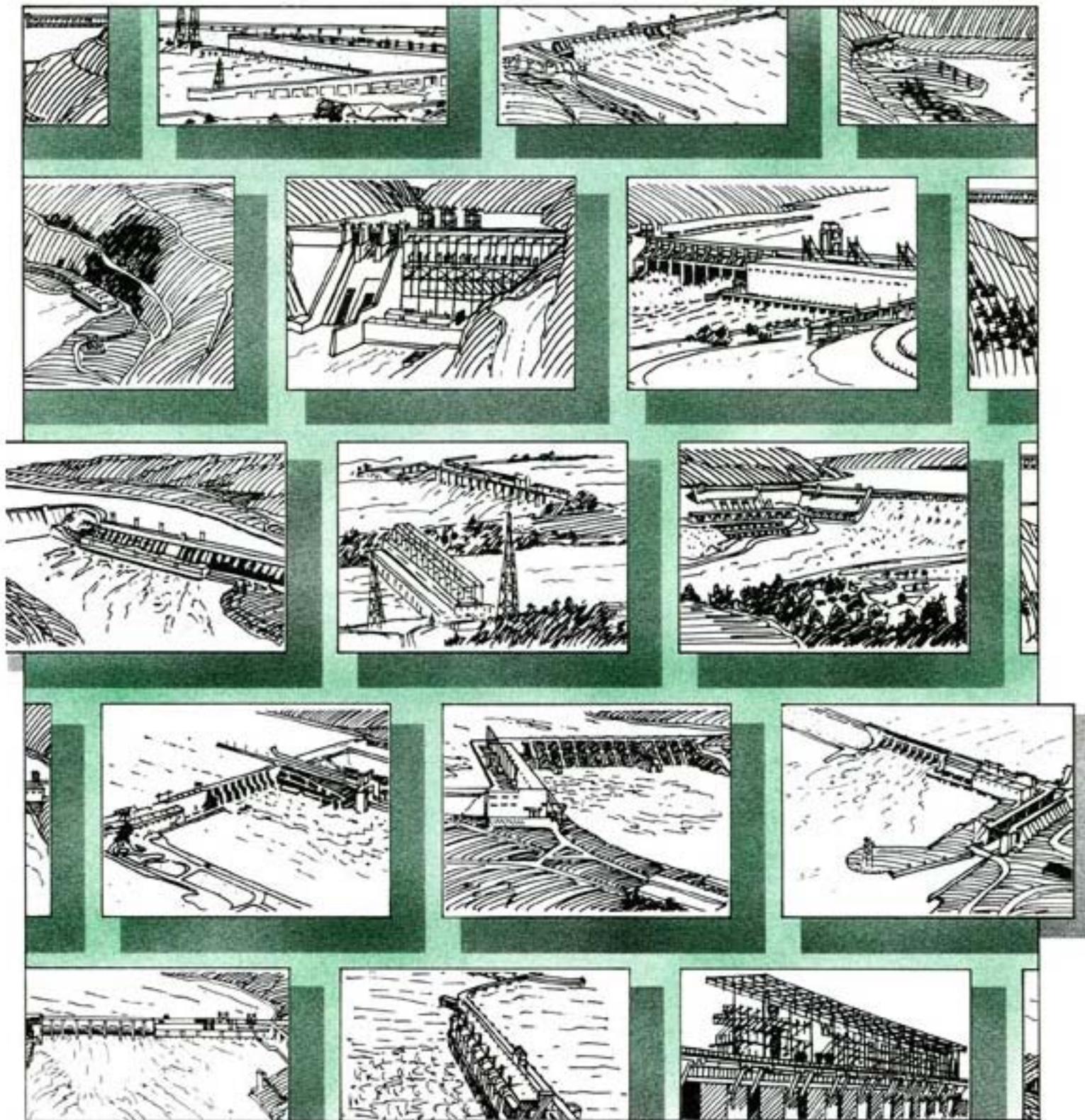


N O R T H W E S T ENERGY NEWS

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Northwest Power Planning Council

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INSIDE: MAP FOLD OUT OF MAJOR DAMS

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The Northwest Power Planning Council is required to develop a program to restore the Columbia fisheries and a regional electric energy plan, to be carried out by the Bonneville Power Administration, emphasizing cost-effective conservation and renewable resources.

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Editor's Notes

As we were about to go to press this month, the Ninth Circuit Court of Appeals handed down its decision on the constitutionality of the Northwest Power Planning Council in the suit brought by the Seattle Master Builders. The court's ruling in favor of the Council is summarized in our story on page 3.

With this issue, Northwest Energy News begins a series of articles relating to the amendment process for the Columbia River Basin Fish and Wildlife Program. This issue's fold-out on the major dams of the Columbia and Snake rivers and accompanying glossary are offered as background on amendments that refer to mainstem fish passage problems. In future

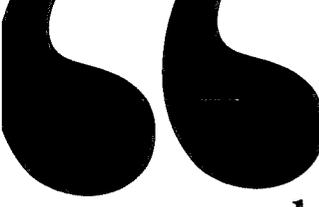
issues, we will explore such concerns as wild versus hatchery fish, fish production potentials in the basin and the ongoing discussion to define the overall scope of the fish and wildlife program.

