

ANNUAL REPORT TO CONGRESS  
AND CITIZENS OF THE PACIFIC NORTHWEST



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**28th ANNUAL REPORT**  
**of the**  
**Northwest Power and Conservation Council**  
**For the period October 1, 2007 through September 30, 2008**

*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 Natural Resources  
United States House of Representatives*

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*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](http://www.nwcouncil.org).*



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March 2009

To Congress and the Citizens of the Pacific Northwest:

This document is the annual report of the Northwest Power and Conservation Council to Congress as required by the Northwest Power Act of 1980, the federal law that authorized the states of Idaho, Montana, Oregon, and Washington to create the Council. The report provides a synopsis of the major activities of the Council during the fiscal year ending September 30, 2008.

The report begins with a brief review of the state of the Columbia River Basin in terms of the power-planning and hydropower-mitigation requirements of the Power Act. An appendix follows with specific information about the Council's activities, organized around the Council's major responsibilities. The report concludes with information about the Council's budget and administration.

Twenty-eight years after Congress passed the Power Act, the Council continues to provide Northwest citizens with a fish and wildlife mitigation program based on the best available scientific information and a power plan intended to assure the Northwest an adequate, efficient, economical, and reliable electricity supply. The Council encourages broad public participation in its planning activities and therefore offers a unique opportunity to citizens to participate in decision-making about future sources of electricity and mitigation of hydropower impacts on fish and wildlife of the Columbia River Basin.

I am pleased to submit this report for Fiscal Year 2008.

Sincerely,

W. Bill Booth  
Chair



W. Bill Booth  
Chair





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# The State of the Columbia River Basin

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## Overview

In the Pacific Northwest in 2008, wind power development continued to boom, salmon and steelhead -- particularly sockeye salmon -- returned from the ocean in above-average and in some cases record numbers, and states and Indian tribes signed agreements with the federal government that will boost spending on fish and wildlife recovery projects by \$90 million to an average of \$230 million per year.

With climate-change concerns, growth in regional population, rising energy consumption, and escalating costs for new power sources, public attention is focused on exploring ways to improve energy-use efficiency, protect fish and wildlife and, at the same time, use the flexibility of the region's vast hydropower system to backstop the proliferation of renewable energy, particularly wind power. In 2008, the region's electric utilities and the Bonneville Power Administration reported their energy conservation achievements for 2007, and the results were impressive -- 202 megawatts, the best annual achievement since the region began acquiring efficiency under the Northwest Power Act. The 2007 accomplishment raises the efficiency total since the early 1980s to 3,700 megawatts. Expressed as electricity generation, that is the equivalent of seven large natural gas-fired or coal-fired power plants that did not have to be built in the Northwest. It is the electricity-use equivalent of the entire state of Idaho plus western Montana.

The power supply remains adequate, for now. In a 2008 analysis, the Council predicted the electricity supply is sufficient to avoid shortages for at least the next five years. The Council also joined the Bonneville Power Administration and others in assessing the impacts of wind-power generation on the existing system of high-voltage transmission lines and in recommending ways to reduce the amount of carbon dioxide created by thermal power plants in the region.

Potential effects of climate change and concern for improving the effectiveness of fish and wildlife expenditures also are at the heart of a longer-term effort the Council initiated in 2007 and 2008: Revising the Columbia River Basin Fish and Wildlife Program and Northwest Power Plan. The text of the new fish and wildlife program was approved by the Council in February 2009 (the program becomes official when the Council approves the findings on recommendations, which is scheduled for April), and the new power plan is anticipated in the fall of 2009.

### *Energy conservation achievements break one-year record in 2007: 202 average megawatts*

The Pacific Northwest is acquiring energy conservation at a record pace. In 2008, we learned that the region's electric utilities and the Bonneville Power Administration reduced demand for electricity by 202 average megawatts in 2007 through improved efficiency. This is the highest single-year achievement since 1982, when the Council first issued the Northwest Power Plan.

In all, the region has acquired more than 3,700 average megawatts of efficiency improvements since 1982, all of it at a cost of less than 3 cents per kilowatt-hour. Nearly half of the region's electricity load growth during that period has been supplied by energy efficiency. Since 2004, when the Council issued its Fifth Northwest Power Plan, we have identified another 700 average megawatts of efficiency available for the same low price, bringing the potential over the next 20 years to 3,100 average megawatts. Even more is available at higher prices, and so as the price of electricity increases, new conservation will become increasingly cost-effective.

In 2008, the Council, Bonneville, Pacific Power, and more than two dozen partners representing utilities, state regulatory agencies, environmental groups, and others created the Northwest Energy Efficiency

Taskforce (NEET) to explore promising opportunities to deliver conservation through regional collaboration. NEET plans to issue its recommendations in January 2009.

### *2008 sockeye salmon run was the biggest in decades*

2008 was a surprisingly good year for sockeye salmon returning from the ocean to the Columbia and Snake rivers. By the first week of September, more than 213,600 adult sockeye had been counted crossing Bonneville Dam on their way to spawn in north-

central Washington, British Columbia, and Idaho. The run, which far exceeded expectations, is the largest since 1955 at

Bonneville and is nearly four times the average for the last 10 years at the dam. In 2007, the sockeye count at Bonneville was 24,372. The 10-year average at Bonneville Dam is 58,551 fish.

The biggest news for sockeye in 2008, however, was the return up the Snake River. Through late October, 907 sockeye had crossed Lower Granite Dam, the last of eight dams (four on the lower Columbia and four on the lower Snake) the fish must pass on their way to spawn in the Salmon River headwaters lakes of central Idaho. The 2008 return to the Snake River is the largest since 1969, when 1,127 fish were counted at Lower Monumental Dam, the next dam downstream (Lower Granite was completed in 1975). The 2008 return is nearly 20 times the average return of the last 10 years at Lower Granite, which was just 42 fish. In 2007, 53 sockeye were counted at the

dam. The big sockeye return this year likely was due to several factors including good ocean conditions; favorable river conditions in 2006 when the fish released from upstream hatcheries migrated as juveniles, including extra spills over dams ordered by a federal judge; and changes at federal dams that made it easier for the fish to cross.

2008 was a better year than 2007 for other salmon returning to the Columbia River Basin, as well. A total of 125,545 spring Chinook were counted crossing Bonneville Dam, up from 67,482 in 2007 but fewer than the average of the last 10 years, 151,523. Summer Chinook counts also were up at Bonneville in 2008 -- 78,271 fish, compared to 47,412 in 2007. The 2008 run was larger than the 10-year average of 71,262 fish. For fall Chinook, the 2008 total of 314,504 fish far exceeded the 2007 count of 158,883 but was below the 10-year average of 355,373 fish. The 2008 coho run of 134,452 fish counted at Bonneville exceeded both the 2007 run (90,103 fish) and the 10-year average at Bonneville (102,717 fish). Steelhead also did well in 2008, with the run at Bonneville totaling 355,610 fish, compared to the 2007 run of 320,304 and the 10-year average of 340,691 fish.

### *Fish and Wildlife Program is being revised*

In 2008, the Council continued work on a revision of its Columbia River Basin Fish and Wildlife Program. The revision began in November 2007 and is the first revision since 2005 (by law, the Council revises its Fish and Wildlife Program and Northwest Power Plan at least every five years). The Council issued a draft revised program for public comment in September. The comment deadline was December 1. The Council plans to issue the new program in February 2009.

