ANNUAL REPORT TO CONGRESS
Fiscal Year 2004

October 1, 2003 - September 30, 2004

Northwest Power and Conservation Council

Council document 2005-02

24th ANNUAL REPORT
of the
Pacific Northwest Electric Power and Conservation Planning Council

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

October 1, 2003, through September 30, 2004

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, known until 2003 as the Northwest Power Planning 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.

Northwest Power and Conservation Council

September 2004

To Congress and the citizens of the Pacific Northwest:

2004 was an eventful year for the Northwest Power and Conservation Council, with major developments in both fish and wildlife mitigation planning and in power planning. In May, the Council received 59 draft subbasin plans, the result of nearly two years' work by watershed councils, fish and wildlife agencies, Indian tribes and interested citizens throughout the United States portion of the Columbia River Basin. The Council submitted the draft plans to the Independent Scientific Review Panel and also made the plans available for review and comment by the public through mid-August. The Council plans to adopt the plans into the Columbia River Basin Fish and Wildlife Program in early Fiscal Year 2005. The plans will guide the solicitation, proposal, review and recommendation of projects to implement the Columbia River Basin Fish and Wildlife Program in the future.

Also in 2004, the Council completed work on the draft of its Fifth Northwest Power Plan and released it for public comment. The plan provides analysis of the Northwest power system and guidance for decisionmaking regarding new generating and conservation resources in the wake of the energy crisis of 2000-2001. The plan includes strategies for meeting our region's future requirements for power at the lowest cost and in a manner that reduces the risk of sudden spikes in wholesale power prices like those during the energy crisis. In 2004, the Council also completed a lengthy public process and made recommendations to the Bonneville Power Administration about its future role in regional power supply to reduce Bonneville's exposure to the volatile wholesale power market and ensure greater financial stability for the agency.

The Council provides Northwest citizens an opportunity unique in the nation to participate in and influence regional decisionmaking regarding energy, fish and wildlife. I am pleased to submit to Congress this annual report, which provides an overview of the Council's work in Fiscal Year 2004.

Sincerely,

Judi Danielson.
Chair, 2004

Table of Contents

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 following President Jimmy Carter's approval of the Pacific Northwest Electric Power Planning and Conservation Act in December 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 construction and operation of any hydropower dam in the Columbia River Basin; 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.

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

Fish and wildlife issues

Subbasin planning

In May 2004, culminating nearly two years of work, locally developed plans that will guide future fish and wildlife projects in the Columbia River Basin were submitted to the Council for review. The draft plans for tributary subbasins of the Columbia River were developed collaboratively by local landowners, state, federal and local governments, Indian tribes, and interest groups representing industries and environmental advocates.

A total of 59 draft subbasin plans were submitted to the Council. The draft plans were reviewed by the Council's Independent Scientific Review Panel (ISRP) and also made available for public review and comment. Those reviews ended August 12, and following the issue of draft amendments and further public comment the Council will amend the plans into the fish and wildlife program late in the year and in early 2005. The plans then will be available to help guide the Council's decisions on which projects to recommend to the Bonneville Power Administration for funding, beginning with Fiscal Year 2006.

Each subbasin plan includes an assessment of environmental conditions, an inventory of existing fish and wildlife populations, and a management plan for addressing problems and improving survival of species. The plans are designed to integrate state, federal and tribal goals for fish and wildlife recovery, including the Endangered Species Act.

Collectively, the plans represent the largest compilation of data on fish, wildlife and environmental conditions ever in the Columbia River Basin. Subbasin plans will improve the Council's project selection and review process by providing a more complete and specific base of information on the status of fish and wildlife populations in each tributary subbasin. The plans also will provide linkages to other planning processes for improving fish and wildlife survival, including the development of recovery plans for threatened and endangered species.

Subbasin planning is unique for the size of the effort and its collaborative nature. For the first time in the Columbia River Basin, which includes parts of seven states and British Columbia, government agencies and citizens with expertise in the local environment and economy collaborated to develop plans for all fish and wildlife, including threatened and endangered species.

It was important to the Council that subbasin plans be developed from the local level and not be created solely by government. The public response to the Council's approach was

supportive. Local, state, federal and tribal governments collaborated in developing the plans, as did watershed councils, consumer and industry groups and others with interests in fish, wildlife and water. Literally hundreds of people were involved in the planning efforts throughout the Columbia River Basin.

The plans have a strong scientific foundation. The plans are based on technical assessments of environmental conditions and fish and wildlife populations, and the plans were reviewed by the Council's ISRP.

The Council and Bonneville established a $15 million budget for subbasin planning. The Council administrated contracts with the planners and managed the planning process. The plans were delivered on time and under budget. Funds that were not expended in the planning process, about $700,000, were available for additional work that might be required to meet the adoptability criteria established by the Council. This additional work will take place in the fall.

Artificial Production Review and Evaluation

In 2004, the Council culminated several years' work and recommended changes in the way fish hatcheries are operated in the Columbia River Basin. The recommendations seek to improve the integration of hatchery production with natural production of fish to increase the geographic range and genetic diversity of fish production. The Council recommended that hatcheries should have clearly defined goals and be managed carefully to reduce risks to the survival of weak, naturally spawning runs.

