

Draft
Fiscal Year 2005
ANNUAL REPORT

to Congress and
Citizens of the Pacific Northwest

October 1, 2004 - September 30, 2005



**25th ANNUAL REPORT
of the
Northwest Power and Conservation Council**

For the period October 1, 2004, through September 30, 2005

Submitted to the

*Committee on Energy and Natural Resources
United States Senate*

*Committee on Energy and Commerce
United States House of Representatives*

and

*Committee on Resources
United States House of Representatives*

**851 S.W. Sixth Avenue
Suite 1100
Portland, Oregon 97204
503-222-5161
Toll Free: 800-452-5161
www.nwcouncil.org**

The Northwest Power and Conservation Council was established pursuant to the Northwest Power Act of 1980 (Public Law 96-501) by the states of Idaho, Montana, Oregon and Washington. The Act authorized the Council to serve as a comprehensive planning agency for energy policy and fish and wildlife policy in the Columbia River Basin, and to inform the public about energy and fish and wildlife issues and involve the public in decision-making.

This annual report has been developed pursuant to Section 4(h)(12)(A) of the Northwest Power Act. The Council's bylaws, which include its organizational structure, practices and procedures, are available to the public at the Council's website: www.nwcouncil.org.

Melinda S. Eden
Chair
Oregon

Joan M. Dukes
Oregon

Frank L. Cassidy Jr.
"Larry"
Washington

Tom Karier
Washington



Jim Kempton
Vice-Chair
Idaho

Judi Danielson
Idaho

Bruce A. Measure
Montana

Rhonda Whiting
Montana

September 2005

To Congress and the citizens of the Pacific Northwest:

Fiscal Year 2005 was a year of major accomplishments for the Northwest Power and Conservation Council. The Council revised its Northwest Power Plan, the fifth complete revision since the Council was created, adopted 58 locally developed subbasin plans that will guide future implementation of the Columbia River Basin Fish and Wildlife Program and submitted recommendations to Congress on future operations of federally funded fish hatcheries in the Columbia basin.

The Fifth Northwest Power Plan will help the Bonneville Power Administration and the region's electric utilities and state utility commissions develop strategies to meet the region's electricity needs at the lowest cost with acceptable risk. The power plan also provides insights into the resolution of some of the key issues affecting the power industry, such as what constitutes an adequate and reliable power supply and transmission system, identifying the means of sustaining investment in cost-effective energy conservation and renewable resources, and determining how to maintain a reliable power supply while also effectively and efficiently recovering fish and wildlife.

Subbasin plans identify priority restoration and protection strategies for habitat and fish and wildlife populations in the Columbia River Basin. The plans will guide the future implementation of the Council's fish and wildlife program, which directs more than \$140 million per year of Bonneville electricity revenues to protect, mitigate and enhance fish and wildlife affected by hydropower generation.

The Council's recommendations regarding fish hatcheries respond to a request from Congress and are the culmination of a thorough review of hatchery policies and operations. This year the Council also participated in Bonneville's Power Function Review and the Regional Dialogue on the future of Bonneville in power supply.

The Council provides Northwest citizens an opportunity unique in the nation to participate in and influence decision-making regarding the region's electricity supply and Columbia River Basin fish and wildlife. I am pleased to present this annual report, which provides an overview of the Council's work in Fiscal Year 2005.

Melinda S. Eden
Chair, 2005

THE NORTHWEST POWER AND CONSERVATION COUNCIL.....	5
POWER PLANNING.....	7
THE FIFTH NORTHWEST ELECTRIC POWER AND CONSERVATION PLAN	7
ENERGY CONSERVATION	9
<i>Regional conservation achievements.....</i>	9
COUNCIL RECOMMENDATIONS REGARDING THE BONNEVILLE POWER ADMINISTRATION	10
<i>The Power Function Review.....</i>	10
<i>The “Regional Dialogue” on the future role of Bonneville in power supply.....</i>	13
<i>Market-based rates and debt limitation.....</i>	17
TRANSMISSION ISSUES.....	19
POWER SYSTEM SUPPLY AND RELIABILITY ANALYSES	21
FISH AND WILDLIFE PLANNING.....	24
COLUMBIA RIVER BASIN FISH AND WILDLIFE PROGRAM.....	24
<i>Subbasin plans adopted to guide future program implementation</i>	24
<i>Biological objectives: The next step from subbasin plans</i>	25
<i>Developing a Columbia River Basin research plan, improving data management.....</i>	27
<i>Project funding issues: 2006 and beyond.....</i>	28
RECOMMENDATIONS ON THE FUTURE ROLE OF FISH HATCHERIES.....	29
LITIGATION OVER THE 2004 BIOLOGICAL OPINION ON HYDROPOWER OPERATIONS.....	34
INDEPENDENT SCIENTIFIC REVIEW OF SALMON HARVEST ISSUES	36
ANNUAL REPORT ON FISH AND WILDLIFE EXPENDITURES OF THE BONNEVILLE POWER ADMINISTRATION.....	38
NEW MEMBERS APPOINTED TO SCIENTIFIC REVIEW PANELS.....	39
PUBLIC AFFAIRS AND PUBLIC INFORMATION.....	41
INFORMING AND INVOLVING THE PUBLIC	41
CANADIAN RELATIONS	42
ADMINISTRATION.....	44
COUNCIL BUDGET.....	44
COUNCIL BUDGET FORMULATION.....	44
MORE INFORMATION	47
COMMENTS OF THE BONNEVILLE POWER ADMINISTRATION.....	48
COUNCIL MEMBERS (2005) AND OFFICES	49

The Northwest Power and Conservation Council

The Council, known until 2003 as the Northwest Power Planning Council, is an agency of the states of Idaho, Montana, Oregon and Washington and was created as an interstate compact agency by the legislatures of the four states consistent with the Pacific Northwest Electric Power Planning and Conservation Act of 1980. The Council's first meeting was in April 1981.

The Northwest Power Act gives the Council three distinct responsibilities: 1) to assure the region an adequate, efficient, economical and reliable electric power supply; 2) to prepare a program to protect, mitigate and enhance fish and wildlife, and related spawning grounds and habitat, of the Columbia River Basin that have been affected by the development and operation of any hydroelectric project on the Columbia River and its tributaries; and 3) to inform the Pacific Northwest public about energy and fish and wildlife issues and involve the public in decision-making. This annual report is organized around the Council's three key responsibilities.

The Power Act created a special relationship between the Council and the federal agencies that operate and sell the electricity generated at dams in the Columbia River Basin. The Administrator of the Bonneville Power Administration, the federal power marketing agency that sells the output of the Federal Columbia River Power System (a system of 31 federal dams and one non-federal nuclear power plant) is required to make decisions in a manner consistent with the Council's Northwest Power Plan and its Columbia River Basin Fish and Wildlife Program. Other federal agencies with responsibilities for dams (the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation and Federal Energy Regulatory Commission) are required to take the Council's power plan and fish and wildlife program into account at every relevant stage of decisionmaking to the fullest extent practicable.

To put it simply, it is the Council's legal responsibility to determine how the Columbia basin hydrosystem has adversely affected fish and wildlife, to develop and oversee a program to address those effects through protection and mitigation recommendations that the federal agencies operating the system have legal responsibilities to implement or take into account; and to do all of this in a highly public manner.

There are eight Council members, two from each state, appointed by the governors. A list of Council members and their office locations is at the end of this report.

In January 2003, the Council voted to change its name to emphasize the conservation aspect of its energy and fish and wildlife responsibilities. While “conservation” in the Northwest Power Act specifically refers to energy conservation, the concept of conserving natural resources is embodied in the Council’s Columbia River Basin Fish and Wildlife Program in terms of enhancing, or conserving, fish, wildlife and habitat of the Columbia River Basin that have been affected by hydropower dams.

The Council’s headquarters is in Portland. Council member offices are located in Boise, Idaho; Portland and Milton-Freewater, Oregon; Helena, Montana; and Vancouver and Spokane, Washington.

Power Planning

The Fifth Northwest Electric Power and Conservation Plan

In December 2004 the Council approved the latest version of its Northwest Power Plan, the fifth plan since the Council was created in 1980. The new plan, developed in the years following the West Coast energy crisis of 2000/2001, focuses on ways to help the region's utilities and electricity consumers take steps in the future to reduce the impacts of the shortages and high prices that characterized the energy crisis.

The primary message of the power plan is a familiar one from the Council: continued and expanded energy conservation is the primary component of a low-cost and low-risk resource strategy to meet our future demand for electricity. According to the plan, the Northwest can meet almost half of the predicted growth in demand for power over the next 20 years through low-cost energy conservation -- using electricity more efficiently. Over the long run, this low-cost and low-risk strategy also calls for significant amounts of new wind generation to meet much of the remaining regional electricity needs. In the near term, the plan calls for securing 700 average megawatts of conservation between 2005 and 2009 -- a modest increase over what the region secured in the previous five years.

The plan is based on a state-of-the-art analysis of the risks and costs of different strategies to meet future demand for electricity. Under the Northwest Power Act, the plan aims specifically at the Bonneville Power Administration, but the plan also provides guidance to the region's electric utilities, state regulatory agencies and even to electricity consumers.

Here are the key elements of the plan:

1) Develop resources now that can reduce cost and risk to the region

- Develop 700 average megawatts of conservation between 2005 and 2009, and a total of 2,500 megawatts over the next 20 years, which is the statutory length of the Council's energy-planning horizon. The present conservation potential exists in a variety of electrical devices, but primarily it is in lights, motors, and heating and cooling systems.
- Develop 500 megawatts of demand response between 2005 and 2009. Through demand response, utility customers agree to reduce their electricity usage during power-supply shortages in return for some form of compensation.
- Secure cost-effective cogeneration and renewable energy projects. Complete wind power plants that are under construction or planned for construction, and then evaluate the

success of these plants for several years before building more wind plants. In addition to the wind generation already committed for the region, the plan foresees the possibility of up to 5,000 additional megawatts of wind turbine capacity by 2025.

