Council QUARTERLY
Northwest Power and Conservation Council
Summer 2008

Striking a Balance Between Energy and the Environment in the Columbia River Basin

Fish and Wildlife Program Amendment Attracts Dozens of Proposals

The Northwest Power and Conservation Council received 65 proposals totaling more than 3,600 pages of material in response to its solicitation for recommendations to amend the Columbia River Basin Fish and Wildlife Program.

The Council invited proposals last November; the deadline for submission was in April. The Council accepted public comments on the proposals through mid-June and then began preparing a draft program for public review and comment. Public hearings are planned to receive comments in August and September. The amendment proposals and a schedule of public hearings on the draft program are posted on the Council's website at this address: www.nwcouncil.org/amend. The public comment period on the draft program will continue through October 15. The Council plans to adopt the new program on December 10.

Fourteen Indian tribes, one tribal coordinating entity, all four Northwest states (state fish and wildlife and water agencies, governor's offices, and salmon recovery and watershed entities), and eight federal agencies submitted amendment recommendations. In addition, recommendations were received from local and other governmental and non-governmental organizations, businesses, and individuals. Many of the recommendations are lengthy and detailed, representing substantial time and energy investments by the recommending parties.

The recommendations raise dozens if not hundreds of issues and topics for the Council to address through the amendment process. These include whether and how to integrate the 2008 Biological Opinions issued by NOAA Fisheries on behalf of threatened and endangered salmon and steelhead; implementation of the 2008 Fish Accords that the Bonneville Power Administration signed with Indian tribes and the states of Idaho and

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Internet Portal Leads to Information About International Columbia River Basin

A new, Internet-based portal to information about the Columbia River in its international dimensions was announced in June by the Northwest Power and Conservation Council and the Columbia Basin Trust. The portal is known as the International Columbia River Center of Information.

The portal is installed as a "community" on the website of the Northwest Environmental Database, which is hosted on the Bonneville Power Administration website at this address: http://gis.bpa.gov/Portal/

The Council and the Trust intend the International Columbia River Center of Information as a comprehensive, publicly accessible repository of information about the Columbia River in its international dimensions. The two agencies see the center as a place to share data and information, and to encourage dialogue and public awareness of the water, power, fish and wildlife, and related aspects of the transboundary Columbia River.

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What's Inside

Re-thinking Hatcheries: Connecting Fish Supplementation to the Environment

Hatcheries have existed for over 130 years in the Columbia River Basin, but in recent years efforts have been underway to transform hatchery management from its original goal to increase harvest to an approach that views artificial production within the larger context of the ecosystem.

As early as the 1980s, scientists began to question the efficacy of traditional hatchery management, and by the 1990s, came to the conclusion that hatcheries had contributed to the decline of wild salmon. In 1999, a panel of fish production experts convened by the Northwest Power and Conservation Council reported that hatcheries lacked a clear, basinwide scientific foundation for making decisions, and that over time, the focus on producing numbers of fish, without considering the need for healthy habitat to support their survival, had hampered their efforts. At the same time, large hatchery returns can encourage the overharvest of wild fish, hurting the need to conserve their genetic diversity. So, what is the proper role of hatcheries in the effort to both provide harvest and protect and rebuild native fish? The Council's 2000 Columbia River Basin Fish and Wildlife Program put the issue this way: "Improperly run, artificial production programs can do damage to wild fish runs. However, when fish runs fall to extremely low levels, artificial production may be the only way to keep enough of that population alive in the short term so that it has a chance of recovering in the long term. What is not so clear is the extent to which artificially produced fish can be mixed with a wild population in a way that sustains and rebuilds the wild population."

Klickitat Hatchery, 7 miles east of Glenwood, Washington at river mile 42 of the Klickitat River

In 2000, Congress established the Hatchery Scientific Review Group, an independent panel of scientists in the region, to redesign hatchery programs to achieve two goals: help conserve wild salmon and steelhead populations and support sustainable fisheries.