The Council's recommendations respond to a congressional directive to conduct a scientific review, with the assistance of the Independent Scientific Advisory Board (ISAB), of the state of artificial production of fish in the Columbia basin. The Artificial Production Review, completed several years ago in response to that directive, resulted in a set of recommended guidelines for hatchery practices, ecological interactions and genetics. The Council followed the review with a comprehensive evaluation of all 227 hatcheries and hatchery programs in the basin. This effort, the Artificial Production Review and Evaluation, concluded that 1) hatcheries are limited in what they can accomplish; 2) the purposes for hatchery programs have changed and will continue to change; 3) hatcheries will continue to play a part in recovery and management of fish in the Columbia River and elsewhere; and 4) 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 businesslike fashion.

It was a challenge to identify and analyze all of the hatcheries in the basin, and it will be a challenge to effect change. One of the most difficult challenges is that most hatchery programs were created decades ago and emphasized priorities that, in some cases, conflict with priorities for fish production today. For example, producing fish for commercial harvest in the lower Columbia River was an important goal for many years, but today it is increasingly important to provide harvest opportunities farther upriver in the basin, as well. This doesn't diminish the importance of commercial harvest in the lower river, but it does suggest that hatcheries provide new harvest opportunities with fish that spawn naturally as opposed to returning from the ocean to hatcheries. Another important future role for hatcheries is to help conserve weak stocks and assist the recovery of threatened and endangered species.

Based on the conclusions in the Artificial Production Review and Evaluation, in 2004 the Council developed three broad, draft recommendations for public comment:

- The Council, NOAA Fisheries, and Bonneville should facilitate a regional discussion that clearly identifies basinwide goals and priorities for salmon and steelhead. The Council's subbasin planning is an appropriate process to design and implement long-term goals and priorities, and strategies to achieve them. This will reduce disparities among production policies of existing hatcheries.
- Agencies that oversee hatcheries should adopt prioritized criteria to reduce hatchery risk to weak, naturally spawning stocks through techniques such as 1) improving broodstock management; 2) integrating naturally spawning fish into hatchery broodstocks or reducing excessive straying of hatchery-bred fish; 3) improving fish passage; 4) preventing disease and 5) improving water quality. Each hatchery should have a plan for future activities based on its genetics management plan and recommendations for fish production developed in the subbasin planning process.
- Each hatchery should be reviewed periodically to direct changes and assess progress toward goals.

After a 30-day public comment period, the Council planned to finalize its recommendations and submit them to Congress.

Fish and Wildlife Program implementation

The Council's Columbia River Basin Fish and Wildlife Program provides the policy guidance for the implementation of projects that, consistent with the Northwest Power Act,

protect, mitigate and enhance fish and wildlife, and related spawning grounds and habitat, of the Columbia River Basin that have been affected by hydropower dams. By definition, the program is directed at all fish and wildlife, including species that are protected by the federal government under the Endangered Species Act. NOAA Fisheries, which implements the ESA for salmon and steelhead, views the Council's program as the foundation of ESA recovery planning.

Projects to implement the program are proposed to the Council, which then submits them to the ISRP. The ISRP reviews the proposed projects for consistency with the guidelines established in the 1996 amendment of the Northwest Power Act (Section 4(h)(10)(D)) that directed the Council to create the ISRP. Those guidelines ensure that the projects are based on sound scientific principles, benefit fish and wildlife, have clearly defined objectives and outcomes with provisions for monitoring and evaluation, and are cost-effective. For major capital projects, such as the construction of hatcheries or large-scale habitat acquisitions, the Council established a three-step process of review that includes an initial evaluation of plans or designs and then proceeds through a thorough review consistent with requirements of the Act and the fish and wildlife program. This ensures a detailed, objective, science-based review of large-scale projects, both in terms of capital costs and biological benefits, before funds are committed. In Fiscal Year 2004, these step-review projects included the Northeast Oregon Hatchery, the Chief Joseph Dam Hatchery, and a habitat improvement project in the watershed of Salmon Creek, an Okanagon River tributary in north central Washington.

Subbasin plans will direct implementation of the program in the future. The Council has been careful to account for implementation of the NOAA Fisheries and U.S. Fish and Wildlife Service 2000 Biological Opinions on Columbia River Basin hydropower operations. In this way, the Council's program integrates requirements of the ESA with those of the Northwest Power Act to protect and enhance all fish and wildlife in the Columbia River Basin.

In September 2003 the Council approved a $154 million start-of-year budget for the fish and wildlife program for Fiscal Year 2004. The budget was developed in several steps, beginning with budget recommendations for projects in nine of the 11 ecological provinces of the Columbia basin. For the Columbia Gorge and Intermountain provinces, sponsors proposed budgets to continue ongoing work, keeping the scope of projects consistent with past years.

For the start of the year, the Council recommended that projects proceed at the budget levels developed in the province-level reviews, with the exception of those that required less funding or that were rescheduled from 2003 into 2004. Requests for additional funding or

changes in the scope of funding were considered at quarterly project-status review meetings with Bonneville personnel and project sponsors.