2) Prepare to construct additional resources

- Develop and maintain an inventory of ready-to-construct power plants. This includes an inventory that, if needed, could bring on line 1,500 additional megawatts of wind turbine capacity by 2013 and 425 megawatts of coal gasification combined cycle capacity by 2016. Pre-construction activities, such as siting and licensing, to build this inventory should begin around 2009.
- Resolve uncertainties associated with large-scale wind development.
- Encourage the use of state-of-the-art generating technology when siting and permitting projects.
- Plan for needed transmission and work toward better integration of resource and transmission planning.
- Improve utilization of available transmission capacity.

3) Confirm the availability and cost of additional resources that promise cost and risk mitigation benefits

- Continue to explore clean coal technology -- coal gasification with carbon sequestration in efficient, low polluting, gasified coal power plants. Construction could begin as early as 2012. New natural gas-fired power plants probably are far in the future. Because a number of new power plants fueled by natural gas were constructed in the Northwest in the years following the 2000/2001 energy crisis, and because the price of natural gas is volatile and difficult to predict, the Council does not include new gas-fired plants as part of its low-cost, low-risk resource strategy until late in the 20-year planning period.
- Continue to monitor oil sands cogeneration in northern Alberta for possible power imports to the Northwest in the future.
- Explore energy-storage technologies.
- Demonstrate renewable and high efficiency generation with Northwest potential.

4) Establish the policy framework to ensure the ability to develop needed resources

- Carry out a process to establish adequacy standards for the Northwest and the rest of the Western system.

- Work through the Grid West Regional Representatives Group process to address emerging transmission issues by the end of 2005. If necessary, pursue alternative approaches to resolve issues. The Council's view of Grid West and the Transmission Issues Group (TIG) is discussed elsewhere in this annual report.
- Revise the role of the Bonneville Power Administration in power supply, consistent with the Council's May 2004 recommendations (these are reiterated in a separate section of this report).

5) Monitor key indicators that could signal changes in plans

- Periodically report on the regional load-resource situation and indicate whether there is a need to accelerate or slow resource development activities.
- Monitor conservation development and be prepared to intensify efforts or develop alternative resources, if necessary.
- Monitor efforts to resolve uncertainties regarding the cost and availability of wind generation, and prepare to develop alternatives, if necessary.
- Monitor climate change science and policy for developments that would affect resource choices.
- Prepare a biennial monitoring report and revise elements of the power plan as necessary.
- Monitor progress in implementing the changes recommended for Bonneville's future role in power supply.

Energy conservation

Regional conservation achievements

In 2005 the Council surveyed electric utilities, Bonneville and conservation entities and reported on conservation achievements in the region. The survey results showed that since 1978 the region has achieved about 2,925 megawatts of conservation. Expressed as electricity, that is more than enough power for two cities the size of Seattle. Not only is that a significant savings, but the per-megawatt cost of the savings has declined over time, making the expenditures increasingly cost-effective for the electric utility system.

Every ratepayer dollar spent today on energy conservation is buying more than twice as much energy-use efficiency as did investments in the early 1990s, according to the report. From an average cost of \$3.93 million per average megawatt in first-year costs in 1991, the cost in

2004 was \$1.60 million per average megawatt (an average megawatt is one million watts supplied continuously for one year, or enough to light 10,000 100-watt bulbs for that period.).

At more than \$1 million per average megawatt, the first-year cost for conservation measures is higher than first-year costs for new electricity generating plants. However, a conservation investment typically is paid all at once rather than capitalized, or paid over time, as is typical for generating plants. Put another way, while the first-year cost of conservation is high the cost in subsequent years is zero. Leveled over the useful life of the investment, costs of conservation to ratepayers are less than half the cost of new generating plants.

According to the survey, as the efficiency of investments improved over time so did the amount of conservation acquired in the Northwest. The largest share of the conservation achieved to date, 1,635 megawatts, was acquired through energy-efficiency programs funded by the Bonneville Power Administration and regional electric utilities. In 2004, Bonneville and the utilities spent \$179 million on conservation. Federal standards (546 megawatts) and state energy codes (560 megawatts) also contributed significant savings. And since 2000, the ratepayer-funded efforts of the Northwest Energy Efficiency Alliance have improved the efficiency of new appliances, machinery and lighting and reduced energy demand by 185 megawatts in the region.

The Council's survey includes: 1) information provided voluntarily by 48 Northwest utilities, 2) calculations of reduced power consumption attributable to energy codes and standards, and 3) estimates of reduced power demand attributable to sales of energy-efficient appliances and machinery. Collectively the 48 reporting utilities represent 59 percent of the utilities participating in the Conservation and Renewable Energy Discount program offered by Bonneville.

Survey results are posted on the website of the Regional Technical Forum, which the Council hosts at this location: www.nwcouncil.org/energy/rtf

Council recommendations regarding the Bonneville Power Administration

The Power Function Review

In the Power Function Review conducted in 2004 and 2005, Bonneville laid out its initial assumptions regarding the costs it will recover from ratepayers during its next rate period, Fiscal Years 2007-2009. Bonneville's assumptions and proposals for expenditures for fish and wildlife mitigation and energy conservation are of particular importance to the Council.

During a public comment period on the draft Power Function Review in the spring of 2005, the Council expressed concern about Bonneville's proposals for conservation acquisition and fish and wildlife mitigation. Bonneville planned to finalize the Review before the end of Fiscal Year 2005.

In its comments on the draft review, the Council expressed concern that Bonneville did not plan sufficient funding to achieve its share of the conservation targets in the Fifth Northwest Power Plan. The per-megawatt cost for conservation acquisition proposed by Bonneville is about 30 percent lower than the cost of conservation Bonneville acquired in the recent past.

During the period 2001 through 2004, Bonneville accomplished 166 average megawatts of conservation at an average cost of \$1.7 million per first-year average megawatt (this amount is adjusted to 2008 dollars -- the midpoint of the next rate period). There was exceptional focus on conservation between 2001 and 2004 as a result of the Western electricity crisis. In its Power Function Review, Bonneville proposed to achieve 156 average megawatts during the 2007 through 2009 period at an average cost of \$1.44 million per first-year average megawatt (2008 dollars). This represents a nearly 20-percent improvement compared to Bonneville's historic cost per average megawatt -- without the added impetus of an electricity crisis. The Council questioned whether this amount would be sufficient for Bonneville to acquire its share of the 700-average-megawatt 2005-2009 regional conservation acquisition target. Accordingly, the Council asked Bonneville to reconsider its conservation funding and to develop a contingency plan if the conservation is not acquired as anticipated. The Council also asked Bonneville to document its success in acquiring conservation before setting rates for the 2010-2011 rate period.

Meanwhile, the Council commented that Bonneville's budget proposal in the Power Function Review for fish and wildlife mitigation, like the conservation spending proposal, is unrealistically low. The Council believes the fish and wildlife budget proposal is based on overly aggressive assumptions of cost savings and, in this case, cost transfers. For example, Bonneville proposed to reduce research, monitoring and evaluation costs in order to finance all implementation of subbasin plans and also continue the current three-year delay in wildlife mitigation. As well, Bonneville based its cost calculations on an inequitably low inflation factor. Together, these factors contribute to a proposed spending level that would undermine the ability of the region to perform the necessary work.

In the Power Function Review, Bonneville proposed to spend \$143 million per year on fish and wildlife mitigation during the 2007-2009 rate case period. However, because of the

assumptions used by Bonneville to support that proposal, the Council does not believe \$143 million would be sufficient. Given Bonneville's assumptions for program implementation, the Council recommended that the rate case begin with an annual expense budget averaging \$161 million. The project-selection process for 2007-2009 (the process is discussed in more detail in the Fish and Wildlife section of this report) will provide the opportunity to test Bonneville's assumptions about implementation costs. If the assumptions prove correct, the budget could be reduced. If those assumptions prove incorrect, Bonneville still would be able to support the fundamental work of the program without interruption.

The Council believes the following issues are key to fish and wildlife program implementation during the 2007-2009 rate period:

- The level of research, monitoring and evaluation expected to be required, taking into account (a) the requirements of Endangered Species Act biological opinions for the hydropower system (here we include those requirements in the 2004 Biological Opinion on Hydropower Operations, which was remanded to NOAA Fisheries in 2005 as the result of litigation); (b) monitoring established as conditions of project implementation, and (c) increasing demands from customers to document the accomplishments of the program
- The ability to implement the wildlife mitigation measures of the program under Bonneville's capitalization policy
- The ability to dedicate funding to the implementation of priority habitat restoration and protection strategies identified in the subbasin plans
- The effect of inflation on personnel, material and energy costs

With these issues in mind, the Power Function Review proposed to account for almost the entire contribution to the implementation of subbasin plans by reducing research, monitoring and evaluation significantly and managing the effects of inflation well below current economic forecasts. By doing so, Bonneville would place at serious risk implementation of subbasin plans and the wildlife component of the program. If Bonneville's assumptions about managing inflation and reducing monitoring costs are wrong, the habitat portion of the program will suffer.

In 2005 the Council completed the adoption of 58 subbasin plans after a \$14 million investment by Bonneville in those plans. The plans are being used by NOAA Fisheries and the State of Washington as the foundation of Endangered Species Act recovery plans, and NOAA is encouraging the use of subbasin plans to complete recovery planning elsewhere. The Council

does not expect Bonneville to fund every action identified in every subbasin plan. Rather, the plans serve to focus priorities from other funding sources in concert with Bonneville's offsite mitigation obligations under the Northwest Power Act.

While the Power Function Review suggests that additional processes are necessary to assign funding responsibilities to other private, local, state and federal entities, the Council believes this should not be a reason to delay implementing subbasin plans or to reduce expenditures in other areas in order to fund implementation.

