

## Electricity Supplies Remain Tight, Prices High Through the Winter of 2001

**L**ingering dry weather, combined with high demand for electricity and high prices for natural gas, continued to keep power prices high on the West Coast in January and February. There is little relief ahead in the spring and summer, weather and energy experts report.

“We are seeking to appropriately balance the needs of fish and electricity consumers during a serious drought. Even so, we have employed every means available to minimize deviations from salmon guidelines this year and will continue to do so.”

– Steve Wright

In response, electric utilities throughout the Northwest are taking steps to ensure a reliable power supply at the lowest possible cost. These include aggressive energy conservation efforts and the installation of emergency diesel generators to help meet demand for power. Meanwhile, in early February, the Bonneville Power Administration, which provides about 40 percent of the electricity consumed in the Northwest, declared a power emergency in order to run Columbia and Snake River dams harder than normal for this time of the year. While that will make more hydropower available, it also may cut

into hydropower generation later in the year and reduce the amount of water available to aid salmon and steelhead migration in the spring and summer, as required under the Endangered Species Act.

“We are seeking to appropriately balance the needs of fish and electricity consumers during a serious drought,” said Steve Wright, Bonneville’s acting administrator, on February 13. “Even so, we have employed every means available to minimize deviations from salmon guidelines this year and will continue to do so.”

Earlier in February, 10 western governors met in Portland to discuss the energy crisis. Following the meeting, at which the governors listened to presentations by energy experts including U.S. Department of Energy Secretary Spencer Abraham, the governors recommended short-term steps to remedy the immediate electricity crisis and long-term measures to ensure reliable and secure energy supplies (see related story, page 3).

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## Council Recommendations for Easing the West Coast Power Crisis

- 1. Continue emergency hydropower operations.** At the request of the Bonneville Power Administration, Columbia Basin federal dams have been drafted deeper than limits in the Biological Opinion on Hydropower Operations in order to boost power generation. Continuing these emergency operations, and reducing water spill at dams, would yield additional energy this summer and help reservoirs refill this fall.
- 2. Continue to bring new thermal plants online.** A total of 800 new megawatts of thermal generation, mostly natural gas-fired, will come online by this summer in the Northwest; 700 more is expected by next winter, and an additional 1,000 by winter 2003. This is about 70 percent of the 3,000 megawatts of power and conservation needed to reach normal system reliability standards by winter 2003.
- 3. Continue to develop renewable resources.** Planned hydropower upgrades in the Northwest will yield 80 new megawatts of capacity by 2003; two new Northwest wind power developments will yield 325 megawatts of generating capacity.
- 4. Add temporary new thermal generation.** 500 megawatts of temporary generation, typically clusters of generators fired by natural gas or diesel, will come online this year in the Northwest. These should be encouraged on an emergency basis but should not be made permanent without the normal permits.
- 5. Expand energy conservation efforts.** The Council recommends the following actions: 1) install compact fluorescent bulbs; 2) improve commercial lighting efficiency; 3) “tune up” commercial building HVAC systems; 4) replace industrial electric motors with more efficient motors; 5) retire second refrigerators in homes; 6) replace older clothes washers.
- 6. Pursue voluntary industrial/commercial demand reduction.** Utilities should pursue the following voluntary agreements with industrial and commercial customers, where feasible: 1) contracts that allow power supply interruptions, 2) contracts to reduce demand for power; 3) short-term power buybacks.
- 7. Explore power pricing changes to reflect market prices and risk.** Utilities and regulatory agencies should explore power pricing that reflects the value of power in response to supply and demand. Higher prices during times of high demand, and vice versa, could reduce consumption and prompt investments in conservation.
- 8. Explore pros and cons of reregulating wholesale power prices.** On one hand, proponents of federal regulation of power prices believe price controls would reduce the impact of high prices on the economy and ratepayers while still encouraging investment in new power plants and conservation. On the other hand, critics believe price controls would be ineffective in the competitive electricity market, difficult to implement consistently and circumvented by some market participants.
- 9. Continue to inform the public.** The public needs to understand the problem is real and that efforts at home will help ease the crisis. ■

According to the Northwest Power Planning Council, the West Coast electricity crisis is a collision of many events that would cause problems if they happened alone, but which have combined to create "The Perfect Storm" for western utilities during the summer of 2000 and the winter of 2000/2001. According to an analysis by the Council, the key events contributing to the crisis include:

1. The wholesale power market created by California's electricity restructuring is dysfunctional, needs fixing and has affected other western states. Remedies ordered by the Federal Energy Regulatory Commission last November have not had a significant effect.

2. Construction of new power plants and new conservation and renewable resources during the last decade did not keep pace with growing demand for electricity.

3. Below-average rainfall and snowpack in 2000 and so far in 2001 are contributing to poor hydropower conditions in the Northwest. In February, the Natural Resources Conservation Service predicted snowpack runoff would be only 60 percent of normal this year; the elevation of Lake Roosevelt behind Grand Coulee Dam in mid-January was the lowest in 25 years, and the winter of 2000/2001 was shaping up to be the third-driest in 70 years of record-keeping.

4. The price of natural gas, the fuel of choice for thermal power plants in the Northwest, is rising dramatically. In the summer of 2000, the price was double what it was a year before, and by December it was three times the price of December 1999.

5. Some California power plants had to shut down in 2000 for unplanned or scheduled maintenance or because they violated air quality regulations.

6. The loss of flexibility in the operation of the Columbia/Snake river hydroelectric system due to Endangered Species Act requirements has derated the system by more than 1,000 megawatts.

Together, these events sent wholesale power prices soaring to unprecedented levels. Industries and utilities that are exposed to wholesale prices are suffering.

Following its reports to the Northwest governors in 2000 on the reliability of the power system in the western United States and the reasons behind the extraordinary power price spikes, the Council continued its investigation of the power crisis by convening a panel in January representing four Northwest electricity utilities that have been affected differently by the current crisis. The four comprised a cross-section of the region's utility industry -- Tacoma Public Utilities, a large, municipal electricity supplier; Tillamook (Oregon) People's Utility District, a small, consumer-owned public utility; Puget Sound Energy, a large investor-owned utility; and Clark Public Utilities, a large consumer-owned utility.

## POWER News

Here is what panel members had to say:

**T**acoma Public Utilities: "We were flying along full speed and suddenly went into a 90-degree vertical dive," Superintendent Steve Klein said. "I don't see anything that will allow us to impact the ground in a solvent way," he added. In Tacoma, Schnitzer Steel curtailed operations, Louisiana Pacific shut down, and Pioneer Chlor-Alkalai is struggling, he said. Pioneer produces chlorine for sewage treatment and components for aircraft fuel; if it stops production, there will be impacts to operations at SeaTac and to local sewage treatment plants, Klein said. The utility implemented a 50 percent rate surcharge, which amounts to a 43 percent increase to residential customers and 75 percent to industrial customers, he said. Industrial customers buying power on the open market are experiencing greater increases. Dry weather is affecting the utility's hydropower operations; Klein said the utility is discussing whether to ask the city to order curtailment -- "a political hot potato," he said. Tacoma spent \$60

million for power in December and is facing continuing high prices with cash reserves of \$130 million, he said. The utility has located diesel generators with 50 megawatts of capacity, called for conservation, imposed a rate surcharge and is also planning to take on "\$100 million in commercial paper" to get through the rest of the winter, Klein said. He said the utility is buying power for \$200, \$400, or even \$2,800 per megawatt hour and selling it for \$25. Rate increases to cover costs that high would force businesses to close, he said, and so the utility plans to borrow money to remain solvent. He said the state is realizing a windfall in utility taxes because of the rate surcharges, and he suggested that money could be used to buy conservation.

