

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

Wind Power Leads Construction of New Northwest Power Plants



Construction of new power plants is proceeding at a rapid pace in the Northwest, led by unprecedented growth in the number of new wind power plants, according to a staff report by the Northwest Power and Conservation Council.

“No single factor explains this, but a number of factors appear to be contributing,” said Jeff King, the Council’s senior resource analyst. “Part of it is a continuing reaction to the energy debacle of 2000 and

2001, when an inadequate supply pushed power prices to record-high levels. Part of it probably also is due to a sense of an impending lost opportunity for wind power, as the federal production tax credit, which substantially reduces the cost of wind power and makes it competitive with other resources, will expire in 2007.”

In 2005, at least 1,375 megawatts of new generating capacity was under construction or had been completed in the

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Warming Trend: How Climate Change Could Affect the Northwest

While the debate over global warming continues, the evidence of its existence grows. Scientific opinion has come to accept, based on rising global temperatures, that the earth is warming. Over the last 100 years, the earth’s average temperature rose 1 degree. The Inter-governmental Panel on Climate Change concluded that the apparent global warming in the last 50 years is likely the result of increases in greenhouse gases; a finding that reflects the current thinking in the scientific community. Scientists know for certain that human activities are changing the composition of the earth’s atmosphere. Increasing levels of greenhouse gases like carbon dioxide, in the atmosphere since pre-industrial times, have been well documented.

Since the beginning of the industrial revolution, atmospheric concentrations of carbon dioxide have increased 34 percent, methane concentrations have more than doubled, and nitrous oxide concentrations

have risen by about 15 percent. These increases, which tend to remain in the atmosphere for periods ranging from decades to centuries, have enhanced the heat-trapping capability of the earth’s atmosphere.

Fossil fuels burned to run vehicles, heat homes and businesses, power factories, and run power plants are responsible for about 98 percent of U.S. carbon dioxide emissions; 24 percent of methane emissions; and 18 percent of nitrous oxide emissions. Increased agriculture, deforestation, landfills, industrial production, and mining also contribute a significant share of emissions. In 2000, the United States emitted 25 percent of the total global greenhouse gases. The largest contributors are electricity production and transportation, which both produce carbon dioxide. Together, they represent approximately two-thirds of the total

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Council Decisions

All-H-Analyzer Contract

January

The Council authorized its executive director to negotiate a contract with a vendor to complete verification of data inputs into the All-H-Analyzer, a computer tool that is being used to

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Wind Power Leads Construction of New Northwest Power Plants

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Northwest. This represents a 2-percent increase in potential electricity production and a 3-percent increase in regional generating capacity, King reported to the Council.

Continuing a recent trend, the largest amount of the new capacity, 46 percent, is wind power. Natural gas-fired plants are in second place, accounting for 45 percent of the new capacity. Capacity is the maximum amount of electricity a power plant can produce. Energy, in contrast, is the average output of a power plant. Because the energy output of wind turbines generally is significantly less than their capacity, the largest amount of new energy, 45 percent, will come from natural gas-fired plants, King said.

The rapid pace of wind power development is driven by favorable economics resulting from high natural gas prices, extension of the federal production tax credit to 2007 and the risk-mitigation value of a fuel source that is free and won't ever be subject to a tax on carbon emissions.

"The federal tax credit for wind power production is \$19 per megawatt-hour for 10 years, and that makes wind a cost-effective resource compared to other forms of generation," King said. "The production cost of wind power without the tax credit is \$40-\$45 per megawatt-hour. Any project in-service prior to the end of 2007 will benefit from 10 years of tax credit."

If Congress doesn't extend the production tax credit beyond 2007, wind power construction might stop quickly, particularly if natural gas prices fall, King said. On the other hand, the spurt in wind power construction also likely is a reaction to high natural gas prices as utilities and non-utility generating companies turn to a less expensive form of power generation.

Most of the output of the new power plants will be sold to or owned by investor-

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Jeff King
Senior Resource Analyst

owned utilities, King said. At first glance, this is ironic in a region that currently enjoys a surplus of electricity. However, most of the surplus exists in the federal hydropower system and is largely caused by the downturn of the regional aluminum industry. Aluminum plants were served directly by the Bonneville Power Administration. The growth in demand for power largely has occurred in the service territories of investor-owned utilities, King said. These businesses also appear to want greater control of their power supplies and are willing to invest in their own plants rather than increase their purchases from independent producers and from the volatile wholesale market.

While new power plants are being built and brought on line faster than the Council recommends in its Fifth Northwest Power Plan, adopted in 2005, the current development nonetheless is consistent with several action items in the plan, King said. In particular, the plan recommends development of five commercial-scale wind projects at diverse geographic areas through 2009,



totaling at least 500 megawatts in capacity. Current construction will meet that objective, but it is unclear whether developers will undertake the analyses recommended by the Council to resolve uncertainties about large-scale, long-term wind power development for these sites, as recommended by the plan. King said it also is encouraging to see growing regional interest in small-scale, efficient power plants that burn natural gas and in new power plants that burn wood waste or other "bioresidue" fuels. Developing these types of energy resources also is consistent with the power plan. [CCQ](#)

Independent Scientists Say Survival Benefit of Summer Spill Won't Be Known for Several Years

A panel of independent scientists concludes in a recent report that the benefit of court-ordered water spills at Snake and Columbia River dams last summer won't be known until the fish begin returning from the ocean to spawn in three years. That's because none of the studies was designed specifically to examine the benefits and none produced reports for review, according to the report by the Independent Scientific Advisory Board.