Key themes of the draft revised program include 1) emphasizing implementation of fish and wildlife projects based on needs identified in subbasin management plans and also on actions described in federal biological opinions on hydropower operations, hatcheries, and harvest, and in the 2008 Fish Accords (described in the appendix to this report); 2) continuing the Council's



Left to right: Council Member Dick Wallace (with cap), Council Chairman Bill Booth, Idaho Governor Butch Otter (in black hat) and First Lady Lori Otter, work to release sockeye spawners at Redfish Lake.

commitment to independent scientific review of all projects proposed for funding through the program, including those actions described in the biological opinions and the Fish Accords and, 3) focusing on protection and restoration of habitat in order to rebuild healthy, naturally producing fish and wildlife populations. The draft program also calls for further review of specific issues such as the effects of global climate change, toxic substances, and invasive species on fish, wildlife, and habitat.

The draft program continues the Council's commitment to independent scientific review of projects that implement the program. Independent scientific review supports the adaptive-management approach in the program, which has been the Council's focus since the inception of the program in 1982. Independent scientific review also helps the Council's decision-making by explaining the current level of technical knowledge and the relative confidence level that scientists have in the information, and also how best to monitor and address the uncertainties and relative risks of different policy options. This helps the Council manage the uncertainty and risk in making and adapting decisions to implement the program.

Another way the Council is working to increase the accountability of the fish and wildlife program is to develop a set of high-level indicators to measure the success of the projects in the program. The Council began developing the indicators this year. The indicators will track progress in the general categories of land, water, passage, fish-diversion screens, and habitat improvement for biological, implementation, and management components of projects. When completed, these indicators will be used in the Council's annual reports to Congress, the region's Governors, and citizens of the Northwest.

Also in 2008, the Council continued to participate in the work of the Hatchery Scientific Review Group (HSRG), a congressionally mandated review of salmon and steelhead production facilities in the basin. The HSRG completed its review of hatcheries in the lower Columbia River Basin, downstream of Bonneville Dam, in late 2007 and plans to complete its review of

hatcheries above Bonneville in early 2009. The Council will consider adoption of the HSRG recommendations into the new Fish and Wildlife Program.

### *2008 Fish and Wildlife Expenditures totaled \$174 million*

The Council's Columbia River Basin Fish and Wildlife Program benefits all fish and wildlife in the basin; anadromous fish like salmon and steelhead, as well as resident fish like bull trout and kokanee that do not migrate to the ocean. The program finances artificial-production facilities for anadromous and resident fish, habitat improvements and land acquisitions for fish and wildlife, research, and projects to monitor and evaluate the success of the program.

In Fiscal Year 2008, program funding, which is provided by the Bonneville Power Administration, totaled \$174,413,008. This is a preliminary calculation because Bonneville had not finalized its accounting for the fiscal year when this report was issued. The total includes \$148,878,537 in expense (or direct) funding of projects, and \$25,534,471 in 2008 funding for capital improvement measures (these include funding of hatchery construction and some wildlife habitat acquisitions, for example). In the expense category, the largest single amount was for research, monitoring, and evaluation, which totaled about \$51.3 million. Habitat projects totaled about \$41.2 million, and artificial production projects accounted for about \$23.6 million. The largest capital expenditures, as defined by Bonneville, were for fish and wildlife habitat acquisition or construction of facilities for several ongoing projects in the Willamette River Basin of Oregon, in southern Idaho, and for the Snake River sockeye production program.

### *Wind power development is accelerating: 2,900 megawatts and growing*

Wind power is a booming industry in the Northwest, and it does not appear to be slowing. Since 2000, the Northwest has acquired nearly 3,500 megawatts of new wind-power capacity. The Council's

Fifth Northwest Power Plan, issued in late 2004, anticipated 6,000 megawatts of new wind-power capacity over the 20-year horizon of the plan. However, renewable portfolio requirements in Washington and Oregon may require 50 percent more, and proposed greenhouse-gas regulation may push the amount even higher.

While the rapid proliferation of a clean, renewable resource is good news, there is an obvious roadblock ahead: Transmission capacity. The region does not have sufficient transmission to support the anticipated wind power. Limited transmission capacity already is increasing the demand for, and the cost of, wind-power sites with access to transmission. The Bonneville Power Administration, which owns and operates most of the high-voltage transmission in the Northwest, is working to build new lines and increase the capacity of some existing lines in diverse geographic areas.

According to figures compiled by the Council and updated regularly, the Northwest power supply includes 2,928 megawatts of wind-power capacity, or 5.2 percent of all electricity-generating capacity in the region (as of October 2008). Integrating thousands of megawatts of variable wind power into the existing power system is a difficult challenge, requiring sufficient backup power for those times when the wind does not blow. Most of the new wind power is located within Bonneville's service territory. As of September 2008, Bonneville had 1,500 megawatts of wind power online, an amount expected to double in two to three years. As a result, wind-power capacity as a share of Bonneville's peak load is approaching 30 percent and is expected to grow. The national average for providers of electricity and transmission services is much lower.

In 2006 and 2007, the Council, Bonneville, and others studied the challenges of integrating large amounts of wind power into the regional electricity system. The subsequent report, issued early in Fiscal Year 2008, included many recommendations, such as improving wind-power forecasting and also improv-

ing the transmission system to handle sudden surges caused by bursts of wind-power generation. A task force created to work on wind-integration issues continued to meet in 2008.

An emerging challenge for the Northwest is that some wind power generated in the region is contracted to California utilities to comply with renewable-energy



portfolio standards in that state. The issue of access to transmission and its cost, and other implications of wind power development in the region, will be addressed in the Council's Sixth Northwest Power Plan.

### *Report looks at reducing the "carbon footprint" of the Northwest power supply*

Wind-power development will help reduce the amount of carbon dioxide released by the region's thermal power plants, but it will be impossible to meet greenhouse-gas reduction goals without retiring coal-fired power plants in the Northwest. Early in Fiscal Year 2008, the Council reported on the "carbon footprint" of the region's power supply. According to the report, meeting future demand for electricity in the Northwest with aggressive development of new energy conservation and wind power will help reduce -- but not halt -- the growth of the region's contribution of carbon dioxide (CO<sub>2</sub>) to the atmosphere from electricity production.

The report highlights the challenges facing the region in trying to control CO2 emissions from the power system. For example, approximately 85 percent of CO2 production from power generation in the region comes from existing coal-fired plants, which provide about 14 percent of the region's electricity-generating capacity. Reducing CO2 emissions to 2005 or 1990 levels, as some policies require, will necessitate replacing some existing coal-fired power plants with low-CO2-emitting resources.

The report shows how difficult reducing emissions to 1990 or 2005 levels will be. Achieving recently enacted state standards for renewable energy and also eliminating all summer spill at Columbia and Snake river dams -- this includes spill that may be required under certain conditions by the 2008 Biological Opinion -- would reduce the region's projected increase in CO2 production by one-half or less by 2024, even when counting the resulting net CO2 reduction throughout the West.

### *Bonneville nears new contracts with customers*

Future power supplies and the cost of power are among the issues being addressed by Bonneville as it works with its customers on new, 20-year power-sales contracts. In August 2008, Bonneville released final contract templates. The templates are the result of several years of collaborative work among Bonneville and its customers to establish a new rate structure to ensure Bonneville recovers its costs, provides choices for its customers to meet their load growth, promotes conservation, and shares the benefits of its low-cost power with the region.