**T**illamook People's Utility District, Tillamook, Oregon: Manager Pat Ashby said the utility is facing market exposure of \$20 million (the utility's annual budget is \$11 million). Tillamook joined with several other rural utilities to buy power on the market several years ago, and today their combined power bill has ballooned to \$117 million, Ashby said. He acknowledged being "remorseful we took the utility into this," but above all, the money to pay for the power "will be taken from a community that can't afford it."

Ashby said the utility has asked its large customers to discuss cutting back electricity consumption. But they have orders to fill and are reluctant to jeopardize their production, he said.



ardize their production, he said. Enhancing flows on the hydro system for generation would help to ease the utilities' stress, and public entities need to consider developing supply, Ashby added.

**P**uget Sound Energy, Bellevue, Washington: The power situation in the region "is anything but stable," said Bill Gaines, vice president of generation supply. The load/resource balance at Puget, the largest gas and electric utility in the Northwest, is generally in balance, but "we are balanced on a knife edge," he said. "Any perturbation in supply would put us in the position of purchasing in this market, and the opportunities for perturbations abound," he said.

Natural gas prices have shot up in the Northwest, where prices in California set the price for gas at Sumas, on the U.S./Canada border. Gaines said prices have been as high as \$40 per million Btu at Sumas, with the average price in December at \$12 to \$15 per million Btu, Gaines said. Just a year ago the price was about \$3.

Puget is operating with a five-year residential rate freeze and has been able to operate within the freeze, he stated. We can request emergency rate relief, and "the way the hydro situation is shaping up looms large in that consideration," Gaines added. Some of Puget's industrial customers demanded the opportunity to go to the market, and since the mid-1990s, a number of refiners and pulp and paper producers have been purchasing at prices indexed to the daily mid-Columbia market, he said. High prices have caused industrial shutdowns, and some customers have petitioned for relief from that index, Gaines reported.

"We must get the California situation under control," he stated. California is "an energy sink," and officials there "are fiddling while Rome burns," Gaines said. In testimony to FERC last November, Puget advocated interim price caps to stabilize the market but FERC did not impose them, Gaines said. Gaines also expressed concern about the Department of Energy's orders directing utilities in the Northwest to sell to California "without any assurance of payment." California should do what it can before calling on the Northwest - "we may need that water later in the season," he said.

Gaines said he foresees three conflicts looming: the Northwest versus California, power versus fish, and power versus air. These issues have been long simmering, but they will come to the fore in 2001, and they need to be dealt with, he concluded.

**C**Clark Public Utilities, Vancouver, Washington: Manager Wayne Nelson said Clark is not directly exposed to the wholesale market but has felt the effect of rising natural gas prices at its generating plant, which supplies about half the utility's load. The remainder currently comes from fixed-price contracts at about \$20 per megawatt hour, which expire in July. Between July and October, when it begins buying from Bonneville, Clark will be exposed to the market.

Clark budgeted \$5 per million Btu for 2001, but prices are now \$8, with the projections for the rest of the year at \$6 per million Btu, according to Nelson. He noted that Clark would not have excess power to sell in 2001. If Clark has to pay \$350 or \$400 per megawatt hour when it goes to the market to fill its July to October power deficit, it would cost \$83 million more than we anticipated, Nelson said. That amounts to a 40 percent rate increase, and the utility probably will finance its purchases for that period, spreading payments over five years, he said. "If we'd known what the market would be like, we would have done things differently," Nelson added. Last week, Clark adopted a 20 percent rate increase to meet the increased price of gas and power from its generating plant. When the BPA contract goes into effect, Nelson anticipates another increase, and "we'll be hard pressed to keep that to a single digit," he said. Before this year's two rate increases, Clark raised rates only three times in the past 17 years, he noted. "We are making a public relations effort for conservation," Nelson said, adding that it is difficult to get people to change their lifestyle with three- to four-cent power.

The panel members agreed that California's regulatory and power-supply problems need to be solved. The panel members suggested the Northwest governors could invoke emergency powers to help stabilize the turbulent power market. ■

# Governors' Recommended Actions for Addressing Immediate Electricity Problems in the West

Meeting in Portland in February, the Western Governors Association recommended the following actions to address the West Coast power crisis:

1. Encourage California and power generators to enter into power supply contracts to reduce dependence on the spot electricity market.

2. Request utilities and state and tribal public utility commissions to adopt rate reforms that send more accurate price signals (or a proxy for such price signals) to consumers. This is the first step in empowering customers to make wise decisions about their energy use and to make investments that reduce their total use and cost.

3. Ask Vice President Cheney and the federal inter-agency task force to accept as part of its mission to work with the western governors and tribal leaders to streamline regulatory processes to enable retired generation to be reactivated, existing generation to increase production, and new generation and natural gas and electricity transmission to come on line while protecting public health, safety and the environment.

4. Ask state and tribal public utility commissions and all regulated utilities to approve demand-exchange tariffs under which customers can voluntarily agree to reduce demand in exchange for compensation.



5. Ask state and tribal public utility commissions and regulated utilities to eliminate barriers to clean distributed generation that can be in place in the next 12-24 months. Distributed generation includes small turbines (e.g., less than 5 MW), high efficiency co-generation, fuels cells, etc. that are typically installed on the consumer's property, a practice sometimes referred to as net metering.

6. Ask utility distribution companies and state and tribal energy agencies to develop energy efficiency measures that provide savings beginning within the next six months through technical assistance, financial incentives, accelerated penetration of new technologies, and appropriate regulation.

7. Where states and tribes have not already acted, direct state and tribal agencies to accelerate the imple-

mentation of efficiency practices and investments in state and tribal buildings and ask the federal government and local government to take similar action.

8. Ask Congress, state legislatures and tribal councils to expand assistance to low income families and families and individuals with fixed incomes to help pay high energy bills.

9. Enact federal legislation that would: enable the establishment of enforceable system reliability rules; provide for delegation and deference to the West; and enable the creation of regional advisory bodies of states and provinces.

10. Encourage the Western Governors Association to seek the creation of a centralized grid-wide database that 1) tracks prospective demand, and 2) tracks generation and transmission facilities under construction and those that are permitted, in the permitting process, or under consideration.

11. Support efforts to ensure the availability of information on loads, transmission and generation where necessary for ensuring the adequacy, efficiency and reliability of the grid.

