and wildlife staff approved for hiring during fiscal year 1984, but total funds for the year are expected to remain the same, since expenditures for contract services will be decreased.

^bAmounts based on draft budget submitted for public comment in May 1984.

As shown in table 1, the Council spends most of its fish and wildlife funds on salaries and contract services. In 1981 no funds were spent on fish and wildlife activities because the Council devoted its efforts mainly to getting organized. In fiscal year 1982, a fish and wildlife manager, a biologist, and a secretary were hired. Contract service costs that year primarily involved activities associated with developing and publishing the fish and wildlife program. According to the Council, salary increases from 1983-84 reflect increased Council monitoring efforts as Indian tribes and federal and state agencies began implementing the program. The increase in contract services during this period reflects increased research efforts.

COUNCIL STAFFING

In November 1982, when the Program was issued, the Council had 5 staff members (3 full time and 2 part time) involved in fish and wildlife activities out of a total staff of 33. In February 1984, the Council had committed 6 full-time staff to fish and wildlife activities. Chart 1 shows the Council's overall organization and staffing. In addition to the staff assigned full-time to fish and wildlife activities, the other division offices provide staff, as required, to assist on fish and wildlife matters.

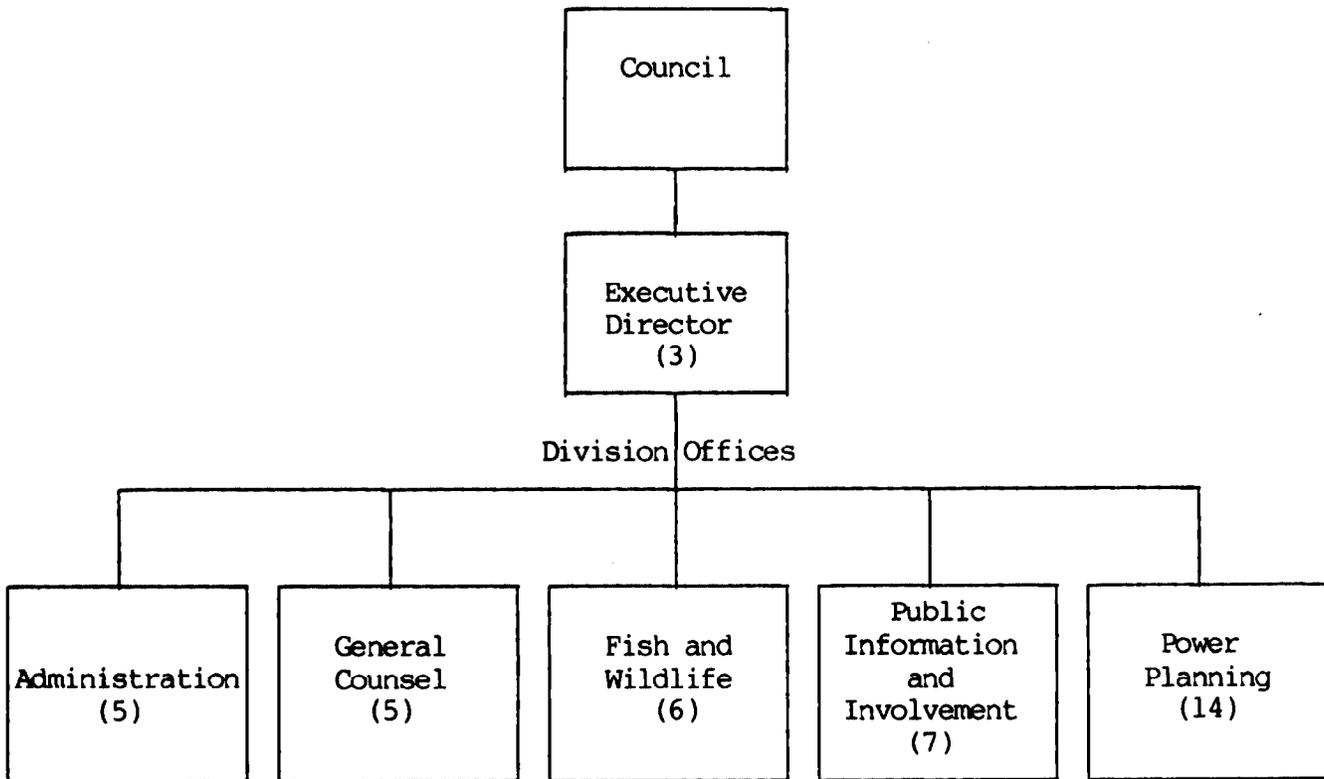
QUALIFICATIONS OF THE COUNCIL'S FISH AND WILDLIFE STAFF

In February 1984, the Council had 6 staff in its Fish and Wildlife Division including 5 professional staff and 1

Chart 1

Organization of Northwest Regional Planning Council

(As of Feb. 29, 1984)



administrative staff. The major responsibilities for persons in the professional positions, as well as their academic backgrounds and work experiences, are as follows:

- The fish and wildlife director coordinates and supervises program monitoring, research, and evaluation and establishes and maintains relationships with fish and wildlife entities (federal, state, local, and Indian). The incumbent has a law degree and prior experience as the Council's fish and wildlife attorney and as an attorney for the Department of the Interior.
- The goal coordinator oversees efforts to develop program goals pertaining to fish and coordinates with fish harvesting entities. The incumbent has done graduate work in fisheries management and resource economics and has worked as a professional staff member for the House Committee on Merchant Marine and Fisheries.
- The project operations and development manager monitors and coordinates (1) evaluations and program measures pertaining to the water budget (see app. III for information about the water budget) and (2) development of future hydroelectric projects. The incumbent has a Ph.D. in environmental sciences and natural life resources, has worked as an environmental specialist for the Oregon Department of Energy, and has served as chairman of the Governor's Hydropower Planning Group.
- The staff biologist monitors and reviews research on fish reproduction measures and migration issues. The incumbent has a Ph.D. in biology and has worked as a research scientist for over 10 years.
- The research intern assists other staff members. The incumbent, who is on contract through June 1984, has a Master's Degree in marine resource management from Oregon State University, and has been a graduate teaching assistant at that university.
- The wildlife coordinator (part time) is the Council's liaison with those entities affected by or concerned with implementation of the program's wildlife measures. The incumbent has a degree in political science from the University of Utah and has worked 7 years in resource planning with a private firm and federal and state agencies. He has been working for the last 2 years on wildlife activities for the Council.

ADEQUACY OF THE COUNCIL'S FUNDING
AND STAFFING FOR FISH AND
WILDLIFE ACTIVITIES

To evaluate funding and staffing adequacy, it is necessary to examine the specific tasks the Council was charged to perform.

These tasks can be examined in two phases: (1) actions taken before November 1982 to develop a fish and wildlife program and (2) actions taken after that date to coordinate, monitor, and evaluate that program's implementation. Council actions during these phases are discussed below. These actions are also discussed in greater detail in a recent GAO report (attached) addressed to the Chairman of the Northwest Power Planning Council (B-214960; May 2, 1984). Council funding and staffing appear to have been adequate to meet the Northwest Power Act's requirements for developing a fish and wildlife program. Whether the Council's present staffing and funding are or will be adequate to meet its program implementation responsibilities is not certain.

Actions to develop the fish and wildlife program

During the first 20 months of its existence (Apr. 1981-Oct. 1982), the Council assembled a fish and wildlife technical staff and then developed a fish and wildlife program according to procedures and standards specified in the Northwest Power Act. During the program development process, the Council (1) obtained and considered recommendations that federal and state fish and wildlife agencies, tribes, and others made to protect, mitigate, and enhance fish and wildlife, (2) provided for public participation and comments on the recommendations, and (3) based its program measures on recommendations received. As required by the act, the Council developed the program within 1 year after receiving these recommendations. It appears, then, that the Council's funding and staffing were adequate to meet the Northwest Power Act's program development requirements.