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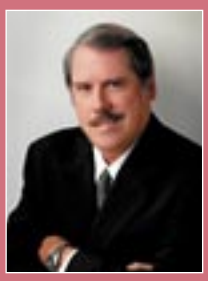

Notes From the Chair

In this issue, the Council Quarterly highlights progress toward amending the Council's Columbia River Basin Fish and Wildlife Program, the largest regional effort to recover and rebuild fish and wildlife affected by the federal hydrosystem. The draft program is scheduled to be released for public comment later this summer, with public hearings scheduled in the fall.

We also look back at some important markers. The region reached an all-time record for energy savings in 2007. It's good news for the Northwest and highlights the importance of evaluating where the next round of savings may be found. As the Council begins developing its Sixth Power Plan, we'll be reporting on the latest findings and recommendations on energy efficiency, which continues to be the region's best available resource.

In a retrospective of sorts, Dr. Richard Whitney, a longtime advisor to the Council on fish and wildlife matters, remembers the landmark court decision that changed fishery management in the Columbia Basin, and beyond. Dr. Whitney, leader of the Washington Cooperative Fishery Research Unit and professor in the School of Fisheries at the University of Washington from 1967 until his retirement in 1984, offers a unique perspective on the history and state of fisheries management in the basin.

An update on efforts to improve hatcheries describes the latest technical tools to help managers understand their actions within the context of the ecosystem. Such modernizing techniques will give us a better chance of balancing commercial and sport harvest and conservation of wild salmon.

Finally, you may not be aware of one of the more far-reaching, if not visionary, ideas for wind generation: flying windmills, if you will. Imagine capturing the energy of jet-stream winds. Researchers have, and we share some of their efforts, too, in this issue.

Flying Windmills Technology: A Look at Efforts to Capture High-Altitude Wind Energy

The sight of wind turbines aligned across the horizon is nothing new these days. But some of the most innovative designs are challenging conventional notions of what a wind turbine looks like and where it is located.

Artist's depiction of the Flying Electric Generator.

The Ottawa-based company, Magenn Power, is attempting to develop the world's first floating wind turbine. The Magenn Air Rotor System, or MARS, is a stationary blimp kept afloat with helium and tethered into place on an electrical grid. Wind turbines at ground level produce at a rate of 20-25 percent, but when placed at altitudes from 600-1,000 feet, the energy output can double. The MARS technology would be especially useful for remote locations, in developing countries, and for emergency disaster relief. For now, the company continues to test the viability of their prototype.

In a more ambitious example of the idea of high-flying generation, Sky WindPower, based in San Diego, is developing a kite-like 1,100 pound Flying Electric Generator, or FEG, capable of producing power from 15,000-30,000 feet in the air. Think of the average winds that make a difference in the time flying coast to coast in the U.S. from east to west versus west to east. Such wind is not only faster but more constant. Harvesting just 1 percent of the energy from jet-stream winds could produce enough power to supply the world.

The FEG is tethered to the ground by a high-voltage power line. Powered by the ground station, it ascends, on helicopter-like rotors, to the desired altitude. Once airborne, the rotors generate electricity, which is transmitted down the same tether. GPS technology enables it to adjust its vertical and horizontal position to best capture the wind's energy.

The biggest obstacle to testing their latest prototype (an earlier model was first flown in the 1980s) is financial backing. Although it has received FAA approval, investors are typically reluctant to put money into projects that are risky or that won't pay off within a few years.

In another part of the world, researchers at Delft University of Technology in the Netherlands are working on their own project called a laddermill. The laddermill uses large controllable kites to ascend and descend to drive a generator. A series of kites is connected to a long tether wound on a drum connected to a generator. While the kites ascend from 3,000 feet to 10,000 feet, they pull the tether, driving the generator and creating electrical energy. Once reaching their maximum altitude, the kites, maneuvered so they are retrievable, are brought down to their low altitude again and the process starts over. The motion is not unlike that of a piston engine.