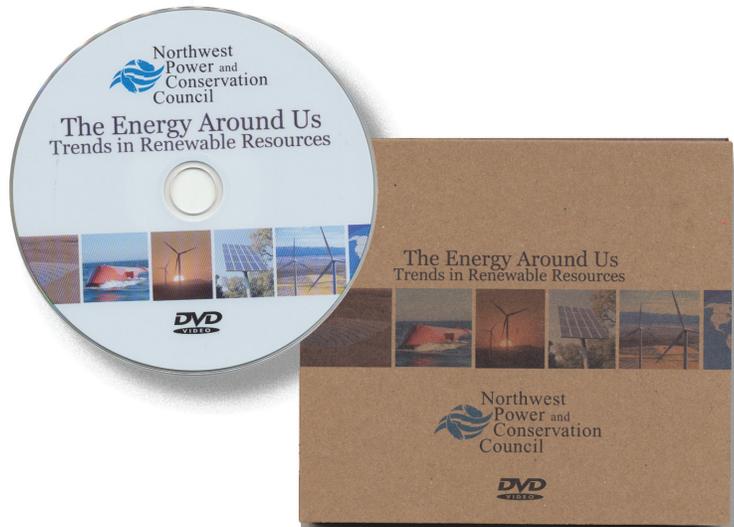
### *Public information activities include a new video: "The Energy Around Us"*

In 2008, the Council completed a 15-minute video, "The Energy Around Us: Trends in Renewable Resources." The film is available in DVD format free of charge by calling the Council at 800-452-5161 or by

sending an e-mail to [info@nwcouncil.org](mailto:info@nwcouncil.org). The film describes some of the leading examples of renewable energy resources now available. The Council also issued its seventh annual report to Northwest governors on expenditures of the Bonneville Power Administration to implement the Council's Fish and Wildlife Program.

The report is posted on the Council's website

Meanwhile, the Council continued its international collaboration with the Columbia Basin Trust, a Crown Corporation of the Province of British Columbia and the Council's closest Canadian counterpart. The Council and Trust are facilitating an international partnership to share information about the Columbia River system in Canada and the United States. The International Columbia River Basin Center of Information is an Internet-based portal to information about the Columbia River, including water uses, water resources, history, international treaties, and water and energy issues and policies. When complete, the Center will be hosted on the website of the Northwest Environmental



Data Network.



# Appendix

## I. Power Planning

### A. Adequacy of the Northwest Electricity Supply

The staff of the Northwest Power and Conservation Council monitors electricity demand and electricity supply and reports annually to the Council. The 2008 analysis shows the Northwest electricity supply is adequate to avoid severe power outages for the next five years. At the same time, however, the analysis recommends that electric utilities to continue to plan for new power-generating resources and energy conservation in order to minimize exposure to potentially high-cost wholesale power and to meet state-mandated renewable-resource requirements.

The Council's analysis looks three and five years into the future. The 2008 analysis predicts a very low likelihood of a severe curtailment to service during the next five years, based on existing supplies. It also notes, however, that by 2013 the surplus-power reserves shrink because of predicted increases in demand, especially during summer months.

The Council's annual analysis is intended as an early-warning system in the event that power resource development falls dangerously short of anticipated demand. The current analysis suggests a higher threshold of power-resource development is desirable to offset exposure to high-priced market supplies in the future. However, the analysis makes no assessment of how many or what types of new resources should be built or acquired in order to 1) minimize exposure to potentially high-cost wholesale power if demand increases and supply decreases; 2) fulfill state-mandated renewable resource requirements; or 3) address individual utility needs. Those issues will be addressed in the Council's Sixth Northwest Power Plan, which the Council plans to issue in mid-2009.

The Council's analysis is based on a power-resource adequacy standard adopted by the Council last April. The standard was developed during a two-and-a-half-year period by the Resource Adequacy Forum, a

consortium of utilities, the Council, Bonneville Power Administration, and state utility regulatory agencies. It will be used by the Council in its long-range power planning. Utilities are also using the analysis and data derived from the standard in their own resource planning processes. The power-resource adequacy standard is discussed elsewhere in this report.

The 2008 analysis is posted on the Council's website.

### B. Energy Conservation Accomplishments

In May 2008, the Council reported the Northwest achieved more energy conservation in 2007 -- 202 average-megawatts -- than in any year since Congress passed the Northwest Power Act in 1980. The Council reported on the accomplishment the following month at a hearing of the Subcommittee on Water and Power of the House Committee on Natural Resources. The conservation -- more precisely, improved efficiency of electricity use resulting in reduced demand -- came from multiple sources including the effect of state and local building codes and national energy-efficiency standards for appliances, and from energy-efficiency programs and incentives offered by states, the Bonneville Power Administration, and the region's public and investor-owned utilities.

The largest share of the savings in 2007 was in the residential sector, and the largest contribution -- 60 percent of the residential savings -- was from compact fluorescent light bulbs. Between 18.5 million and 19 million bulbs were sold in the Northwest in 2007 -- more than any other region of the United States in terms of bulbs per person.

The 2007 achievement brings the region's total since the 1980 Power Act was enacted, which made conservation a resource equal to power generation, to 3,700 average-megawatts. The average cost of this conservation was less than 3 cents per kilowatt-hour. The current cost of wind power, by comparison, is more than 8 cents per kilowatt-hour.

Expressed as electricity generation, 3,700 average-megawatts is enough power to supply the entire state of Idaho and all of western Montana, with 400 megawatts left over. Put another way, 3,700 megawatts is equal to the output of seven, 500-megawatt coal-fired power plants, 13.5 million tons of carbon dioxide emissions from thermal power plants, and a savings to consumers, compared to the cost of electricity from the wholesale market, of nearly \$2 billion per year in 2007 dollars.

Looking to the future, the Council has identified more than 3,000 additional megawatts of available conservation, also at a cost of less than 3 cents per kilowatt-hour.

### *C. Carbon “Footprint” of the Northwest Power System*

In 2006, the Council asked its staff to analyze the marginal carbon dioxide (CO<sub>2</sub>) effects of energy conservation recommended in the Council’s Fifth Power Plan, issued in 2004. Following the analysis, the Council asked for additional analysis of CO<sub>2</sub> production by the Northwest power system under various future resource-development scenarios. The Council reported the results of the analysis in November 2007 in a report entitled “Carbon Dioxide Footprint of the Northwest Power System” (Document 2007-15, posted on the Council’s website).

According to the report, meeting future demand for electricity in the Northwest with aggressive development of new energy conservation and wind power will help reduce -- but not halt -- the growth of the region’s contribution of CO<sub>2</sub> to the atmosphere from electricity production. The report highlights the challenges facing the region in trying to control CO<sub>2</sub> emissions from the power system.

According to the report:

- Approximately 85 percent of CO<sub>2</sub> production from power generation in the region comes from existing coal-fired plants, which provide about 14 percent of the region’s electricity-generating capacity. Achieving reductions of CO<sub>2</sub> production to 2005 or 1990 levels, as some policies require, will necessitate replacing some existing coal-fired power plants with low CO<sub>2</sub>-emitting resources. The analysis shows how difficult it will be to reduce CO<sub>2</sub> production to 1990 levels. Achieving recently enacted state standards for renewable energy and eliminating all summer spill at Columbia and Snake river dams (this includes spill in the 2004 Biological Opinion and additional spill ordered by the federal court) would reduce the region’s projected increase in CO<sub>2</sub> production by 2024 by less than half, even when counting the resulting net CO<sub>2</sub> reduction throughout the West.
- Achieving the goals for energy conservation and wind power in the Council’s Fifth Northwest Power Plan will cause CO<sub>2</sub> emissions from electricity production in the Northwest to grow at a rate of less than 1 percent per year through 2024 (the plan looks 20 years into the future).
- However, achieving only 70 percent of the conservation goal in the power plan would increase reliance on power from plants burning natural gas or coal and would add about 6.3 million tons per year of CO<sub>2</sub> to the atmosphere, an amount equal to about 9 percent of annual CO<sub>2</sub> production in the Northwest.
- Achieving state renewable energy goals would reduce CO<sub>2</sub> emissions westwide by 2.9 million tons per year.
- Breaching the four federal dams on the lower Snake River (Lower Granite, Little Goose, Lower Monumental, and Ice Harbor) would increase CO<sub>2</sub> emissions by 5.4 million tons per year, an amount equal to about 8 percent of current CO<sub>2</sub> production in the Northwest. This is because supplies of renewable power are not yet sufficient to replace energy generated by the four Snake River dams.
- Court-ordered summer spills of water at lower Snake and Columbia river dams, which reduce hydro-

power production, add about 1.8 million tons of CO<sub>2</sub> to the atmosphere, an amount equal to about 3 percent of CO<sub>2</sub> production in the Northwest. As ordered by the Court, these spills continue through August; however, provisions in the 2008 Biological Opinion call for summer spill to be terminated if there are fewer than 300 juvenile fish daily migrating past the dams. The Biological Opinion also includes spring spill.