12. Continue to implement the region's short-term conservation strategy adopted January 10.

13. Conduct a regional assessment of whether and how natural gas supplies and gas transmission can be increased in time to meet summer peak load demand.

Long-term recommendations:

1. At a minimum, energy generation policies should address:

Permitting Energy Facilities -- Streamline state, tribal and federal processes for siting new generation, electric transmission and natural gas pipelines while protecting public health, safety and the environment.

Coal -- Implement research and development and tax incentives to promote the development and deployment of new technologies to increase the efficiency and lower the emissions from coal-based generation.

Renewables -- Accelerate the development and deployment of promising renewable energy technologies through the extension and expansion of state and federal production tax credits and state and tribal policies such as system benefit charges, portfolio standards, renewable resource-based utility tariffs, and/or creative new incentives.

New Energy Development - Enable exploration and development of promising domestic oil, gas, coal, geothermal or wind resources where lands, air, water, fish and wildlife, and other environmental resources can be protected.

Environmental Regulation - Review environmental and natural resource policies to ensure they are as efficient as possible. These policies include the air quality regulations for health and regional haze.

Energy Infrastructure - Support economic and environmentally sound energy infrastructure investments to transport energy to markets. Specifically:

- Urge construction of a pipeline to move natural gas from Prudhoe Bay along the Alaska Highway to the lower 48 states, the expansion of natural gas pipeline systems in the lower 48 states, and the expansion of electrical transmission capacity from areas rich in energy resources to load centers.

- Encourage a stable economic environment conducive to construction of needed electrical generation.

- Convene a workgroup of major transmission system owners to identify where bottlenecks occur and to recommend needed new transmission facilities.

2. At a minimum, demand-redirection policies should:

- Encourage rate structures that give utilities an incentive to reduce consumption.

- Encourage long-term stability of government and utility conservation programs.

- Accelerate the development and deployment of new, more energy efficient products in the market place.

- Review and improve the energy efficiency of building codes in western states and tribal lands.

- Accelerate the development of federal government appliance efficiency standards that are cost-effective and recognize the unique conditions in the West (e.g., dry climates).

- Support federal research and development that maximizes the development of energy efficiency technologies applicable to the growing Western region.

- Support federal, state and tribal tax incentives to accelerate the introduction of new energy-efficient technologies. ■

## Reducing Demand for Power will be Focus of March Conference

The Northwest Power Planning Council, Northwest Public Power Association, Bonneville Power Administration and several large Northwest electric utilities are sponsoring a day-long conference in the Seattle area on March 27 to address ways to reduce demand for electricity.

The Pacific Northwest Load Management Forum is planned for Tuesday, March 27, at the Seatac DoubleTree Hotel. In addition to the Council and Bonneville, sponsors include Tacoma Public Utilities, PacifiCorp/Scottish Power and Portland General Electric Company.

The conference was organized in response to concerns about increasingly tight electricity supplies. Tight supplies are caused by several forces, including increased demand, slow development of generating and conservation resources, higher natural gas prices and drier-than-normal weather.

The forum will address questions such as:

- Why should utilities look into demand-reduction strategies?

- The nature of the Northwest power crisis -- is it a crisis of energy, capacity or both?

- What measures are available to both utilities and end-users to mitigate market exposure both in the short term and the long term?

Speakers will address these topics and others, including power system reliability and market volatility, lessons learned from other energy markets about load management, regulatory concerns, business opportunities for end-users, load management technologies and programs, and the business rationale behind existing demand-reduction programs. In addition, there will be exhibits by Motorola,

APOGEE, Cannon Technologies, Carrier Corporation and other equipment vendors.

For registration information, contact Charlie Roe at the Northwest Public Power Association, [charlie@nwppa.org](mailto:charlie@nwppa.org), or 360-254-0109. Information on the conference also is posted on the Power Planning Council's website, [www.nwcouncil.org](http://www.nwcouncil.org) (click on Energy). ■

# Conservation: It's Back to the Future for the Most Efficient Energy Resource

To paraphrase Benjamin Franklin, who once said, "a penny saved is a penny earned," a megawatt conserved is a megawatt generated. It's a homely adage, perhaps, but one that serves as an apt reminder that wise management is as much about conserving power as generating it.

When the Northwest Power Planning Council was created in 1981 through the Pacific Northwest Electric Power Planning and Conservation Act, one of its principal mandates was for the development of conservation and renewable energy as the region's first means of meeting future electric needs. Conservation was to be considered a source of new energy, replacing the need for the construction of additional generating facilities. The Act defines conservation as "any reduction in electric power consumption as a result of increases in the efficiency of energy use, production, or distribution."

Besides being the least expensive resource available, it is also the most flexible. Its generation is incremental, thereby avoiding large surpluses, and it has a relatively short lead time to "construct." Most conservation programs can be put in place within three years, producing electricity immediately and throughout the entire implementation program. If power demand does not materialize, conservation programs can be stopped with no loss of the investment already made. There is little risk of "over-building" conservation because as soon as it becomes clear that too much conservation resource is being implemented, the program can be scaled back.

Throughout the 1980s and much of the '90s conservation programs in the region produced an average of 1,440 megawatts of energy savings, the equivalent of what as many as five combustion turbines would produce, and enough to power the cities of Seattle, Washington and Eugene, Oregon. Nearly 50 percent of this was made possible through programs funded by the Bonneville Power Administration. By the mid-'90s, the prospect of deregulation had changed people's outlook on the energy situation, and the prevailing opinion was that in a competitive market the cost of electricity would remain low. It was believed that the free market, through the forces of supply and demand, would provide its own mechanism for maintaining the low cost and reliability of power to consumers.

But as we have seen over the last several months, and most recently during the summer and winter, when skyrocketing prices, unexpected brownouts, and shortages produced anxiety and doubts about deregulation, expectations and reality are two very different things. In 1998, the Council estimated that more than 1,500 megawatts of cost-effective conservation were still available, and the current high prices for power mean even more is available today.

"The biggest factor that's changed is the expectation of what electricity will cost and its availability," says Tom Eckman, the Council's manager of conservation resources. And with that uncertainty over cost and availability comes a renewed interest in

conservation as a means to acquire power.