While the idea of harvesting winds at high altitude may seem far-fetched, researchers continue on their quest to take wind energy to the next level—literally. CQ

Sources:

www.skywindpower.com

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Northwest Q&A: Dick Whitney on the United States v. the State of Washington, the Landmark Treaty Tribal Fishing Rights Case

Dr. Richard R. Whitney was the leader of the Washington Cooperative Fishery Research Unit and professor in the School of Fisheries at the University of Washington from 1967 until his retirement in 1984. He has B.S. and M.S. degrees from the University of Utah, a Ph.D. from Iowa State University, and a wide range of experience in fisheries management and research. Before moving to Washington, he held positions with the NOAA Fisheries in La Jolla, California, the Chesapeake Biological Laboratory in Maryland, and the University of California at Los Angeles.

From 1974 to 1979, he served as technical advisor to the Hon. George H. Boldt in the United States District Court for Western Washington during the difficult implementation phase of the decision in United States v. the state of Washington. He has served on a number of advisory committees for state and federal fisheries agencies in the Pacific Northwest, including the Northwest Power and Conservation Council on fisheries issues in the Columbia Basin.

Can you explain the significance of the Boldt decision and what role you played?

In 1974 Judge Boldt handed down his decision in the case the United States v. the state of Washington. At that time it was more popularly known as the Boldt decision and has been commonly referred to as such ever since. It's the only lawsuit that I know of that's named after the judge, so it's just not appropriate at all. It is United States v. the state of Washington. The government of the United States sued the state of Washington because they weren't observing the Indian treaty fishing rights; that was their claim. Well, they prevailed in court. When the person who represented the Department of the Interior, the solicitor's office, reported this to his boss in Washington D.C., the government official said "You're telling me Judge Boldt ruled that the tribes are entitled to 50 percent of the harvestable salmon and steelhead?" "Yes." "Well, we have to appeal." The guy said, "We can't appeal, we won." So that was the crazy atmosphere that surrounded this case.

I got involved because I had a member of the Colville tribe as a student. Well, he said, the parties have asked the judge to appoint a technical advisor and we'd like to nominate you for that position. The tribes nominated me, and it was only about three days later, Judge Boldt called me up, and he said "Dr. Whitney, this is Judge Boldt; I want you to be my technical advisor." I said "I think the other candidates are much better qualified." He said, "Well, the thing I like about you is that you're working with all the parties to this dispute; with the tribes you have some projects going on with them, you have projects going on with the federal government, projects going with the state fisheries, state game. I want somebody who can work with those people, talk to them, get them to reach agreements on how to manage these fish." So, I was drafted. That's how I came to serve, reluctantly.

Judge Boldt was a very interesting guy, very jovial, great sense of humor, and we got along very well indeed. As things developed, one of the first situations that I found myself in in court was when the tribes complained that the Washington Department of Fisheries had not allocated them their proper share, their 50 percent of the coho salmon migrating through Puget Sound. So they had the assistant director of the Washington Department of Fisheries on the stand, and the tribal attorneys were asking him all kinds of questions that he was very good at answering. But they didn't know how to ask the right questions to corner him. And he didn't know how to answer within the boundaries of the decision, because the boundaries hadn't been established yet—50 percent of which salmon? So, after more of that questioning, there was a recess and the tribal attorneys were huddling and muttering amongst themselves, "We're going to charge him with perjury; he's contradicting himself and just trying to duck the questions." I said, "No, he isn't, he's smarter than you are. You don't know the right questions to ask. And here are the right questions—there are only three of them. Ask him how many coho are entering Puget Sound; ask him how many have been caught already by the non-tribal fishery; and ask him how many are required for spawning. We can figure out the difference between the run size and how many have been caught." And

they said, "Those are good questions, but we don't want to ask them." And the guy from Washington's Department of Fisheries said, "Well, I don't want to ask those questions either." So I went to the federal man from the solicitor's office, and he said, "Those are very good questions and they'll help the judge, but I don't want to ask them."

Why didn't they want to ask the questions?

Because that would put them, the tribal attorneys, in the awkward position of looking like they were saying that the state's doing all right; that there is still 50 percent of the fish left depending on where you're counting them. And looking at the total entering Puget Sound, which was all we had to go by, that there were still harvestable numbers remaining. They were afraid that their clients would not be pleased with that outcome. The state guy had his own motives, and the federal guy didn't want to offend the tribes. So they said, "Why don't you ask those questions Dr. Whitney." So I found myself up there with the attorneys questioning a witness, and I asked my questions, he answered them, and just as I suspected, the numbers showed there were still harvestable fish. I presented the conclusion that there are still harvestable numbers available to the tribes and that they should be able to take 50 percent. Judge Boldt took my recommendation and analysis and went with it.