The report responds to increasing public interest in the role of greenhouse gases like CO<sub>2</sub> in climate change, the sources of CO<sub>2</sub>, and how emissions might be controlled.

#### *D. Issues for the Sixth Northwest Power Plan*

In Fiscal Year 2008, the Council began working on the next revision of the Northwest Power Plan. As discussed elsewhere in this report, the Council planned to complete an amendment of the Fish and Wildlife Program in 2008 while at the same time beginning the amendment process for the Power Plan. The Power Plan amendment always follows the Fish and Wildlife Program amendment, allowing its measures that affect hydropower-dam operations to be incorporated in the Council's planning for future electricity generation and conservation resources.

In preparation for the next -- sixth -- Power Plan, the Council issued a paper for public comment with a number of major issues to address. Each of the Council's five power plans has been organized around a theme. The theme of the current, Fifth Power Plan, is adapting to changes brought about by the transition to a competitive wholesale electricity market. Climate change policies and adaptation to the impacts of those policies will be a major theme of the Sixth Power Plan.

Renewable portfolio standards and carbon-control regulations have been established in many states in the Northwest and the wider West. In addition, CO<sub>2</sub> emissions targets have been adopted by the Western Climate Initiative and many states. The Council's paper on the "carbon footprint" of the Northwest power system illustrated the difficulty of achiev-

ing emissions targets while maintaining an economical and reliable power system.

Accordingly, the Council identified the following issues to address in the plan:

- Electricity price volatility and risk, and the resulting value of resource adequacy and improved efficiency
- Potential climate-change impacts on the Columbia River and its tributaries, and the resulting impacts on hydropower generation and supply, and related policies
- Electricity loads on an annual, daily, hourly, and sub-hourly basis
- Generating and conservation resource alternatives
- Transmission constraints and their effect on electricity markets and resource development
- Power planning issues regarding hydropower dam operations to protect fish during dam passage
- Appropriate avoided-cost measures for resource decisions

Another issue for the power plan is the future role of the Bonneville Power Administration in power supply. In 2008, Bonneville continued to refine its Regional Dialogue policy with the goal of offering new, 20-year contracts to its utility customers by the end of the calendar year. Through the Regional Dialogue policy, Bonneville plans to clarify its future role in electricity-resource acquisition, and the new power plan will reflect Bonneville's decision.

#### *E. Power Generation Resource Adequacy Standard*

In March 2008, the Council completed work on a standard for the adequacy of future electricity supplies. The standard should serve as an early warning about the potential for future electricity shortages in the Northwest.

The standard was developed over two and a half years by the Pacific Northwest Resource Adequacy Forum, a committee of electricity suppliers and regulators created by the Council and the Bonneville Power Administration. Compliance with the standard is not mandatory, and there is no enforcement mechanism. At the same time, the existence of a standard should

not encourage complacency regarding future power supplies. The region's utilities and utility regulatory agencies still need to determine how much new generation and conservation will be needed to meet future demand for power.

The standard is published in a paper, *A Resource Adequacy Standard for the Northwest*, which is available on the Council's website. The standard is based on an analytical assessment of the likelihood of a regional power failure.

The standard includes two broad categories, or measurements, one for regional energy and one for regional capacity. Under the standard, energy is the average electricity production over a year, and capacity is the maximum amount of power produced during a multiple-hour period of high demand (such as periods of extreme high or low temperatures). The energy measurement is regional electricity generation that matches the demand for power on an annual basis. The capacity measurement is an amount of excess available power during periods of peak demand. In winter, the capacity measurement is 23 percent above the anticipated peak, and in summer it is 24 percent.

The standard assumes that power supplied by independent producers in the Northwest could be sold to Northwest utilities, provided that it is not already committed to utilities outside the region. The Resource Adequacy Forum also made clear that the proposed standard is for the entire Northwest power supply, not necessarily for individual utilities within the region. Some have an electricity surplus and others do not.

The Council will use the standard for its own power planning, and it also should prove useful for utilities and public entities in the region in planning future electricity resources. The standard is also expected to be considered in Westwide adequacy assessments conducted by the Western Electricity Coordinating Council.

## *F. Northwest Energy Efficiency Task Force*

In June 2008, the Council, Bonneville, and Pacific Power initiated the Northwest Energy Efficiency Task Force to identify ways to accelerate the acquisition of conservation. The goal of the task force, which has more than two dozen members including representatives of utilities, businesses, and interest groups, is to reduce further the demand for power, improve environmental quality, and lower costs for consumers.

The task force will address the future of energy-use efficiency in six areas: 1) data and research needs; 2) research and development of new technologies; 3) utility-funded initiatives to acquire energy efficiency; 4) marketing and public awareness; 5) education and workforce recruitment for energy-efficiency jobs; and 6) energy-efficiency policy options. The task force planned to focus on those challenges and related issues in its work through the summer and fall, and then report its recommendations in January 2009. The effort may conclude with an energy-efficiency symposium, open to the public, to discuss and highlight the results and recommendations.

The task force has three co-chairs: Steve Wright, administrator of the Bonneville Power Administration; Pat Reiten, president of Pacific Power; and Tom Karier, a Washington member and former chairman of the Council.

## *G. Energy Efficiency Accounting*

Beginning in 2011, when its new power sales contracts go into effect, Bonneville will pursue all regionally cost-effective electricity savings within the entire service territories of its public utility customers. Bonneville's conservation target will be based on the entire load of its public utility customers, not just the share of load supplied by Bonneville resources. This will mean an increase over Bonneville's current target for conservation in the Council's Northwest Power Plan. In November 2007, Bonneville and the Council agreed on how to count future conservation acquisitions against the target.

Bonneville intends to continue to count savings from measures, projects, or programs funded directly

by Bonneville in whole or in part, as it does today. In addition, Bonneville also intends to count savings secured by its public utility customers resulting from Bonneville policies encouraging or facilitating conservation acquisition, such as tiered rates and providing credit for utility-funded conservation toward each utility's "High Water Mark" in the 2007-2011 period.

Bonneville's policy to move to tiered rates beginning in 2011 should increase incentives for its customer utilities to acquire conservation on their own. In addition, state and federal tax credits and state incentives and requirements for new conservation will contribute to savings. Bonneville's new policy will eliminate an arbitrary determination of which efforts caused which savings and allow the conservation target to be based on the combined loads of Bonneville and its customer utilities.

This approach will increase the likelihood of reaching regional conservation targets and will simplify conservation tracking and reporting. Bonneville also committed to ensure that its public utility customers meet their proportional share of the Council Plan's conservation goals, even if only part of their power is supplied by Bonneville.

## II. Fish and Wildlife Planning

### *A. Columbia River Basin Fish and Wildlife Program Amendment*

In November 2007, the Council began a year-long public process to amend its Columbia River Basin Fish and Wildlife Program, the largest regional fish and wildlife recovery effort in the United States.

Through the program, the Council and the Bonneville Power Administration direct more than \$140 million per year to projects to mitigate the impacts of hydropower dams on fish and wildlife. The amount will increase to \$200 million in Fiscal Year 2009 and \$230 million in Fiscal Year 2010 as the result of project-funding commitments in the 2008 Fish Accords signed by the Bonneville Power Administration, certain Indian tribes, and the states of Idaho and Montana. The accords were announced in April 2008. The Council was not a party to the accords but will implement them through the Fish and Wildlife Program. The accords and their relationship to the program are discussed in the next section of this report.