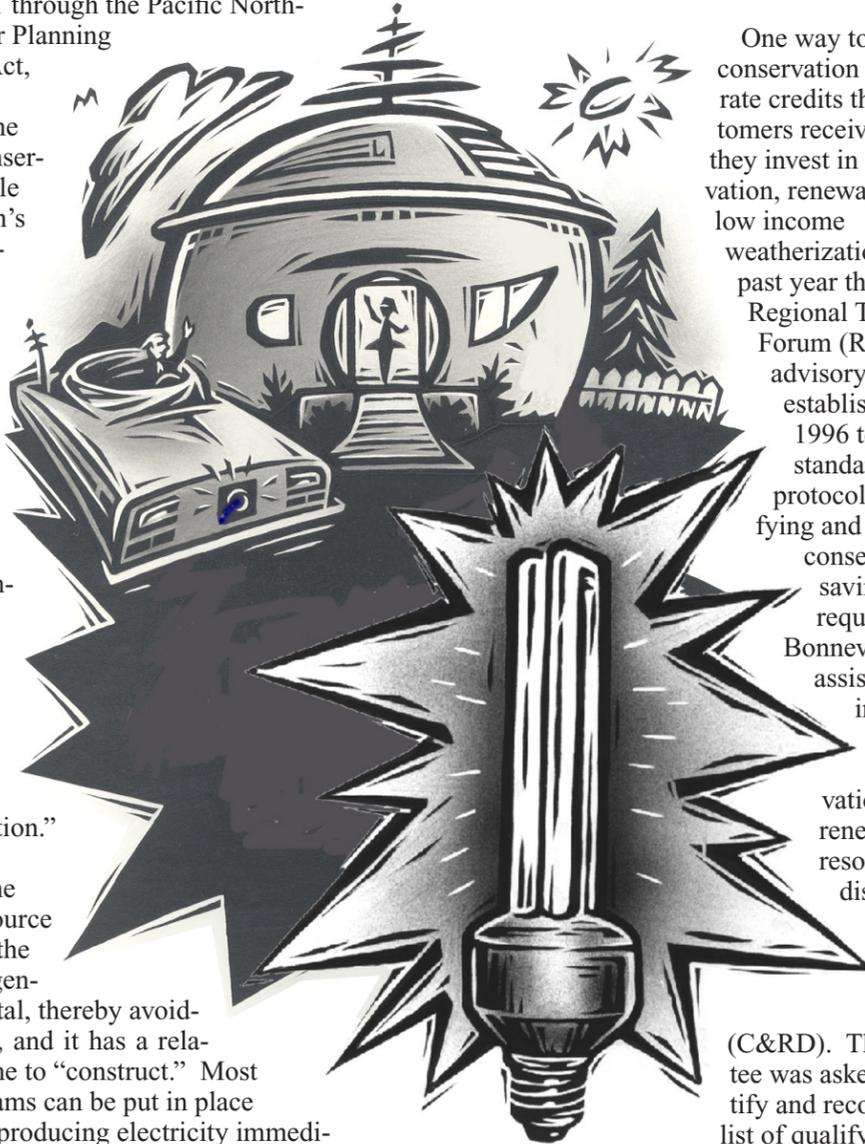
"A principal change is that Bonneville, contrary to what some thought would happen with deregulation, has remained a low cost provider," continues Eckman. "As a much more attractive power option, they need to fill the gap and acquire capacity to serve just their existing utility and industrial customers."

One way to acquire conservation is through rate credits that customers receive when they invest in conservation, renewables, or low income weatherization. This past year the Council's Regional Technical Forum (RTF), an advisory committee established in 1996 to develop standardized protocols for verifying and evaluating conservation savings, was requested by Bonneville to assist it in the implementation of a conservation and renewable resource rate discount program

(C&RD). The committee was asked to identify and recommend a list of qualifying mea-

sures that Bonneville can consider for use in the C&RD program. Those recommendations were subsequently developed and have been submitted to Bonneville for its consideration. To view the list of recommendations, go to the Council's website, [www.nwcouncil.org](http://www.nwcouncil.org).

In the past several months, Bonneville has held several meetings on re-starting conservation



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*NWPPC Manager of  
Conservation Resources*

efforts. Later this fall they plan on releasing a request for proposals on conservation programs from utility customers, efficiency firms, and other third parties. According to Eckman, by next fall people should begin to see more marketing on the need for, and opportunities to participate in, conservation programs and rate discount opportunities.

In addition to these activities, the Council has been actively participating in the Department of Energy's rulemakings to update the efficiency standards for water heaters, air conditioners and heat pumps, clothes washers, and fluorescent light ballasts. All of these standards are expected to be finalized by the end of the year.

Through Oregon's Senate Bill 1149, the Restructuring Public Benefits Charge, a private non-profit entity was established that will contribute 3% of its retail revenue of electricity sales (estimated to be \$60 million annually) towards low income weatherization, conservation and renewables. And the Northwest Energy Efficiency Alliance ([www.nwalliance.org](http://www.nwalliance.org)) is another private non-profit that allocates \$100 million towards market transformation initiatives to promote electricity efficiency.

With the continuing uncertainty about the electricity market come opportunities to reexamine how we can maintain its affordability and availability. And as in the past, the practice of conservation may well play an important role in achieving those goals. ■

## New Energy-Saving Standard for Air Conditioners

New standard completes round of efficiency measures that will save consumers money and benefit the environment.

In January, the Clinton administration announced strong new air conditioner and heat pump energy efficiency standards which conservation and consumer groups hailed as a tremendous victory for consumers and the environment.

"This is a home run," said Andrew deLaski, executive director for the Appliance Standards Awareness Project, an environmental, consumer, utility and state government coalition group. "This common-sense efficiency standard will save consumers billions of dollars, slash power plant pollution and help ease the long-term power crunch."

The minimum standard, which will go into effect in 2006, requires that new central air conditioners and heat pumps must have an efficiency rating 30 percent greater than the existing standard set in 1987. Nearly all new homes are built with central air conditioning, according to the Appliance Standards Awareness Project.

"Appliance efficiency standards have been quietly saving energy for American consumers

since the 1970s," said David Goldstein, co-director of the energy program at the National Resources Defense Council. "This latest round of improvements goes a long way toward updating some of the most outdated national standards. This provides a strong foundation for state-based efficiency efforts and federal tax incentives that will do even more to save energy during peak demand periods."

In all, the Clinton administration finalized new standards for clothes washers, water heaters, commercial heating and cooling equipment and residential central air conditioners and heat pumps, completing the public rulemaking proceedings that began in 1993. All together these standards, combined with others for refrigerators and room air conditioners completed earlier during the Clinton administration, will cut residential energy use by about 13 percent by 2020 the Appliance Standards Awareness Project reported. ■

Class is in session. For those of you well versed in the complexities and language of salmon recovery in the Columbia River Basin, you are excused. Those who are asking themselves, “What’s a Bi-Op?”—Keep reading. We’re here to help you sort it out.

In December, the National Marine Fisheries Service released its final biological opinion, a document to guide the operations of the 29 federally owned dams in the Columbia River Basin for salmon and steelhead recovery. The “Bi-Op,” as it is referred to colloquially, is actually one part of the federal government’s comprehensive, long-term strategy to restore threatened and endangered salmon and steelhead throughout the Columbia River Basin of the Pacific Northwest.

Along with a document called the “Basin-Wide Salmon Recovery Strategy,” formerly known as the “All-H Paper,” the strategy incorporates requirements of the biological opinion, along with other measures to improve hatcheries, limit salmon harvest, and restore salmon habitat. Both documents together detail the federal government’s plan to prevent extinction and foster the recovery of salmon and steelhead in the Columbia River Basin.

The “Bi-Op,” is actually one part of the federal government’s comprehensive, long-term strategy to restore threatened and endangered salmon and steelhead throughout the Columbia River Basin of the Pacific Northwest.