What made this decision so important?

There had been lawsuits over the years, ever since the treaties were negotiated in the 1850s, a whole set of them at various places involving various tribes. The tribes reserved the right to fish in their usual and accustomed places. It was only years after that, when the number of settlers began to increase and they started to build fences and establish ownership, that they tried to exclude the tribes from their properties. Well that's just one example, and generally speaking, the courts dodged a bullet for all those years until Judge Boldt came along. As a precedent to his decision, there was a judge in district court in Oregon, who said the tribes in the Columbia River Basin are entitled to a share of fish, but he didn't specify what that share amounted to. Judge Boldt's groundbreaking provision was the 50 percent provision. He figured you had to specify what the share was or it was meaningless.

> "Judge Boldt's groundbreaking provision was the 50 percent provision. He figured you had to specify what the share was or it was meaningless."
>
> Dick Whitney

So in a sense, it was the fact that he drew a line in the sand and said we're going to quantify this.

Yes, it has to be quantified. He had asked the parties to the suit to make suggestions to him on what the share ought to be, and he chose 50 percent because the parties couldn't agree.

It was also an opportunity to inject science because from my previous studies on yields, it's well established that if you have a sharing formula among various users, the only way to maximize their individual shares is to maximize the available harvest from the total stock. "Maximum sustainable yield" is the term fishery scientists' use. Well, there's only way to achieve that, and that is to be sure you have an adequate number of fish to spawn in the streams. Eventually this led to the point where the parties agreed, first, that they were going to share these fish, species by species. The 50 percent share would be individual species. And secondly, that it would be stream by stream.

So it moved to this system where they had to account for the catch day by day and had to provide for the left-over fish to be sure to seed the strains. In order to accomplish that, they had to change their whole system of recording catches. It used to be that the fishermen would record their catch to a buyer. The buyer would accumulate these coupons until the end of the year and send them to the Washington Department of Fisheries. Well, that wouldn't work with this requirement that you keep tabs on the harvest and the numbers left for spawning. So, they changed that to a requirement that the records be kept daily. Fisheries management moved from this antique system to the modern system, and the computer entered the picture because that was the only way to keep tabs on these numbers. It required adjustments all the way down the line, and it changed the whole system of management for salmon and steelhead in the state of Washington.

Beyond that, the decision that Judge Boldt reached that the treaty tribes—that is, the ones who signed those treaties—were entitled to a share of the fish, 50 percent, that principle was broadcast to tribes all through the United States to start with. And so we saw, for example, tribes in the Great Lakes that were instigating lawsuits to get their proper share of fish out of the Great Lakes. Similarly on the East Coast, the Northeastern tribes, and pretty soon it was worldwide, into Australia and so forth. One of the early ones, too, was Canada.

So you see the proactive judiciary as a positive?

Thank God for the federal judiciary because all the judges are doing is adhering to the law. And that's all Judge Boldt was doing. His analysis was strictly on the basis of law, the treaty, and the decisions that had been made in these court cases following the treaties and parallel kinds of decisions.

Do you think the litigation in the Columbia has been useful?

Oh, yes, definitely. No question about it. It's absolutely necessary. Because, there is no way of arriving at friendly persuasion among these litigious people other than a firm decision in court. Now during the early days of the United States v. the state of Washington, the state used the state courts to try and get around Judge Boldt's decision. The state of Washington was deliberately taking issues to state courts over state laws that prohibited the state departments of game and fisheries from conforming to the decision.

What do you think of harvest management now in the Columbia? Are there ways that you would improve it?