The ISAB report, Council Document 2006-1, is posted on the Council's website.

The Council asked the ISAB last October to review the biological effectiveness of summer spill operations in 2005 ordered by U.S. District Judge James Redden of Portland. Judge Redden ordered the spill in response to litigation over the 2004 Biological Opinion on Hydropower Operations issued by NOAA Fisheries, the Bonneville Power Administration, and the U.S. Army Corps of Engineers. The National Wildlife Federation and other plaintiffs in the lawsuit asked Judge Redden to order the spill as an interim mitigation measure while the federal agencies, who are the defendants in the lawsuit, prepare a new biological opinion. Judge Redden earlier invalidated the 2004 opinion and remanded it to the federal agencies.

The summer spill, which began June 20 at the four lower Snake River dams and July 1 at McNary Dam on the Columbia, lasted through August 31. A large majority of the subyearling fall Chinook hatchery production fish migrated through the lower Snake River before June 20, but a majority of the wild subyearling fall Chinook were exposed to the spill.

Proponents of the July and August spill, including the plaintiffs in the litigation, argued it was necessary to assist juvenile fish migrating to the estuary and ocean and boost their survival. Opponents argued there are few fish in the river in July and August and that they would be better off transported downriver in barges or trucks — the usual practice in those months. The two sides pointed to various ongoing fish-survival studies to support their contentions. In October, the Council asked the ISAB to evaluate the studies. The Council shares the

ISAB with NOAA Fisheries and the Columbia River Inter-Tribal Fish Commission — both are litigants in the biological opinion litigation, but on opposite sides — and both approved the assignment and added questions for the ISAB to consider.

The ISAB reviewed the studies, which are being undertaken by NOAA Fisheries, the U.S. Fish and Wildlife Service, and the Fish Passage Center. In each instance, the ISAB found that the studies were not specifically designed to measure the survival benefit of the 2005 summer spill. Thus, the ISAB concluded that the benefit could not be estimated until the fish return as adults.

However, in order to better understand the survival benefit of future summer spills when fish are in the river, the ISAB made the following recommendations for research:

- Replicate the studies of coordinated dam/spill operations for multiple years to test for effects of spill on Snake River Chinook salmon over a range of variation in flow that occurs among years.
- Substantially augment monitoring of tagged juvenile fish and adult fish throughout the Columbia/Snake system to allow wider-scale assessments of competing hydrological options, including strategies related

to transportation of Snake River fall Chinook juveniles.

- Evaluate the consequences of changing the spill regime for upriver movements of adult salmon and other species for which changes in summer spill are relevant, particularly steelhead, white sturgeon, and Pacific lamprey.
- Increase the monitoring of reservoir-type fall Chinook, throughout the system, fall through winter, and over years. There is a need for both a better in-river tracking system for these fish and some sense of the extent to which this over-wintering behavior is genetically programmed.
- Study survival of over-wintering reservoir-type Chinook salmon to estimate their mortality rates during reservoir residency and during passage downstream. Given the substantial proportion of returning adults produced by this life history type, an improved understanding of the factors impacting these fish may be critical to the recovery of Snake River fall Chinook salmon. [CC](#)



Spill at Bonneville Dam.

Warming Trend: How Climate Change Could Affect the Northwest

(continued from front page)

man-made production of carbon dioxide. Industrial and commercial uses and residential heating make up about a quarter of the total. In the Northwest, carbon dioxide emissions have increased 19 percent since 1990, mostly from transportation, although a growing reliance on fossil-fueled generation would mean increased emissions from electricity production, too.

To what extent the human accumulation of greenhouse gases is responsible for the global warming trend is still under debate. And while scientists estimate that as greenhouse gases continue to rise, so will average global temperatures, they do not know by how much and how fast. Other uncertainties include the effects of weather and ocean conditions on global warming. These factors are often inadequately represented in climate models. Still, most climatologists agree that the warming trend is real and could have serious effects worldwide.

Recognizing the need to reduce greenhouse emissions, nations from around the world have tried to reach agreement on a treaty. In early 2005, the Kyoto Protocol, a treaty aimed at controlling global warming linked to carbon dioxide and other greenhouse gases, went into effect. Oregon,

Massachusetts, and New Hampshire require offsets for new fossil power plants, and Washington legislators have enacted a carbon dioxide offset requirement for new power plants similar to Oregon's. California has required steep reductions in vehicle emissions and other states are also looking at ways to control greenhouse gases.

The Washington Post reported in a story on the Kyoto Protocol how several northeastern states "are banding together to limit greenhouse emissions and set up the kind of trading system that could easily blend into the Kyoto model." In fact, for many states and cities, the growing emissions trading market has become an economic incentive to enact limits. Besides the environmental imperative, they want to benefit from this emerging low-carbon economy.