One important aspect of the strategy is what it leaves out of the mix—namely, the issue of breaching the four Lower Snake River dams: “The science suggests that we place priorities on those improvements that will afford the greatest benefits and points to improvements in the tributaries and the estuary as holding real promise.” With this controversial option removed, at least for the next three years, from its set of proposed actions, the strategy “...places the highest priority on actions with the best chance of providing solid, predictable benefits for the broadest range of species.” While the approach maintains breaching as a future option, it focuses on a variety of actions directed toward improving habitat, hatchery operations, harvest practices, and fish passage through the hydropower system to address recovery.

The success of these efforts will be assessed through the use of scientifically based performance standards. Progress will be measured against those standards in three-, five- and eight-year intervals to determine if more aggressive recovery efforts—including the breaching of the four lower Snake River dams—will be necessary.

In a change from the draft Bi-Op released last July, the final version stipulates that studies to implement breaching won’t be started unless the prescribed measures receive a failure report at the scheduled performance review. The draft had called for first-year breaching studies. Another change from the draft document involves 10 Bureau of Reclamation projects on the upper Snake River. The final version excludes those projects at least until spring. The reasons for their exclusion is because

of a mediation process connected to a long-standing Snake River water rights court case over the allocation of water resources in Idaho. The National Marine Fisheries Service plans to address those projects in a supplemental biological opinion.

The Bi-Op is expected to add an additional \$100 million to the current \$252 million that the Bonneville Power Administration allocates each year for fish and wildlife mitigation. The estimated annual cost of the entire federal program is approximately \$500 million. In terms of generating power, Bonneville estimates the plan reduces federal generation by 60 average megawatts. In addition to the costs to generation from the 1995 Bi-Op, the cumulative impact is a 982-aMW loss. The “cost” refers to the fact that the water that would have been used to generate electricity through the dams, is held back to support fish migration.

## FISH NEWS

The proposed actions address the four areas in which human activities have affected listed fish, the so-called “four Hs” of salmon recovery. The following is a general outline of the strategy’s efforts:

**Habitat:** Habitat efforts will focus on tributary streams, the estuary and the mainstem rivers. Immediate actions have been identified to restore streamflows, remove passage barriers, improve water quality and rebuild the health of buffers along streams, and to screen irrigation diversions. In the estuary, federal agencies will support the rapid implementation of the Lower Columbia River Estuary Program, a partnership between the Environmental Protection Agency and state and local governments and citizens. This includes the restoration and acquisition of important habitat areas, as well as predator control. In the mainstem of the Columbia and Snake rivers, federal agencies will work to restore shoreline habitats for migrating salmon and continue to protect the Hanford Reach in Washington state. The completion of subbasin assessments and plans will also help to prioritize longer-term actions.

**Hatcheries:** The strategy proposes reforms of federally funded hatcheries to minimize harm to wild salmon and improve survival rates of hatchery stocks. In addition, hatcheries will use conservation and supplementation programs to prevent the extinction of weak stocks, and establish a research program to evaluate its success and quantify hatchery impacts over time.

**Harvest:** The federal agencies, working with the states and tribes, will cap harvest of protected species at current levels. There may be further reductions of harvest levels, where practical, through more selective fishing techniques, license buyouts or other approaches.

**Hydropower:** The federal agencies will maximize survival of juvenile and adult salmon throughout the hydropower system by improving water management and quality, increasing spill, and continuing improvements in the dams themselves to pass more fish safely. The agencies will also seek to complete the necessary analysis on removal of the Snake River dams should program efforts fall short and removal becomes necessary to avoid extinction of Snake River fish. Along with engineering studies, economic analyses to develop strategies to reduce the impacts on communities and industries would also be done to ensure that any breaching proposal is fair and affordable.

### The Northwest Power Planning Council’s Role

The strategy requires coordination and collaboration across the board from local, state, tribal and regional entities engaged in recovery efforts. The importance of subbasin planning in the strategy—that

is to say, programming that is local and grassroots—correlates directly with the Council’s work: “The Plan also calls for coordinated subbasin assessments and plans, as proposed by the Northwest Power Planning Council.” And in the future, the subbasin and recovery plans will then create the priorities for federal actions and funding.

Additionally, many of the Bi-Op’s actions require support from the Council for Bonneville Power Administration off-site mitigation projects, i.e., those projects that involve actions affecting habitat, hatcheries, and harvest. In fact, a preliminary comparison between the Bi-Op’s proposed actions and ongoing Council fish and wildlife projects shows that many existing efforts already address the Bi-Op’s goals. In the case of goals for hatcheries, the strategy requires that any agency operating a hatchery develop a management plan for production that is modeled on the Council’s 1999 Artificial Production Review.

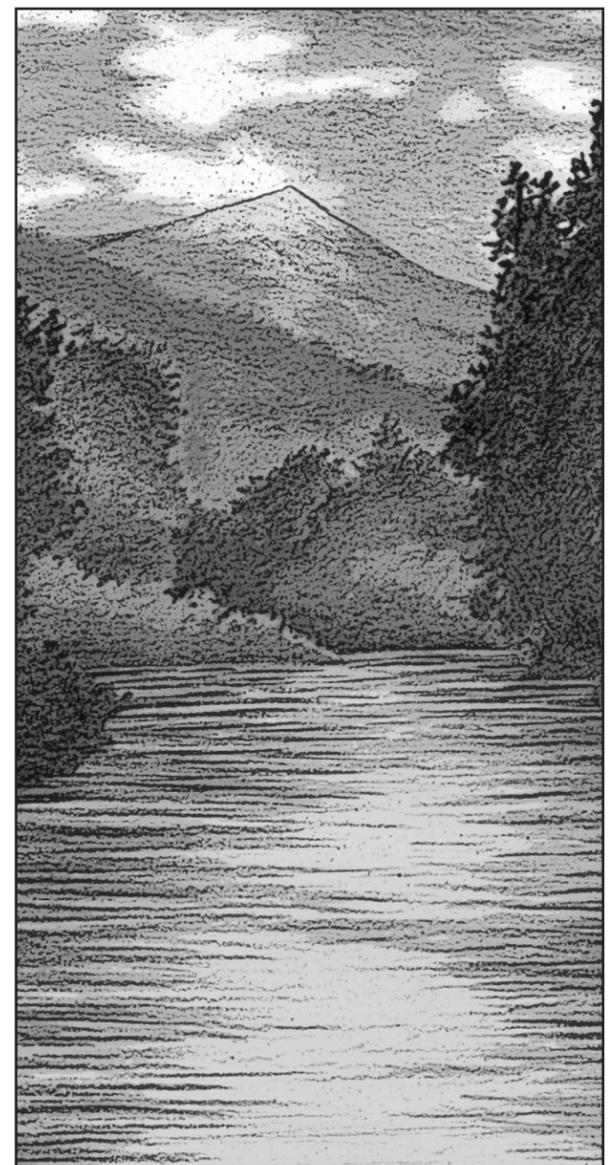
Through the creation of one- and five-year plans which the Bi-Op requires of the action agencies (the Army Corps of Engineers, the Bureau of Reclamation, and the BPA), there is an opportunity to integrate those plans with the Council’s provincial review, its review process for proposed fish and wildlife projects. The one- and five-year plans help to provide a planning process to collectively identify where progress has been made, set regional priorities, connect hydropower-operations to off-site mitigation efforts, and overall, develop a comprehensive framework to support funding requests.