Yes, and that goes back to what I was saying earlier about the experience in Puget Sound. What we found was that in order to assure that appropriate allocation to the individual tribes, you had to assign a catch limit for each stream, river by river. And, yes, you could have some mixed stock fisheries, but you had to be sure that those left enough fish to accommodate the in river fisheries where some tribes don't have the opportunity to fish out in Puget Sound. It's well documented in the scientific literature that that's the best way of maximizing the available harvest; to manage stream by stream, stock by stock. Otherwise, you're going to be eliminating some of those in the mixed stock fishery, where some of the stocks can survive a harvest of 50 percent, but in the small streams that's not always going to be the case. So those weak stocks will disappear.

It goes back to the early days when I went to work for the Council and their fish propagation panel that's mentioned in the first fish and wildlife program. The fish propagation panel was the group of representatives who were to analyze the Columbia River Fish and Wildlife Program and come up with recommendations to the Council for its improvement. Hatcheries, of course, were foremost in people's minds, but we didn't limit ourselves to that. One of our recommendations was that there was a need to manage the harvest on a stream by stream, tributary by tributary basis in order to accomplish the allocation to the individual tribes and to accomplish the maximum potential yield in the fishery. So that goes back to 1982, '83, and amounts to what later became the subbasin plans. So it took us 20 years or so for the light to dawn and for people to recognize that. I think the potential is there in those subbasin plans, now, to proceed with that kind of harvest management system. It's going to have to be updated because at the moment we have mixed stock fisheries by the non-treaty fishery in the lowermost part of the river. The next segment is the treaty tribal fishery and that's a mixed stock fishery, also. Then in the individual tributaries you have some tribal fisheries going forward on whatever might be left. But that isn't the way to manage for maximum yield now. I realize that in the Columbia River that would require significant adjustments, maybe impractical adjustments, but that would be the ideal.

What kind of adjustments?

In those mixed stock fisheries, they'd have to be able to identify the individual stocks and take only those that still have harvestable numbers available. So you'd have to have a quota for each tributary, and you'd have to be able to identify in the fishery the fish that are headed for that tributary. Now, in the Fraser River in British Columbia, they're able to do this with their sockeye fishery because those stocks are headed for different tributaries within the Fraser River and have different run timings, so they can target their fisheries according to the timing of the run. There might be something as simple as that that would work here, but our fish are so scarce right now, it would be pretty hard to work out a statistical analysis that would show you how to do that.

It would be too complicated?

It would be, at the moment. But, it hasn't proven too complicated in Puget Sound, because early on they upgraded their whole system of catch reporting, data analysis, so they could keep track of the runs in individual tributaries. They can make forecasts based on the mixture of stocks coming in based on the tags recovered, and so on. They can make forecasts of which runs were susceptible to capture in a mixed stock fishery, which ones could take it and which ones should not.

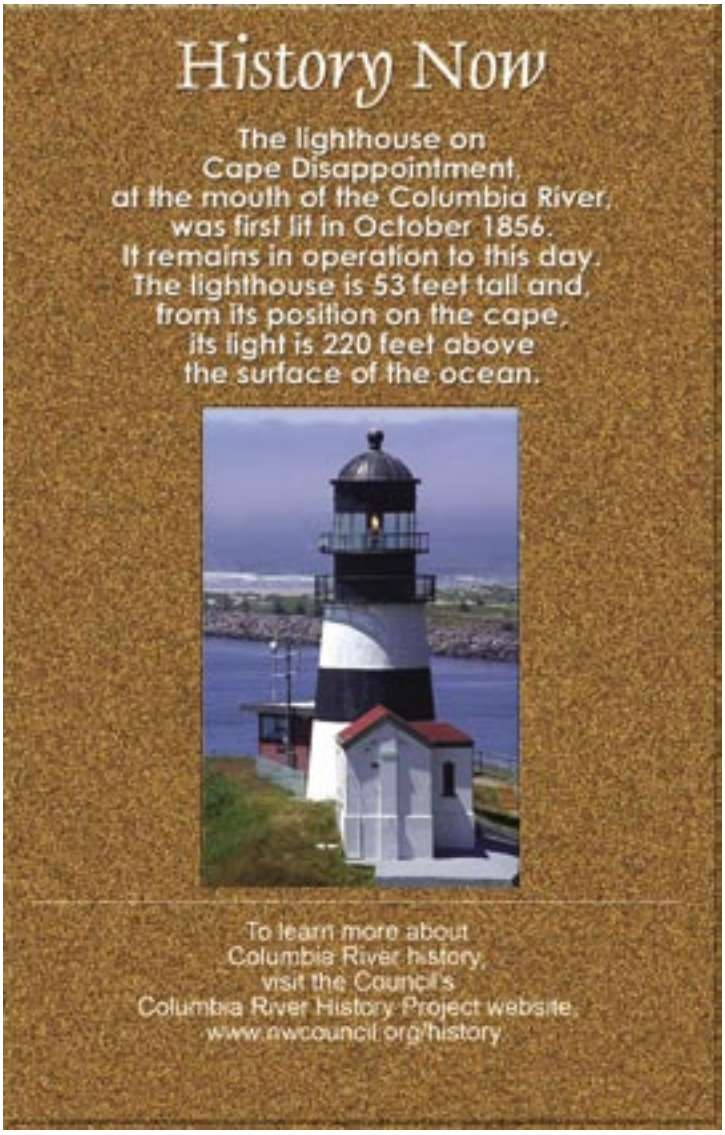
What do you see as the primary successes of the Columbia River Basin Fish and Wildlife Program?