Implementing the Fish and Wildlife Program

As pointed out in our May report, the program's development, in itself, will not assure protection, mitigation, and enhancement of the Columbia River Basin's fish and wildlife. Program success will depend upon the degree to which federal and state agencies, Indian tribes, and other groups accept and implement the program. The program has passed one major hurdle; that is, even though a number of different parties with diverse and sometimes conflicting interests are affected by the program, no lawsuits challenging it were filed within the 60-day period prescribed in the act.

Even though the affected parties have at least passively accepted the program (if lack of lawsuits can be used as the criterion), several uncertainties must be addressed to ensure its successful implementation--including questions about program management coordination and funding for individual program measures. These and other concerns are discussed in greater detail in our May 1984, report. Whether the Council's present staffing and funding are or will be adequate to address these concerns and fully implement the program cannot be answered at this time. The Council is uncertain about the extent of effort required to coordinate and monitor agencies' actions as the agencies carry out

specific program measures. The Council will hire three additional staff members in 1984 to assist in its program implementation efforts and, according to the Council's chairman, the staff could be increased again if implementation progress is not satisfactory.

QUESTION 2

"Explain the significant cost-related criticisms or concerns which the Pacific Northwest Utilities Conference Committee (Utilities Committee) raised about the water budget in commenting on the Council's draft. In addition, explain the Council's response to those criticisms or concerns. Are the criticisms valid?"

BACKGROUND

Dams on the Columbia and Snake Rivers have converted the free-flowing rivers into a series of reservoir pools and have significantly slowed the rivers' rate of flow. Before the dams were built, flushing action of the spring floods significantly aided young anadromous fish in their seaward migration (see footnote 1 on p. 2 of letter); the fish traveled downstream from the Salmon River in Idaho to the lower Columbia area in Oregon and Washington in about 22 days. It can now take them about 41 days to make that journey in an average-water year and nearly 70 days in low-water years.

Travel time to the ocean for the young anadromous fish is critical because they go through a physiological change that allows them to adapt from freshwater to saltwater. They begin to lose their ability to survive this change if they do not reach saltwater within about 30 days.

The Northwest Power Act required the Council to provide water "flows of sufficient quality and quantity ..." between dams to improve fish survival, and the Council adopted a water budget to meet this requirement. (See footnote 1 on p. 2 of letter.) The Council also recommended in its program that Bonneville provide funding for two managers to oversee water budget operations.

Bonneville funds a water budget center that manages the water budget, designs and oversees research on the relationship between anadromous fish survival and water flows, and monitors river operations to improve fish survivability. Besides the two water budget managers, the water budget center also has four technical staff members and one secretary.

WATER BUDGET CONCERNS EXPRESSED BY
THE PACIFIC NORTHWEST UTILITIES
CONFERENCE COMMITTEE

The Pacific Northwest Utilities Conference Committee is a voluntary association of Pacific Northwest utilities (both investor-owned and public) and industrial customers who receive their electrical service directly from Bonneville. While the utilities committee recognizes that some increased level of river flow is needed to assure reasonable survival of anadromous fish, it is concerned that available scientific data do not adequately define the river flow/fish survival relationship. The utilities committee believes that additional research is needed, and it

views the current water budget level as an interim measure to be used until the additional scientific data are acquired.

Additionally, the utilities committee believes that the water budget should provide lesser amounts of water for fish in years of low-water flows (less than 20 percent of all years on record) and provide water at the proposed water budget rates when flows are higher (the remaining 80 percent of the time). According to the executive director of the utilities committee, this change would substantially lessen the economic cost of the water budget without substantially affecting fish survivability.

The Council acknowledges that the current water budget is only a starting point and anticipates that research data and additional information based on operating experience may indicate that changes to the water budget are needed. According to the Council's chairman, however, the utilities committee's suggestion of reduced water for fish in unusually low-water years is contrary to the water budget concept because it is during low-water years that the additional water flows are needed to enhance fish survival.

Bonneville and the utilities committee has each prepared an estimate of revenue losses attributable to the water budget. Bonneville's estimate is about \$60 million a year and the utilities committee's estimate is \$160 million to \$250 million a year.

The lost revenue can result from two events. First, by having to plan for water releases during the low-water years, less power is available on a firm, dependable basis. Firm, dependable power is more valuable than power that is non-firm or not available on a dependable basis. Thus, the value of some of the power is decreased, which will result in reduced revenue. Both Bonneville and the utilities committee estimated that this reduced revenues will be about \$60 million per year. Second, revenues from power can be lost when water is released and not used to produce power. This lost power, if needed by customers, must then be generated from a higher cost power source.

The Bonneville estimate assumed that the region will have a surplus of electricity for the foreseeable future and no replacement energy will be needed. The utilities committee, on the other hand, estimated that the region's current electricity surplus will eventually become an energy shortage and the lost energy will need to be replaced. The utilities committee estimates that besides the \$60 million decrease in power sales revenue, an additional amount (\$100 million to \$190 million) will be needed to replace the energy that could have been produced had not the water been diverted from power use to the water budget.

The Council had a legislated mandate to adopt a fish and wildlife program by November 1982 and determined that it was important to include a water budget in the program. According to

the Council's executive administrator, the Council used the best scientific information available to establish a water budget for the program, but the Council recognizes the need to gather additional scientific data to more precisely define the relationship between water flow levels and fish survival. To meet this requirement, the Council included several measures in its program for research studies, which the staff of the water budget center are currently conducting.

The relatively high water runoff in 1983 aided not only fish migration but also served to minimize power costs to ratepayers. This has resulted in the issue being less visible. However, a combination of lower water and an electricity shortage at any time in the future could rekindle debates on the size of the water budget because of the higher costs of replacing lost hydropower with more expensive energy.

QUESTION 3

"Please examine carefully the actions taken and planned by Bonneville to implement the fish and wildlife provisions of the Act. In this regard, please examine the staffing and organization at Bonneville concerning fish and wildlife, including those actions requiring the input of Bonneville lawyers. In examining this staffing, please compare it with Bonneville's conservation effort."

BACKGROUND

The Congress established Bonneville in 1937 to market and transmit electric power--initially from Bonneville Dam and later from other federal dams in the Columbia River Basin (Basin). The Northwest Power Act expanded Bonneville's role from a marketer of federal hydropower to a regional electrical utility responsible for assuring adequate power supplies in the Pacific Northwest and protecting, mitigating, and enhancing fish and wildlife affected by the development and operation of Basin hydroelectric projects.

The Council's program contains about 220 primary measures designed to carry out the fish and wildlife responsibilities described in the act. Bonneville is assigned responsibility for about 100 of the 220 program measures. Most of the measures assigned to Bonneville direct it to fund individual projects or research proposals. Other measures direct Bonneville to consult with interested parties and consider the Council's program at relevant stages in Bonneville's decisionmaking processes.

In addition to the Council's program, Bonneville is also given fish and wildlife direction by the Northwest Power Act. The act directs Bonneville to

- use its funds to protect, mitigate, and enhance fish and wildlife affected by Basin hydroelectric project development and operation in a manner consistent with the Council's program;
- exercise its responsibilities in a manner consistent with the purposes of the Northwest Power Act and other applicable laws;
- consider the Council's program at each relevant stage of Bonneville's decisionmaking processes; and
- consult and coordinate its actions with appropriate state and federal agencies, Indian tribes, and dam operators.

BONNEVILLE'S ACTIONS TO IMPLEMENT
FISH AND WILDLIFE PROVISIONS OF
THE NORTHWEST POWER ACT AND THE
COUNCIL'S PROGRAM

Bonneville has taken several actions to fulfill its responsibilities under the Northwest Power Act and the program. Examples include

- creating and staffing a division of fish and wildlife;
- increasing funding levels for fish and wildlife protection, mitigation, and enhancement measures each fiscal year since passage of the act (see table 2);
- funding a water budget center (see app. III);
- issuing proposed procedures regarding Bonneville's consultation responsibilities;
- initiating policies and procedures to compensate for monetary costs and power losses due to implementing the program; and
- preparing comments on the program in response to the Council's request for program amendments.