### Next Steps:

While Council staff and Bonneville will continue to inventory and compare existing projects to the Bi-Op initiatives, the Council will also be working with the action agencies to define the content of the five-year implementation plan.

Other issues relating to funding and the decision-making process have also been identified by the Council and will be presented to Congress.

For more information about the federal government’s salmon recovery plan, please visit the Federal Caucus Web site: [www.salmonrecovery.gov](http://www.salmonrecovery.gov). ■



# Subbasin Planning Update

Each year, the Northwest Power Planning Council reviews proposals for on-the-ground projects and research to implement its Columbia Basin Fish and Wildlife Program. Proposals meeting the highest standards are then recommended to the Bonneville Power Administration for funding. Currently, Bonneville spends about \$127 million annually on fish and wildlife projects in the basin. The Council's 2000 Fish and Wildlife Program outlines a new review and selection process that focuses recovery efforts on local subbasin planning.

Last October, Lynn Palensky joined the Council staff to coordinate the process to develop subbasin plans. The plans will identify the goals for fish, wildlife, and habitat in each subbasin, define objectives that measure progress toward those goals and establish strategies to meet those objectives. Most importantly for the Council and project sponsors, the plans will eventually be adopted into the Council's fish and wildlife program, and will then be used to guide project funding.

Prior to coming to the Council, Palensky worked for the Washington State Department of Fish and Wildlife as a fish habitat biologist for the Salmon Recovery Funding Board, and later for the Inter-agency Committee for Outdoor Recreation, where she was the Riparian Habitat Grant Program Coordinator.

Since coming to the Council, Palensky has been traveling throughout the four states of Oregon, Washington, Idaho and Montana to inform people of the new process, listen to their thoughts on how it can work, and to encourage their participation.

"So far, we've talked to stakeholders in each of the four states and many of the tribes to get a feel for what their needs and expectations are for subbasin planning, and what the best approach will be in each state," she said.

"People are generally receptive to subbasin planning, but there is always some skepticism out there about funding to get the plans done, getting local participation, cooperation, and eventually, consensus."

Nonetheless, she said, there is generally strong support for the concept. The fact that the program is science-based, stresses accountability, and is more manageable due to its narrower focus makes sense to people. And because the process is connected directly to the Council's funding recommendations to Bonneville, they recognize that this makes it different from past efforts at watershed planning. "People want to know that the plan will be a 'living document,'" says Palensky, "And not just another plan that will sit on a shelf gathering dust."

The Council and the Columbia Basin Fish and Wildlife Authority, an association of the region's fish and wildlife agencies and Indian tribes, are working to gather existing information about fish, wildlife and habitat in tributary subbasins of the Columbia. This is no small task, as there are more than 50 subbasins. As the summaries are completed, they will be used to guide the Council's project-funding decisions until formal subbasin plans are developed and added to the fish and wildlife program through amendment processes. So far, summaries are completed for the Columbia Gorge, Inter-mountain and Columbia Plateau provinces. The provinces -- there are 11 in the Columbia River Basin -- are groups of adjacent, ecologically similar subbasins. In February, the Council made project-funding decisions for the Columbia Gorge and Inter-mountain provinces, based on the needs identified in the subbasin summaries

The summaries and project reviews with the Independent Scientific Review Panel have been completed for the Mountain Columbia Province, and coming up next, the Columbia Plateau Province will begin its project solicitation in March. To access the

subbasin summaries, ISRP reports, province review schedule, and other information about the subbasin planning process, go to the Columbia Basin Fish and Wildlife Authority website: [www.cbfgwa.org](http://www.cbfgwa.org)

Palensky thinks that the process has been going well.

"The summaries are turning out to be much more comprehensive than what we expected. Although they begin to move away from what we had envisioned as a 'summary,' it's been encouraging to see that local stakeholders can come together so quickly in preparation for the planning exercise. It tells us a lot about what is going on in a subbasin, and we expect to have even broader participation as we go along."

The ISRP reviews have been very helpful, along with the subbasin summary information. The process has been successful so far in helping to identify what projects will be most effective and to determine that:

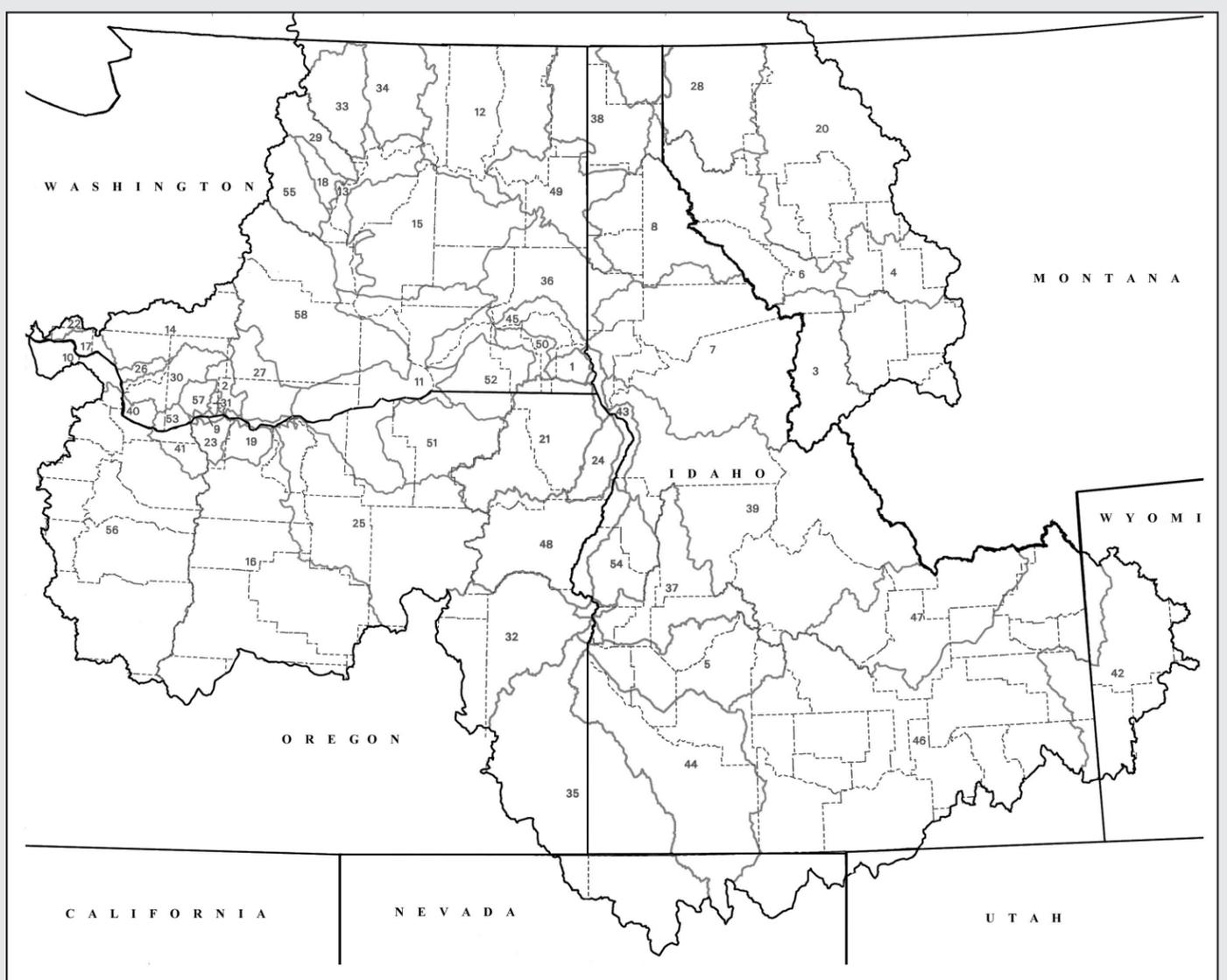
- The project is timely
- It is in the right location
- It achieves its desired objectives that have been identified in the watershed