The Council also commented that the wildlife portion of the fish and wildlife program has largely been put on hold in the current rate case by Bonneville's financial management policy. Ironically, though, this is the section of the program with the clearest assignment of responsibility to Bonneville and the most direct measures for mitigation. Instead of using available capital borrowing authority, Bonneville's policy determinations during its 2003 financial crisis required that interests in land for wildlife mitigation be funded from the expense portion of the budget instead of from the capital portion. Bonneville significantly underspent its capital funding commitment in the current rate case, and the wildlife program was not implemented as planned because the expense portion of Bonneville's budget had been fully committed. In the Power Function Review Bonneville proposed to continue its capital borrowing policy, which limits access for wildlife projects, and not increase the expense budget. The Council believes that in order to fulfill its commitment to spend 70 percent of the program budget for anadromous fish, 15 percent for resident fish and 15 percent for wildlife, a commitment that Bonneville endorses, Bonneville should maintain the flexibility to use capital funding for wildlife acquisitions that cost less than \$1 million.

The "Regional Dialogue" on the future role of Bonneville in power supply

Over the past several years, Bonneville has faced periods of instability that have threatened its financial well being and that of its customers; hampered its ability to meet its obligations, including those to the U.S. Treasury; impeded the development of needed new resources; and damaged the economy of the Northwest. The conclusion reached in several public processes in recent years is that these problems have their roots in the ways in which Bonneville has carried out its role in meeting power needs and the uncertainties that creates with respect to resource development and load-serving obligations.

This led to proposals for changes in Bonneville's role in power supply. The financial crisis precipitated by the West Coast electricity crisis of 2000/2001 focused renewed attention on

Bonneville's role. In 2004 the region's governors asked the Council to work with Bonneville and interests in the region to resolve this issue. In response the Council consulted with a number of interests in the region and convened a broadly representative steering committee to help address the key questions. At the same time Bonneville conducted a policy process to define the agency's future role as well as address a number of issues for the period remaining on its current power sales contracts.

Most Bonneville customers' contracts do not expire until 2011. Nonetheless, there is little time to resolve issues and implement solutions. Commitments to new resource development will have to be made in the latter part of this decade. If uncertainty regarding how Bonneville will carry out its role in power supply persists, needed resource development could be impeded. The Council urged Bonneville to establish a schedule for making decisions about its longer-term role that will permit it to offer new contracts by October 2007. While the new contracts need not be effective until 2011, having new contracts in place by 2007 will provide Bonneville and its customers certainty to undertake needed resource actions. Bonneville planned to release a concept paper on its future role in the fall of 2005 and then empanel groups of experts to study policy implications of the proposals in the concept paper. After revising the paper in response to the experts' comments, Bonneville planned to conduct a public review and comment period in early 2006 and, following any further revisions of the proposal and policies, issue a formal Record of Decision on its future role by mid-2006.

Here is a synopsis of the Council's 2005 recommendations for Bonneville's future role:
Fundamentally change Bonneville's role in power supply

Bonneville should sell electricity from the existing Federal Columbia River Power System to eligible customers at its cost. Customers that request more power than Bonneville can provide from the existing federal system would pay the additional cost of providing that service. This change would clarify who would exercise responsibility for resource development; it would result in an equitable distribution of the costs of growth; and it would prevent the value of the existing federal system from being diluted by the higher costs of new resources. This change in role ultimately should be implemented through long-term (preferably 20-year) contracts and compatible rate structures.

Define a clear and durable policy framework for contracts and rate-making

The Council is concerned that the policy process Bonneville has undertaken will not provide the durability necessary to meet expectations for long-term contract negotiations and

associated rate processes, and the region's expectations for conservation and renewable resource development. To improve the durability of the policy, it must include clear identification of the priority issues that are to be resolved, the process by which they will be addressed, and an aggressive schedule for doing so. That schedule should result in offering new long-term contracts by October 2007.

Utilize long-term contracts for power sales

Only long-term contracts will provide the certainty, continuity, and durability that customers need to make long-term resource commitments; the stability that Bonneville needs to be able to ensure Treasury repayment; and the protection the region needs to ensure exclusive regional control of the Federal Columbia River Power System, one of its most significant assets.

Allocate the existing federal power system among eligible customers

Fundamental to implementing changes in Bonneville's role in power supply is allocating the power from the existing federal system among eligible customers. Any allocation should be done in such a way as to minimize opportunities for gaming the process.

Utilize tiered rates to distinguish between the federal system and additional resources

Tiered rates would demonstrate Bonneville's commitment to a new role in power supply.¹ If Bonneville defines its role as the Council recommends, and if critical issues are resolved in a timeframe consistent with the schedule established by Bonneville in the Regional Dialogue; and if new contracts are negotiated and offered by October 2007; then the Council would not press for tiered rates under the current contracts for the next rate period. However, the Council reserves the right to reconsider this recommendation if those conditions are not met.

Continue to offer the current range of power products

Customers should have access to all power products that currently are available, such as requirements, block and slice products. Importantly, the costs of each product should be confined to the purchasers of that product. Every effort should be made to eliminate cross-subsidies among products. In the process of negotiating new contracts, customers should have the opportunity to choose the products that best meet their needs.

Limit the amount and term of power sales to Direct Service Industries (DSIs)

If power is to be made available to DSIs, the amount and term should be limited; the cost impact on other customers should be minimized; and Bonneville should retain rights to interrupt

¹ In this context, tiered rates mean a rate structure in which the rate charged for the first tier reflects the cost of the resources in the existing federal power system and the rate charged for the second tier reflects the cost of resources

service for purposes of maintaining power system stability and addressing temporary power supply inadequacy.

Negotiate a settlement of power exchange benefits with investor-owned utilities

The Northwest Power Act established a mechanism for sharing benefits of access to low-cost federal power, but that mechanism is out of date and a settlement is needed. A settlement could be provided in the form of power or dollars. The Council believes that providing the benefits in the form of power is more risky for Bonneville and could make the question of future allocation of power more difficult.

The Council continues to believe that however Bonneville treats the satisfaction of its exchange obligations for other accounting or financial reporting purposes, these benefits are appropriately included in the firm sales forecast called for under section 4(c)10(A) of the Act. The Council believes a settlement must provide certainty, it must be transparent, and it must not be subject to manipulation. The proposed settlement that collapsed in early 2004 contained these elements and was supported by nearly all of Bonneville's Northwest customers. The Council believes this could be the template for a long-term settlement.

Fulfill responsibilities for conservation and renewables

The Council expects Bonneville and the region's utilities to continue to acquire the cost-effective conservation and renewable resources identified in the Council's power plans. Bonneville should employ mechanisms similar to the current Conservation and Renewables Discount (C&RD) program and provide essential support activities to encourage and facilitate utility action. Bonneville's role could be substantially reduced to the extent that customers can meet these objectives. But if necessary, Bonneville must be prepared to use the full extent of its authorities to ensure that the cost-effective conservation and renewable resources identified in the Council's power plan are achieved on all its customers' loads.

Establish regional power adequacy standards before negotiating long-term contracts

Even without changes in the way Bonneville carries out its role in power supply, the issue of resource adequacy, and the possible need for an adequacy standard or target to ensure that adequate power supplies are maintained, has been a major concern of the Council and others in the region. The Council is committed to working with Bonneville, utilities, the states, regulatory commissions, and other regional and West-wide organizations to ensure that appropriate adequacy policies are in place and that the data and other tools to implement the policies are

available. The Council believes these policies need to be in place before Bonneville implements long-term contracts for power supply in the next rate period.

Fulfill responsibilities for fish and wildlife mitigation

The Council believes its recommendations would not affect Bonneville's fish and wildlife mitigation obligations. Those obligations will continue to be determined in a manner consistent with the requirements of the Act and the Council's Columbia River Basin Fish and Wildlife Program. Bonneville's mitigation costs should continue to be allocated to the existing federal power system.

Market-based rates and debt limitation

The President's Fiscal Year 2006 budget, released for public review in January 2005, included two major provisions pertaining to Bonneville. One would have required Bonneville and the other federal power marketing administrations to gradually increase their cost-based power rates to match rates in the competitive wholesale market, and the other would have required Bonneville to include third-party debt in its federal Treasury debt-limit calculations. The Council opposed both proposals.

According to an analysis by the Council, Bonneville's rates would increase an average of 39 percent and cost the Northwest region an additional \$1.7 billion if it were forced to sell at market rates. There also would be a corresponding \$1.3 billion decrease in regionwide personal income as consumers spend less on other goods and services, a \$300 million, or greater, decrease in federal and state personal tax receipts, and the potential loss of 13,000 jobs throughout the region, particularly in energy-intensive industries.

Meanwhile, the Administration also proposed to force Bonneville to increase the types of financial transactions that would be counted against its federal Treasury borrowing authority debt limit. Ironically, in addition to restricting Bonneville's access to capital and decreasing its ability to make system improvements, the change also could force Bonneville to raise its rates to help pay down existing debt in order to make room for new borrowing, according to a Council analysis of the proposal.

The Administration's proposal referred to "certain non-traditional financing transactions" that are "similar to debt-like transactions." The target apparently was debt issued by nonfederal parties and backed by Bonneville. Bonneville's existing third-party debt totals \$6.5 billion. The majority of it, \$6.1 billion, is the remaining debt for construction of three nuclear power plants in Washington state, only one of them completed, that began in the 1970s. Bonneville also has

used third-party debt to finance transmission lines, energy conservation and renewable power resources.

The \$6.5-billion third-party debt is the largest component of Bonneville's \$13.1 billion debt total. The other components are 1) \$2.9 billion in U.S. Treasury debt for capital projects, primarily for construction of the regional high-voltage transmission system, energy conservation, and construction projects related to fish and wildlife mitigation, and 2) \$3.7 billion in federal appropriations debt that is reimbursed, with interest, by Bonneville to the federal Treasury on long-term repayment schedules.

The Treasury debt, which comprises bonds issued by Bonneville to the U.S. Treasury, is intended to finance investments in the power and transmission system. This Treasury debt is limited by law to a total of \$4.45 billion. Federal appropriations, on the other hand, are funds that Congress provides to federal agencies, usually on an annual basis, that finance their operations. In this case, Congress appropriated funds to the U.S. Army Corps of Engineers and the Bureau of Reclamation to finance construction of the federal hydropower dams in the Columbia River Basin, and Bonneville is obligated to pay back most of that cost -- on average, 77 percent -- which represents the hydropower portion of the Congressionally authorized purposes of the multiple-purpose federal dams. This appropriated debt was refinanced in 1997 at then-current market interest rates of about 7 percent.