Projects address a wide range of onsite and offsite impacts of hydropower dams on fish and wildlife. The projects include improving spawning and rearing habitat for fish, raising fish in hatcheries and releasing them in the wild to rebuild naturally spawning populations, acquiring land as wildlife habitat, and funding research into key scientific uncertainties. The program is unique because it is funded largely by electricity ratepayers and addresses all fish and wildlife affected by hydropower in the Columbia River Basin, including threatened and endangered species.

Under the authority of the Northwest Power Act of 1980, the Council develops the program based on the recommendations of state, federal, and tribal fish and wildlife managers, and interested citizens. Bonneville implements most of the program and funds it with a portion of the revenue from the sale of electricity generated at 31 federal dams and one non-federal nuclear plant. The Power Act requires the Council to review the program at least every five years. The last review

and amendments occurred in 2003, when the Council incorporated into the program specific recommendations for Columbia and Snake river mainstem dam operations, and in 2004 and 2005, when 57 subbasin plans were added to the program. Subbasin plans will guide future implementation of the program.

The current amendment process began with a public request for recommendations, as required by the Power Act. The deadline for submitting recommendations was in February 2008, but the Council extended the deadline to April 4, 2008, in part to accommodate development of the fish accords, which were submitted to the Council as program-amendment recommendations. The Power Act requires the Council to make the amendment proposals available for public review and comment. The Council posted the recommendations on its website and accepted comments through June 12, and then prepared a draft program for public review and comment. The Council released the draft program for public comment in early September and was scheduled to accept comments through October 30. The Council planned to vote final approval of the new program in December.

Key themes of the draft program include:

- Emphasizing implementation of fish and wildlife projects based on needs identified in subbasin management plans and also on actions described in federal biological opinions on hydropower operations, hatcheries, and harvest and the 2008 Fish Accords signed by federal agencies, Indian tribes, and the states of Idaho and Montana.
- Continuing the Council's commitment to independent scientific review of all projects proposed for funding, including those actions described in the biological opinions and the 2008 Fish Accords.
- Focusing on protecting and restoring habitat to rebuild healthy, naturally producing fish and wildlife populations. The draft program also calls for further review of specific issues such as the impacts of global climate change, toxic substances, and invasive species on fish, wildlife, and habitat.

Subbasin management plans in the program provide a coordinated and integrated home for fish and wildlife actions across the basin. Federal and state agencies and Indian tribes are working with local partners to expand subbasin plans where appropriate into draft and final recovery plans for ESA-listed populations.

In the 2008 Fish Accords (see below), Bonneville and other federal agencies committed to extensive, 10-year implementation plans, with associated actions and funding commitments, based on the foundation built by the Council's program over the last 26 years. This foundation includes water management and fish-passage measures (in the original 1982 Program), mainstem and off-site mitigation measures (1987 and subsequent program amendments), the program framework (2000 amendment), and the subbasin plans (2004-2005 amendment). With the additional funding commitments in the 2008 Fish Accords, funding of projects through the Council's program likely will total about \$230 million per year beginning in 2009.

Thus, in the draft 2008 program, the Council's focus turns from planning to implementation and performance. The draft program:

- Increases project performance and fiscal accountability by establishing additional reporting guidelines and using adaptive management to guide decision-making
- Calls for a renewed regional effort to develop quantitative biological objectives for the program
- Commits to a periodic and systematic exchange of science and policy information; and
- Emphasizes an expanded monitoring and evaluation framework coupled with a commitment to use the information obtained to make better decisions

The draft program is posted on the Council's website.

## *B. 2008 Fish Accords Regarding Fish Recovery*

In April 2008, four Columbia River Basin Indian tribes and the states of Idaho and Montana announced agreements with three federal agencies for federal funding of comprehensive actions designed to improve habitat and strengthen fish populations in the Columbia River Basin over a ten-year period, fiscal years 2009-2019. The agreements build on federal biological opinions on Columbia and Snake river hydropower dam operations for protecting Endangered Species Act-listed salmon and steelhead.

The parties to the agreements are among the litigants over the 2004 Biological Opinion on Hydropower Operations remanded to the federal government by the U.S. District Court of Oregon. The federal government issued a new biological opinion in May 2008, and the projects in the fish accords are intended to help to fulfill requirements in the new opinion. In signing the accords the tribes and states agreed that the additional work for salmon and steelhead, funded through the Accords, is sufficient to meet BPA's ESA obligations, and they agreed not to challenge the new opinion in court.

Federal agencies signing the agreements included the Bonneville Power Administration, U.S. Army Corps of Engineers, and the Bureau of Reclamation. Indian tribes signing the agreements included the Umatilla, Warm Springs, Yakama, Shoshone-Bannock, and Colville tribes. The Columbia River Inter-Tribal Fish Commission also signed an accord. The agreements reserve federal funding, mostly from Bonneville, for more than 200 projects ranging from habitat restoration to fish production in hatcheries and monitoring of projects and results. These projects build on the foundations already developed in the Council's program, including subbasin plans. The Council plans to work with Bonneville and others to shape the measures into multi-year implementation plans similar to the implementation plans represented in the 2008 Biological Opinion.

In the draft 2009 Columbia River Basin Fish and Wildlife Program, which the Council issued for public

comment in September 2008, the Council accepted these recommendations as measures that are part of the program (following a public comment period that ends in December, the Council plans to vote final approval of the new program in February 2009). In the draft program, the Council stated that implementation of all measures whatever their original source, must occur under the following conditions:

- All measures must be developed into detailed project proposals subject to review by the Independent Scientific Review Panel under Section 4(h)(10)(D) of the Northwest Power Act and review by the public.
- Those responsible for implementing the projects must regularly report the results of implementation in a manner sufficient to evaluate success of the projects, facilitating the science/performance review, and contributing appropriately to the program's broader monitoring and evaluation framework and reporting of program results.
- Implementation of the measures must allow for an on-going adaptive-management approach and for future program amendment processes in which measures are modified or discontinued if not performing or no longer identified as a priority.
- Funding commitments already made by Bonneville and the other federal agencies to certain measures must not come at the expense of sufficient funding for other program priorities. For the program areas without Bonneville funding commitments, the Council will work with Bonneville and the sponsors of the measures to estimate multi-year implementation budgets and secure funding commitments to assure adequate funding for these implementation plans.

### *C. High-level Indicators for Fish and Wildlife Mitigation*

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In 2008, the Council began developing a set of high-level indicators to track progress in the general categories of land, water, passage, fish-diversion screens, and habitat improvement for biological, implementation, and management components of projects that implement the fish and wildlife program. When completed, these indicators will be used in the Council's annual reports to Congress, the region's Governors, and citizens of the Northwest. Two types of indicators are being developed: biological indicators to measure the biological response to project implementation, and implementation indicators to provide data about activities undertaken through the projects.

The biological indicators include: 1) adult salmon and steelhead returns to the Columbia River and the abundance of adult fish; 2) trends in abundance of Endangered Species Act-listed salmon and steelhead; 3) life-stage survival estimates for representative populations of Chinook and steelhead; 4) harvest numbers and rates, harvest of hatchery fish in the Council's program, and the relative fitness of supplemented stocks from hatcheries in the Council's program; 5) fish-survival rates through the Columbia and Snake river hydrosystem; 6) productivity of wild fish in select watersheds targeted in the Council's program; and 7) lost and acquired wildlife habitat units, by dam. These biological indicators will help the region understand how it is doing in relation to its fish and wildlife objectives. The implementation indicators include: 1) additional habitat made accessible, such as through removal of barriers to migration and installation of fish-diversion structures; 2) additional water made available for anadromous and resident fish, measured in cubic feet per second; 3) additional land acquired or leased for fish habitat such as through protection of riparian areas, measured in miles or acres; 4) riparian habitat improved, measured in acres; 5) the number of fish-diversion screens installed in water withdrawals for irrigation and other water uses; 6) the number

of juvenile salmon and steelhead not consumed by predator birds and fish; and 7) the number and percentage of targeted watersheds with aquatic fish habitat. These implementation indicators will help describe the direct benefits of the Fish and Wildlife Program in the context of the region's biological indicators.