And, as with all evolving things, "The farther we get down the road in this process, the better we'll get at it," says Palensky.

Her approach to the undertaking is both philosophical and pragmatic, "Subbasin planning is going to occur differently in all four states, and likely in each subbasin, depending on the existing infrastructure there and participation. We can't take a cookie-cutter approach to get the plans done; we have to be flexible to set people up for success and not failure." ■

## Columbia River Basin Provinces and Subbasins

- 1 - Asotin
- 2 - Big White Salmon
- 3 - Bitterroot
- 4 - Blackfoot
- 5 - Boise
- 6 - Clark Fork
- 7 - Clearwater
- 8 - Coeur D Alene
- 9 - Columbia Gorge
- 10 - Columbia Lower
- 11 - Columbia Lower Middle
- 12 - Columbia Upper
- 13 - Columbia Upper Middle
- 14 - Cowlitz
- 15 - Crab
- 16 - Deschutes
- 17 - Elochoman
- 18 - Enitat
- 19 - Fifteenmile
- 20 - Flathead
- 21 - Grande Ronde
- 22 - Grays
- 23 - Hood
- 24 - Imnaha
- 25 - John Day
- 26 - Kalama
- 27 - Klickitat
- 28 - Kootenai
- 29 - Lake Chelan
- 30 - Lewis
- 31 - Little White Salmon
- 32 - Malheur
- 33 - Methow
- 34 - Okanogan/Similkameen
- 35 - Owyhee
- 36 - Palouse
- 37 - Payette
- 38 - Pend Oreille
- 39 - Salmon



- 40 - Salmon Creek
- 41 - Sandy
- 42 - Snake Headwater
- 43 - Snake Hells Canyon
- 44 - Snake Lower Middle

- 45 - Snake Mainstem
- 46 - Snake Upper
- 47 - Snake Upper Closed
- 48 - Snake Upper Middle
- 49 - Spokane

- 50 - Tucannon
- 51 - Umatilla
- 52 - Walla Walla
- 53 - Washougal
- 54 - Weiser

- 55 - Wenatchee
- 56 - Willamette
- 57 - Wind
- 58 - Yakima

# Council Sets Aside Money for Innovative Fish and Wildlife Projects and High-Priority Actions for ESA-Listed Fish

For the first time, the Northwest Power Planning Council has selected a group of fish and wildlife research projects specifically for their innovation. The Council recommended the research projects in February for funding by the Bonneville Power Administration in 2001. The projects are part of the Council's Columbia River Basin Fish and Wildlife Program.

The innovative projects, which resulted from a Council solicitation last November, respond to a recommendation of the Independent Scientific Review Panel (ISRP) in 1999. The Panel, which reviews all projects proposed for funding through the Council's program, suggested the Council establish a special funding category for innovative projects as a means of exploring new methods and technologies and new applications for existing methods and technologies designed to directly benefit fish and wildlife.

The Council defines an innovative project as one that relies primarily on a method or technology that either has not been used previously in a fish and wildlife project in the Pacific Northwest, or has not been used previously in fish and wildlife mitigation effort.

Beginning this year, Bonneville will allocate up to \$2 million per year for innovative projects. The Council's November 2000 solicitation set a per-project funding maximum of \$400,000. Without excluding other types of innovative projects, the solicitation expressed an interest in projects demonstrating the effect of nutrient supplementation on fish populations and projects testing experimental selective fishing gear – gear that allows fish of a certain size to escape capture. Selective gear can be used to target larger, more abundant salmon and allow smaller fish to escape.

The solicitation garnered a total of 66 proposals. These requested a total of \$20 million, or ten times the amount set aside by Bonneville. The proposals fell into seven broad topic areas: 1) nutrient supplementation; 2) fish health; 3) fish population monitoring; 4) information transfer/planning; 5) artificial

## Innovative Fish and Wildlife Projects Approved for Funding in 2001

Project ID	Title	Project Sponsor(s)	Sponsor Funding Request	Council Funding Recommendation
22001	A Feasibility Study for Pacific Ocean Salmon Tracking (POST)	Kintama Research Corporation	\$228,600	\$228,600
22013	Genetic Sex of Chinook Salmon in the	University of Idaho	\$99,736	\$99,736
22002	Influences of Stocking Salmon Carcass Analogs on Salmonids in Columbia River Tributaries	Washington Department of Fish and Wildlife, Bio-Oregon, Shoshone-Bannock Tribe, National Marine Fisheries Service, Yakama Nation, Weyerhaeuser Co.	\$399,829	\$399,829
22022	Using Induced Turbulence to Assist Downstream-Migrating Juvenile Salmonids	Washington State University	\$219,923	\$219,923
22050	Habitat Diversity in Alluvial Rivers	Confederated Tribes of the Umatilla Indian Reservation	\$319,860	\$319,860
22033	Evaluate new Methodologies for Monitoring Pacific Salmon and Steelhead: Methods for Evaluating the Effectiveness of Restoration and	U.S. Fish & Wildlife Service	\$353,376	\$197,155
22042	Evaluate the Effects of Nutrient Supplementation on Benthic Periphyton, Macroinvertebrates, and Juvenile Sturgeon in	Kootenai Tribe of Idaho	\$170,635	\$170,635
22057	Waterbody and Aquatic Habitat Characterization Utilizing High Resolution	Teasdale Environmental Associates	\$126,371	\$126,371
22010	Echo Meadow Project - Winter Artificial	IRZ Consulting	\$660,714	\$232,000
			<b>\$2,579,044</b>	<b>\$1,994,109</b>

production; 6) habitat restoration and enhancement; and 7) fisheries technology.