The apparent purpose of the Administration proposal was to include new third-party debt in the \$4.45 billion Treasury debt limit. Bonneville currently has \$2.9 billion of this Treasury debt outstanding, which reduces the available new debt to \$1.55 billion.

The available amount of borrowing authority also is affected by Bonneville's repayment schedule. Bonneville pays off a portion of its debt every year while also issuing new debt. Before the administration announced its intention, Bonneville planned to spend \$228 million per year between 2005 and 2010 to pay down its existing debt while issuing new debt of \$517 million per year. At this rate, Bonneville will reach its debt ceiling between 2009 and 2010. For the past several years, Bonneville has accelerated the repayment of its existing debt in order to create more room under the cap. Bonneville already has refinanced some of its third-party debt, and a total of \$1.1 billion of its Treasury debt has been retired early. The savings from refinancing are being used to pay down the bonded Treasury debt in order to make more room available under the debt cap. Bonneville has plans for early retirement of another \$461 million through 2012.

Perhaps in recognition of the fact that its proposal would squeeze Bonneville's debt limit, the Administration also proposed to add \$200 million to Bonneville's Treasury borrowing authority. But given Bonneville's current borrowing plans and repayment schedule, this would have added only one year to the date when the borrowing authority would be exhausted, according to the Council's analysis. Successful refinancing of existing debt could push the date to 2013, Bonneville has stated.

The practical effect of the Administration's proposal would have been to limit Bonneville's future investments and boost competition for increasingly scarce funding at a time when substantial investments are needed in the aging transmission system, in renewable resources and energy conservation, and in capital projects to mitigate the impacts of hydropower dams and improve fish and wildlife survival. According to the Council's analysis, if the administration were successful, Bonneville's access to capital would be restricted, capital would decline, and Bonneville might have to raise its rates in order to pay cash for some investments that otherwise would have been financed through borrowing.

The Council was concerned that under that scenario, investments that don't produce revenues for Bonneville, such as investments in projects to increase fish and wildlife survival, likely would have been the first cut. Needed investments in transmission and the hydropower system, which have been delayed in recent years, could have been delayed further, and that could have affected the reliability, adequacy and efficiency of the Northwest power supply and increased its cost in the future, according to the analysis.

Because of the potential for increased costs and economic impacts, plus slower progress in necessary investments in the power system and fish and wildlife mitigation, the Council protested the proposals in letters to the Administration and members of the Northwest Congressional delegation. We are pleased that neither proposal was included in the final budget document.

Transmission issues

Two ongoing public processes are investigating the future of high-voltage transmission in the Northwest. One focuses on creating a new transmission operating entity, Grid West, which would be regulated by the Federal Energy Regulatory Commission. The other is an as-yet unnamed proposal put forward as an alternative to Grid West by the Transmission Improvements Group (TIG). The TIG group favors restructuring the transmission system through multilateral contracts among transmission line owners rather than creating a new FERC-regulated entity.

While the Council is a member of the Grid West Regional Representatives Group, the Council has not committed to either proposal. Rather, the Council will support the proposal, or a combination of elements of the two proposals, that best responds to guidance regarding transmission in the Fifth Northwest Power Plan.

Proposals for restructuring operation of the regional transmission system have two primary objectives: (1) the security or reliability of the physical system; and (2) the economy of the system. The Council's interest in transmission stems from its charge under the Northwest Power Act to assure an adequate, efficient, economical and reliable power supply for the region. From an operational perspective, it is transmission system operators who are responsible for achieving an efficient, economical, and reliable power supply. Long-term resource adequacy and cost effectiveness no longer solely depend on plans developed by the Council and utilities but also, to a significant degree, on a well-functioning wholesale power market. The transmission system is integral to that market and is, therefore, an important focus for the Council. The region has suffered from the consequences of a poorly designed wholesale power market -- the high prices during the 2000-2001 energy crisis are an example -- and the Council does not want to see those experiences repeated.

In the Power Plan the Council includes a list developed by the Regional Representatives Group of Grid West of transmission problems and issues. The problems include:

- Difficulty in managing unscheduled electricity flows over transmission lines, leading to increased risks to electric system reliability
- Lack of clear responsibility and incentives for planning and implementing transmission system expansion, resulting in inadequate transmission capacity
- Inability to effectively monitor the wholesale electricity market, identify market power abuse or provide mitigation and accountability
- Difficulty in reconciling actual physical available transmission capacity with that available on a contractual basis, resulting in inefficient utilization of existing transmission and generation capacity
- Transaction and rate pancaking, i.e. contracting and paying for the fixed costs of multiple transmission segments on a volumetric basis to complete a power sale, resulting in inefficient utilization of generation; and

- Competitive advantage of control area operators over competing generation owners causing inefficient utilization of generation and a potential proliferation of control areas with greater operational complexity

In the Power Plan the Council makes the point that the region's transmission owners -- utilities and Bonneville -- need to address current problems in the management and operation of the regional transmission system. The Council is pleased that the Grid West regional representatives' process appears to be making progress, but if it or the proposal being developed by the TIG fail, the region will need to find some other comprehensive mechanism or mechanisms to address these problems. There are a number of decision points coming up in the next year in the RRG/Grid West process. If the Grid West process appears unlikely to be able to reach successful conclusion by the end of 2005, the Council is committed to seeking alternative solutions to the issues facing the region's transmission system. Many of the problems are larger in scope than a single transmission owner or control area and solutions are unlikely to be found by focusing on any single owner.

The role of Bonneville, which owns the majority of the region's high-voltage transmission, is key to the success of future transmission organization and management. Bonneville planned to make a decision in September 2005 about whether to participate in Grid West or TIG -- or neither process. Both Grid West and TIG are viable regional processes that are attempting to do what the Council asks in the power plan, and it seems appropriate to let the region continue the process of deciding how to proceed.

Power system supply and reliability analyses

The Council conducts periodic analyses of the regional power supply and reliability of the power system. Unusually mild and dry weather during the winter of 2004/2005 caused concern about the adequacy and reliability of the power supply, and in February the Council analyzed the system and reported publicly on the results.

The analysis showed that while snow pack and runoff forecasts for the Columbia River Basin were far below normal, except in British Columbia, the region did not face power shortages even though the hydropower supply was below normal. That was because the supply of electricity from other sources, primarily natural gas-fired power plants, is adequate -- if more expensive than hydropower.

At the time of the analysis, snow pack in British Columbia, where the Columbia River begins, was 90-100 percent of normal, but snow pack in northeastern Washington and northern Idaho was just 25-50 percent of normal. Spring rains helped boost the water supply, but the January-July runoff still was below normal -- 82.4 million acre-feet, measured at The Dalles Dam, or 77 percent of normal. In comparison, January-July runoff in the drought year of 2001 was just 58 million acre-feet, the second-lowest on record.

Largely as a result of the diminished hydropower supply in 2001 and the resulting high prices for electricity, new power plants were built in the Northwest. These plants added some 3,000 megawatts of new generating capacity to the regional power supply by the end of 2003. Thus, the region does not face a power shortage, but higher prices are possible as utilities turn increasingly to thermal supplies during periods of high demand.

The availability of hydropower and thermal power varies with constantly changing prices in the competitive wholesale marketplace. The additional supply that resulted from the high prices of the energy crisis largely is owned by independent power producers, and these companies operate their plants in response to market prices. Thus the supply can shrink or grow with changing prices -- high prices during periods of high demand can bring more generation on line, and low prices can lead to reduced supply as thermal plants become uneconomical to operate.

This was the situation for short periods during the summer of 2005, when the region was caught with reduced supply during periods of high temperatures and corresponding high demand for power. Ironically, during these periods the region had both a power surplus and a power shortage. An analysis by the Council showed how this could happen. The analysis pointed to four conditions that existed at the time and that could occur again in the future when demand for power spikes. Those conditions were:

- *Temporary supply reduction:* Because the surplus generating capacity primarily is at power plants owned by independent companies, as opposed to electric utilities, whether or not the plants are running affects the amount of the surplus, as does the amount of power that the independent power producers may be exporting out of the region. In the early summer of 2005, many of the independent plants were idle because wholesale power prices were too low for the plants to operate profitably.

- *Transmission congestion:* Congestion on the high-voltage transmission network can create isolated shortages and boost prices locally because less-expensive power cannot be imported from long distances.
- *Reduced hydropower capacity:* Water spills in the summer of 2005 at five of the federal dams on the lower Snake and Columbia rivers, ordered by U.S. District Court Judge James Redden to protect migrating salmon, effectively eliminated additional generating capacity at those dams. The U.S. Army Corps of Engineers, which operates the dams, and Bonneville responded by changing the operations of other dams and importing power from the Southwest during periods of high demand.

According to the Council, these factors combined to raise the likelihood of Northwest power shortages in the summer of 2005 to 4 percent (from zero before the court-ordered spill). That figure, however, is within the standard of 5 percent in the Council's recently adopted Fifth Northwest Power Plan.

Meanwhile, the Council is participating in a regional power system adequacy forum of utilities and Bonneville that is working to develop a regional adequacy standard, consistent with a recommendation in the power plan.

Fish and Wildlife planning

Columbia River Basin Fish and Wildlife Program

Subbasin plans adopted to guide future program implementation

In 2005 the Council completed one of the largest locally led watershed planning efforts of its kind in the United States, an effort that resulted in separate plans for 58 tributary watersheds or mainstem segments of the Columbia River. These subbasin plans were developed collaboratively by state and federal fish and wildlife agencies, Indian tribes, local planning groups, fish recovery boards, and Canadian entities where the plans address transboundary rivers. The planning effort was guided by the Council and funded by the Bonneville Power Administration.

The subbasin planning effort spanned two years of intense administrative process, including independent scientific review and public scrutiny of the plans. The plans were completed on time and under budget.