### *D. Hatchery Scientific Review Group*

Congress initiated the Columbia River Hatchery Reform Project in 2006. Part of that project is a Hatchery Scientific Review Group (HSRG) established to review hatchery and wild stocks in the basin to improve management practices to meet conservation goals while providing sustainable fisheries. The review process encompasses all anadromous hatchery programs in the Columbia River Basin.

The HSRG completed its review of lower Columbia River hatcheries -- those downstream of Bonneville Dam -- in 2007 and reported its findings in December to the Council. The HSRG then began a review of hatcheries in the basin above Bonneville Dam and is scheduled to make its final recommendations on changes necessary in hatchery and harvest practices consistent with regional conservation and harvest goals in December 2008.

In its December 2007 report on lower-Columbia facilities, the HSRG concluded that the benefits of salmon habitat improvements would double if combined with reforms of salmon hatcheries. The foundation of the HSRG's evaluation is that salmon conservation goals need to be met for key naturally spawning populations while at the same time maximizing salmon harvest. In order for hatchery actions to address conservation goals effectively, harvest reforms also are necessary, according to the HSRG's report on lower-river facilities.

The HSRG members discussed these ideas with hatchery managers for Washington's and Oregon's fish and wildlife departments, and also how production might be shifted between the two sides of the

Columbia River in order to meet conservation goals for ESA-listed salmon.

According to the HSRG report on lower-river fish-production facilities, the purpose of most production programs is to increase harvest. This goal, however, can conflict with conservation objectives for ESA-listed species. The HSRG members, like others who have reviewed lower-river hatchery programs, concluded fish straying from hatcheries are a major problem. Fish that do not return to the hatcheries where they were released stray into other tributaries and spawn with wild fish, affecting the long-term fitness of the wild populations. In fact, hatchery-origin fish make up more than half of most of the naturally spawning Chinook salmon populations in the lower-Columbia region.

The solution to this problem is to manage hatchery production to reduce the hatchery-origin fish percentage of the naturally spawning populations, and at the same time improve habitat where those fish spawn to improve their productivity, according to the report.

The HSRG also recommended that salmon harvest managers endorse different fishing methods and gear in order to allow selective fishing on the hatchery-origin fish in the river and the ocean while protecting naturally spawning fish. The review recommends that all hatchery-origin fish be marked so they can be identified as hatchery fish. This would allow naturally spawning fish to be released in fisheries targeting hatchery fish. The HSRG's final report will include recommendations for standards to maintain hatchery programs, including standards to indicate the proportion of wild fish necessary to maintain the genetic integrity of local populations.

The Council will consider adoption of the HSRG recommendations into the Fish and Wildlife Program.

### *E. Sea Lion Predation on Salmon and Steelhead*

In December 2007 and again in February 2008, the Council supported the States' removing the most aggressive California sea lions from the Columbia River below Bonneville Dam, where the marine mammals feed on salmon and steelhead as they return up the river to spawn.

In December, the Council wrote to Commerce Secretary Carlos M. Gutierrez in support of a recommendation by the 18-member Pinniped-Fishery Interaction Task Force to remove the most problematic seal lions using lethal means, if necessary. NOAA Fisheries was mandated to create the Task Force to review the permit application by Oregon, Washington, and Idaho for lethal removal of a limited number of California sea lions under Section 120 of the Marine Mammal Protection Act (MMPA). The Task Force members voted 17-1 to recommend the lethal-removal option to NOAA Fisheries.

NOAA Fisheries adopted the recommendation as the preferred alternative in its Environmental Assessment, issued in January 2008.

In February, the Council commented to NOAA Fisheries in support of the preferred alternative. In part, the Council commented:

“Lethal removal of specific predatory California sea lions, in conjunction with non-lethal deterrence actions by the states of Oregon and Washington and the Columbia River Inter-Tribal Fish Commission, would help reduce the impact of sea lions on at-risk salmon and steelhead in the area downstream of Bonneville Dam. The Council's support for [the preferred alternative] and the major recommendations of the Task Force is consistent with the Council's mandate in the Northwest Power Act of 1980 to protect, mitigate, and enhance fish and wildlife of the Columbia River Basin that have been affected by hydropower dams. Through the Columbia River Basin Fish and Wildlife Program, the Council supports efforts to reduce the impacts of all predation on salmon and steelhead, including

predation by marine mammals and fish-eating birds. Implementation of the preferred alternative could result in less predation on salmon and steelhead and, therefore, more fish returning to spawn in the Columbia River Basin above Bonneville Dam.”

In March, NOAA Fisheries authorized the states to remove permanently a specific number of California sea lions identified as eating listed salmon and steelhead congregating below the dam. This decision was challenged almost immediately by a coalition of interests including the Humane Society of the United States and the Wild Fish Conservancy. The coalition filed its complaint in U.S. District Court in Washington, D.C., and then refiled in U.S. District Court in Portland. In April, the court ruled that the lethal removal of a limited number of sea lions could proceed, agreeing with the defendants that this action would not cause irreparable harm to the sea lion population. However, at the request of the Humane Society of the United States, the U.S. Ninth Circuit Court of Appeals issued a one-year moratorium on lethal removal through March 1, 2009..

While the order was in place, NOAA Fisheries went ahead with non-lethal removal of sea lions. Some were transferred to marine parks and zoos, and others were branded and released. However, the removal efforts stopped after four California sea lions and two Steller sea lions were found dead in traps at the base of Bonneville Dam on May 4. Federal officials initially said the animals were killed by gunfire, but further study concluded that the deaths were consistent with heat stroke. It was not clear how doors on the traps were triggered to close.

The Humane Society then sought an order in U.S. District Court in Portland to halt any further lethal removals. In November a judge ruled against the Humane Society, issuing an order allowing the three states to resume capturing or killing sea lions. The Humane Society sought a stay of the order, and in January 2009 the judge denied the request, thus allowing the removals to begin when the moratorium expires.

From January to May 2008, the U.S. Army Corps of Engineers observed California sea lions catch

4,081 adult salmon and steelhead at Bonneville Dam. Sea lions target spring-migrating fish. The observed catch was about 2.7 percent of the salmon and steelhead arriving at the dam. The Corps estimates that the total catch was somewhat higher than observed – about 4,290 fish, or 2.8 percent of the total return. This is fewer than the catch rate in 2007, estimated at 4.2 percent of the total return.. Corps biologists said the lower catch rate simply reflects a larger run size in 2008; the number of fish consumed was about the same.

### *F. Review of Projects that Implement the Fish and Wildlife*

In April 2008 the Council began what will be a three-year process of reviewing the projects that implement the Fish and Wildlife Program. This process has changed from past project reviews. A key difference is that the new process recognizes differences in project types, specifically those with long-term commitments as opposed to shorter-term implementation. As a result, each type of project may be set on different, but integrated, funding and review paths for the future. The process is structured to allow the Council to make changes as needed to accommodate other regional processes and priorities such as Endangered Species Act requirements on Bonneville and long-term agreements Bonneville negotiates for funding projects.