The project proposals were forwarded to the ISRP and the Columbia Basin Fish and Wildlife Authority (CBFWA) for review. In February, after reviewing reports provided by the ISRP and CBFWA, the Council recommended nine projects to Bonneville totaling \$1,994,109 (see the list of projects elsewhere on this page). More information about the projects is available on the CBFWA website, [www.cbfgwa.org](http://www.cbfgwa.org).

Meanwhile, the Council also solicited a separate group of projects that would be designated as high priority and funded immediately. Unlike innovative project, which will be solicited annually, high-priority projects were solicited only for funding in 2000. This responds to the urgency surrounding efforts to

recover Endangered Species Act-listed fish.

High-priority projects will be implemented outside the normal project selection process, which is in transition in 2001 from the previous version of the program to the new 2000 Program, which focuses project selection on subbasin planning. Until this year, the Council solicited projects annually for implementation throughout the Columbia River Basin. Beginning this year, the Council moves to a three-year funding cycle in which approximately one-third of the tributary subbasins in the Columbia River Basin will be reviewed each year.

As with the solicitation for innovative projects, the Council set certain guidelines for the high-priority projects. For example, high-priority funding will not be provided for infrastructure or to build capac-

Continued on next page

## Top-rated High-Priority Projects Recommended for Funding in 2001

Project ID	Title	Project Sponsor(s)	Subbasin	Cost
23001	Protect Bear Valley Wild Salmon, Steelhead, Bull Trout Spawning and Rearing Habitat	Shoshone-Bannock Tribes, Idaho Department of Fish and Game	Salmon	\$320,000
23002	Ames Creek Restoration	United States Forest Service	Willamette	\$170,000
23008	Improve Stream Habitat by Reducing Discharge from Animal Feeding Operations in Salmon and Clearwater Basins	Idaho Office of Species Conservation	Clearwater/Salmon	\$1,100,000
23010	Restoration of Anadromous Fish Access to Hawley Creek	Idaho Office of Species Conservation	Salmon	\$2,159,000
23011	Reconnect Little Morgan Creek to the Mainstem Pahsimeroi River	Idaho Office of Species Conservation	Salmon	\$1,100,000
23012	Arrowleaf/Methow River Conservation Project	Trust for Public Land, Washington Department of Fish and Wildlife	Methow	\$2,500,000
23032	Return Spawning/Rearing Habitat to Anadromous/Resident Fish within the Squaw Creek to Papoose Creek Analysis Area Watersheds	Nez Perce Tribe	Clearwater	\$420,000
23036	Evaluate Live Capture Selective Harvesting Methods for Commercial Fisheries on the Columbia River	Washington Department of Fish and Wildlife, Oregon Department of Fish	Mainstem Columbia	\$384,285
23045	Gourley Creek Dam Fish Ladder	City of Scappoose, Oregon	Lower Columbia	\$200,119
23046	Increase In Stream Flows to De-watered Stream Reaches in the Walla Walla Basin	Walla Walla County Conservation District	Walla Walla	\$590,000
23047	Acquire Tucannon River Water Rights	Washington Water Trust	Tucannon	\$120,000
23048	Install Fish Screens to Protect ESA-listed Steelhead and Bull Trout in the Walla Walla Basin	Walla Walla County Conservation District	Walla Walla	\$461,700
23053	Wagner Ranch Acquisition	Confederated Tribes of the Warm Springs Reservation	John Day	\$2,658,774
23054	Forrest Ranch Acquisition	Confederated Tribes of the Warm Springs Reservation	John Day	\$4,184,185
23056	Farmers Irrigation District Mainstem Hood River Fish Screen Project	Confederated Tribes of the Warm Springs Reservation of Oregon	Hood	\$500,000
23073	Purchase Perpetual Conservation Easement on Holliday Ranch and Crown Ranch Riparian Corridors and Uplands	Oregon Department of Fish and Wildlife	John Day	\$481,800
23094	Acquire 27,000 Camp Creek Ranch at Zumwalt Prairie	The Nature Conservancy	Imnaha	\$2,000,000
			<b>TOTAL</b>	<b>\$19,349,863</b>

ity – at a hatchery, for example, as these are activities that would require separate follow-on funding in future years. On the other hand, high-priority projects could continue in future years if they are reviewed and approved through the three-year review process.

High-priority projects also must:

- Address imminent risks to the survival of one or more ESA-listed fish species, and 1) represent a time-limited opportunity or 2) be broadly recognized as projects that would achieve direct anadromous fish benefits.

- Be consistent with the Northwest Power Act, provide appropriate mitigation for the impacts of the Columbia River hydrosystem and not be in lieu of other expenditures or actions authorized or required by other entities.

- Have all required permits and agreements in place so that on-the-ground work can begin no later than September 30, 2001.

In response to the solicitation for projects, Bonneville received 96 proposals that offered actions ranging from replacing culverts to acquiring riparian habitat to testing selective fishing gear.

The ISRP reviewed the 96 project proposals and reported to the Council in early February. According to the ISRP report, about half the proposals failed to meet the criteria because they did not offer immediate actions that would result in on-the-ground benefits. Rather, they proposed to create infrastructure, conduct assessments or identify actions that could lead to on-the-ground benefits at a later time.

The proposals also were required to address two additional tiers of criteria. Six Tier 2 criteria were generated from the Fish and Wildlife Program. These included:

- The proposal has measurable, quantitative biological objectives and will result in clear benefits to species survival;

- The proposal has immediate, measurable benefits to ESA-listed species;

- The proposal will produce largely self-sustaining habitat after activities are completed;

- The proposal will connect patches of high-quality habitat or extend habitat out from a core area;

- The proposal will improve conditions in a 303d water-quality limited stream; and/or,

- The proposal addresses a habitat enforcement issue and results in the protection of fish or wildlife habitat (including marine habitats of anadromous species).

The Tier 2 criteria proved critical in the ISRP's identification of technically sound projects that best meet the intent of the high priority solicitation. In general, projects that proposed to directly address passage issues, restore or acquire quality habitat and increase and protect instream flows matched the high-priority criteria the best, the ISRP reported. Proposals to conduct assessments or feasibility studies met the criteria as well. The ISRP made its recommendations in categories – those that clearly met all the criteria, and then three additional categories of projects that met some, but not all of the

criteria, and a category for those that did not meet the criteria.

Based on the ISRP review, and reviews by Bonneville and the National Marine Fisheries Service, the Council in March recommended 17 projects totaling \$19.3 million to Bonneville for funding. Lists of the innovative and high-priority projects are on the Council's website [www.nwcouncil.org](http://www.nwcouncil.org). ■



## Introducing [www.nwcouncil.org](http://www.nwcouncil.org)

The Northwest Power Planning Council has a “new” website that has been redesigned to be faster and easier to use. Besides its improved functionality and updated design, we also plan to highlight the Council's latest events and information on energy and fish and wildlife issues that affect the Northwest. Check out our “new look” website, and let us know what you think: [www.nwcouncil.org](http://www.nwcouncil.org)

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