Again, I tend to think from a historical perspective—being so ancient, I suppose—but when the Council was first organized, they asked me to come in as a consultant, and they asked me to deal with a question. What numbers of fish, salmon and steelhead particularly, have been affected by development and operation of the hydroelectric system? They had read the [Power] Act, which

says it's going to be their responsibility to mitigate for the effects of the development and operation of the hydroelectric system. And my short answer was, there was no way they were going to find out scientifically. There were just too many factors acting together. The fishery itself was having an effect on the run size early on; logging was having a big effect early on; agriculture was having a big effect, people were building dams in the tributaries and blocking spawning runs of fish. These things were all operating together; you weren't going to be able to separate them.

And so the only way to arrive at the answer to that question, how many fish are appropriate to compensate for the development and operation of the hydroelectric system, is to have public hearings and ask people for input, and arrive at some accommodation of what people are saying. That's what they ended up doing. And I think that was the primary accomplishment.

They established a goal to double the run size. They established it through the fish and wildlife program, what the approaches are going to be to get there, and then established adaptive management to accommodate the need to change based on what you've learned. I think that's the major achievement on the part of the Council; to establish the map, you might say, of where are we going and how we are going to get there. CQ



Re-thinking Hatcheries: Connecting Fish Supplementation to the Environment

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Hatcheries in the basin are managed by a variety of agencies and organizations, including tribes, state and federal fish and wildlife agencies, and private entities. Each faces the challenge ofadjusting operations to fit this new approach. One of the first steps toward change was to develop a shared data base that hatchery managers could use to help them understand the implications of their actions. The All-H-Analyzer (AHA) is a data spreadsheet managers can now use to analyze a single salmon population under multiple scenarios. Salmon managers categorize the types of actions they might take to restore salmon populations in any of the areas that affect them—habitat, harvest, hydroelectricity, and hatcheries. Using the AHA tool, managers can examine the impact of their actions throughout the ecosystem. The latest system, Roll-Up HTML, is the next generation in population analysis. This system allows the user to evaluate and simulate multiple populations simultaneously—"rolling-up" the results to a larger scale.

> ". . . these tools give them the freedom to find other options, as long as they are consistent with scientific principles."
>
> Peter Paquet

The HSRG began its review of hatcheries in the basin in 2006, beginning with the Lower Columbia province in Washington. The group plans to conclude its review later this summer and will release its draft recommendation for the entire basin in October. "One of the critical things that these two analytical tools, AHA and the roll-up, offer managers is the ability to tweak our recommendations," says Peter Paquet, wildlife and resident fish manager for the Council and HSRG chair. "Our recommendations aren't the only solution or recipe to balance harvest with conservation; these tools give them the freedom to find other options, as long as they are consistent with scientific principles."