And, increasingly, companies are considering the cost of ignoring the evidence of global warming. The Post story quotes Eileen Claussen, president of the Pew Center on Global Climate Change, an independent research and advocacy organization that works with many large companies interested in addressing the risks of global warming and Robert W. Fri, a board member at American Electric Power Co., which burns

more coal than any other utility in the United States. According to the Post, Fri and Claussen "said most American companies acknowledge—at least in private—that global controls on greenhouse gas emissions are inevitable. Farsighted companies, they said, want a seat at the bargaining table and are investing in cleaner technologies."

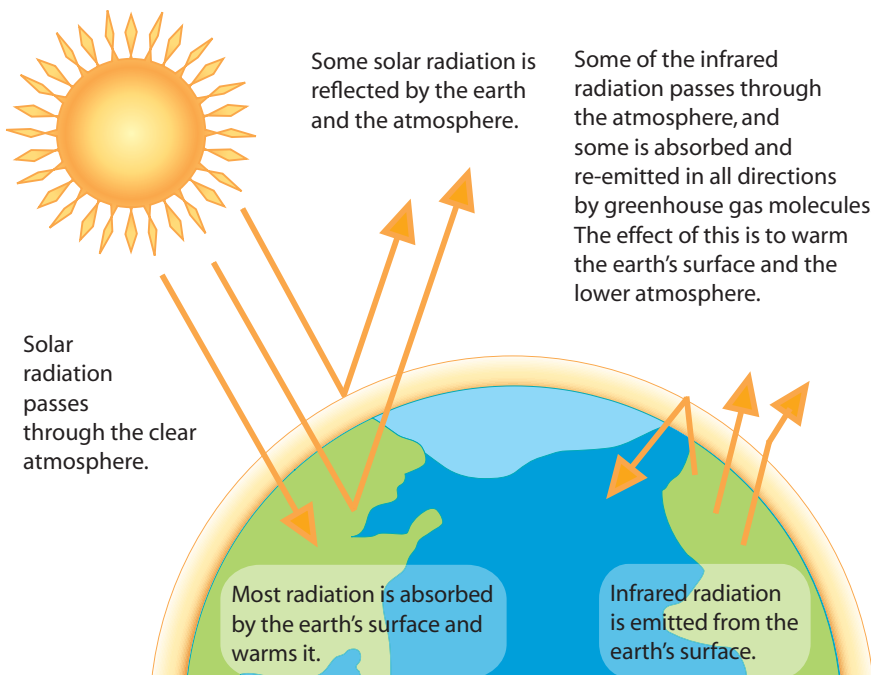
How will global warming affect the Northwest? As with the rest of the world, the average surface temperature in the region has increased by 1.5 degrees over the last century—remote areas warming as fast as urban areas. Most global models indicate a shift in the timing, and perhaps the quantity, of precipitation. The climate will become warmer; the region will see more rain in the fall and winter, and less precipitation as snow. The warmer winters should lower the demand for electricity—normally the Northwest's peak season for energy needs—and the increased rain would mean higher stream flows and greater generating capacity.

Overall, the winter outlook would improve, but the summer could present new problems. The reduced snow pack in the mountains would result in less runoff in the spring and summer. But with higher summer temperatures, the use of air conditioning will go up and with it the demand for power. The region's electricity needs would increase at a time when we would lack the "fuel"—river flows—to generate it. Today, the Northwest and Southwest share power when it is most needed: in the winter for the Northwest and in the summer for the Southwest. But the projected increase in Northwest summer demand, along with potential reductions in generation, may force the region to compete with the Southwest for resources, translating into higher costs for regional customers.

Lower river flows have implications for fish and wildlife, too. The lower flows will translate into lower river velocity and longer travel times to the ocean for migrating juvenile salmon. It could also increase water temperatures, another factor in the mortality of young fish.

Faced with these projections, what should the region be doing? In its Fifth Power Plan, the Council noted that, "Though the effects of climate change remain imper-

The Greenhouse Effect



fectly understood, it would be unwise for the Council to ignore its potential impacts to the region. Strategies should be developed to 1) help suppress warming trends and 2) mitigate any potential impacts.”

The Council’s analysis advised that the region should try to reduce the power system’s production of carbon dioxide, explore incentives to reduce greenhouse gases, and encourage electricity customers to use energy more efficiently. Other recommended actions include: developing low-carbon energy sources; substituting more efficient, lower carbon producing energy technologies for older, less efficient technologies; and offsetting unavoidable carbon dioxide production with sequestration technologies.

While the Council’s power plan does not recommend any immediate actions to address potential changes in the river system, it suggests exploring strategies to respond to those changes, like employing

“Debating the validity of global warming does not necessarily help Northwest planners.”

*John Fazio
Senior Power Systems Analyst*

greater flexibility in hydrosystem operations, negotiating with Canada for more water in the summer, and exploring the development of non-hydro resources to replace hydrogenation for summer needs.

“Debating the validity of global warming does not necessarily help Northwest planners,” says John Fazio, senior power systems analyst for the Council. “It would be better for planners to develop resource and river

operation strategies that are flexible enough to accommodate a wide range of potential climates.” One way to do this, he says, is to rely more on forecasting, which would give planners a snapshot of river conditions. It would give operators the ability to respond in a timely manner to real-life changes in river flows. “This means that we should link operating constraints, whenever appropriate, to forecasted parameters,” says Fazio.