The Council recommended projects to Bonneville totaling $154 million for the fiscal year, even though that amount exceeded the $139 million multi-year average established by Bonneville. The Council believed the multi-year $139 million average would be maintained by utilizing underspent funds and by rescheduling projects. While the final budget numbers won't be available from Bonneville until December, spending levels through the summer were slightly less than spending through the same time period in 2003. The Council anticipates, therefore, that actual spending will total about $139 million by the end of the year, maintaining the agreed average spending. The Council's recommended budget for Fiscal Year 2005 is $146 million, slightly lower than the 2004 amount and still premised on the assumption that actual spending will remain at the $139 million annual average.

Mainstem amendment implementation

The Council amended its fish and wildlife program in April 2003 with recommendations for operations of hydropower dams on the mainstem Columbia and Snake rivers and on major tributaries in the upper Columbia Basin, specifically Hungry Horse and Libby dams. The amendments, which include a broad range of recommended policies, operations and specific research needs in the future, took more than two years to develop and, when in draft form, were the subject of an intensive public review and comment process. In a letter to the Council, the four Northwest governors endorsed the amendments and recommended that federal dam and power agencies fully implement them "as soon as practicable."

The amendments describe specific experiments and tests of alternative dam and river operations intended to protect all fish and wildlife that utilize mainstem rivers as habitat. The amendments are based on river conditions and dam operations in the 2000 Biological Opinions issued by NOAA Fisheries and the U.S. Fish and Wildlife Service regarding the impacts of hydropower operations on threatened and endangered fish species, as well as input from state and tribal agencies that take into account resident fish and non-listed species. Some of these tests and experiments may require temporary departures from current dam operations while remaining consistent with the biological opinions. These operations would take place primarily in the summer and fall. The NOAA Fisheries 2000 Biological Opinion mandates water releases from storage reservoirs in Montana -- behind Hungry Horse and Libby dams -- in July and

August to boost flows in the lower Columbia River to help ESA-listed juvenile salmon and steelhead migrate to the ocean. The Council suggested an experiment to release a slightly smaller volume of water over a longer period of time -- July through September -- on the grounds that a longer, steadier release would provide greater protection to upriver fish and wildlife in the rivers and reservoirs than the rapid flow fluctuations under the current Biological Opinion, while still potentially benefiting salmon and steelhead downstream. The Council believes the biological opinion has enough flexibility to allow this experiment. The Council has worked with federal agencies since the fall of 2003 to determine the feasibility of the experiment in the summer of 2004 and beyond. Although the State of Montana had a monitoring and evaluation plan ready to test the benefits of this operation above and below Libby and Hungry Horse Dams in the summer of 2004, the federal agencies concluded that physical testing in the lower Columbia River was not feasible in 2004 and ultimately did not implement reduced drawdown limits at Libby and Hungry Horse dams. The Council will continue to work with the federal agencies on the complete implementation of this and all mainstem amendment operations.

As an alternative, NOAA Fisheries proposed that the Council, NOAA Fisheries and others convene a symposium to determine 1) the state of the science on river flows and juvenile salmon survival; and 2) the types of further research that would help resolve issues that are in dispute and allow for meaningful testing of the measures proposed by the Council. The symposium idea remained under discussion in the summer of 2004.

Mainstem amendment implementation forum

Through the 2000 biological opinions on hydropower operations, NOAA Fisheries and the U.S. Fish and Wildlife Service established an implementation forum for annual planning and in-season management of operations for fish and wildlife and for developing recommendations on funding for fish-passage improvements at dams. This Regional Forum includes the Technical Management Team (TMT), the System Configuration Team (SCT), the Implementation Team (IT), and a federal executives group.

The Council recommended changes to this forum in both the 2000 Fish and Wildlife Program and the 2003 mainstem amendments to the program. The Council's perspective was that the present forum is not sufficient to integrate fish and power considerations, to provide appropriate consideration for the needs of unlisted anadromous and resident fish, or to attract or

allow for the meaningful participation of many affected entities. The Council recommended changes to broaden the nature of the forum and to allow for effective participation by the relevant federal agencies, the Council, states, tribes and others in a highly public forum. The Council recommended that it jointly sponsor the forum with the federal agencies.

As proposed by the Council, the restructured forum would have two levels -- an executive committee comprising regional executives and a combined technical/management group comprising the existing Technical Management Team, Implementation Team and System Configuration Team, plus a limited number of additional representatives to represent the needs of non-listed fish and wildlife, resident fish and also power considerations. This structure would clearly define roles and responsibilities and eliminate redundancies. Importantly, the proposal does not assume any changes in the authorities of the federal executives.

The proposal remains under discussion.

Long-term fish and wildlife funding

The Council's process for reviewing projects and making funding recommendations to implement the fish and wildlife program should change significantly beginning with Fiscal Year 2006 as the Council looks to subbasin plans for guidance. Because each plan contains an assessment of environmental conditions and an inventory of past actions, it is likely that the plans will focus the Council's attention on problems and opportunities associated with protection and restoration of habitat. Much of this habitat will be on private lands. The Council also assumes the plans collectively will identify a new body of work for the Council's program, and that a new body of work implies a need for additional funding. Financial dilemmas and constraints at Bonneville may worsen before they improve, and so Fiscal Year 2006 could be a particularly troublesome year.