"And in almost every case," adds Paquet, "by making the changes we recommend, it increases the value to the habitat—supporting wild fish automatically enhances the tremendous investments we're making to the habitat." CQ

Conservation Comes On Strong

Soaring fuel prices have helped spur energy savings in the Northwest. In 2007 alone, electricity demand was reduced 200 average megawatts; that's enough electricity to power about 146,000 homes and is about half the region's annual growth in electricity use.

The conservation savings are tallied through an annual survey of utility programs to assess how well the region is reaching the targets set in the Northwest Power and Conservation Council's power plan. The Council develops an energy plan to ensure the region's power supply.

The record one-year gain adds to the region's total energy-efficiency savings since 1978, 3,700 average megawatts, more than enough power for all of Idaho and western Montana combined.

The largest savings were in the residential sector, and the largest contribution to that savings—60 percent—was compact fluorescent light bulbs. Between 18.5 and 19 million were sold in the Northwest last year—more than any other region of the United States in terms of bulbs per person. Northwest sales made up about 6.6 percent of total national sales, which totaled about 290 million bulbs last year, according to the Environmental Protection Agency. Nineteen million CFL bulbs will reduce electricity consumption by about 75 megawatts per year, compared to the same number of 60-watt incandescent bulbs. That's enough electricity for a city the size of Port Angeles, Washington or Idaho Falls, Idaho—about 55,000 people. It's also equal to the average annual output of 170 1.5-megawatt wind turbines. CQ

Fish and Wildlife Program Amendment Attracts Dozens of Proposals

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Montana in April; reviews of new and ongoing projects proposed for funding through the program; biological objectives for the program; and a framework for monitoring and evaluating project implementation and results. The amendment proposals also address some issues that have either not been in the program in the past, or not in great detail. These include aquatic and terrestrial invasive species, climate change impacts, and the effects of toxic substances in rivers on fish and wildlife.

Through the program, the Council and the Bonneville Power Administration direct more than $140 million per year to projects that mitigate the impacts of hydropower dams on fish and wildlife. That amount will increase to about $230 million per year as the result of the fish accords, which are 10-year funding agreements. The effects of dams, while not the only effects on fish and wildlife, are the focus of the Council's fish and wildlife program under the Northwest Power Act of 1980. Dams block passage by ocean-going fish, and while many dams have fish-passage facilities, many others do not. Reservoirs behind dams flooded shoreline habitat for wildlife and spawning areas for some species of fish. Dam operations cause fluctuations in the water volume and flow downstream of dams, and this also affects habitat for fish and wildlife.

Projects funded though the Council's program are designed to address these conditions by, for example, improving spawning and rearing habitat for fish, raising fish in hatcheries and releasing them in the wild, acquiring land as wildlife habitat, and funding research into key scientific uncertainties. The program also recommends dam operations and fish-passage equipment to increase protection and improve the survival of ocean-going fish. Federal agencies that operate the dams are required by law to take the Council's recommendations into account when making operating decisions. 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 primarily on the recommendations of state, federal, and tribal fish and wildlife managers. Bonneville implements the program and funds it with a portion of the revenue from the sale of hydroelectricity generated at 31 federal dams in the Columbia Basin. The Power Act requires that the Council review the program at least every five years. The last review and amendment occurred in 2003-2005 when the Council incorporated into the program specific recommendations for mainstem dam operations and 57 subbasin plans. Subbasin plans will guide future implementation of the program.

Meanwhile this spring, the Council adopted a process and schedule for reviewing projects to implement the fish and wildlife program in the future. The process is consistent with a recommendation by the Independent Scientific Review Panel, which is required by law to review all projects proposed for funding by the Bonneville Power Administration through the program.

Reviews of existing and proposed new projects will be conducted over a three-year timeframe, with most projects approved for three years of funding. The Council included an option to fund some projects for longer periods of time, up to five years, for example, and also to conduct topical and targeted project solicitations to address specific needs.

The new project review process should begin this fall for project funding in the next Bonneville rate cycle, 2010-2012. Currently, projects are funded through 2009. CQ

Paper Mill Saves $1 Million Through Improved Energy Efficiency

Proactive energy management policies and energy-efficiency efforts to improve process, thermal, and motor-driven systems were already in place at the Boise Inc. paper mill in St. Helens, Oregon. But after participating in a U.S. Department of Energy "Save Energy Now" energy assessment and after implementing several assessment recommendations, the company saved $1 million in energy costs and 154,000 million British thermal units in natural gas.