Bonneville's organization, staffing,
and funding for fish and wildlife

When the Congress passed the Northwest Power Act, Bonneville's fish and wildlife responsibilities were handled by a program coordination staff assigned to the Office of Power Management.¹ (Chart 2 on page 13 shows Bonneville's organizational structure.) In June 1982 the Fish and Wildlife Division was created and placed within Bonneville's Office of Power and Resources Management. The division has two branches--the Biological Studies Branch and the Systems Integration Branch. The Biological Studies Branch has two main functions: (1) managing contracts and other activities aimed at protecting, mitigating, and enhancing fish and wildlife resources and (2) coordinating activities with the region's state and federal fish and wildlife agencies, Indian tribes, land management agencies, utilities, and others. The Systems Integration Branch primarily reviews Bonneville's policies, plans, and actions for consistency with the Northwest Power Act and the Council's program. This branch also develops the standards, criteria, and policies necessary to fulfill Bonneville's fish and wildlife responsibilities.

¹The Office of Power Management was subsequently renamed the Office of Power and Resources Management.

CHART 2
BONNEVILLE POWER ADMINISTRATION
February 1984

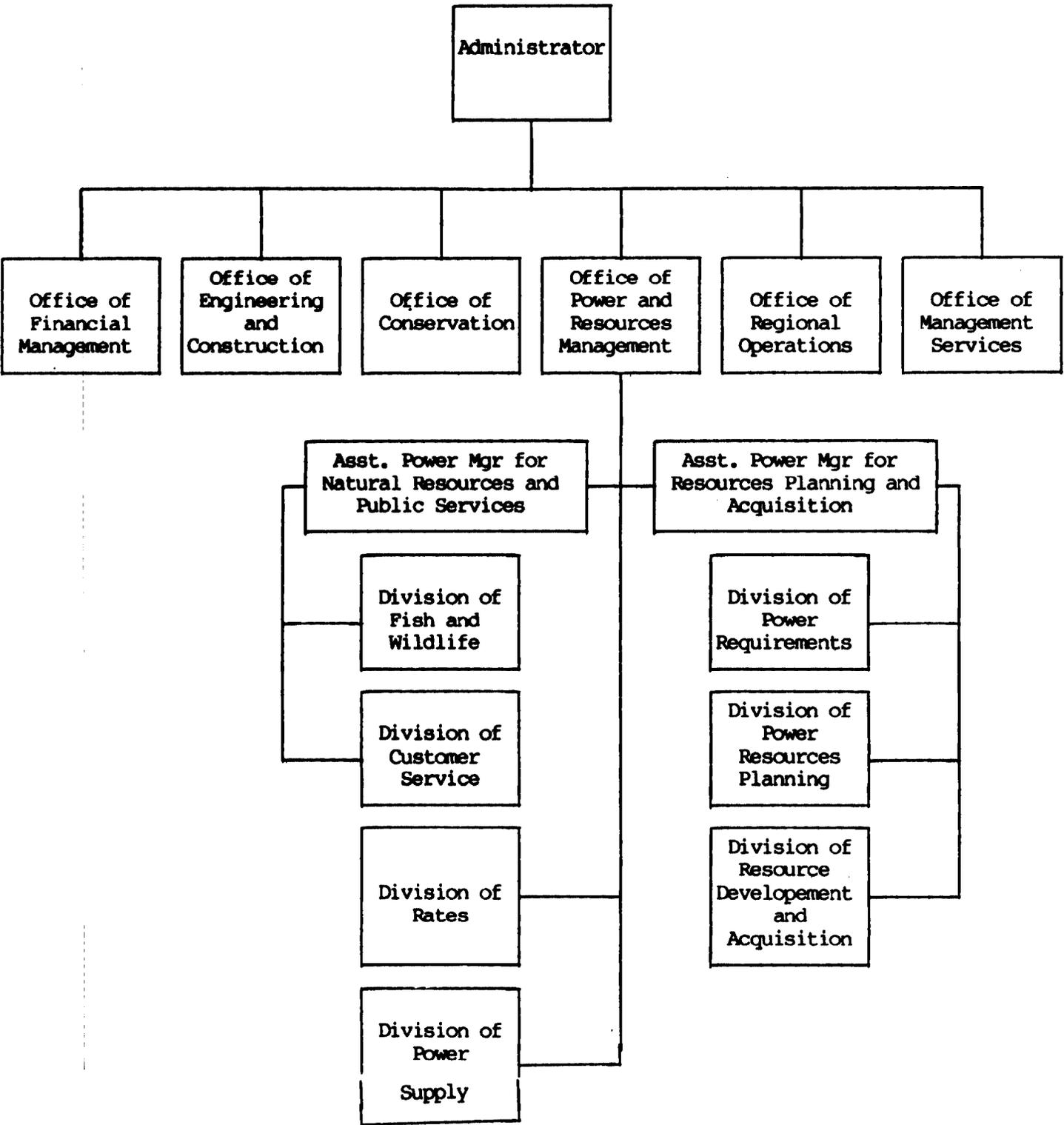


Table 2 illustrates Bonneville's increase in staff size and funding for fish and wildlife activities since fiscal year 1980. The reason funding has substantially increased since fiscal year 1983 while staffing has remained constant is that Bonneville is now concentrating on capital construction projects.

Table 2

Bonneville's Funding and Staffing
for Fish and Wildlife Activities

	Actual				Budgeted	
	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85</u>
Funding level (millions)	\$1.4	\$2.3	\$ 4.1	\$ 8.2	\$ 20.7	\$27.1
Staff on board	3	3	15	20	21 ^a	(b)

^aAs of May 1984, but an additional five positions are authorized.

^bProjected staff levels not available at this time.

Bonneville's conservation program is discussed in the following section. Because Bonneville's fish and wildlife and conservation programs vary in size, content, and purpose, we did not attempt to determine whether one program was being favored over the other. However, we did obtain similar information on organization, staffing, and funding.

Bonneville's energy
conservation program

The Northwest Power Act increased Bonneville's energy conservation role from one which emphasized demonstration projects to one which gives the agency major conservation responsibilities. The act defines conservation as any reduction in electrical power consumption as a result of increases in the efficiency of energy use, production, or distribution.

The Northwest Power Act directs that conservation will be Bonneville's first priority when resource alternatives for energy production are being considered. The act specifies that conservation resources may include such things as loans and grants to consumers for insulation or weatherization and technical and financial assistance to encourage voluntary conservation.

Bonneville's organization, staffing,
and funding for conservation

Before July 1980, a section within (what is now) the Office of Power and Resources Management carried out Bonneville's conservation efforts. In July 1980 the section was elevated to a

branch, in 1981 it became a division, and in February 1982 it was taken out of the Office of Power Management and again elevated to become the Office of Conservation. (See organizational chart on page 13.)

Table 3 contains information from Bonneville budget and staffing documents and shows that Bonneville conservation funding and staffing increased annually between fiscal years 1980 and 1983. Bonneville's fiscal year 1985 budget explains that because recent electricity forecasts predict an energy surplus in the region, conservation funding has recently declined. Staffing levels have remained relatively unchanged, however, because Bonneville is still obligated, under its power plan, to develop conservation programs for future application.

Table 3

Bonneville's Funding and Staffing
for Conservation for Fiscal Years 1980-84

	<u>Actual</u>			<u>Budgeted</u>		
	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85</u>
Funding level (millions)	\$1.8	\$6.7	\$64.7	\$223.8	\$164.4	\$177.7
Staff on board	32	50	60	86	90 ^a	(b)

^aAs of February 29, 1984.