Accordingly, the Council, Bonneville and others are working to develop an agreement or understanding that includes the Bonneville fish and wildlife funding commitment for the next five years or so, as well as agreement regarding rules for project review and funding and for program, project and budget management. The previous funding agreement expired in 2002 and was not renewed.

After the subbasin plans are amended into the fish and wildlife program and before the first project-funding decisions are made based on the plans, the Council, Bonneville and others will have to decide on budget prioritization and allocation principles. The goal is to decide on

budget targets for each ecological province, and probably also each subbasin, so that those who propose and prioritize projects for each subbasin and province will know the size of the budget they can work with.

The Council has identified key issues that must be addressed in a new long-term funding agreement, including 1) integration of Northwest Power Act and ESA requirements through the Council's project review and recommendation process; 2) financial impacts of new ESA measures and others that will exceed available funding; 3) development of a methodology for determining the types of costs that will come with subbasin plans and what could be done with a given amount of money; and 4) which of Bonneville's costs should be included in the agreement (direct program, reimbursables, past capital investments) and how to allocate funds among them.

Draft Columbia River Basin research plan and regional monitoring and evaluation plan

The Council's fish and wildlife program is one of the largest regional efforts in the nation to recover, rebuild, and mitigate impacts of hydropower dams on fish and wildlife. As a planning, policy-making, and reviewing body, the Council develops and then monitors implementation of the program, which is funded by the Bonneville Power Administration and implemented by tribal, state, and federal fish and wildlife managers and others.

For more than 20 years the Council has supported a diverse range of research efforts, and these have substantially advanced the state of scientific understanding of fish and wildlife restoration. Yet the continuing absence of a plan to coordinate research has contributed to a lack of focus on key research needs. To complement its traditionally strong support for research, the Council has drafted a Columbia River Basin Research Plan for the primary purpose of guiding the development of a research program that would be implemented through the fish and wildlife program.

The Council recognizes that the status quo for research within the region consists of multiple, separate research plans. These plans make reference to the "need to coordinate" with other similar efforts but rarely set forth any explicit steps to achieve such coordination. The inherent difficulty in agreeing on problem definition, coupled with shared funding responsibilities under overlapping mandates, has resulted in a fragmentation of effort that explains why key research questions within the region have persisted. Consequently, a

secondary purpose of the plan is to provide a programmatic framework upon which to coordinate research and facilitate the integration of disparate research efforts within the region.

Some research questions have persisted for years because resource management agencies have been unable to secure or collaborate on the funding commitments necessary to mount organized, large-scale field experiments to address them. The Council's draft research plan attempts to divide complex issues into treatable questions. By providing a vehicle for the identification and organization of these questions, the plan could help the region identify gaps, avoid duplication, and provide a basis for establishing priorities for new and ongoing research. The draft research plan profiles a pool of critical uncertainties and research recommendations identified by the Council's two independent scientific review groups, fish and wildlife managers and other agencies and entities within the Columbia River Basin spanning all topic areas relevant to the program.

The draft plan is intended for policymakers and decisionmakers responsible for natural resource management within the Columbia River Basin. The plan will also provide useful guidance to planners, researchers, and project sponsors. The draft plan recognizes other research plans as important components of a potentially integrated regional research program and provides a framework for establishing linkages between existing and new research. The plan recommends research to be funded through the fish and wildlife program, as well as recommendations for research that will require collaborative, multi-party funding commitments by the Council and other entities with similar research mandates.

The Council plans to make the draft plan available for public review in September and October 2004. This will be followed by a review by the Council's ISRP and ISAB in November and December. The Council plans to approve the plan in January or February 2005.

In a related matter, the Council also has supported the Pacific Northwest Aquatic Monitoring Partnership (PNAMP). The purpose of PNAMP is to coordinate important scientific information at the appropriate scope needed to inform public policy and resource management decisions. Members of the partnership have included state, federal, and tribal personnel with a common interest in coordinating monitoring of various aspects of watershed conditions, fish populations, effectiveness monitoring, and management of resulting data. Improved communication, shared resources and data, and compatible monitoring efforts provide increased scientific credibility and greater accountability to stakeholders. The Council has assigned a staff

member of its fish and wildlife division to participate in PNAMP and coordinate its activities with implementation of the fish and wildlife program and development of the draft research plan.

ISRP review of the Corps of Engineers' Anadromous Fish Evaluation Program

In response to direction from Congress, the Council's ISRP conducts an annual review of the US Army Corps of Engineers' Anadromous Fish Evaluation Program (AFEP). The ISRP completed its first full review of the program in 2004.

The AFEP provides scientific information to assist the Corps in making engineering, design, and operations decisions to support safe, efficient passage of fish through the eight mainstem Columbia and Snake river hydroelectric projects. The ISRP review provides the opportunity to ensure that AFEP proposals receive a similar level of scrutiny for scientific soundness as proposals in the Council's fish and wildlife program.