The review schedule extends through the winter of 2011. The first priority is a categorical review focusing on projects that are longer-term in nature -- hatchery funding and monitoring of fish production, fish-marking, and research related to fish production in the wild and in facilities. This review will make clear how much money should be dedicated annually to these projects so the Council has a better understanding of how much money will be available for other projects. Project reviews within specific geographic areas will follow. Most of those projects aim to improve habitat. This part of the review process will involve establishing specific funding allocations for the geographic areas. New projects will be considered and

completed projects will be removed from the program, as appropriate.

All projects funded through the Council's program, whether new or ongoing, are reviewed by the Independent Scientific Review Panel (ISRP) under conditions established by Congress in a 1996 amendment of the Northwest Power Act. The three-year project-review process will include site visits to project locations, meetings in specific areas with project sponsors, and meetings with fish and wildlife managers and local watershed and recovery boards as necessary.

### *G. Independent Scientific Advisory Board Reports*

The Independent Scientific Advisory Board is a panel of 11 scientists that advises NOAA Fisheries and the Northwest Power and Conservation Council about scientific issues related to fish and wildlife recovery and mitigation. The Council and NOAA Fisheries established the ISAB in 1996, and in 2002 added Columbia River Basin Indian Tribes as equal partners in the sponsorship of the board. The ISAB addresses scientific and technical issues relating to the Council's Fish and Wildlife Program, tribal Fish and Wildlife Programs, and the NOAA Fisheries Recovery Program for Columbia River Basin salmonids.

In Fiscal Year 2008, the ISAB issued seven reports. Each is posted on the Council's website. Two reports attracted significant public attention:

Non-native Species Impacts on Native Salmonids in the Columbia River Basin, Including Recommendations for Evaluating the Use of Non-Native Fish Species in Resident Fish Substitution Projects. July 15, 2008, Document ISAB 2008-4.

Synopsis:

In 2007, the Council, NOAA Fisheries, and the Columbia River Indian Tribes asked the ISAB to evaluate the state of knowledge of the impact of both intentional and unintentional introductions of non-native aquatic species on native salmonids in the Columbia River Basin. The ISAB found that the potential

impacts and risks to native salmonids and other native fishes from non-native species are significant, with most subbasins in the Columbia River Basin already dominated by non-native fish species. Because of this, the ISAB recommends that the Council and fish and wildlife agencies in the basin elevate the issue of non-native species effects to a priority equivalent to that of habitat loss and degradation, climate change, and human population growth and development.

Snake River Spill-Transport Review. September 16, 2008, Document ISAB 2008-5.

Synopsis:

In March 2008, NOAA Fisheries asked the ISAB to provide a scientific review of the benefit of seasonal downstream transportation of juvenile salmon and steelhead by barge. NOAA asked several questions related to the ... "relative survival benefit of alternative Lower Snake River spill and transport operations." The ISAB then was asked additional questions and provided with analyses for consideration by the Oregon Department of Fish and Wildlife Fish Division and the Columbia River Inter-Tribal Fish Commission. In sum, the ISAB found that structural and operational changes to the hydrosystem in 2006 and 2007 are not yet fully reflected in the data available for review. Moreover, very few data are available to assess the impact of alternative spill-transport operations on species such as sockeye, coho salmon, and Pacific lamprey. Even the more plentiful data for Snake River spring and summer Chinook and steelhead do not yield unequivocal results about seasonal variation in the effectiveness of smolt transport, the ISAB concluded. Given the magnitude of uncertainty imposed by the nature and extent of available information, the ISAB commented that it continues to see merit in a strategy of "spreading the risk" to balance the possible risks against the perceived benefits of juvenile salmonid transportation.

### III. Public Affairs

#### A. Activities

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. To involve the public, the Council meets monthly at different locations around the Columbia River Basin. All meetings are open to the public, and the public has an opportunity to comment on each agenda item. The Council also conducts periodic public hearings on major Council initiatives, such as revisions of the Fish and Wildlife Program and Power Plan. The Public Affairs Division also arranges consultations and public hearings separate from the regular Council meetings during rulemakings 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, a monthly electronic newsletter, and special informational materials, media briefings, and news releases. The Council also regularly updates its website and uses other approaches to inform the public about fish, wildlife, and energy issues.

In 2008 the Council completed a 15-minute film, called "The Energy Around Us: Trends in Renewable Resources." The film is available in DVD format free of charge by calling the Council at 800-452-5161 or by sending an e-mail to [info@nwcouncil.org](mailto:info@nwcouncil.org). The film describes some of the leading examples of renewable resources now available and touches on a few that, while still in the experimental stages, offer a glimpse into possible future sources. Geared for a general audience and students, the film is a timely introduction to the efforts to tap "the energy around us."

This year the Council also issued its seventh annual report to Northwest governors on expenditures of the Bonneville Power Administration to implement the Council's Fish and Wildlife Program. The report details expenditures from 1978 through 2007 and also

includes information on the status of Columbia River Basin salmon and steelhead runs.

Another highlight of 2008 was an August tour of energy conservation and fish and wildlife sites in Portland and the Columbia River Gorge for congressional staff members. The two-day tour included presentations by Council staff on the Northwest Power Act of 1980; Columbia River Basin hydrosystem operations; energy conservation; and fish, wildlife, and energy issues specific to the upper Columbia River Basin in Northeastern Washington, Northern Idaho, and Western Montana. The group toured a new, energy-efficient high-rise building in the south waterfront development of the Oregon Health Sciences University in Portland.

The group also toured Bonneville Dam, including the juvenile and adult fish-passage facilities, and learned about efforts to reduce predation on adult salmon and steelhead by sea lions, and later met with representatives of the Yakama Nation at Lyle Falls near the mouth of the Klickitat River in the Columbia River Gorge for briefings on tribal harvest of salmon, fish passage, and other issues.

#### B. Canadian Relations

The Columbia River and several of its major tributaries begin in Canada and flow across the international border. Consistent with direction in the Northwest Power Act to treat the entire Columbia River as one 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. 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 2008, the Council hosted a delegation of board members and staff of the Columbia Basin Trust at a Council meeting in Kalispell, Montana, in July.

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. The International Columbia River Basin Center of Information is an Internet-based portal to information about the Columbia River, including water uses, water resources, history, and water and energy issues and policies, including treaties and state, provincial and federal laws, and intergovernmental agreements. The Center is hosted on the website of the Northwest Environmental Data Network.

## **IV. Administration**

### *A. Council Budget*

Over the past 10 years, the Council has worked with the Bonneville Power Administration to adopt budget agreements resulting in approximately \$6.2 million of savings between Fiscal Years 1998 and 2008. Actions taken to accomplish these savings include reducing our workforce, eliminating vacant staff positions, reducing travel costs, slashing contract funding, cutting administrative costs, and curtailing lower-priority activities.

The Council has a budget agreement with the Bonneville Power Administration for the rate period of Fiscal Years 2007 through 2009. In the agreement, the Council made a commitment to exercise fiscal restraint in developing its budget and to hold budget increases to an average of 3 percent per year. The Council's Fiscal Year 2009 revised budget of \$9,467,000 is 2.1 percent higher than the current year (2008) budget of \$9,276,000. By using the same cost-containment strategy, the Council is able to hold the projected Fiscal Year 2010 budget at \$9,683,000 (a 2.3-percent increase). In order to achieve this goal, we are freezing the number of staff positions in the Council budget while continuing to undertake expanded work and responsibilities in the region, particularly in fish and wildlife recovery efforts.

## **V. 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. Copies of Council publications are available at the website or by calling the Council. All Council publications are free.