^bProjected staff levels not available at this time.

Bonneville's funding for some projects
has lagged behind expectations

Bonneville has taken steps to implement the Council's program, but some state, federal, and tribal officials have, at various times, raised concerns that Bonneville's funding of certain projects has been slower than it should have been. Their comments, summarized below, concern funding in four areas: (1) studies, investigations, research, miscellaneous restoration activities, and habitat improvement projects; (2) a program goals study; (3) projects in Oregon's Umatilla Basin; and (4) projects in Washington's Yakima Basin. In some cases, discussions with, and actions or commitments by Bonneville officials have somewhat decreased the degree of the concerns, but if future actions do not occur, the concerns could surface again.

Studies, investigations, research,
and miscellaneous activities

Bonneville budgeted \$13.8 million in fiscal year 1984 for studies, investigations, research, miscellaneous restoration activities, and habitat improvement projects. Of this amount,

about \$11 million was to continue projects begun in previous fiscal years, and \$2.8 million was for new work. By the end of February 1984, about \$3.9 million had been obligated--about \$100,000 of this amount was for new projects. State fish and wildlife officials raised questions regarding the slowness in which funds were being obligated. Bonneville's assistant power manager for natural resources and public services predicted, however, that the "majority" of budgeted funds would be obligated by the end of the fiscal year.

Program goals study

The Council's program proposes a study to help determine and establish program anadromous fish goals. These goals could then be used to measure the program's progress. The study, according to the Program, would determine (among other things)

- past, present, and potential anadromous fish production levels;
- areas and stocks (fish type) of emphasis;
- a sequence and priority of action for program measures; and
- the extent and success of past mitigation and enhancement efforts.

The program requires Bonneville to fund the study and gives the fish and wildlife agencies and tribes responsibility for completing it by April 1984. In June 1983 the agencies and tribes submitted a proposal to Bonneville for a goals study methodology and design. In December 1983, after several months of negotiations, Bonneville's assistant power manager for natural resources and public services wrote to the Council stating that the agencies' and tribes' proposal was unacceptable for several reasons including the following: (1) study costs were not reasonable, (2) individual development of component parts might not produce a timely and cohesive product, and (3) participating tribes and agencies will be advocating specific goals and objectives that may not be consistent with ratepayer interests. This letter also proposed six alternative approaches to the study. Near the completion of our review, an official in Bonneville's Fish and Wildlife Division informed us that the design portion of the study is expected to be completed by August 1, 1984, and no start or completion date had been set for the study phase.

Umatilla Basin

The Council's program contains several projects that could restore numerous fish to the Umatilla Basin. Fish and wildlife agencies and tribes requested priority completion of two Basin

projects--an acclimation pond² and a hatchery--because these measures would quickly result in more fish. Although Bonneville has funded, and apparently will continue to fund, certain Umatilla projects, it was reluctant to fund the pond and hatchery until a comprehensive study on the Basin was completed. In February 1984, after more than a year of discussions, a compromise was reached in which Bonneville agreed to fund the acclimation pond and a feasibility study on the proposed hatchery and the State of Oregon agreed to supply fish for the acclimation pond. Bonneville will also fund a comprehensive study to develop an overall basin plan, expected to be completed in 1985.

Yakima Basin

The Council's program proposed measures for 19 projects in Washington's Yakima Basin to compensate for irreversible past and ongoing fish losses on the Columbia River. The Council considers Yakima the highest priority basin in its program and has directed Bonneville to oversee project implementation. The Yakima river and its tributaries--which historically had large fish runs--is considered to have the greatest potential in the Columbia Basin for improving anadromous fish populations. Some Yakima projects involve dams operated by the Department of the Army's Corps of Engineers and the Department of the Interior's Bureau of Reclamation.

In December 1983 Bonneville developed a plan proposing the source of funds and the scheduling for 19 Yakima projects. Since that time, Bonneville, the Bureau, the Corps, and the Council have been working to refine the projects' timetables. However, congressional action is required to (1) authorize the Bureau to design, construct, operate, and maintain fish facilities within the Yakima Basin, and (2) authorize approximately \$12 million for the Bureau to plan, design, and construct fish facilities. In addition, because the proposal calls for Bonneville to provide a portion of the construction funds, legislation was introduced in early 1983 and in February 1984 (H.R. 653 and S. 1027) to authorize Bonneville to transfer funds to the Bureau, and to allow the Bureau to accept the funds from Bonneville. Neither bill had been enacted at the completion of our review.

Neither the Fish and Wildlife Division nor the Office of Conservation has its own attorney. The Office of General Counsel handles legal matters and attorneys are assigned to the Fish and Wildlife and Conservation Divisions as specialists; that is, legal work is handled primarily by one designated attorney in

²Young fish are reared in an acclimation pond that contains water from the stream in which they will be released. This is necessary so that when they return as adults they will return to this stream and not the hatchery.

each specialty. Others with knowledge in the specialty area support the designated attorney. To date, fish and wildlife work has not occupied an attorney full time, although workload in that area has rapidly increased. The workload in conservation has also increased. As of February 29, 1984, the General Counsel's office had 22 full-time attorneys and the authority to hire 9 more. This hiring is planned to be completed in early summer 1984, and one of the new attorneys will be responsible for fish and wildlife matters.

We could not determine whether Bonneville's staff is sufficient to adequately fulfill the agency's fish and wildlife responsibilities under the Northwest Power Act. The Director of the Fish and Wildlife Division conducted an analysis of the division's staffing needs in October 1983 and concluded that staff levels should increase from 21 to 38 to meet Bonneville's responsibilities under the act. Bonneville management concluded that an increase of this magnitude was not necessary and, although it authorized 5 additional positions, Bonneville had no plans to add the other 12 positions as of May 1984.

In November 1981 congressional testimony, we said that Bonneville's organization did not reflect the purposes of the Northwest Power Act. We recommended that the Department of Energy--with advice from Bonneville, the Council, and the region's ratepayers--examine and adjust Bonneville's organization, programs, and staffing to ensure its consistency with the act. Earlier, in April 1981, we had written a letter to the Department of Energy suggesting that it, in conjunction with Bonneville, comprehensively examine Bonneville's organization and thoroughly study organizational alternatives, program options, priorities, and funding levels. In June 1983 congressional testimony, we again endorsed a comprehensive organizational and staffing study. As of May 31, 1984, this study had not been performed.

Bonneville has not conducted such a study because it believes it has made--and will make--incremental organizational changes to accomplish the same results. Without such a study, we are not in a position to judge how many fish and wildlife staff members are required or what their skill, experience, and education levels should be.

QUESTION 4

"Please examine the current level of Bonneville funding for both mitigation and enhancement, including the extent to which the funding projects are meaningful, significant, and new. I am particularly concerned that you examine Bonneville's recent rate case, including the background thereof, concerning Bonneville's efforts to utilize rates for funding fish and wildlife activities, with particular attention paid to Bonneville's discussions with utilities to gain their consensus. Also, please examine the impact of section 4(h)(10)(B), particularly the \$1 million limit, on fish and wildlife. I understand that Bonneville plans to use that provision for several capital projects."

CHANGING FOCUS OF BONNEVILLE'S
FISH AND WILDLIFE ACTIVITIES

For the first 2 years after the Congress passed the Northwest Power Act (1981-82) Bonneville's fish and wildlife efforts totaled about \$6 million and were mostly limited to research and study measures. After the Council published its program in November 1982, Bonneville increased its focus on capital construction projects to enhance fish and wildlife as well as to lessen the affects of the dams on them. In fiscal years 1981-82, Bonneville did not fund any capital construction projects for fish and wildlife. In fiscal year 1985, it expects to spend about \$3.7 million for major facility construction, or about 14 percent of its \$25.7 million fish and wildlife budget. (Additional information on Bonneville funding is included in app. VI.)