The AFEP and the Council's program represent the two largest fisheries management and recovery programs in the Columbia River Basin. However, according to the ISRP review, there are significant differences between the two programs in their structures, proposal development, and proposal review processes. For example, the AFEP lacks a long-term strategic research plan or framework, whereas the Council's program and subbasin planning are specifically aimed at providing long-range planning for future fish and wildlife management goals. There is also a lack of coordination between AFEP and the Council's program, according to the review. The 2000 biological opinions of NOAA Fisheries and the U.S. Fish and Wildlife Service provide the nearly exclusive justification for the AFEP studies, thus neglecting broader, long-range goals, the ISRP commented.

Nevertheless, according to the review, the AFEP does a good job of using short-term research results immediately for both policy decisions and planning near-term new work. Current projects in the AFEP consist almost entirely of site-specific studies directed at narrow objectives for application to specific dam sites. The ISRP recommended that the Corps develop strategic multi- year research plans including identification of where more mechanism-oriented strategies, such as behavioral or mortality mechanisms, could yield benefits in research productivity, efficiency, and economy of time and funds, resulting in faster implementation of fish-protective features.

The ISRP was concerned that the proposal development review process for the AFEP lacks independent scientific review at any stage. In the future, the ISRP could provide this

function, according to the review. For example, the ISRP noted, most of the AFEP pre-proposals were not developed enough to be scientifically reviewed. As well, the ISRP concluded that the current proposal development process has little bearing on the selection of proposals for funding. Unless the AFEP proposal development process is modified, future ISRP review of AFEP proposals may not be particularly useful, as the present AFEP process does not have clear decision points where ISRP review can provide value to the scientific quality of the proposed studies and inform project selection and funding, the ISRP reported.

Finally, the ISRP identified the need for more explicit solicitation and funding of mechanism-oriented research to solve problems addressed through the AFEP. Currently, AFEP proposals can be grouped into those that are dependent upon hydrosystem operation decisions for the upcoming study year and those that are independent of such constraints. The ISRP recommended that proposals in the dependent category be prepared late enough in the fall to allow for current-year data to be analyzed with a specific study design based on the best current management advice or questions and include contingency plans to cover a reasonable range of operational alternatives. Proposals that are independent of hydrosystem operations can be solicited earlier and prepared over a longer time period that allows for a higher standard of proposal preparation following criteria recommended by the ISRP, according to the review.

Power issues

Draft Fifth Northwest Power Plan

The Northwest Power Act requires the Council to prepare a plan that looks 20 years into the future to assure the region an adequate, efficient, economical and reliable power supply. The plan must assure this supply while also protecting, mitigating and enhancing fish and wildlife of the Columbia River Basin, and related spawning grounds and habitat, that have been affected by hydroelectric dams. According to the Power Act, the Council must review the plan at least every five years. In 1998, the Council adopted its existing plan (the Fourth Northwest Power Plan).

In September, the Council released its draft Fifth Northwest Power Plan for public comment. The draft Fifth Power Plan responds to the extraordinary circumstances of the 2000/2001 West Coast energy crisis, when drought in the Northwest drastically reduced the hydropower supply. California's energy deregulation policies and market manipulation further exacerbated electricity shortages and high prices.

By 2000, the steady growth in demand for power on the West Coast through the 1990s caught up with the essentially static supply of power. In the deregulated, competitive wholesale energy marketplace, prices rose and fell with demand and supply, and power plant developers were reluctant to invest millions of dollars unless it was clear that prices would stay high enough over time to make the new power competitive when the new plants were completed.

By the winter of 2000/2001, wholesale prices were approximately 10 times higher than just six months earlier. While retail-level consumers were largely protected from those high prices, increased costs for utilities that buy wholesale power eventually translated into higher electricity rates for everyone. High wholesale prices prompted a spate of power plant construction in California and the Northwest. As the plants were completed in 2003 and early 2004, the result was an electricity supply capacity that the Council predicts will be adequate through approximately 2010, if the Council's predictions of demand growth are accurate.

However, there is an important difference between the current surplus and those surpluses the region experienced in the past. Most of the current surplus capacity is in power plants owned by independent power producers (IPPs). These plants do not have long-term commitments outside the Northwest and may not have firm transmission access to markets outside the region. Consequently, the plants are available to serve regional needs. However, unless Northwest utilities purchase equity in the plants, or contract for the power, it will be sold at short-term market prices.

From the fall of 2000 through the late spring of 2001 the region suffered extraordinarily high wholesale prices that caused an economic downturn. By 2004, the economy still had not recovered fully. The key issue for the Council's Fifth Power Plan, then, was how to avoid a repeat of the vicious cycle of the energy crisis and prepare to meet future demand for power. Planning for an uncertain future requires assessing risk.

To assess risk, the Council characterized key uncertainties the power system faces in order to illuminate choices about generating and conservation resources for the future. These key uncertainties included 1) potential variation in the output of the regional hydroelectric system; 2) potential growth in demand for electricity, based on Council analyses of economic, demographic, and technological factors; 3) potential fuel prices for power plants, based on Council analyses of price trends for natural gas, oil, and coal; 4) potential environmental regulations, particularly the potential for regulation of carbon dioxide emissions from power plants that burn fossil fuels; and 5) potential market prices for electricity, which largely are a

function of demand, supply and fuel prices, but which can also experience volatility that is independent of these factors.