Sometimes those changes will mean we have more water to save during the winter to aid fish in the spring and summer; at other times it will mean allowing projects to draft deeper than currently prescribed in the summer. But it provides a realistic basis for making those decisions, calibrating as accurately as possible the delicate balance between the region’s need to generate electricity and the needs of fish. Most importantly, it will protect the region from the costs—economic and to fish and wildlife—of ignoring fluctuations in the river’s flow. [CQ](#)

Washington Member Chairs Council; Oregon Member Elected Vice Chair



Tom Karier, Council Chair

Tom Karier, a Washington member, will chair the Council in 2006. Joan Dukes, an Oregon member, will serve as vice chair.

Karier, of Spokane, was appointed to the Council in 1998 by then-Governor Gary



Joan Dukes, Council Vice Chair

Locke and now serves under Governor Christine Gregoire. Karier was an associate dean at Eastern Washington University from 1995 until his appointment to the Council. He had been a professor of economics at the university since 1981. While a professor, he also served as a research

associate for the Jerome Levy Economics Institute in Annandale, New York. Karier earned a Ph.D. from the University of California, Berkeley, with a major field in natural resource economics. He holds bachelor’s degrees in physics and economics from the University of Illinois. His research areas included public policy, taxation, labor, international trade, and industrial organization.

Joan Dukes, who lives in Svensen, near Astoria, was appointed to the Council by Oregon Governor Ted Kulongoski in 2005. Dukes resigned her seat in the Oregon Senate, where she had served since 1987, to join the Council. Dukes, who served a four-year term as a Clatsop County commissioner before being elected to the Senate, has a broad base of experience in education, transportation, and fisheries issues at the local, county, and state levels, including having served as chair of the Pacific Fisheries Legislative Task Force, an association of western legislators that works on regional fish issues. She is a graduate of The Evergreen State College. [CQ](#)

NW/Q&A: Steve Fick, Commercial Fisherman and Owner of Fishhawk Fisheries

This is the second interview in a series about salmon and steelhead harvest.

Steve Fick is a life-long resident of Astoria, Oregon, and has been a commercial fisherman since 1975. He is the owner of Fishhawk Fisheries, with plants in Astoria and Kenai, Alaska. A graduate of Astoria High School, he earned his B.A. degree from the University of Oregon in 1979. Mr. Fick is the former president, and is a current board member, of Salmon For All; board member of West Coast Seafood Processors Association; former president of the Astoria Planning Commission; and Oregon Governor's Advisor to the Pacific States Marine Fisheries Commission.

How important is the commercial fishery to the economic health of coastal fisheries?

Commercial fishing dollars contribute significant economic stability to coastal communities. Looking at the bigger picture, Columbia River commercial fishermen not only fish here, but offshore and up in Alaska as well. That outside income injects well over \$7 million every year into four of the poorest rural counties in Washington and Oregon. We're huge contributors to the economy of the Columbia-Pacific region. Our fisheries also enhance tourism and education opportunities for the general public. For instance, Oregon State University, through the OSU Seafood Laboratory and the adjoining Duncan Law Seafood Consumer Center in Astoria, often works closely with fishing and seafood processing interests. And, to a great extent, the beneficiary of that collaborative relationship is the general public. Working waterfronts in coastal fishing communities, such as those one sees in Astoria and Newport, attract tourists, just as they do at Fisherman's Wharf in San Francisco. Want to see where the fish you eat really come from? Come on down and take a look. Our coastal fishing communities are fascinating, vibrant places.

There has been a growing focus on the role of returning adult salmon and steelhead in recovery efforts. How do you feel about the attention harvest has been



getting? Do you think your industry has been unfairly targeted?

Columbia River salmon are harvested within the framework of Endangered Species Act guidelines, managing the fishery for the least possible jeopardy to stocks listed as threatened or endangered under the Endangered Species Act. The effort to keep ESA impacts within allowable limits guides management of the whole fishery. Oftentimes, commercial salmon impacts are targeted unfairly, while at the same time failing to address what really are much larger concerns centered on providing passage for juvenile salmonids downstream as smolts, and then returning salmon upstream as adults. When considering salmon species as a whole, the largest population numbers occur at the beginning of the life cycle. But, sad to say, passage of juvenile salmonids through the hydropower system is the single largest cause of human-induced salmonid mortality overall in the Columbia River system. The scientific models indicate that harvest, whether sport or commercial, is not the major source of impacts on species survival. Hydro pass-through, predation, changing ocean conditions, variations in stream flow, turbidity, and thermal pollution, due to the fact that the impounded lakes behind the dams are tremendous heat-sinks, have a much more defined effect on salmon survival.

Are you able to identify and/or quantify any impacts or restrictions that have been placed on the commercial fishing industry

in the Northwest as a result of the Endangered Species Act listings?

Commercial fisheries on the Columbia River have been substantially reduced as a result of the ESA listings. As a result, we now have reduced opportunities to harvest healthy wild stocks and populations of hatchery salmon. For example, our ability to harvest healthy stocks of wild salmon bound for the Hanford Reach is strictly

limited because protection is needed for ESA-listed Snake River salmon migrating at the same time. Another example would be that both sport and commercial harvest of healthy hatchery coho populations is strictly limited in order to protect intermingled wild coho. These could be tremendous harvest opportunities that instead of being fully utilized are kept to a minimum in order to protect listed stocks. Although, realistically, many salmon stocks may never recover to historic levels, the principle of managing listed stocks should be to strive toward recovery. If listed stocks were recovering, allowing higher impact levels, that would provide greater harvest opportunities for healthy salmon stocks.