Some examples of Bonneville projects that may be considered "meaningful, significant, and new" are the water budget, the Yakima River Basin project, and the Lake Pend Oreille Hatchery:

- The water budget may be the most innovative part of the program; implementing it will bring about a significant change in Columbia Basin dam operations. (See footnote 1 on p. 2 of letter.) The water budget requires that water be released for fish migration during what is normally the reservoir's "refill" season--when power managers would rather store water to produce electricity later in the year. Bonneville estimates that the water released for the water budget may cost \$60 million annually in lost power sales revenue. (See app. III.)
- The Council's program proposes measures for 19 projects in Washington's Yakima Basin to compensate for irreversible past and ongoing fish losses in the Columbia Basin. The Council considers Yakima the highest priority basin in its program and has directed Bonneville to oversee project implementation. The Yakima River and its tributaries--which historically had large fish runs--is considered to

have the greatest potential in the Columbia Basin for improving anadromous fish populations. Bonneville estimated that it will fund about \$13.5 million of the total estimated construction costs of \$33.5 million. Some of the projects involve Department of the Interior, Bureau of Reclamation dams and the Bureau will pay most of the remaining construction costs. Congressional action to authorize Bureau funding for these projects was pending at the completion of our review.

--According to Bonneville's Director of the Fish and Wildlife Division, the Lake Pend Oreille Hatchery in Idaho may not have been approved without the Northwest Power Act. This planned project is unique because it involves the voluntary coordination of Bonneville, a private utility, and a state agency. Bonneville is negotiating an agreement in which Bonneville and the Washington Water Power Company, a private utility, will share the project's total construction cost, estimated at \$2 million to \$2.4 million. Also, the Idaho Department of Fish and Game will fund operation and maintenance.

USING POWER RATES TO FUND FISH AND WILDLIFE

The Pacific Northwest electric ratepayers will fund most of the measures recommended in the Council's program. As such, Bonneville must decide what measures it will undertake and include sufficient amounts in its power rates to pay for the measures. As Bonneville develops its power rates, the public and interested parties can comment on the adequacy of the level of funding Bonneville anticipates to carry out its fish and wildlife responsibilities.

Bonneville's rate hearing process is a quasi-judicial proceeding at which testimony is taken on rate issues; no attempt is made to develop a consensus or reach an agreement among the participants. The executive director of the Pacific Northwest Utilities Conference Committee (see app. III, p. 2) agreed that Bonneville had asked for comments on the Committee's fish and wildlife activities but did not try to build a consensus.

While no consensus building was done with utilities during Bonneville's rate development process, Bonneville, in its public involvement process, did seek the views of utilities as well as fish and wildlife agencies and the general public on the fish and wildlife activities to be funded and the priorities of these activities before the ratesetting process began.

Bonneville will derive about \$5 billion from increased rates for the 20-month period from November 1983 to June 1985. About \$40 million of the increased rates was based upon estimated costs for fish and wildlife activities. In addition, Bonneville has

requested congressional authority to borrow \$2 million from the Treasury for fish and wildlife activities.

NEED FOR CONGRESSIONAL APPROVAL
OF PROJECTS OVER \$1 MILLION

The Northwest Power Act (section 4(h)(10)(B)) requires that Bonneville obtain congressional approval for capital construction projects that are estimated to cost \$1 million or more and have an expected life longer than 15 years. Bonneville's attorney for fish and wildlife said that this requirement should not delay project construction, provided Bonneville seeks timely congressional approval.

To comply with this requirement for fiscal year 1985, Bonneville is requesting congressional approval for the following five facilities for the fish and wildlife program.

--Three projects in the Yakima River Basin:

--The first project will replace the fish passage facilities and screens at the Wapato Diversion Dam. Bonneville expects to fund about \$4 million of the total \$5.7 million cost. The Bureau of Indian Affairs will fund the remaining cost.

--The second project will replace the fish passage facilities and screening devices at the Sunnyside Dam. Bonneville plans to fund the total \$4 million cost.

--The third project will construct fish passage facilities and screens at the Toppenish Creek/Satus Unit. Bonneville expects to fund the total \$1.6 million cost.

--The Three Mile Dam fish passage improvement project for the Umatilla River in Oregon. This project involves modifying a dam to improve fish passage. Bonneville expects to fund the total estimated cost of \$1.5 to \$2 million.

--The Lake Pend Oreille project in Idaho. This project involves constructing a hatchery for resident landlocked kokanee salmon. Bonneville expects to fund about one-half of the estimated total of \$2 million to \$2.4 million cost.

QUESTION 5

"What is the current level of Bonneville funding for fish and wildlife programs? How does this compare with past levels? What does Bonneville propose for future funding? What is the focus of the program measures Bonneville has proposed to fund; i.e., research, capital construction, etc.?"

BONNEVILLE FUNDING FOR
FISH AND WILDLIFE ACTIVITIES

As shown in table 4, Bonneville's funding of fish and wildlife activities has increased since 1981--the first year following passage of the act. Table 4 also shows that the focus of Bonneville's fish and wildlife efforts has changed. In fiscal year 1981 nearly 96 percent of Bonneville's fish and wildlife funds were devoted to studies, investigations, research, and miscellaneous restoration measures. Funds obligated in fiscal years 1982-83 and the estimated obligations for fiscal years 1984-85 show a steady decline in this percentage. Bonneville estimates that by the end of fiscal year 1985 less than 48 percent of the funds will be obligated for these activities. Additionally, the table indicates that, while nearly all activity elements show continuous actual or projected growth, the operations and monitoring, capital projects, and habitat improvement activities are growing faster than the studies, investigations, research, and miscellaneous restoration activities.

Table 4

Funds Obligated for Bonneville's
Fish and Wildlife Activities for Fiscal Years 1981-85^a

<u>Activity</u>	<u>Actual</u>			<u>Budgeted</u>	
	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>	<u>FY 84</u>	<u>FY 85^b</u>
	----- (millions) -----				
Studies, investigations, research, and miscel- laneous restoration	\$2.2	\$3.8	\$6.3	\$11.1	\$12.1
Operation and monitoring	0.1	0.2	0.5	2.9	2.4
Passage improvements:					
Yakima Basin	-	-	-	2.0	1.8
Other locations	-	-	0.5	1.6	1.9
Habitat improvements	-	0.2	0.9	2.7	6.6
Fish propagation and other facilities	<u>-</u>	<u>-</u>	<u>.1</u>	<u>0.4</u>	<u>0.9</u>
Total	<u>\$2.3</u>	<u>\$4.2</u>	<u>\$8.3</u>	<u>\$20.7</u>	<u>\$25.7</u>

^aData supplied by Bonneville.

^bAt the completion of our review, Bonneville was revising its 1985 budget to request about \$5 million more for fish and wildlife activities, most of which is planned for projects in the Yakima Basin.

QUESTION 6

Determine the funding status of the Columbia River Fisheries Development Program (Mitchell Act) and identify significant funding reductions of major Columbia River fish and wildlife activities by federal and state agencies as a result of the Council's Fish and Wildlife Program.

BACKGROUND

The Mitchell Act (16 U.S.C. 755) was passed in May 1938 to conserve, develop, and enhance anadromous fish resources that had been depleted by water resource developments. In 1946 the Congress amended the act to permit transfers of federal funds to the states for specific projects.

The Columbia River Fisheries Development Program is one measure established to implement the Mitchell Act. The Fisheries Program was started in 1949 and is administered by the National Marine Fisheries Service (Department of Commerce) in cooperation with the U.S. Fish and Wildlife Service (Department of the Interior) and the fish and wildlife agencies of Idaho, Oregon, and Washington.