The Council incorporated a full range of assumptions about these uncertainties into approximately 800 possible futures and then developed plans -- combinations of generating and conservation resources -- and tested them over all these futures. This "portfolio" analysis allowed the Council to assess the cost and risks of different plans. A key lesson from recent experience is that we cannot focus only on the most likely outcomes. The plan needs to perform well over a wide range of possible futures. The plan that yielded the lowest-cost response with acceptable risk became the Council's draft plan.

Here are some of the key elements of the draft plan:

Energy conservation: The Council's portfolio analysis found that sustained, aggressive development of conservation now will reduce average power system cost and risk in the future. In the past, the pace of conservation implementation varied widely from year to year as utilities responded to market conditions. The Council's analysis showed sustained and aggressive investment in conservation would reduce exposure to periods of high market prices, fuel price volatility, and possible future carbon penalties.

Demand response: Agreements between utilities and customers to reduce demand for power during periods of high prices and short supply should be put in place over the next few years so they can be implemented quickly to reduce demand for power when necessary. The Council estimated that demand response of up to 2,000 megawatts is feasible. Verification of these estimates over the next few years is important.

New generating resources: The development of new generating resources over the next few years depends largely on decisions regarding the existing IPP generation that is not currently committed to Northwest utilities. If Northwest utilities choose reduce their market risk by entering into long-term contracts with IPPs or actually purchasing their plants, there is little need for additional resources before the early part of the next decade. If utilities choose instead to build their own generation, new resource construction could begin as early as 2007. In either case, the analysis indicated the desirability of a diverse set of generating resources including natural gas-fired combined cycle combustion turbines, renewable resources with an emphasis on wind power, and coal-fired generation. The extent of coal's role in the plan was affected by perceptions of the risk of future policies to reduce carbon dioxide in the region.

To facilitate development, an inventory of permitted sites, including projects for which construction has been suspended, should be maintained. For new projects, needed transmission upgrades should be identified so that these resources can be constructed and brought on line quickly when needed.

The much expanded role for wind generation in this plan, compared to the Council's previous power plans, was partially the result of 1) possible future policies to reduce the emissions of carbon dioxide; 2) the forecast of significant wind plant cost reductions; 3) the avoidance of fuel price volatility; 4) relatively low costs to integrate wind into the existing power system; and 5) the ability to expeditiously extend transmission service to promising wind resource areas. The plan recommends that modest levels of wind power development should be undertaken at a geographically diverse set of promising wind resource areas over the next five years to resolve uncertainties associated with the resource and to prepare for its eventual large-scale development. The plan also encourages efforts to identify and develop cost-effective lost-opportunity generating resources, including combined heat and power (cogeneration) and biomass applications. Being ready to begin construction of new power plants means that the process of siting and licensing the necessary projects has already been accomplished and, if necessary, longer lead time activities, like construction of transmission upgrades, have been initiated so that resources can be brought on line as needed.

The plan recommends the following actions for the 2005-2010 period:

1) <u>Develop or acquire resources now that can reduce cost and risk to the region</u>.

   Under all possible futures, these include cost-effective conservation and lost-opportunity generating resources such as industrial combined heat and power projects. Utilities with resource needs should either acquire the output of existing IPP generation through purchase of equity in the power plants or through long-term contracts, or construct new generation themselves. The choice of "buy or build" is complicated by many factors that the Council cannot reflect in its analysis.

2) <u>Confirm the availability and cost of additional resources that promise cost and risk mitigation benefits</u>.

   These include demand response and wind as well as some other generating technologies.

3) Prepare to develop additional resources.

There are actions, such as preservation of permitted power plant sites, permitting of new sites, and the planning and siting of transmission, that can ensure development of cost-effective generating resources with minimum lead time when they are needed.

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

There are important policy issues such as resource adequacy, transmission management, and the future role of the Bonneville Power Administration that need to be resolved so that they do not impede necessary development.

5) Monitor key indicators that could signal changes in plans.

The region needs to be prepared to monitor key factors that will indicate whether the plan is on track or needs to be modified.

The draft plan is posted for public comment on the Council's website. The Council intends to adopt the plan in December.

High-voltage Transmission

The Council recognizes the importance of an adequate and well-functioning regional transmission grid to its ability to carry out its responsibilities in the Northwest Power Act. Accordingly, the Council has devoted attention and staff time to tracking and participating in several regional processes devoted to transmission. These include Bonneville's Round Table on non-wires alternatives to transmission construction, the Northwest Transmission Assessment Committee's examination of alternative transmission expansion schemes for future Northwest resource development, and the Grid West proposal for a new entity to manage and enhance Northwest grid access, provide better reliability information to the regional reliability coordinator and support a more comprehensive regional transmission planning process. Transmission issues and problems also are addressed in the upcoming draft Fifth Northwest Power Plan.

Recommendations on the future role of Bonneville

In recent years, the Bonneville Power Administration experienced periods of financial instability, based largely on its extraordinary expenditures for electricity during the West Coast energy crisis of 2000-2001. Bonneville regularly buys power to meet its obligations to its

customers, as the Federal Columbia River Power System cannot produce enough electricity to meet all of its customers' demand.