How do commercial harvesters actually catch fish? Is it all net fishing, or are there other fishing methods used?

The Columbia River is not unique with respect to nets. Nets are employed in commercial fisheries all the way from the Arctic to California. Columbia River commercial fishermen harvest with nets whose mesh size and design are intended to capture the desired species. In recent years, we have worked on adapting tangle-nets, first developed in Canada, for use on the Columbia River. Tangle-nets help reduce unintended impacts on wild fish and listed stocks, thus increasing their survival during key portions of the run. We use tangle nets in portions of the spring fishery to harvest hatchery Chinook. During the spring Chinook season, shortened net lengths, limited "soak times," steelhead

excluders, and the use of live-recovery boxes have allowed the commercial fishing industry to substantially reduce by-catch of non-targeted species. Hey, we love the wild fish, too. We're happy to do what we can to help them survive. And we're willing to explore the use of other methods of selective harvest, as well. If that is what is indicated, funding to do the research on alternative selective harvest methods would be helpful.

How do commercial fishermen deal with marked and unmarked fish?

To translate for the uninitiated, a "marked fish" is one on which the adipose fin, a small, fleshy, fin-like appendage behind the dorsal fin, has been clipped. In theory, hatchery fish are supposed to be "marked." Thus an "unmarked" fish is presumed to be wild. During the spring fishery, our commercial fishermen use live-recovery boxes, essentially double-chambered boxes with a continual flow of fresh river water pumped through them. When an unmarked fish is intercepted, our fishermen (who are required to go through training to learn the best way to do this) carefully put that unmarked fish into the recovery box. Even if it goes in looking lethargic, believe me, it won't be after fifteen minutes or so. When released, that fish has a much higher chance of successfully continuing on toward the spawning grounds to do its part in the survival of the species. In the past few years, we've become big believers in live-recovery boxes, because they work. They've proven to be effective tools.

Do you support the establishment of more terminal fisheries? If so, where should they be located, and who should pay for them?

If I may, let me point out that the preferred terminology for these areas is Select Area Fisheries. The Select Area Fisheries augment, but were never meant to take the place of, Columbia River mainstem harvest opportunities. They do, however, provide harvest opportunities when conditions do not allow mainstem harvest. By all means, we should expand existing programs. But, expanding to other areas is more problematic. The concept of the Select Area Fisheries is to use net-pen technology to raise excess hatchery smolts in backwaters not often traveled by endangered stocks, so that upon return the salmon raised there

"The only way we are going to be able to help endangered salmon runs recover is if we all work together."

Steve Fick, Owner
Fishhawk Fisheries

are available for harvest with minimal ESA impacts. Originally pioneered in Youngs Bay near the river's mouth, the farther one goes upriver, the harder it gets to find suitable places that match the original criteria. Yes, these efforts should continue. However, because the Columbia River Basin's hydroelectric system has a significant responsibility for the decline in Columbia River salmon runs, a coalition of ratepayers, sport and commercial benefactors should finance these efforts together. The Select Area Fishery Enhancement programs provide excellent research opportunities for hatchery production and rearing studies. And they provide for additional smolt releases that create greater sport fishing opportunities, as well as additional commercial fishing opportunities.

In the fall Council Quarterly, we interviewed Gary Loomis of Fish First. He was critical of the use of gillnetting and advocated selective harvest. What is your position on selective harvest? Are there things commercial fishermen could do differently to help recovery efforts?

Mr. Loomis is entitled to his opinion, but that doesn't necessarily mean that he knows what he's talking about when it comes to gillnetting. Both gillnets and tangle-nets can be very selective when utilized within the proper time-frame, area of use, and mesh selection. For example, the use of 9-inch mesh gillnets to harvest Willamette River hatchery spring Chinook also results in minimal handling of winter steelhead. Most of our fishermen are third, fourth, and fifth generation descendants of commercial fishing families. They know what they're

doing, and they really care. On another score, Mr. Loomis also suggested we have an inferior product. That is simply not true. For instance, the Columbia River spring Chinook is harvested using the same methods by which Copper River Chinook are harvested. And guess what? Taste tests prove the Columbia River spring Chinook is the superior product. In fact, the Columbia River spring Chinook is ranked the most desirable of all salmon species by consumers. Quality is maintained by careful handling, bleeding, and icing the fish as soon as caught, etc. Fishing periods are brief, thus assuring quick delivery to the consumer.

Do you feel the region is working effectively as a whole to recover endangered fish? How do other user groups fit into the picture?

No, unfortunately we have not done everything we could to help recover endangered Columbia River salmon runs. That's why federal Judge James Redden issued remands of both the 2000 and 2004 NOAA Fisheries Biological Opinions on management for the recovery of endangered Columbia River salmon runs. Also, it's been proven conclusively that there is a direct correlation between stream flow and the survival rate of juvenile salmonids migrating through the hydropower system, which is why remedial spills have been ordered again for 2006, just as they were in 2005. But, we're not going to make this situation better by pointing fingers. This is our problem; we need to deal with it as a region. The only way we are going to be able to help endangered salmon runs recover is if we all work together. We need to optimize factors critical to salmon survival, while at the same time maintaining the values of hydroelectric generation, agriculture, and water transportation for the Northwest.