Between 1949 and 1982, over \$128 million was spent on the Fisheries Program to

- build 22 hatcheries,
- open nearly 2,000 miles of previously inaccessible spawning and rearing habitat,
- screen more than 600 irrigation diversions to prevent fish from straying into irrigation ditches, and
- finance research.

PROPOSED CHANGES IN
MITCHELL ACT FUNDING

The administration's proposed 1985 budget for the National Marine Fisheries Service excluded funding for Mitchell Act activities (primarily hatchery operation and maintenance). According to the budget document, since Pacific Northwest residents and economies are the primary beneficiaries of these activities, Bonneville should assume responsibility for funding the activities and the costs should be included as a factor when Bonneville establishes its electricity rates. According to the Council, transferring responsibility for funding Mitchell Act activities to Bonneville would be inconsistent with the Northwest Power Act because the act requires that Bonneville expenditures for fish and wildlife "be in addition to, not in lieu of, expenditures authorized or required from other entities under other agreements or provisions of law."

On March 7, 1984, a bill was introduced in the Congress (H.R. 5052) to transfer funding responsibility for operating and maintaining Mitchell Act hatcheries from the National Marine Fisheries Service to Bonneville. At the completion of our review, no action had been taken on this bill. In the meantime, both the House and Senate Appropriations Committees voted to put the necessary funds back into the National Marine Fisheries Service's budget for fiscal year 1985.

State fish and wildlife expenditures

We found no evidence that the Council's fish and wildlife program has resulted in any significant funding reductions of major Columbia River Basin fish and wildlife activities by state agencies. A comparison of state-supplied expenditure data for fiscal years 1980 through 1984 is shown in table 5. Agency officials revealed that state funding for Basin fish and wildlife activities has increased in Idaho, Montana, and Oregon, and has remained fairly constant in Washington since the Congress passed the Northwest Power Act.

Table 5

State Funding Levels for Columbia River Basin
Fish and Wildlife Activities^a

<u>State</u>	<u>State fiscal year</u>				
	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984 (est.)</u>
	----- (thousands) -----				
Washington	\$ 876	\$1,442	\$1,291	\$1,258	\$1,429
Oregon (fish only)	3,177	3,372	3,758	3,766	4,098
Idaho	3,092	3,531	5,031	5,053	5,659
Montana	178	164	190	231	300

^aThese amounts do not include federally provided funds.

Federal fish and wildlife expenditures

The Corps of Engineers and the Bureau of Reclamation have constructed the dams in the Columbia River Basin and are responsible for maintaining them. These organizations have traditionally spent funds on fish passage facilities as well as transporting fish around dams. Although table 6 shows a decline in basin fish and wildlife expenditures by the Bureau and fluctuations for the Corps since the passage of the Northwest Power Act, officials for these agencies attributed declines to factors other than the Council's program. A Corps' official informed us that the Corps has a policy of not accepting Bonneville funds for work at its projects; therefore, it has no incentive to cut back its own funding merely to obtain Bonneville funds. The

fluctuation between years in Corps expenditures, this official informed us, is due to varying expenditures levels for different projects. According to a Bureau official, fish and wildlife expenditures have decreased because the Bureau in fiscal year 1981 stopped using condemnation procedures as a means of acquiring basin fish and wildlife property and, under the current "willing-seller" approach, the Bureau has been unable to acquire as much land.

Table 6

Federal Agency Funding for
Columbia River Basin Fish and Wildlife

<u>Federal agency</u>	<u>Fiscal year</u>				1984
	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>(est.)</u>
	----- (millions) -----				
Corps of Engineers	\$37.1	\$53.3	\$44.8	\$40.1	\$49.3
Bureau of Reclamation	0.8	0.9	1.0	0.9	0.6
National Marine Fisheries Service	6.2	7.0	8.0	9.5	9.6



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

May 2, 1984

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-214960

Keith Colbo, Chairman
Northwest Power Planning Council
700 Southwest Taylor
Portland, Oregon 97205

Dear Mr. Colbo:

Subject: Matters for consideration when the Columbia River
Basin Fish and Wildlife Program is revised (005300)

The Pacific Northwest Electric Power Planning and Conservation Act (16 U.S.C. 839) (Northwest Power Act) was enacted on December 5, 1980. The act created the Pacific Northwest Electric Power and Conservation Planning Council (Council). As you know, section 4(h)(1a) requires the Council to develop and adopt a fish and wildlife program (Program) to protect, mitigate, and enhance Columbia River Basin (Basin) fish and wildlife affected by the Basin's hydroelectric dams. We conducted a review to assess the Council's compliance with section 4(h) of the Northwest Power Act. We assessed neither the technical or legal adequacy of the Council's Program measures, nor their costs and benefits.

Our review showed that the Council developed its Program according to the procedures and standards specified in the Northwest Power Act. During the Program development process, the Council obtained and considered recommendations made by federal and state fish and wildlife agencies, tribes, and others to protect, mitigate, and enhance fish and wildlife; provided for public participation and comments on the recommendations; and based its Program measures on recommendations received. A discussion of Program development procedures and standards is contained in enclosure II.

The Council and its staff, after consultation with numerous parties, developed a fish and wildlife Program within the time-frame prescribed in the Northwest Power Act. However, the Program's development, in itself, will not assure protection, mitigation, and enhancement of the Basin's fish and wildlife. Program success will depend upon the degree to which the Program is accepted and implemented by federal and state agencies, Indian tribes, and other groups.

During our review we spoke with several of these agencies and groups. Overall, they were satisfied with the process used to develop the Council's Program, but they did express some concerns they believed may need to be addressed to effectively implement the Program. Concerns identified include (1) Program management

coordination, (2) sources of Program funding, (3) competing purposes for water, and (4) nonhydroelectric causes of fish and wildlife declines. While we did not review these concerns in sufficient detail to offer specific recommendations, we are bringing them to your attention for consideration as you revise the current Program. Information on the objective, scope, and methodology used for this review is contained in enclosure I.

PROGRAM MANAGEMENT COORDINATION

Responsibilities for past Basin fish and wildlife mitigation efforts have been fragmented among various agencies. Concern that these efforts had been uncoordinated and not fully satisfactory led to the Northwest Power Act provisions to develop a comprehensive fish and wildlife Program. Compliance with the act's provisions and implementation of the program's protection, enhancement, and mitigation measures will require coordination among many diverse organizations. In addition to the Council, these organizations include: 5 federal agencies with hydroelectric power responsibilities, 7 federal and state fish and wildlife agencies, 4 state water management agencies, 12 Indian tribes, and a number of private and public power utilities.

The need for coordination is even greater now since the Council's Program calls for more than 200 primary measures to be implemented over several years and many measures involve further planning in their implementation. The consensus of fish and wildlife, and federal operating and regulatory agency officials interviewed, was that coordinating efforts among all parties and monitoring the progress of each measure, are especially important for efficient Program implementation.

The Northwest Power Act assigns specific duties and responsibilities and grants the Council authority to act as a focal point for Program development. The Northwest Power Act, however, is not as explicit or definitive about a focal point with responsibility for coordinating Program implementation. Because of its legislated responsibilities for coordinating Program development, monitoring Program implementation, and periodically reporting on Program effectiveness, we believe the Council is a logical focal point for coordinating Program implementation.

FUNDING SOURCES

Reaching agreement among the numerous Program participants about who will assume financial responsibility for a specific Program measure may well be one of the most difficult Program development tasks. However, it may also be one of the most important prerequisites to successful Program implementation.

The Northwest Power Act states that the Bonneville Power Administration (Bonneville) will fund Program measures to protect, mitigate, and enhance Basin fish and wildlife but that

Bonneville's funds will be in addition to, and not in lieu of, other funding from other entities. This means that Bonneville's funds cannot be used to displace funds (1) traditionally spent by other entities for on-going activities or (2) required under other agreements or provisions of law. However, the Council's present Program:

- does not recognize all pre-Program projects or measures and does not differentiate between Program and pre-Program measures to help ensure that Bonneville funds do not displace ongoing activities,
- does not identify funding sources for some of the Program's measures,
- specifies Bonneville funding of some measures traditionally funded by other agencies, and
- provides that the Council and agencies involved may select whichever funding sources are "most expeditious."