This fundamental issue -- Bonneville's role in regional power supply -- was at the heart of a proposal for the agency's future developed by a consortium of its customers in 2002. These recommendations were echoed by the Council and Bonneville itself. In 2004, the Council vetted its proposals in a public-review process and then submitted them to Bonneville, which took them into consideration and then issued its own recommendations. Bonneville's recommendations are very similar to the Council's and currently are undergoing public review. Bonneville planned to make a decision in the fall.

The key recommendation from the Council is that Bonneville would 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.

The financial crisis at Bonneville in 2002 and 2003 hampered the agency's ability to meet its obligations, including those to the U.S. Treasury, and also impeded the development of needed generation and conservation resources. Rate increases imposed by Bonneville damaged the Northwest economy. Regional demand for electricity still has not recovered to pre-2000 levels.

In response to a request from the Northwest governors, the Council worked with Bonneville and interests in the region to address Bonneville's future role in power supply and consider how the experiences of 2000 and 2001 might be avoided in the future. The Council consulted with a number of interests in the region and convened a broadly representative steering committee to help address the key questions.

The Council issued its final recommendations in April 2004. In addition to recommending that Bonneville divide the federal power system among its customers and largely remove itself from the wholesale marketplace, the Council recommended that Bonneville sell power through long-term (20-year) contracts guided by a clear and durable statement of policy. The Council said Bonneville should continue to pursue cost-effective energy conservation and renewable resources.

The Council also recommended that Bonneville provide a limited amount of power to its non-utility, direct-service customers, which primarily are Northwest aluminum smelters. This could involve Bonneville purchases of market power. To minimize the cost to other customers, Bonneville should sell surplus power to the industries through contracts that allow the power to be interrupted in emergencies, the Council said.

Finally, the Council recommended that Bonneville accomplish these changes through an administrative rulemaking, as opposed to a directive from the Bonneville administrator or changes in federal legislation.

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, as well as 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. In 2004, this included creating a new website, www.subbasins.org, for subbasin plans and related issues.

In 2004, the Public Affairs Division completed work on a new video that describes Council activities in fish and wildlife mitigation and power planning. This year the Public Affairs Division also produced the third annual report to the Northwest governors on Bonneville's fish and wildlife expenditures, and a guide to major dams of the Columbia River Basin.

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. The Trust and the Council formalized a liaison relationship in 2000, designating the vice chairs of each agency as official liaisons. Activities in 2004 are described below.

Council relationship with the Columbia Basin Trust

The Columbia Basin Trust, a Crown corporation of the Province of British Columbia, 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, the Council has maintained regular communications 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.

In Fiscal Year 2004, a delegation from the Trust met with the Council at the Council's October 2003 meeting in Missoula; in July 2004, a delegation of Council members and staff traveled to Cranbrook to meet with the Board of Directors of the Trust. A number of issues were discussed at that meeting, including opportunities for sharing data on fish, wildlife, and habitat in the transboundary areas, producing publications, co-sponsoring the next transboundary Columbia River ecosystem management conference in 2006, and the problem of pollution in Lake Roosevelt caused by discharges from the Teck-Cominco smelter in Trail. Most of the discussion, however, centered on the Trust's proposal for an international discussion forum on the future of Columbia River water management. The Trust refers to this as the initiation of a "high-level political transboundary dialogue" on water management issues that could be addressed in the next Columbia River Treaty if the two countries decide to negotiate one.

Although there is no official end date for the existing treaty, which dates to 1964, there are provisions for renewal, termination or re-negotiation after 60 years (2024) if 10 years' notice is given (2014). The forum would provide an opportunity to identify and discuss issues that could be on the table in 2014. The forum would *not* be a place to begin negotiating a new Columbia River Treaty, as neither the Council nor the Trust have any statutory authority

regarding treaty operations or treaty-making. However, both the Trust and the Council have credibility with key river stakeholders and mandates to involve and inform citizens about energy issues. Thus the Trust and the Council could bring people together to identify and discuss Columbia River water management issues, which could be valuable to the governments when, and if, a new treaty is negotiated.

The Trust and Council planned to continue working on the forum idea with the goal of convening the first meeting in the fall of 2005.

Administration

Council budget

In 1997, the Council entered into a budget limitation agreement with Bonneville that resulted in approximately $5 million of savings. To accomplish these savings in recent fiscal years, the Council reduced its workforce, eliminated vacant FTEs, cut travel costs, contract funding and administrative costs, and curtailed lower-priority activities.

In the current rate period, the Council again made a commitment 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 growth. This will save another $1.1 million over the rate period. Additionally, the Council is freezing the number of FTEs in the budget while continuing to undertake additional work and responsibilities in the region, particularly in fish and wildlife recovery efforts.

The proposed 2005 and 2006 budgets reflect current levels for staffing and contracting. The Council's Fiscal Year 2005 revised budget of $8,692,000 is $193,000 higher (2.3 percent) than the 2004 budget of $8,499,000. The proposed Fiscal Year 2006 budget of $8,700,000 is $8,000 higher (.09 percent) than the revised Fiscal Year 2005 budget, reflecting increases in personal services, cost-of-living adjustments, and inflationary increases in the Council's other operating expenses.