There are many factors that affect salmon and steelhead productivity in the Columbia Basin. What role should harvest play in relationship to other influences?

The entire region is impacted by how we manage the Columbia River Basin. My neighbor captains tugs which travel

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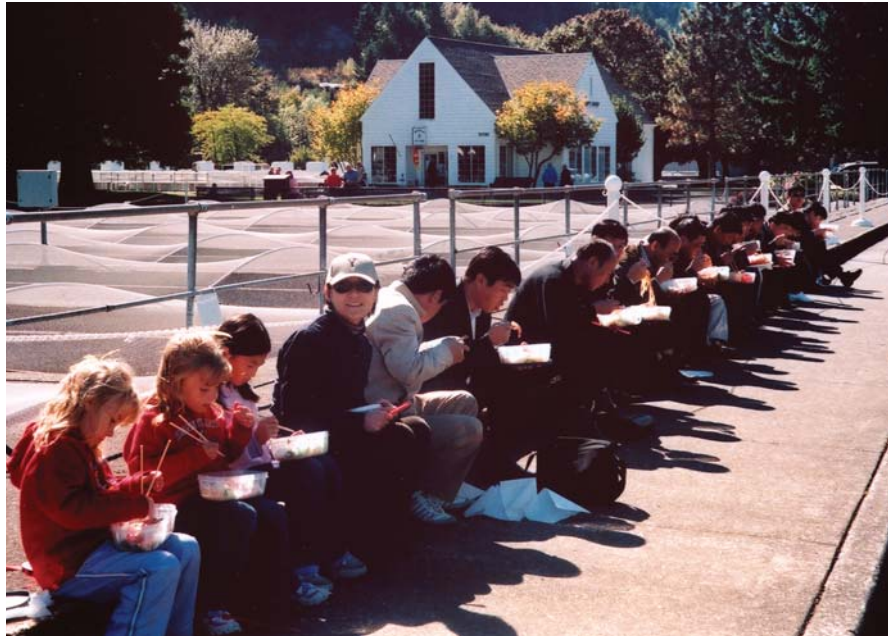
The China Connection: Lessons in Growth from the Northwest

The importance of balancing growth with preservation is a concept, and goal, as pertinent to other countries as it is in the Northwest.

With nearly one-quarter of the world's population and one-fifth of the total land-mass, the way in which China develops in the coming decades will affect areas far beyond that country's borders. The rapid economic growth of China has also meant swift urbanization. By 2020, China's urban population is projected to increase by over 350 million, representing 50 percent of the country's population. Faced with the challenges of this growth, the country is learning from other parts of the world on how to design a nationwide sustainable urban planning system that balances economic vitality with environmental quality and livability.

In 2002, China's Ministry of Land and Resources and the Ministry of Construction worked with the International Sustainable Development Foundation to establish a training program to educate Chinese planners on land use issues. The program builds on a successful sustainable land-use training program originally begun between China, the National Policy Consensus Center, and Portland State University.

The current program brings Chinese officials to the Northwest to participate in classroom lectures with Portland State University faculty, and to gain practical experience through meetings with government officials and business leaders. Field trips and site



Delegation visits Bonneville Fish Hatchery.

visits give the visiting delegation first-hand information about how their American counterparts approach the challenge of balancing growth with the environment. The curriculum focuses on the importance of smart growth, protection of urban green spaces, preservation of historical sites, brown field redevelopment, green buildings, and consensus building and citizen participation.

Along with visits to a variety of city of Portland projects last summer, 25 senior-level Chinese planning officials toured the Columbia River Gorge National Scenic Area and Bonneville Fish Hatchery. Led by the

director general of the Department of Urban and Rural Planning in China's Ministry of Construction, the delegation included officials at the national, provincial, and local government level. Delegation members learned about the national legislation that created the Scenic Area, along with information about how it is protected through planning and zoning regulations. Claire Puchy, who is with Portland's Bureau of Environmental Services, coordinated the tour. Peter Paquet, wildlife and resident fish manager, and Mark Fritsch, project implementation manager for the Council provided an overview of the Northwest's hydrosystem and salmon issues.

"It was a great opportunity to share what we've learned about the challenges and implications of human development on the natural resources of the Columbia Basin," says Fritsch. "One of our messages is the importance of protecting and restoring the natural ecological function of the watershed."

The training program is the first of its kind between the United States and China and represents the kind of collaboration, on a global scale, that the Council has pursued in the Northwest. Recognizing the need to cooperate for the sake of future generations, and that people-to-people exchanges can be the building blocks to that cooperation, is one lesson that both countries are sharing. [CQ](#)



Mark Fritsch accompanies delegation.