Ultimately, the success of Program implementation will depend heavily upon how well participants accept joint or individual responsibility for funding each Program measure. The Council may need to identify funding sources and reach consensus with financial sponsors as to their appropriate participation.

COMPETING PURPOSES FOR WATER

The multi-purpose nature of the dams may, at times, present conflicting goals because many parties with diverse interests compete for the same water. Early in our review a particular concern expressed by a number of federal hydroelectric project operators was the Program's requirement to increase April-June water flows to enhance the downstream fish migration ("water budget"). The concern expressed was that the water budget could adversely affect U.S. Army Corps of Engineers (Corps) flood control operations and Department of the Interior, Bureau of Reclamation (Bureau) irrigation requirements which are congressionally authorized project purposes.

For example, Corps flood control operations could be affected because storing water to meet the water budget flow requirements for fish may, in some cases, preempt reservoir storage capacity normally reserved for containing floodwater runoff. Also, water released for the water budget may in some cases, be needed to fulfill Bureau irrigation contracts.

The Council recognized these problems during Program development but chose, at that time, to deal with them during Program implementation. It encouraged the Corps to reexamine its flood control requirement to ensure a proper balance among the multiple purposes of its projects. These analyses have not yet been completed and the concerns have not been resolved during Program

implementation. It is estimated that the Corps' study will be completed in the late spring of 1985. This study should be useful as the Council amends its Program to address the multi-purpose nature of the dams.

NONHYDROELECTRIC CAUSES OF
FISH AND WILDLIFE DECLINES

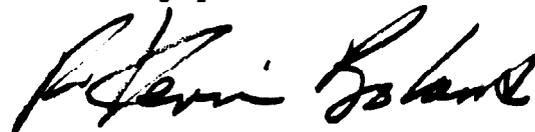
The Columbia River Basin fish and wildlife resources have been adversely affected by nonhydroelectric activities such as ocean fishing, logging, mining, grazing, and agriculture. A fish and wildlife sponsored study shows, for example, that overfishing in the ocean has been a major cause of the depleted Basin fish populations.

The Council's Program recognizes that nonhydroelectric factors, especially ocean and river harvest practices, have caused fish declines. The Program contains two measures which promotes consistency between the Program and harvest management plans and activities: first, that the Council will consult regularly with ocean and river fish harvest management entities; and second, that Council support for funding certain fish propagation facilities will be withheld unless adequate controls are placed on ocean and river harvests. The Program contains no other measures for fish harvesting, logging, agriculture, or other non-power activities and, as of February 1984, the Council had not entered or sponsored any coordination agreements with parties about implementing "additional measures." Several parties expressed concern that nonhydroelectric activities could adversely impact on fish and wildlife and counteract the positive effects of Program measures.

- - - -

We hope this information will be useful to the Council as it proceeds with its Program amendment process. Thank you for the courtesy and cooperation extended to our staff during this review.

Sincerely yours,



F. Kevin Boland
Senior Associate Director

Enclosures

OBJECTIVES, SCOPE, AND METHODOLOGY

We conducted this review to assess the status of Council compliance with the Northwest Power Act's section 4(h) requirement to develop and adopt a fish and wildlife program dealing with the adverse impacts of the Columbia River Basin's (Basin) hydroelectric facilities. One specific objective was to determine whether the Council complied with the act's procedural requirements in developing the Program. Another objective was to describe the Council's actions to comply with the Act's standards for developing Program measures. We assessed neither the technical or legal adequacy of the Council's Program measures, nor their costs and benefits.

We reviewed records supporting the Council's Program, including the recommendations for Program measures and supporting documents submitted by the Basin's federal and state fish and wildlife agencies and Indian tribes; files of correspondence between the Council, the fish and wildlife interests, the owners, operators, and regulators of the Basin's hydroelectric projects, public interest groups, and private parties; records of Council hearings held to obtain agency and public input on the Council's Program plans; official comments of the various agencies and other affected interests submitted on the Council's draft Program; consultant reports; legislative history files on section 4(h); project authorization and regulation documents; and news releases.

In addition to meetings with Council representatives, we conducted interviews to provide a broad perspective of the concerns of various interests in the Basin. We interviewed numerous persons representing fish and wildlife interests. These were usually officials of the organizations who had supplied recommendations, studies, consultation services, or other information that section 4(h) required the Council to obtain and consider for Program preparation purposes. We conducted another series of interviews with hydroelectric power interests. Interviewees included officials of the federal agencies and representatives of public and private power interests who generate, transmit, or market power in the Basin. The officials we interviewed were generally recommended by other knowledgeable sources as those most familiar with the subject.

PROCEDURES AND STANDARDS FOR DEVELOPING THE
NORTHWEST POWER ACT FISH AND WILDLIFE PROGRAM

PROCEDURES FOR NORTHWEST
POWER ACT COMPLIANCE

Procedures were specified in section 4(h) of the Northwest Power Act for the Council to develop a fish and wildlife program (Program). According to the procedures, the Council was to: request recommendations and supporting data from federal and the region's state fish and wildlife agencies and appropriate Indian tribes on measures to protect and enhance fish and wildlife, provide notice of and make available recommendations and supporting data to appropriate agencies and Indian tribes, provide for public participation and comments on the recommendations and supporting data, and base the Program on the recommendations, supporting data, and comments received.

During the Program's development, the Council

- considered more than 400 recommendations submitted by fish and wildlife agencies, Indian tribal representatives, and other entities;
- conferred with more than 50 agencies and organizations in the Program consultation process;
- distributed more than 2,300 copies of the draft Program document to various individuals and organizations for comment;
- conducted public hearings in the four affected States (Idaho, Montana, Oregon, and Washington); and
- reviewed comments received from about 600 individuals and organizations in response to the draft Program document.

STANDARDS FOR PROGRAM MEASURES

Besides procedures, the Northwest Power Act also prescribes a number of standards for Program measures. Program measures are to complement existing and future activities of federal and the regions state fish and wildlife agencies and appropriate Indian tribes. They are also to be based on and supported by the best available scientific data for restoring anadromous fish, employ the least costly but equally effective alternative, be consistent with the Indian tribes' legal fishing rights and the Northwest Power Act's purposes, provide for improved anadromous fish survival at hydroelectric facilities and provide increased river flows to improve anadromous fish production, migration, and survival.

The Council's Program has more than 200 primary measures designed to "protect, mitigate, and enhance" the Columbia River

Basin's fish and wildlife resources adversely affected by hydroelectric projects. The Council actions to comply with the act's standards include:

- obtaining information about ongoing fish and wildlife activities from federal and state agencies and Indian tribes,
- hiring consultants, reviewing existing studies, and recommending additional studies to obtain "the best available scientific knowledge",
- providing an amendment process to substitute less costly but equally effective measures when they are identified, and
- developing measures for fish bypass facilities at dams to improve survival rates for migrating fish.

JOHN D. DINGELL, MICH. CHAIRMAN

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CHIEF COUNSEL/STAFF DIRECTOR

U.S. House of Representatives
Subcommittee on Oversight and Investigations
of the
Committee on Energy and Commerce
Washington, D.C. 20515

September 19, 1983

Honorable Charles A. Bowsher
Comptroller General
General Accounting Office
441 G Street, N. W.
Washington, D. C. 20548

Dear Mr. Bowsher:

As you know, the Pacific Northwest Electric Power Planning and Conservation Act of 1980 created the Pacific Northwest Electric Power and Conservation Planning Council to prepare a regional electric power and conservation plan. One of the main components of the plan is the Federal Wildlife Program for the Columbia River Basin. The purpose of the Program is to protect, mitigate and enhance fish and wildlife resources adversely affected by the Columbia River Basin's hydroelectric facilities, while assuring the region an adequate, efficient, economical, and reliable power supply.