Subbasin plans identify priority restoration and protection strategies for habitat and fish and wildlife populations in the United States portion of the Columbia River system. The plans will guide the future implementation of the fish and wildlife program, which directs more than \$140 million per year of Bonneville electricity revenues to protect, mitigate and enhance fish and wildlife affected by hydropower dams.

Many types of projects implement the fish and wildlife program. These include improving and protecting habitat, improving fish passage at dams, rebuilding wild fish populations through the careful use of hatcheries, and researching factors that affect fish and wildlife survival.

Subbasin plans will provide the context in which proposed projects are reviewed for funding through the Council's program. Subbasin plans also integrate strategies and actions funded by others, thus ensuring that each plan serves the Council's purposes under the Northwest Power Act and also accounts for Endangered Species Act and Clean Water Act requirements, and other laws governing natural resource management, as fully as possible.

Locally developed and science-based, the plans will guide project funding to priority areas and activities. In general, the plans:

- Coordinate and focus projects at various geographic levels

- Guide Bonneville Power Administration investments
- Incorporate and provide direction for other state and federal planning and investments
- Serve as a basis for ESA recovery plans
- Provide a basis for a basinwide monitoring and evaluation plan

Each subbasin plan includes the following components:

- *A subbasin assessment* that describes historical and existing conditions, factors limiting fish and wildlife production, the biological potential of the subbasin and protection and restoration opportunities.
- *An inventory of existing activities* that describes current programs and projects that have been completed in the last five years, are underway or are planned. Together the inventory and assessment show where gaps exist.
- *A strategic plan* that describes the 10-15 year vision and biological objectives for the subbasin and strategies for achieving the biological objectives. This is the heart of each plan. Some plans include a three-year implementation strategy, detailing specific actions and measures needed for implementation.

Subbasin plans are posted on the Council's website, www.nwcouncil.org, and also are available on CD or in printed form by contacting the Council at 800-452-5161.

Biological objectives: The next step from subbasin plans

In 2005 the Council began working on the last step of revising the Columbia River Basin Fish and Wildlife Program, a process that began in December 2000 with a revision of the base policy document (Council Document 2000-19). Since then the Council has completed major tasks outlined in the 2000 Program, including amending the program with recommendations for operations of the mainstem Snake and Columbia River dams (the 2003 Mainstem Amendments, Council document 2003-11) and the separate amendments of subbasin plans into the program, as discussed in the previous section of this report.

The last step contemplated in the 2000 Program is to develop and adopt into the program biological objectives at the ecological province level. For purposes of subbasin planning, the Council divided the Columbia River Basin into 11 ecological provinces, or groups of geographically proximate subbasins. Figure 1 below shows the provinces and subbasins.



Map by Bonneville Power Administration Geographical Information System

Figure 1 Ecological provinces and the subbasins within the provinces.

In 2005 the Council and others including Indian tribes and state and federal fish and wildlife agencies began work on developing biological objectives at the ecological province level-- in essence, descriptions of what the region is trying to accomplish in the provinces and subbasins through the fish and wildlife program. Adopting into the program quantitative biological objectives for population performance and associated habitat improvements should provide:

- Benchmarks for measuring and evaluating fish and wildlife program performance
- A framework for a more efficient monitoring and evaluation program
- Insights and context to resource allocation decisions and broad policy decisions, such as policies for artificial production (the Council’s recommendations to Congress for the future of fish hatcheries and production programs are discussed elsewhere in this report)
- Guidance over time for necessary revisions of the other parts of the program, at the basin and subbasin levels

To help in defining biological objectives, the Council developed and employed a model, called the All-H Analyzer, which allows for the specific data, goals and objectives for fish and

wildlife expressed in subbasin plans and collected from regional databases and management plans to be integrated with hatchery, harvest, habitat and hydropower impacts (the “Four Hs”). In 2005 the Council scheduled a series of technical forums in several of the larger subbasins to demonstrate the use of the model and its outputs. These demonstrations provided starting points for developing quantified biological objectives for the fish and wildlife program in those subbasins. The Council planned to conduct similar workshops in other subbasins to assist in the verification of the data that has been collected and begin developing biological objectives.

The Council planned to call for recommendations to amend the program with biological objectives in early 2006 and complete the amendment later in the year.

Developing a Columbia River Basin research plan, improving data management

In 2005, the Council worked with partners including state and federal agencies and Indian tribes to develop a unified Columbia River Basin research plan under the Council’s fish and wildlife program. The Council believes that while hundreds of excellent projects have been completed through the program, including research that has substantially advanced the state of scientific understanding, key research needs in the Columbia River Basin remain unfocused for lack of a plan.

The draft research plan developed by the Council and its partners is intended to reduce uncertainty in fish and wildlife management by increasing scientifically based knowledge.

Objectives of the plan include:

- Identifying key uncertainties and research recommendations;
- Prioritizing major research topics;
- Accounting for annual expenditures of research funds;
- Involving fish and wildlife agencies, tribes, independent scientists and other interested parties in the region;
- Monitoring, evaluating and applying research results;
- Coordinating with research in the Council’s mainstem plan and subbasin plans; and
- Making information from the fish and wildlife program readily available.

While the plan is intended for policy and decision-makers responsible for natural resource management priorities, it also will be useful to researchers, planners and project sponsors. The draft plan recognizes other Columbia basin research plans as important components of a potentially integrated regional research program and provides a framework for

establishing linkages among existing research programs and initiatives. The draft plan includes recommendations for research funded through the Council's fish and wildlife program and also through collaboration with other entities.

The draft plan (Document 2004-13) and a review of the draft by the Independent Scientific Review Panel and the Independent Scientific Advisory Board (Document ISRP/ISAB 2005-13) are posted on the Council's website, www.nwcouncil.org.

Meanwhile in 2005 the Council continued its participation as a member of the Pacific Northwest Aquatic Monitoring Partnership (PNAMP). The purpose of PNAMP is to provide a forum for coordinating state, federal and tribal aquatic habitat and ESA-listed salmonid monitoring programs throughout the region. Support for regional coordination of aquatic monitoring comes from the governors of the Northwest states, Congressional oversight of recovery programs, federal Endangered Species Act Biological Opinions relevant to the region, and the ISRP and ISAB.

This year PNAMP took a major step by finalizing a charter, thus evolving from an ad-hoc technical group to a formal organization with a strategic plan and demonstrating the resolve of the partners to improve the collection and coordination of scientific data. Many state, federal and tribal entities -- 19 in all -- from Oregon, Washington and northern California signed the PNAMP charter. Together, the basinwide research plan and the improved data coordination provided by PNAMP will sharpen the focus of future scientific research on fish and wildlife and improve the effectiveness of recovery efforts in the Columbia basin.

Project funding issues: 2006 and beyond

Fiscal Year 2006 will be a transition year for projects funded by Bonneville to implement the Council's fish and wildlife program. Current funding for projects will end, and a new three-year project-funding cycle will begin in 2007.

In 2005, the Council worked with Bonneville to establish a target fish and wildlife spending level for Bonneville's next electricity rate period, 2007-2009. For 2006 project funding, the Council's fish and wildlife staff reviewed the purposes, budgets and accomplishments for all projects currently funded through the program. The Council anticipates that most projects will be funded in 2006 at the 2005 level with the exception of those that have extraordinary circumstances that necessitate additional funding or are nearing completion.

The Council plans that the selection of future habitat and production projects and, as a result, funding levels, will be directed by subbasin plans. The Council did not conduct a project

solicitation for 2006 funding because subbasin plans were not available in time to be used for that purpose. As well, membership on the Independent Scientific Review Panel, which assesses all projects proposed for funding through the Council's program, changed in 2005 when seven of the 11 members were replaced as their terms expired. With subbasin plans in place and the ISRP membership settled, a solicitation and review process for projects to fund in Fiscal Year 2007 will begin late in 2005.

For 2006, the Council asked sponsors to explain their projects, their accomplishments to date and their budget requests for the coming year. The sponsors also were asked to describe what they planned to achieve in 2006 and how their projects are consistent with subbasin plans, if relevant. The Council received 352 responses from sponsors requesting funding for around 300 projects. The responses from project sponsors, including accomplishments, have been gathered and published on the Council's website, www.nwcouncil.org.

While the Council does not intend to solicit new projects for Fiscal Year 2006, Bonneville set aside funding in its fish and wildlife budget for new projects required under the Endangered Species Act to protect threatened and endangered salmon and steelhead populations. Those projects are going ahead despite the decision in June 2005 by Judge James Redden of the U.S. District Court in Oregon to invalidate the 2004 Biological Opinion on Hydropower Operations.

Despite the uncertainty surrounding the biological opinion, the Council determined a planning budget of \$160 million in direct spending and \$36 million in capital funding would be consistent with the responses and budget requests provided by the project sponsors. The Council anticipates that actual expenditures in 2006 will be significantly below the planning budget targets and will be consistent with Bonneville's intended spending of about \$143 million in direct expenditures and \$36 million in capital projects in 2006, the last year of the current rate case.

Recommendations on the future role of fish hatcheries

In June 2005 the Council completed work on its Columbia basinwide review of fish hatcheries and made recommendations to Congress on how federally funded hatcheries should be operated in the future.

In its comprehensive review, which originated with a request from Congress in 1997, the Council asserted that hatcheries need clearly defined goals, better integration with wild fish production and better coordination among the numerous fish-production programs. Over time,

the Council believes these changes will increase the geographic range and genetic diversity of fish production, provide new harvest opportunities and help rebuild weak stocks of fish.

The recommendations culminated a thorough examination of the management, function and performance of fish hatcheries and fish-production programs in the Columbia River Basin. Congress asked for the examination and recommendations to assist future funding decisions for hatcheries that receive federal funding. The report that forms the basis of the recommendations, the Artificial Production Review and Evaluation, is posted on the Council's website at this location:

www.nwcouncil.org/library/2004/2004-17.htm

The goal of the review was to develop coordinated policies for the use of artificial production in the Columbia basin. Interest in a comprehensive review of artificial production in the Columbia stems from scientific and policy concerns about the success of artificial production programs and how they affect other aspects of fisheries management. Despite the fact that artificial production has occurred in the Pacific Northwest for more than 100 years, a comprehensive evaluation of the programs had not been undertaken before the Council's review.