Energy expert David Morgan of Akamai Energy LLC conducted the assessment using the DOE's Steam System Assessment Tool. The software helped validate measures that the mill was already considering, such as lowering the oxygen content on three boiler stacks and recovering waste heat from the whitewater process. Using some of the insights gained from the assessment, mill personnel identified and implemented a project that significantly reduced energy use in the steam system.

"Participating in the Save Energy Now Assessment allowed us to evaluate energy saving opportunities in areas we had not previously considered," said Pat Loupin, technology resources manager for Boise Inc. "It validated the merits of some potential projects we had previously identified and provided access to some valuable software-based tools that were useful in evaluating energy improvements." CQ

Internet Portal Leads to Information About International Columbia River Basin

(continued from page one)

The Council and Trust plan to convene an advisory committee in September to consider next steps for further development of the center. The center is one of five information and education projects the Council and Trust are pursuing together. The others are to: 1) initiate planning for a headwaters-to-estuary bus tour in the summer of 2009 for elected officials of Columbia River communities in the United States and British Columbia; 2) convene a committee to begin planning a transboundary Columbia River conference that would be held in early 2010; 3) explore the possibility of the Council and Trust co-sponsoring a fish and wildlife project in the transboundary reaches of the Columbia or its tributaries; and 4) investigate combining the Trust's and Council's reports on climate-change impacts to the Columbia River Basin and issuing the combined report as a joint publication of the two agencies.

During the last two years, the Trust and Council created a broad partnership of organizations to realize the Center of Information project. The center helps

fulfill a commitment the Trust and Council made in a July 2000 Memorandum of Understanding to work together on bi-national projects to inform and educate citizens about Columbia River water management and related matters.

Because the Columbia originates in British Columbia and flows through the Pacific Northwest states, effective water management will require an increasing public understanding on both sides of the border in order to anticipate and address potential issues. Among these are 1) coordinated operation of the dams and reservoirs on both sides of the border for flood control and hydroelectric power; 2) the effects of flows, dam operations, and reservoir elevations on fish, wildlife, recreation, private property, agriculture, cultural sites, and human health; and 3) water-management decisions at multiple levels of government.

The center is the first resource tool that draws together information about the water-management dimensions of the international Columbia River Basin. Over time, the center could become the primary source of information to foster transboundary dialogue, education, collaboration, and research on issues that are identified as priorities for both countries.

The Columbia Basin Trust is a regionally based Crown corporation of the Province of British Columbia created in 1995 to deliver economic, social, and environmental benefits to the residents of the Columbia Basin. For more information about the Columbia Basin Trust visit www.cbt.org. CQ

Council Decisions

April

Electricity Resource Adequacy Standard

Following a public comment period that began in February, the Council adopted a Pacific Northwest electricity resource adequacy standard. The standard is the result of a two-and-a-half year effort by the Northwest Resource Adequacy Forum, an association of electric utilities, regulatory agencies, the Council and the Bonneville Power Administration. The voluntary standard, which will be used annually to assess the adequacy of the Northwest power supply, is essentially an early-warning system to alert utility planners when resource development drops to dangerously low levels compared to demand for electricity.

June

Fish and Wildlife Spending Report

The Council approved the seventh annual report to the Northwest governors on Bonneville Power Administration expenditures to implement the Council's program to protect and rebuild fish and wildlife in the Columbia River Basin. The seventh annual report details Bonneville's spending from 1978 through 2007. The report is posted on the Council's website.

High-level Indicators

The Council released for public comment a report on potential high level biological and implementation indicators for monitoring the success of fish and wildlife projects funded through the Council's fish and wildlife program. The proposed indicators are posted on the Council's website.

Coming soon . . . .

Saving energy and money has never been more important. The Northwest Power and Conservation Council is creating a new web page with information on how to become more energy-efficient. Stay tuned.

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