Success Stories — WyEast RCDA

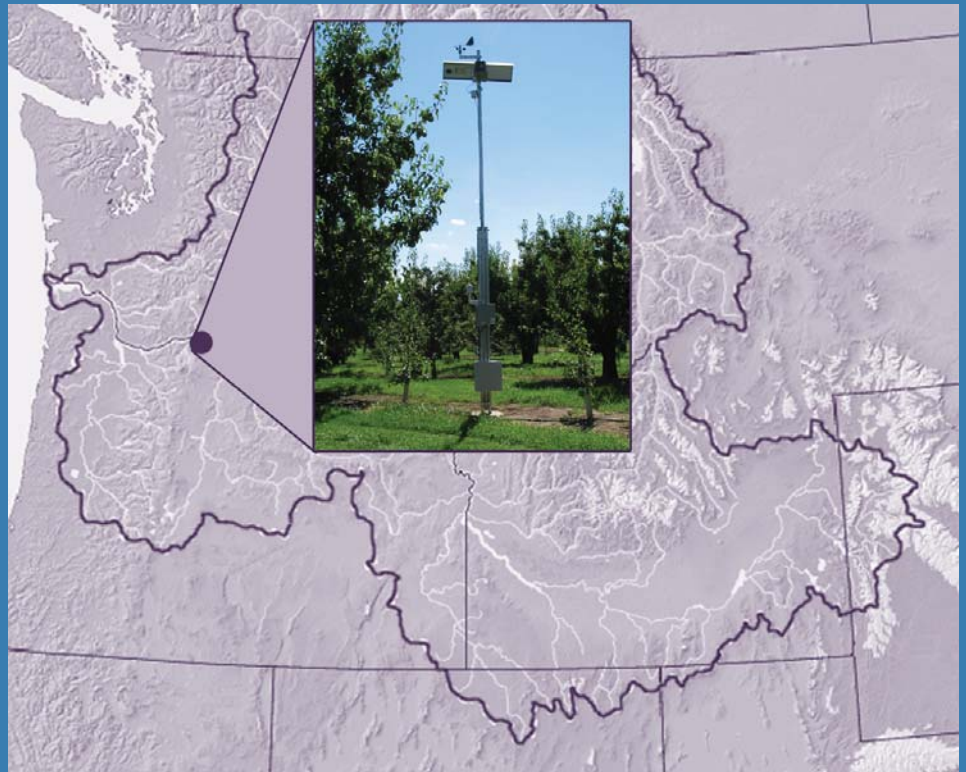
Pollution Control Program at Oregon Orchards Honored Nationally for Watershed Protection

An innovative approach to pesticide management and water quality protection in the fruit-growing areas of Wasco and Hood River counties in Oregon has been honored with a national award for watershed protection. The Integrated Fruit Production Network is managed by the WyEast Resource Conservation and Development Area (RCDA), and is partially funded through the Council's Columbia River Basin Fish and Wildlife Program.

The Integrated Fruit Production Network is a collaborative approach to water and pesticide management, and water protection, among growers whose orchards comprise 24,000 acres. Through a network of more than 80 weather stations and an Internet website that links them, the growers use weather and soil moisture data, and models of the response of pests and disease to variable weather and soil moisture conditions, to accurately apply low-toxicity pesticides. Using this information in conjunction with low-volume sprayers and buffer zones around orchards, the growers bring pesticide contamination in Mid-Columbia waterways to levels acceptable to the state Department of Environmental Quality, according to a project description provided by the Conservation and Development Area.

The Network is one of four watershed programs honored in 2005 by CF Industries and the Conservation Fund. CF Industries is a major producer and distributor of nitrogen and phosphate fertilizer products, and The Conservation Fund is a national environmental group that works to protect land and water.

"The network is being used, and it has been successful," said Merlin Berg, WyEast RCDA coordinator. "Water quality has improved so that it meets state standards, and the growers have really cut back on the sprays of organophosphate pesticides."



One of the weather-monitoring stations in the Integrated Fruit Production Network.

Berg said one unintended benefit of the program is that growers may be saving money on personnel costs.

"Growers typically spray at night. Now that wind can be monitored at each site, the growers won't send a crew out — and incur those costs — if the wind is not favorable," Berg said. "Some growers also have reduced the number of spray applications, and it looks like they are saving money that way, too."

Other 2005 winners of the CF Industries National Watershed Award include the Montana Water Trust, for efforts to improve streamflows throughout the state; the North Fork River Improvement Association of Paonia, Colorado, for its work in the North Fork of the Gunnison River; and a community group called RiverLink, Inc., which is working to reduce pollution in the Swannanoa River watershed in western North Carolina.

In announcing the awards last fall, Steve Wilson, Chairman and CEO of CF Industries, said the annual award, now in its ninth year,

"continues to provide a platform for all of us to incorporate some of the best ideas and practices in watershed protection into our efforts to improve the nation's waters." He said the 2005 winners "typify the leadership, commitment, and innovation necessary to improve our landscapes, our communities, and our watersheds."

According to a news release from CF Industries and The Conservation Fund, the CF Industries National Watershed Award was established in 1996 as an outgrowth of the National Forum on Nonpoint Source Pollution convened by the National Geographic Society and The Conservation Fund. The goal of the National Forum was to identify and implement innovative, nonregulatory solutions, such as economic incentives, voluntary initiatives, and education to water pollution caused by runoff from sources such as farms, construction sites, lawns, and parking lots.