Council funding formula

As we reported to you last year, the Council has accepted an enhanced role and additional responsibilities in recent years, particularly for fish and wildlife mitigation activities, but the

Council has not received additional funding to support these activities. The primary factor that undermines the stability of Council funding is Bonneville's forecast of firm power sales. Forecasted firm power sales are the basic element in the formula provided in the Act for calculating the Council's funding base. The Act envisioned that Bonneville's firm power sales would increase as utilities were allowed to place additional loads on Bonneville, but this hasn't happened. In fact, prospects for increased power sales in the future are questionable.

There are other factors that also impact Bonneville's firm power forecasts. For example, the overall generating capacity of the Federal Columbia River Power System has been downrated over the past 20 years by approximately 1,000-1,200 average megawatts for fish passage purposes. Another 2,200 average megawatts of residential exchange sales between Bonneville and investor-owned utilities, consistent with Section 5(c) of the Power Act, has been converted to a financial payment that Bonneville now specifically excludes from its firm power forecasts.

As discussed elsewhere in this report, Bonneville, its customers and even the Council recommend that Bonneville limit the majority of its power sales to the output of the Federal Columbia River Power System in the future. This would reduce Bonneville's role in meeting the demand of its customers beyond the capability of the federal system and greatly reduce Bonneville's purchases of market power. Market purchases during the energy crisis of 2000-2001, when prices jumped up to 10 times average and higher, largely were responsible for the agency's financial crisis in 2002 and 2003.

Currently, Bonneville markets the output of the Federal Columbia River Power System and augments that power supply with market purchases in order to meet its customers' load. The Power Act did not anticipate that electricity one day would be a wholesale commodity, or that its price would fluctuate wildly with supply and demand. Bonneville's firm power sales also can fluctuate dramatically, depending on the market volatility of wholesale electricity prices. This was clear during the energy crisis.

If Bonneville's firm power sales had increased as envisioned in the Act, then the Council's funding base would have had the flexibility to adjust to the inflationary cost impacts of doing business. Instead, the Council has had to absorb the increased costs associated with its additional responsibilities by reducing its capability to conduct independent planning and analysis activities. Bonneville, on the other hand, can cover inflationary cost impacts by adjusting its rates to meet its revenue requirements.

During recent Bonneville rate periods, the Council has been compelled to enter into budget limitation agreements in order to assure some degree of funding stability. These agreements, however, have not been sufficient to address or restore the Council's potential planning capabilities to prior levels. Council staff and Bonneville met periodically in 2004 to continue discussions on developing a more stable long-term funding formula for the Council. However, without revision of Section 4.(c)(10)(B) of the Power Act, as previously discussed, the Council and Bonneville have been unable to reach agreement on any alternative long-term funding methodology that would serve Congressional purpose in that section of the 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.

Council Members (2004) and Offices

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

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

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

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

MONTANA
Ed Bartlett
John Hines
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 Director: Dick Watson
Fish and Wildlife Director: Doug Marker
Public Affairs Director: Mark Walker
General Counsel: John Shurts
Administrative Officer: Jim Tanner

Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

EXECUTIVE OFFICE

In reply refer to: DR-7C

Judi Danielson, Chair
Northwest Power & Conservation Council
P.O. Box 83720
Boise, ID 83720-0062

Dear Ms. Danielson:

As the Northwest Power and Conservation Council (Council) submits its Fiscal Year 2004 Annual Report to Congress, I want to acknowledge the contributions you have made in 2004 to Pacific Northwest power planning and fish and wildlife.

The Council adopted the Fifth Northwest Electric Power and Conservation Plan – the first Council power plan to address head-on the uncertainties and risks of the deregulated electricity market. The Plan identifies conservation as the resource of choice in the near-term. This is consistent with Bonneville Power Administration's (BPA) own strategic choice to develop all cost-effective conservation on the loads that we serve.

The Plan also envisions a more limited role for BPA in providing for the region's load growth. In this context, we are pleased to see the Council stepping forward to help the region arrive at an enforceable resource adequacy standard in the coming year. Assuring that all utilities are clear about their load serving obligations will be the foundation for ensuring the region a reliable, economic, and adequate power system.

In 2004, you also spearheaded development of 59 draft subbasin plans, 29 of which you have already adopted. These plans represent a new threshold of local contribution and collaboration. The insights they provide into fish and wildlife and their habitat will help pave the road for long-term recovery planning under the Endangered Species Act (ESA). In the coming year, we anticipate working with the Council to finalize a long-term funding arrangement for the integrated fish and wildlife program, one that reflects our responsibilities under both ESA and the Northwest Power Act.

Finally, we commend the Council for your continued focus on balancing the multiple purposes of the federal hydro projects. We note that the Council's hypotheses on summer operations at Libby and Hungry Horse dams, first specified in the 2003 mainstem amendments, were affirmed by scientific review in 2004.

The region will look back on 2004 as an important year for the Council and its mission in the region. Congratulations on a year of impressive achievements.

Sincerely,

Stephen J. Wright
Administrator and
Chief Executive Officer