The Council adopted its Fish and Wildlife Program on November 15, 1982, and has begun to implement it. Implementation responsibilities fall on many agencies, but the Bonneville Power Administration (BPA) must provide funds to finance the Fish and Wildlife Program.

As you know, I have always been interested in the impact that hydroelectric facilities have on fish and wildlife in the Pacific Northwest. In 1979, in response to my request, GAO found that a major factor contributing to the decline of Columbia and Snake River fish runs was a failure to adequately mitigate the adverse effects of dams constructed and operated by Federal agencies and electric utilities. GAO recommended that the bill, which led to the Pacific Northwest Electric Power Planning and Conservation Act, be amended to require certain actions for restoring the Columbia River Basin salmon and steelhead fishing. Subsequently, at the Committee's request, GAO testified on legislation proposed to include the Fish and Wildlife Program in the Act. In order to keep abreast of the progress being made on implementation of the Program, I request that the GAO examine the Council's plan and implementation, with particular attention paid to BPA's efforts in implementing the plan and carrying out the law.

Honorable Charles A. Bowsler
September 19, 1983
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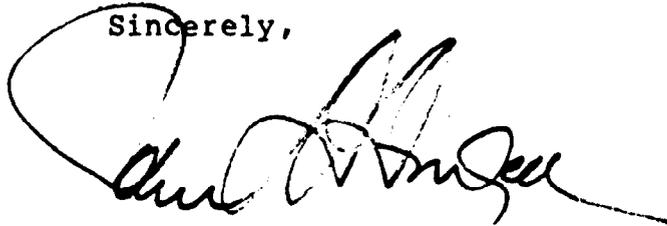
I request that the GAO review several aspects of Program implementation, including funding and staffing and cost-related criticisms. I realize that GAO is currently conducting some work for me on the Fish and Wildlife Program, and I particularly request that GAO focus on the following:

1. How has the Council funded and staffed its fish and wildlife related activities? Is that funding and staffing adequate, both quantitatively and qualitatively?
2. Explain the significant cost-related criticisms or concerns which the Pacific Northwest Utilities Conference Committee raised about the water budget in commenting on the Council's draft. In addition, explain the Council's response to those criticisms or concerns. Are the criticisms valid?
3. Please examine carefully the actions taken and planned by the BPA to implement the fish and wildlife provisions of the Act. In this regard, please examine the staffing and organization at BPA concerning fish and wildlife, including those requiring the input of BPA lawyers. In examining this staffing, please compare it with BPA's conservation effort.
4. Please examine the current level of BPA funding for both mitigation and enhancement, including the extent to which the funding projects are meaningful, significant, and new. I am particularly concerned that you examine BPA's recent rate case, including the background thereof, concerning BPA's efforts to utilize rates for funding fish and wildlife activities, with particular attention paid to BPA's discussions with utilities to gain their consensus. Also please examine the impact of section 4(a)(10)(B), particularly the \$1 million limit, on fish and wildlife. I understand that the BPA plans to use that provision for several capital projects.
5. What is the current level of BPA funding for fish and wildlife programs? How does this compare with past levels? What does BPA propose for future funding? What is the focus of the program measures BPA has proposed to fund, i.e., research, capital construction, etc.?
6. Determine the funding status of the Columbia River Fisheries Development Program (Mitchell Act) and identify significant funding reductions of major Columbia River fish and wildlife activities by Federal and State agencies as a result of the Council's Fish and Wildlife Program.

Honorable Charles A. Bowsher
September 19, 1983
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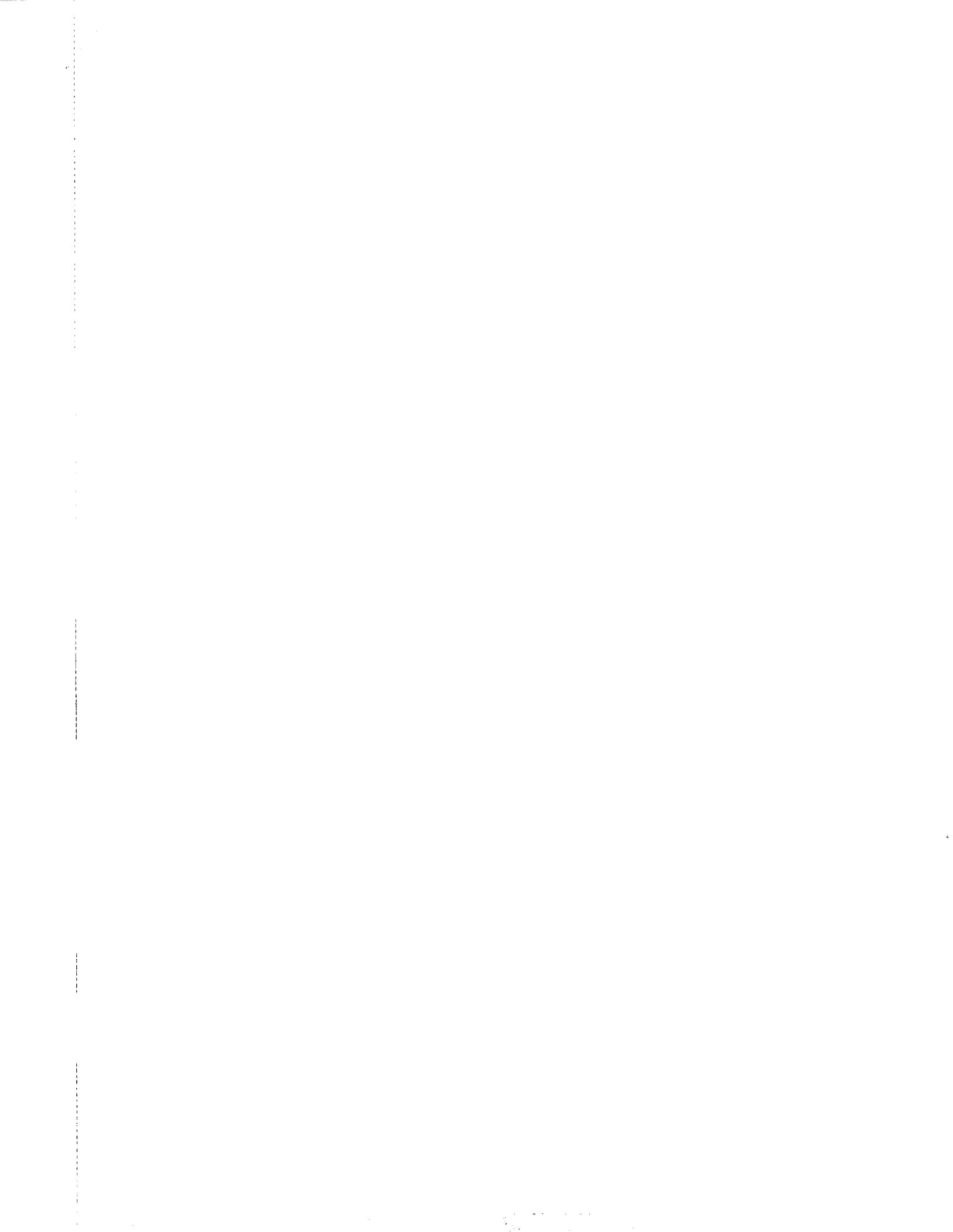
As always, please keep my staff informed of progress and do not submit your report or your conclusions and recommendations to BPA for review.

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Dingell". The signature is fluid and cursive, with a large initial "J" and "D".

JOHN D. DINGELL
Chairman
Subcommittee on Oversight
and Investigations

(005318)



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