NW Energy Coalition Honors Council's Fifth Power Plan

In December, the Northwest Energy Coalition awarded its 2005 Bob Olsen Memorial Conservation Eagle Award to the Northwest Power and Conservation Council. Coalition Executive Director Sara Patton presented the award, which is named for a long-time conservation advocate and former commissioner of a public utility in Washington, at the Council's December meeting in Portland.

"This award honors the Council's leadership for clean and affordable energy, and specifically the Fifth Northwest Power Plan," Patton said.

The Seattle-based Coalition is an alliance of environmental, civic and human-service organizations, utilities, and businesses in the Northwest, British Columbia, and Alaska. The Coalition promotes development of renewable energy and energy conservation, consumer protection, low-income energy assistance, and fish and wildlife restoration on the Columbia and Snake rivers.



The Fifth Northwest Power Plan, adopted by the Council in 2005, recommends that the region increase and sustain efforts to secure cost-effective conservation immediately. The plan recommends acquiring 700 average megawatts of conservation between 2005 and 2009, and 2,500 average megawatts

during the 20-year planning period. The plan also incorporates more than 1,100 megawatts of wind power between 2005 and 2014 and defines a schedule of options for developing new generating resources, if they are needed, including clean-coal technology and more wind power.

"The Fifth Plan is one of the best we've seen from this Council," Patton said. "People outside the region and the country who are interested in a clean and affordable energy future are using the analytical work in the plan."

Oregon Council member Melinda Eden, who chaired the Council in 2005, accepted the award on behalf of the Council. "Right now we are pleased to have the word conservation in our name," Eden said. She said the challenge ahead for the Council and the region is to implement the conservation and renewable energy recommendations in the plan. [CQ](#)

NW/Q&A: Steve Fick

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upriver to Idaho. Having spent time with upper basin farming families in Washington, Oregon, and Idaho, I understand the importance of salmon recovery for all of us. Commercial fishing interests will continue to harvest within no-jeopardy guidelines, and to advocate for constructive cooperation between all user groups in regards to salmon recovery. Let's face it; every single person in the whole region belongs to a user group of some kind, because everything is interconnected. My industry will continue to support research focused on providing safe passage for juvenile salmonids and adult salmon through the Columbia River hydropower system. I will continue to support research which works on minimizing irrigation needs for farmers, while supplying ample water for their crops. And, of course, I support further research designed to evaluate alternative harvest methods, which will reduce ESA impacts even further than we have already managed. [CQ](#)

Tapping the Energy Efficiency Resource

Web-streaming video now available



Utilities lose revenues when they invest in cost-effective energy efficiency. Ralph Cavanagh and Jim Lazar, experts on utility regulation, talk about how removing regulatory barriers (decoupling) can make conservation a win-win for utilities and their customers.



See the 45 minute video on the Council's web site at: www.nwcouncil.org/video/decoupling

Calendar

Calendar of Council Meetings and Other Events:

- April 11-13: Northwest Power and Conservation Council Meeting. Whitefish, Montana. Information at www.nwccouncil.org.
- April 17-19: Lake Roosevelt Forum Annual Conference 2006, Spokane. For information, write to info@lrf.org.

Council Decisions

(continued from front page)

assess habitat conditions for fish and wildlife in the Columbia River Basin. Results obtained from the All-H-Analyzer will be used by the Council and others to formulate draft biological objectives for fish and wildlife mitigation through the Council's Columbia River Basin Fish and Wildlife Program.

A Year of Celebration is Coming...

Twenty-five years ago, the enactment of the Northwest Power Act helped to unleash a conservation revolution. This calls for a celebration...Stay tuned for more about what it means and how you can participate. Or to learn more, visit the Council's web site, www.nwccouncil.org/act.



Year of Celebration ~ 25th Anniversary
NORTHWEST POWER ACT OF 1980

Northwest Power and Conservation Council Members

Central Office

Northwest Power and
Conservation Council
851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
Telephone: 503-222-5161
Toll Free: 1-800-452-5161

Idaho

450 West State
Boise, Idaho 83720-0062
Telephone: 208-334-6970
Council Members:
Judi Danielson
Jim Kempton

Montana

1301 Lockey
Helena, Montana 59620-0805
Telephone: 406-444-3952
Council Members:
Bruce Measure
Rhonda Whiting

Oregon

Astoria:
1642 Franklin Ave.
Astoria, OR 97103
Telephone: 503-325-2006
Council Member:
Joan M. Dukes, Council vice chair

Milton-Freewater:
410 N. Main
P.O. Box 645
Milton-Freewater OR 97862-0645
Telephone: 541-938-5333
Council Member:
Melinda S. Eden

Portland:
851 S.W. Sixth Avenue, Suite 1020
Portland, Oregon 97204-1347
Telephone: 503-229-5171

Washington

Spokane:
W. 705 First Avenue, MS-1
Spokane, Washington 99201-3909
Telephone: 509-623-4386
Council Member:
Tom Karier, Council chair

Vancouver:
110 "Y" Street
Vancouver, Washington 98661
Telephone: 360-693-6951
Council Member:
Frank L. Cassidy Jr. "Larry"

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851 S.W. Sixth Avenue
Suite 1100
Portland, Oregon 97204

Telephone: 503-222-5161
Toll free: 800-452-5161
Web site: www.nwcouncil.org

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