The APRE partially addressed this deficiency by conducting an in-depth evaluation of 225 individual salmonid hatchery programs within the U.S. portion of the Columbia River Basin. The results of the review should be useful in developing regional fisheries planning efforts. The review also likely will lead to discussions of the future role of hatcheries and identification of the benefits and risks of hatchery practices.

Hatcheries in the Columbia River Basin originally were established to maintain commercially harvestable numbers of salmon. In the past few decades, however, the focus of restoration has turned more toward supplementation of wild populations. The passage of the Endangered Species Act of 1973 and changing public perceptions about the importance and use of salmon have influenced decisions about the purpose of hatcheries. The APRE identified the purpose of each hatchery program, the extent to which the program is meeting that purpose (benefit), and the potential for negative impacts on other purposes and priorities (risk).

The review process was based on the hatchery review developed by the Hatchery Scientific Review Group (HSRG) in Washington State. Questionnaires that collected information on hatchery goals and operations from Columbia basin hatchery managers and operators were developed and the responses entered into a database (www.apre.info). The responses were evaluated against the APRE working hypotheses, which included: 1) to be

successful, a hatchery program must be internally consistent with its own stated purpose and externally consistent with the goals and priorities for the environment, including other potentially affected fish populations; and 2) almost any human intervention to manipulate the environment poses some level of risk to the existing environment and species. A hatchery program was judged to be successful if it met the following four major conditions:

- It produces a healthy and viable hatchery population
- It makes a sustainable contribution of adult returns to conservation and/or harvest
- Its potential effects on wild and native populations and the environment are understood
- It collects, records, evaluates, and disseminates information pertaining to the first three conditions so that decision-makers are informed about the benefits and risks of the program relative to other means of achieving similar conservation and harvest goals.

The information database is intended to form the foundation for continuing consideration of artificial production in the basin. The individual program reports contain a summary of facility information including operator, funding sources and overall performance. The database is designed to be updated as new information becomes available and hatchery reforms are enacted.

The APRE results are reported in the following six major categories:

- *Fish stocks:* The study identified 512 fish stocks of which 250 were natural stocks and 262 were hatchery stocks. Of the hatchery stocks identified, 174 were anadromous salmonid programs, 66 were resident salmonid programs and 23 were non-salmonid programs. The largest portion of stocks was found in the Lower Columbia ecological province.
- *Hatchery operation:* About half of the anadromous salmonid hatchery programs in the Lower Columbia are “segregated” facilities. These are designed to minimize the genetic interaction of hatchery fish and wild populations. Conversely, most hatcheries in the upper part of the Columbia basin are integrated programs -- also known as supplementation hatcheries. In an integrated program, the hatchery is considered an extension of the natural environment. The program is designed to combine hatchery fish and wild fish into a single stock or population.
- *Hatchery practices:* Many segregated hatchery programs contribute significantly to wild spawning populations, despite the intention to separate hatchery and wild fish. The amount of mixing was unknown in a third of segregated programs. In addition, 31

percent used non-local broodstock and 75 percent transferred in fish from outside the basin or released fish outside the stream system. In contrast, 93 percent of integrated programs used broodstock derived from within the subbasin and 92 percent avoided transfers from outside the basin or avoided releasing fish outside the stream system.

- *Distribution of hatchery releases:* Hatchery managers reported planned, as opposed to actual, releases of 172,162,986 juvenile fish of all species in the U.S. portion of the Columbia River Basin. Of these releases, 156,737,635 fish are planned releases of anadromous salmonids below the fish passage barriers at the Chief Joseph and Hells Canyon dams. The largest proportion (50 percent) occurs in the Lower Columbia ecological provinces to provide fish for the ocean and lower-river commercial fisheries.
- *Goals and Purpose:* For anadromous salmonids, harvest remains the primary purpose for hatchery programs in the Columbia River Basin.
- *Funding:* Identification of hatchery funding is a complex issue because most programs are funded from a variety of direct and indirect sources. The Lower Columbia Province has the most funding because it has the majority of programs.
- *Monitoring and evaluation:* Monitoring and evaluation consists primarily of reports of typical fish statistics such as number of recruits per spawner, smolt-to-adult survival, escapement and total catch. Even so, many programs did not collect information for any of these categories. Information for anadromous salmonid programs regarding the number of recruits per spawner collected was available for fewer than 10 percent of programs, smolt-to-adult survival data was available for 53 percent of the programs, 23 percent of programs had data for escapement and 35 percent of programs had catch data.

The APRE was designed to address concerns that the Columbia basin hatchery system needs to be reformed. The study applied hatchery reform principles developed by the HSRG to the information received from the fishery and hatchery managers. These principles included the following:

- Goals for stocks affected by hatcheries must be clearly articulated, expressed in terms of resource values, and reflective of current biological, economic, and cultural circumstances
- Hatchery programs must be scientifically defensible
- Decision-making about hatchery programming and operations must be responsive and well-informed

When these principles were applied, a number of questions arose about artificial production within the basin. These questions explored such issues as whether or not hatchery programs can be used more strategically to better accommodate ecological and social goals and how many hatchery fish should be released each year. Broad answers to these questions were formulated and used to arrive at the general conclusions of the study:

- Hatcheries are limited in what they can accomplish
- The social, economic, and ecological purposes for current hatchery programs have changed and will continue to change
- Hatcheries will continue to play a part in recovery and management of fish in the Columbia River and elsewhere
- Hatcheries require reform to align their policies and practices with current social priorities and scientific knowledge, to determine hatchery performance and to operate in a business-like fashion

The APRE and its base document, the Council's 1999 Artificial Production Review (APR), demonstrate that artificial production programs need to be viewed in a new way. Many of the basin's hatchery programs were developed decades ago under a different set of needs, social conditions and mandates. For example, most of today's hatchery production remains focused on producing fish for out-of-basin and mainstem harvest. While these remain legitimate goals, they need to be better balanced with current priorities.

Consistent with the APR and APRE the Council believes that a new paradigm for hatcheries must be established, one that emphasizes the diversity of species and populations and considers local needs. In this paradigm, salmonid populations would be returned as closely as possible to their historic range, distribution and diversity through a variety of means including habitat protection and restoration and the appropriate use of hatcheries. Hatcheries would have a role in the future as part of an integrated strategy to meet conservation and harvest goals on a sustainable basis.

The Council's four recommendations for Congress to consider in funding hatcheries in the future are:

- Establish long-term management objectives for hatchery and wild stocks of fish describing measurable contributions to fish harvest and conservation

- Identify hatchery programs as either integrated with wild fish or segregated from them and describe how hatchery fish and wild fish will contribute to long-term fish-management objectives
- Implement hatchery reforms to align with basinwide fish-management goals and objectives, giving priority to biological benefits and cost-effectiveness
- Monitor, review and regularly report progress of each hatchery toward long-term fish-management objectives

Along with these recommendations, the Council believes that the future use of hatcheries should be integrated with fish production goals and objectives identified in subbasin plans.

Litigation over the 2004 Biological Opinion on Hydropower Operations

The decision by U.S. District Judge James Redden in June 2005 to invalidate the federal government's 2004 Biological Opinion on Columbia and Snake River hydropower operations created uncertainty but did not derail a broader regional strategy for protecting and enhancing all fish and wildlife, including threatened and endangered salmon and steelhead, in the Columbia River Basin. The Council's Columbia River Basin Fish and Wildlife Program is a key component of that strategy.

The strategy, which includes a framework of federal and non-federal actions, responds to recommendations of the four Northwest governors, who directed in 2003 that their offices collaborate with the Council, regional federal executives and Columbia Basin Indian tribes to develop common objectives and strategies for protecting and enhancing fish and wildlife. The resulting framework includes actions to improve fish survival in the hydropower system, at hatcheries, through harvest management and in habitat. The framework calls for:

- Using subbasin plans to guide prioritization of projects for funding and as the basis for locally led recovery planning under the Endangered Species Act
- Measuring progress with a regional monitoring strategy

Like the Council's fish and wildlife program, the 2004 Biological Opinion is one component of the regional strategy. In the biological opinion, NOAA Fisheries/National Marine Fisheries Service set forth a blueprint for river and dam operations under the Endangered Species Act to protect listed salmon and steelhead that migrate to and from the ocean through the Columbia and Snake rivers. Judge Redden invalidated the biological opinion on June 10 in response to a legal challenge to its policy framework.

While this caused temporary uncertainty, it has not affected other elements of the regional strategy. The Council participated as a friend of the court in the litigation to support the fish and wildlife program, which is the source of some of the actions in the biological opinion -- particularly those that would occur away from the dams. This “offsite mitigation” contributes to improving the survival of fish in conjunction with actions at the dams. Thus, implementation of the Council’s fish and wildlife program, which addresses hydropower impacts on all fish and wildlife of the Columbia River Basin including listed species, is coordinated with actions in the biological opinion. Judge Redden asked parties to the litigation to discuss disputed matters and return to court in September, when he planned to remand the biological opinion to NOAA Fisheries with specific instructions for revisions.

Meanwhile, the Council continues to collaborate with federal agencies on salmon and steelhead recovery. As noted elsewhere in this report, in 2005 the Council completed amending its fish and wildlife program with 58 plans for individual subbasins of the Columbia and Snake rivers. The plans, developed over a two-year period by fish and wildlife agencies, Indian tribes and watershed councils, will guide future implementation of the program. NOAA Fisheries plans to use subbasin plans to guide future implementation of the biological opinion and the development of recovery plans.

Through the Council’s program, many of the short-term habitat strategic goals in the biological opinion have been achieved. Here are just a few examples of completed projects that address these goals:

- *Water brokerage:* A regional water brokerage has been developed to secure instream flow improvements from willing sellers. In 2004 there were 24 transactions yielding 319 cubic feet per second of instream flow and 32,000 acre-feet of water. A similar rate of effort is anticipated for 2005 and 2006.
- *Fish passage improvements:* Irrigation screens and fish-passage improvements have been constructed in tributaries, and productive habitat has been secured. Through one project in Idaho’s Salmon River drainage, 26 miles of habitat have been opened for access since 2002, and 14 miles are planned in 2006. In Washington’s Yakima River, two screens were installed in 2004 yielding 40,000 acre-feet of water and 116 cubic feet per second of instream flow. Also in the Yakima basin, 920 acres of habitat have been protected since 1997, and opportunities for further habitat protection that have been identified are pending resolution of Bonneville financial policies.