## VI. Comments of the Bonneville Power Administration



### Department of Energy

Bonneville Power Administration  
P.O. Box 3821  
Portland, Oregon 97208-3621

EXECUTIVE OFFICE

FEB 01 2008

In reply refer to: DKR-7

Mr. Bill Booth, Council Chair  
Northwest Power & Conservation Council  
1677 E. Miles Ave., Suite 103  
Hayden Lake, ID 83835

Dear Chairman Booth:

In Fiscal Year 2007, the Northwest Power and Conservation Council (Council) continued to make important contributions to the region's goals to balance the needs of fish and wildlife with the benefits of the Columbia River hydrosystem.

A highlight for the Bonneville Power Administration (BPA) in the past year has been our collaboration with the Council to bring regional utility executives together to develop a plan for integrating up to 6,000 megawatts of wind into the system. This work has helped lay the foundation for the future of wind energy development in the Northwest.

We also applaud your important work to estimate the carbon dioxide emissions of various resource futures. Climate change is a key consideration for all of us as we weigh the impacts of new generating resources to meet load. The Council's analysis is the first of its kind to look so specifically at the impacts to the region. Likewise, we continue to appreciate your efforts to define and refine resource adequacy standards.

We anticipate the same level of analytical credibility and innovation will be brought to bear on the Council's Sixth Power Plan, as you begin working this year on the development of data and models needed to produce a new power plan for the region.

In the coming year, we also look forward to working with you on amendment to the Council's Fish and Wildlife Program, and the opportunity it affords to improve the biological focus and effectiveness of the Program. We appreciate your approach to integrating the Program with the biological opinions for Columbia Basin threatened and endangered fish. We believe that an integrated approach to the actions and objectives is the best approach to recover these fish.

Thank you for your continued leadership and excellence.

Sincerely,

Stephen J. Wright  
Administrator and Chief Executive Officer

## VII. 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 affected by the development and operation of any hydroelectric project on the Columbia River and its tributaries; and, 3) to inform and involve the Pacific Northwest public regarding these 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 dams in the Columbia River Basin and sell the electricity that is generated. 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 decision-making to the fullest extent practicable.

Despite its relationship to federal agencies, the Council is not a federal agency. The Council is an interstate compact. The eight-member Council consists of two members from each state. Council members are appointed by governors. The Council headquarters are in Portland. Council members and their contact information are listed at the end of this report.

## Council Members

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**W. Bill Booth**  
**Idaho Council member**  
**Council Chair**

Appointed 2007

Bill Booth, of Coeur d'Alene, was appointed to the Council in January 2007 by Idaho Governor C.L. "Butch" Otter. A resident of Idaho for 45 years, Booth is a former U.S. Air Force officer and senior minerals industry executive in environmental and public affairs. He holds a degree in business administration from the University of Idaho and earned an MBA from the University of North Dakota while serving in the Air Force. As an instructor for the North Idaho College Extended Campus, he taught micro and macro economics, environmental economics, and accounting. In his spare time Booth enjoys exploring the Idaho backcountry. He is an avid fly fisherman and a member of Trout Unlimited.



**Bruce A. Measure**  
**Montana Council member**  
**Council Vice Chair**

Appointed December 2004

Montana Governor Brian Schweitzer appointed Bruce Measure to the Council in January 2005. Mr. Measure has been a practicing attorney in Kalispell, Montana since 1988. Prior to 1988 he was employed in the forest industry and served as vice president of the East Side Forest Practices Committee in 1984 and 1985.

Mr. Measure served in the Montana House of Representatives from 1991 to 1993 and served on the Natural Resources, Fish Wildlife and Parks and Judiciary Committees.

Most recently Mr. Measure was president of the Board of Trustees of the Flathead Electric Cooperative until his resignation in December 2004.



**Tom Karier**  
**Washington Council member**

Appointed May 1998

Tom Karier was an associate dean at Eastern Washington University from 1995 to 1998 and professor of economics since 1981. During this time, he also served as a research associate for the Jerome Levy Economics Institute in Annandale, New York. Karier earned a Ph.D. from the University of California, Berkeley with a major field in natural resource economics. His bachelor's degree is in both physics and economics from the University of Illinois. His research areas include public policy, taxation, labor, international trade, and industrial organization.



**James A. Yost**  
**Idaho Council member**

Appointed October 2007

Jim Yost was born in Rupert, Idaho and raised in the Magic Valley of Southern Idaho where he learned and applied knowledge of water, agriculture, and natural resources. Jim graduated from the College of Southern Idaho in 1968 with an Associate of Arts Degree and then Boise State in 1971 with a Bachelor of Arts degree in education. He was elected in 1972 to the Idaho State Senate at age 24, the youngest Idaho Senator/Legislator ever elected. He served two terms. Yost owned and operated a dairy distributorship for a number of years in Wendell, Idaho, and worked for the Union Pacific Railroad for 10 years. In 1988 he was named Assistant Public Affairs Director for the Idaho Farm Bureau and in 1991 was promoted to Public Affairs Director. In 1995 he worked for a time for the Northwest Power Planning Council. Governor Phil Batt appointed Yost as his Natural Resources Senior Policy Advisor. He was retained by Governor Kempthorne from 1999 – 2006, and by Governor Risch for his term. In 2007, Governor Otter retained Jim on his staff until appointing him to the Northwest Power and Conservation Council in October. Jim and his wife, Eva Gay, have four children and ten grandchildren.

## Council Members

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### **Rhonda Whiting** **Montana Council member**

Appointed December 2004

Rhonda Whiting, from St. Ignatius, Montana and a member of the Confederated Salish and Kootenai Tribes, was vice president of communications and intergovernmental affairs for Salish and Kootenai Technologies, the largest information technology company in Montana, before being appointed by Governor Brian Schweitzer to the Council. In 1998 she was appointed by President Clinton to oversee 17 tribal business information centers across the nation, and she also has operated her own communications consulting firm. She holds bachelor's and master's degrees in education, and a law degree, all from the University of Montana.



### **Joan Dukes** **Oregon Council member**

Appointed December 2004

Joan Dukes was appointed to the Council by Oregon Governor Ted Kulongoski. Dukes resigned her seat in the Oregon Senate, where she had served since 1987, to join the Council. She is a resident of Svensen, a community near Astoria. Dukes, who served a four-year term as a Clatsop County commissioner before being elected to the Senate, has a broad base of experience in education, transportation, and fisheries issues at the local, county, and state levels, including having served as chair of the Pacific Fisheries Legislative Task Force, an association of western legislators that works on regional fish issues. She is a graduate of the Evergreen State College.



### **Dick Wallace** **Washington Council member**

Appointed February, 2008

Dick Wallace was appointed to the Council in February 2008 by Washington Governor Christine Gregoire. Wallace, a former regional director with the Washington Department of Ecology, has more than 25 years of experience in natural resource issues, including water and watershed management, agriculture, forestry, storm water, and salmon recovery. The Montana native graduated from Whitman College with a bachelor of arts in biology and environmental studies.



### **Melinda Eden** **Oregon Council member**

Appointed January 2003

Melinda Eden, appointed by Governor John Kitzhaber and confirmed by the Oregon State Senate, joined the Northwest Power and Conservation Council on January 1, 2003, to serve a one-year unexpired term. She was reappointed by Governor Ted Kulongoski to the Council, effective January 16, 2004. She served as vice chair in 2004 and as Council chair in 2005. As a previous member of the Oregon Environmental Quality Commission, she served as chair from 2002 until joining the Council. As a practicing attorney, she concentrated on hazardous substances law and previously worked as a newspaper and Associated Press reporter and editor. She holds a bachelor's degree in journalism from the University of Maryland and a law degree from the University of Oregon.

Eden, a native Oregonian, raises wheat, cabernet sauvignon grapes, sheep, and border collies in Milton-Freewater, Oregon, which is in the Walla Walla Valley. After three years on the Council's Fish and Wildlife Committee, she now serves on the Council's Power Committee.

# Council Offices

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