- *Land protection:* Landowners have been enrolled in federal land protection programs to reduce sedimentation and water temperatures through incentive payments. In Oregon's John Day River Basin, 224 acres and 14.5 miles of riparian buffers have been protected in Wheeler County, and the goal is for 35 landowner agreements in 2006.

Independent scientific review of salmon harvest issues

In July 2005 the Council convened a day-long public discussion of salmon harvest issues and review of two studies conducted for the Council and NOAA Fisheries. While the Council does not regulate harvest, the Council believes the mitigation effort must address harvest along with hydropower, hatcheries and habitat. The Council believes fisheries management agencies must improve survival of salmon and steelhead through effective regulation of harvest in order to help the fish and also benefit fishing-dependent communities.

One study, by the Independent Economic Advisory Board (IEAB), a panel of independent economists that advises the Council, quantified the economic benefits of commercial salmon fishing in the lower Columbia River. The other study, by the Independent Scientific Advisory Board (ISAB), a panel of independent scientists that advises both the Council and NOAA Fisheries, addresses the biological basis and management processes involved in providing and controlling harvest. The ISAB also looked at how to account for uncertainty in decision-making, and how harvest may be integrated with recovery objectives. The report provided brief reviews of past management practices and current institutional structures for harvest management of Columbia River salmon.

The IEAB reported that based on recent run sizes and harvest levels, salmon and steelhead production in the Columbia River Basin contributes about \$142 million in personal income annually to communities on the West Coast. Of that amount, about \$109 million in income is generated in the states of Washington, Oregon and Idaho, an amount that may support some 3,600 jobs. For this analysis the economists measured regional economic impacts of income related to salmon and steelhead fisheries. The model to generate these impacts uses factors for smolt-to-adult survival rates, hatchery production levels and harvest regulations.

Depending on assumptions for fish production and harvest, the estimated economic impacts varied from \$40 million to \$142 million per year, but based on fish production and harvest in recent years the economic impacts most likely total \$142 million annually, the panel reported. About 77 percent of the economic contribution occurs from ocean and inriver fisheries

in the Pacific Northwest. Most of the rest occurs in Alaska and British Columbia, with a very small impact in California. About 63 percent of the total economic contribution was generated by the Columbia inriver fishery, according to the report. Of the \$142 million in economic impacts, commercial fishing accounts for 59 percent and recreational fishing contributes about 36 percent.

The ISAB, meanwhile, reported that it is impressed with the management processes that have been developed and the ongoing efforts to expand the scientific basis for recovery. The panel reported that significant progress is evident in several areas important to harvest management, such as:

- The definition of independent fish population units
- Criteria for population and viability of individual fish stocks
- Establishment of the Pacific Salmon Treaty and the role of the Pacific Fisheries Management Council in limiting ocean fishing impacts
- The renewed in-river fishing agreements, and
- Recent efforts to integrate analysis of harvest, habitat, hydropower and hatcheries in determining salmon production

The ISAB expressed concern about the relative effect of harvest on the conservation of wild salmon. The panel concluded that three essential components of harvest management are deficient. These are:

- Insufficient quantitative data for analyses by production units
- Very limited evidence of assessment analyses by production units to provide a biological basis for production goals and trends in status; and
- Limited evidence of accounting for uncertainty in management plans with the exception of reference to precaution in the National Standard Guidelines established under the Magnuson-Stevens Fishery Conservation and Management Act

The ISAB also recommended that adaptive management principles -- learning by doing -- should be adopted in salmon recovery decision-making regarding harvest. The panel recommended that a systematic approach be developed to test alternative fish-recovery actions, including harvest, with an emphasis on achieving secure spawning escapement levels. The scientists also said harvest managers and the harvest industry need to be in close touch with the evolving scientific understanding of climate and ocean changes and cycles in relation to salmon

and other natural resources and adjust their procedures accordingly for conducting assessments, setting allowable harvests, and harvesting fish.

Both reports are available from the Council and also are posted on the Council's website:

The economic analysis, Document IEAB 2005-9, is at:

www.nwcouncil.org/library/ieab/ieab2005-9.htm

The scientific board's report, Document ISAB 2005-4, is at:

www.nwcouncil.org/library/isab/isab2005-4.htm

Annual report on fish and wildlife expenditures of the Bonneville Power Administration

In July 1999, the governors of Idaho, Montana, Oregon and Washington asked the Council to begin reporting annually on Bonneville's expenditures to implement the Council's fish and wildlife program. In 2005 the Council issued its fourth annual report, which covered Bonneville's expenditures through Fiscal Year 2003. That was the latest year for which complete information was available from Bonneville. The Council did not independently verify the information provided by Bonneville.

According to the report, in Fiscal Year 2003 Bonneville spent a total of \$506.8 million on Columbia River Basin fish and wildlife. This brings the grand total of Bonneville's fish and wildlife expenditures, 1978-2003, to \$6.84 billion. These expenditures include:

- \$1,298,000,000 (\$140.7 million in 2003) for the Council's direct program
- \$16,500,000 (\$6.5 million in 2003) in one-time expenditures for "high priority" and "action plan" projects²
- \$686,500,000 (\$52.5 million in 2003) to reimburse the U.S. Treasury for the power-generation share of other federal agency costs to mitigate the impact of hydropower on fish and wildlife³
- \$1,071,100,000 (\$56.7 million in 2003) in fixed expenses for bonds issued by Bonneville to pay for capital investments at the dams

² The high-priority projects were intended to bring immediate benefits to all species listed for protection under the Endangered Species Act in advance of subbasin planning (Draft subbasin plans were submitted to the Council in May 2004 and, after public and scientific review, will be amended into the fish and wildlife program in late 2004 and early 2005). The "action plan" projects were intended to bring immediate benefits to ESA-listed salmon and steelhead that were affected by altered hydropower dam operations in the spring and early summer of 2001. Expenditures for action plan and high-priority projects continued through Fiscal Year 2003.

³ Primarily these reimbursements are paid to the U.S. Army Corps of Engineers, Bureau of Reclamation, and U.S. Fish and Wildlife Service for efforts to improve fish and wildlife survival apart from the Council's program, such as operation and maintenance of fish passage facilities and federal fish hatcheries.

- \$2,489,000,000 (\$171.1 million in 2003) for power purchases to meet load requirements in response to required river operations that reduce hydropower generation
- \$1,284,600,000 (\$79.2 million in 2003) in forgone revenue, the calculated value of hydropower that could not be sold because of required river operations to assist fish passage and improve fish survival, such as water spills at the dams
- \$1,079,904,747 on anadromous fish projects (\$105,384,294 in 2003); \$181,661,952 on resident fish (those that don't swim to the ocean; \$22,753,095 in 2003), and \$156,674,507 million on wildlife (\$7,686,627 in 2003).

New members appointed to scientific review panels

In 2005 new members were appointed to the two scientific panels that advise the Council as the terms of the previous members expired. Terms of membership are staggered to ensure the expertise on the panels remains diverse.

The Independent Scientific Review Panel (ISRP) and the Independent Scientific Advisory Board (ISAB) have different responsibilities in the Council's fish and wildlife program, and the Council plays distinct roles in the administration of each group.

The ISRP consists of 11 members assisted by more than 100 Peer Review Group members. The ISRP, created by an amendment to the Northwest Power Act in 1996, provides scientific review of projects proposed for funding by Bonneville to implement the fish and wildlife program. The ISRP and the Council's review process have served to appreciably increase the level of scientific rigor in Bonneville projects and improve the effectiveness of projects to meet the Council's vision.

The Council appoints ISRP members based on recommendations from the National Research Council. The amended Power Act language also provides for the panel to be assisted by Peer Review Groups, and these scientists are appointed by the Council, as well.

Meanwhile, the ISAB, which also has 11 members, serves the Council, the National Marine Fisheries Service, and the Columbia River Basin Indian tribes. The ISAB provides general scientific advice on fish and wildlife recovery efforts. The ISAB is governed by an Administrative Oversight Panel consisting of the Council Chair, the Regional Administrator of the National Marine Fisheries Service and the director of the Northwest Fishery Science Center (NOAA Fisheries/National Marine Fisheries Service) as joint participants, and a senior

representative of the Columbia Basin tribes. ISAB members are appointed by the Oversight Panel.

In June 2005, the Council appointed six scientists to the ISRP to replace members whose terms expired. ISAB terms are for two, three or four years. The scientists, their places of employment and specialized knowledge include:

- Richard Alldredge, Ph.D. (Washington State University, statistics)
- Linda Hardesty, Ph.D. (Washington State University, range management/biological diversity of eastern Washington)
- Colin Levings, Ph.D. (Fisheries and Oceans Canada, marine environment and habitat)
- Katherine Myers, Ph.D. (University of Washington, high seas salmon research)
- Tom Poe, M.S. (consulting fisheries scientist, behavioral ecology of fishes)
- Bruce Ward (British Columbia Ministry of Water, Land and Air Protection, also University of British Columbia, population dynamics, aquatic ecosystems, international fisheries)

In addition, the Council appointed 42 scientists to the pool of ISRP Peer Review Group members.

Also in June the Administrative Oversight Panel named eight new members to the ISAB:

- Stuart Hurlbert, Ph.D. (San Diego State University, limnology and biostatistics)
- Roland Lamberson, Ph.D. (Humboldt State University, mathematics and environmental systems)
- Colin Levings, Ph.D. (Department of Fisheries and Oceans Canada, marine science)
- Tom Poe, M.S. (Consulting Fisheries Scientist, behavioral ecology of fishes)
- Peter Smouse, Ph.D. (Rutgers University, biometrics and population theory)
- Michael Healy, Ph.D. (University of British Columbia, fisheries ecology and resource management science)
- David Montgomery, Ph.D. (University of Washington, geomorphology)
- William Percy, Ph.D. (Oregon State University, oceanography)

Public affairs and public information

Informing and involving the public

One of the Council's primary tasks is to fulfill the directive of the Northwest Power Act to inform and involve Northwest citizens regarding regional energy and fish and wildlife issues and the Council's activities. Section 2(3) states a purpose of the Act is "to provide for the participation and consultation of the Pacific Northwest states, local governments, consumers, customers, users of the Columbia River System (including federal and state fish and wildlife agencies and appropriate Indian tribes) and the public at large within the region" in the Northwest's planning for electrical power and protection of fish and wildlife resources. Section 4(g)(1) of the Act requires the Council to develop "comprehensive programs" to ensure public involvement and to "inform the Pacific Northwest public of major regional power issues."

To involve the public, the Council meets monthly at different locations around the Columbia River Basin. All meetings are open to the public, and there is an opportunity for public comment on each agenda item. The Council also conducts periodic public hearings on major Council initiatives. The Public Affairs Division arranges consultations and public hearings separate from the regular Council meetings to discuss and explain key issues and also gathers public comments at these meetings and through mail, e-mail and telephone contacts.

To inform the public, the Council produces a quarterly newsletter as well as special informational materials, media briefings and news releases. The Council also regularly updates its website (www.nwcouncil.org) and uses other approaches to inform the public about fish, wildlife and energy issues such as through a new website created in 2004, www.subbasins.org, for subbasin plans and related issues.

In 2005, the Public Affairs Division began work on a video that describes Council activities in power planning. This follows the completion of a new video in 2004 about the Council's fish and wildlife mitigation planning. In addition to regular editorial products including speeches, letters, news releases and other documents that support the day-to-day work of the Council, in 2005 the Public Affairs Division also produced the following special publications:

- *The Fourth Annual Report to the Northwest Governors on Expenditures of the Bonneville Power Administration to Implement the Columbia River Basin Fish and Wildlife Program*

- A revision of the Council's *Directory of Tribal Organizations*
- *The Pocket Guide: Fast Facts About the Columbia River Basin*
- *A Guide to Dams of the Columbia River Basin*
- *A Guide to Subbasin Planning*

The Public Affairs Division takes the lead in staffing the Council's ongoing relations with the Columbia Basin Trust, the Council's closest counterpart agency in British Columbia. Activities in 2005 are described in the following section.

Canadian relations

In recognition of the fact that the Columbia River and several of its major tributaries begin in Canada and flow across the international border and consistent with direction in the Northwest Power Act to treat the entire Columbia River as a system for planning purposes, the Council maintains regular contact with planning entities in British Columbia. The Columbia Basin Trust, a Crown corporation of the province, is the Council's closest counterpart agency in the Canadian portion of the Columbia River Basin. Since 1996, a year after the Trust was created, Council members and staff have met at least annually with the Trust and, in 2000, the two agencies formalized a relationship and designated the vice chairs as official liaisons. The Trust and Council exchange visits twice a year to discuss Columbia River issues of mutual concern.

A delegation from the Trust met with the Council at the Council's March 2005 meeting in Portland. In July, a delegation of Council members, including Chair Melinda Eden and Vice Chair Jim Kempton, traveled to Cranbrook, British Columbia, to attend the annual general meeting of the Trust. Chair Eden addressed the opening plenary session of the meeting, and Vice Chair Kempton spoke at the Water Initiatives Forum. The Council delegation also met informally with the Chair, Vice Chair and members of the board of directors of the Trust while in Cranbrook.

The Council and Trust are collaborating on the development of an international partnership to share information about the Columbia River system in Canada and the United States. Tentatively called The Columbia River Center of Knowledge, the concept is an Internet-based repository of information on Columbia River history, water uses, resources, issues and policies (treaties and state, provincial and federal laws, and intergovernmental agreements). The Center of Knowledge concept replaces a proposal the Trust and Council considered in 2004,

which the Council discussed in its 2004 annual report, that would have focused narrowly on the future of the Columbia River Treaty.

The Council and Trust plan to invite universities in the United States and Canada that are working on transboundary Columbia River water issues to supply information for the Center of Knowledge website. The Center would provide the Council and Trust an opportunity to facilitate transboundary educational dialogue and, perhaps in the future, convene public educational forums on Columbia River Issues.

Administration

Council budget

In 1997 the Council entered into a budget limitation agreement with Bonneville that resulted in approximately \$5 million of savings between Fiscal Year 1998 and Fiscal Year 2001. Actions taken to accomplish these savings included reducing the size of the workforce, eliminating vacant staff positions, reducing travel costs, slashing contract funding, cutting administrative costs and curtailing lower-priority activities.

In the current Bonneville Power Administration rate period (Fiscal Year 2003-2006), the Council again committed to exercise fiscal restraint in developing its budget. In light of Bonneville's financial condition, the Council agreed to submit current level-of-service budgets capped at 2 percent annual growth. This will save another \$1.1 million over the rate period. Additionally, we are freezing the number of full-time equivalent staff positions while continuing to undertake additional work and responsibilities in the region, particularly in fish and wildlife recovery efforts.

The Council's Fiscal Year 2006 revised budget of \$8,700,000 is \$8,000 higher (0.09 percent) than the current year 2005 budget of \$8,692,000. This small increase represents the Council's attempt to absorb inflationary effects on personal services costs by delaying some contracting and temporarily decreasing some other operating costs. The proposed Fiscal Year 2007 budget of \$9,085,000 is \$385,000 higher (4.4 percent) than the revised Fiscal Year 2006 budget, reflecting the inflationary effect on personal services costs, and modest increases in contracting and other operating expenses.

The Council approved the revised 2006 budget and the proposed 2007 budget in July 2005.

Council budget formulation

The Northwest Power Act directs the administrator of the Bonneville Power Administration to provide funding to the Council in an amount based on the kilowatt-hours of firm power forecast to be sold by Bonneville in the year to be funded. Since 1980, when the Power Act became law, Bonneville's role as the region's power supplier has evolved. In recent years, the foundation for computing the Council's budget limitation, firm power sales, has become less predictable.

However, throughout this period of instability the Council's role has not diminished. In fact, the Council has taken on additional workload to support regional goals. At the same time, the Council budget has remained at the current level of service with conservative cost of living increases.

The Council's work continues to be important to the success of the Northwest electric power system. In December 2004 the Council adopted the Fifth Northwest Power Plan, which provides the region with the framework necessary to assure an adequate and reliable power system within the current rate structure. The Council's analytical work in balancing system average costs and risk has helped inform regional policy makers, power suppliers and consumers. Continued work in implementation of conservation and generating resources will help provide the region with stable and affordable electric power. At the same time, the Council's role in the fish and wildlife policy arena has grown. The Council currently expends approximately 60 percent of its budget in support of the planning and implementation of its fish and wildlife program. The Council completed the two-year subbasin planning process early this year and adopted those plans following scientific review. Those plans will now guide the prioritization of Bonneville funding for fish and wildlife projects.

The 1996 amendment to the Northwest Power Act delegated additional fish and wildlife duties to the Council, such as project selection and cost-effectiveness analysis, but did not update the budget formula to fully fund these additional duties. Although the demands on Council resources have increased during recent years, the Council's budget projections for the next Bonneville rate case period, Fiscal Year 2007 through Fiscal Year 2009, continue to hold down costs.

In Fiscal Year 2005, the Council's administrative staff worked with Bonneville staff to develop a three-year budget proposal with budget projections that freeze the number of Council full-time equivalent employees while capping the effect of inflation to an average of 3 percent per year. The projected budgets are:

Fiscal Year 2007	Fiscal Year 2008	Fiscal Year 2009	Total
\$9,085,000	\$9,276,000	\$9,467,000	\$27,828,000

The budget developed for the three-year period under the proposed agreement is considered a planning ceiling for Council expenses. The Council's adopted budgets and actual spending for these years could be lower than the limitation. As required by law, the Council will continue to make an annual demonstration to Bonneville that such levels of funding from

Bonneville are necessary to permit the Council to carry out its functions and responsibilities under the Northwest Power Act.

More Information

For additional information about the Northwest Power and Conservation Council's activities, budget, meetings, comment deadlines, policies or bylaws, call 1-800-452-5161 or visit our website at www.nwcouncil.org. Copies of Council publications are available at the website or by calling the Council. All Council publications are free.

Comments of the Bonneville Power Administration

This section is reserved for comments by Bonneville, which will be inserted into the final version of the report.

Council Members (2005) and Offices

OREGON

Melinda S. Eden, Chair

410 N. Main
P.O. Box 645
Milton-Freewater, OR 97862
Telephone: 541-938-5333
Fax: 541-938-5329

Joan Dukes

851 S.W. Sixth Avenue, Suite 1020
Portland, Oregon 97204
Telephone: 503-229-5171
Fax: 503-229-5173

IDAHO

Jim Kempton, Vice Chair

Judi Danielson

450 W. State (UPS and DHL only)
Box 83720
Boise, Idaho 83720-0062
Telephone: 208-334-6970
Fax: 208-334-2112

WASHINGTON

Tom Karier

W. 705 First Avenue, MS-1
Spokane, WA 99201-3909
Telephone: 509-623-4386
Fax: 509-623-4380

Frank L. "Larry" Cassidy, Jr.

110 Y Street
Vancouver, WA 98661
Telephone: 360-693-6951
Fax: 360-693-6079

MONTANA

Bruce Measure

Rhonda Whiting

Capitol Station
Helena, Montana 59620-0805
Telephone: 406-444-3952
Fax: 406-444-4339

CENTRAL OFFICE

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204
Telephone: 503-222-5161
Fax: 503-820-2370
Toll Free: 1-800-452-5161

Executive Director: Steve Crow
Power Planning Director: Terry Morlan
Fish and Wildlife Director: Doug Marker
Public Affairs Director: Mark Walker
General Counsel: John Shurts
Administrative Officer: Sharon Ossmann