In the meantime, work is also proceeding on the Western Energy Study (it was called the "West Coast Energy Study" in the 1986 Power Plan's "Action Plan"). This magazine will continue to offer updates on the implementation of this, and other activities called for in the 1986 Northwest Power Plan "Action Plan."

COVER ILLUSTRATION: This issue's cover drawings of the major dams of the Columbia and Snake Rivers were created by Lyn Nance-Sasser.

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...we uphold both the constitutionality of the Pacific Northwest Electric Power and Conservation Planning Council, a policy-making body established by that Act, and the validity of the Council's 1983 Northwest Conservation and Electric Power Plan.

— United States Court of Appeals
for the Ninth Circuit



by Dulcy Mahar

Expressing pleasure, but not surprise, members of the Northwest Power Planning Council hailed a court decision upholding both the Council's constitutionality and its power plan as "a victory for Northwest ratepayers." On April 10, as the Council was meeting in Missoula, Montana, the U.S. Court of Appeals for the Ninth Circuit handed down a decision that supported the Council in each of the areas that had been raised by the suit. (See excerpts of the 2-1 decision on page 4.)

The case began in July 1983, when a group of homebuilders and industry representatives, led by the Seattle Master Builders Association, filed suit against the Council. While the impetus of the action was a disagreement with the Council's model conservation standards (measures to make new buildings more energy efficient in terms of electricity use), the suit also challenged the Council's very constitutionality.

The court denied the homebuilders' arguments about the cost effectiveness of the standards as well as denying their contention that the Council's manner of calculating the standards was arbitrary and capricious. The court also found the Council to be an interstate compact agency and, as such, correctly set up under the terms of the U.S. Constitution.

Basis for the homebuilders' assault on the constitutionality of the Council was the Apointments Clause of the Constitution. This clause requires officers of the United States to be appointed by the Executive Branch of government. The Council main-

tained its members, who are appointed by the region's governors, are not officers of the United States, but members of an interstate compact agency operating under the Compact Clause of the Constitution.

The constitutionality issue became the predominant issue in January 1985 when the Department of Energy and the Bonneville Power Administration both asked the Department of Justice to intervene in the suit. A letter from the Department of Energy to the Department of Justice argued that if the Council is found to be more than "merely advisory" in its relationship with Bonneville, the Council should be ruled unconstitutional.

Bonneville, which is under the Department of Energy, took a slightly different approach. Bonneville urged Justice to avoid the constitutionality issue by asking the Court to sever provisions related to the Council which constrain Bonneville.

The four Northwest governors saw little difference between the Department of Energy and the Bonneville positions. In a letter to Bonneville Administrator Peter Johnson, they wrote, "While the Department of Energy suggests that the Council be ruled unconstitutional if it is found to exercise any authority over your agency, you assert you are defending the constitutionality of the Council by asking that any such Council authority to constrain Bonneville actions be stricken from the Act. This is a distinction without a difference. Clearly, the effects of either action would be to remove any constraints

which the Northwest states can exercise over Bonneville actions." The letter was signed by Governors Vic Atiyeh of Oregon, Booth Gardner of Washington, John Evans of Idaho, and Ted Schwinden of Montana.

The governors particularly objected to what they called attempts "to change unilaterally the agreement made with the states" which brought about the Northwest Power Act. "There would have been no Northwest Power Act had it not been for the strong role granted our states through the Council," they said. That agreement, which is a fundamental part of the Act, gave Bonneville expanded authority to acquire resources. In return, the Northwest states, through their representatives on the Council, achieved certain rights including the right to review major Bonneville resource acquisitions to ensure that they are in the best interest of the region.

While the Department of Justice did intervene in the case, it took neither the position of the Department of Energy nor Bonneville, refusing to broaden the suit beyond the issues raised by the Seattle Master Builders. Justice concluded that the homebuilders' challenge to the constitutionality of the Council should be dismissed on the grounds that "the Council complies with the Apointments Clause with respect to the statutory provisions that are involved in this case."

Excerpts from the decision handed down by the U.S. Court of Appeals for the Ninth Circuit

(citations have been eliminated for readability)

"We hold that it [the Council] is a compact agency and that its members are not 'federal officers' within the meaning of the appointments clause. Congress' intention is clear from both the language of the statute, and from the legislative history, that the Council is not to be a federal agency and is not to be controlled by the federal government. The alternative establishment of the Council as a federal agency was a rejected second choice. One of the principal purposes of the Council is to represent state concerns about regional problems; Congress deemed it undesirable for a federal agency to represent state concerns to yet another federal agency."

"Petitioners and amicus ... argue that certain features of the Council are unusual and that this unusual nature militates in favor of considering the Council to be a federal rather than a compact agency ... An unusual feature of a compact does not make it invalid. A leading article by Professors Frankfurter and Landis sets the tone for the modern use of compacts. It encourages new uses ... 'Political energy has been expanded on sterile controversy over supposedly exclusive alternatives instead of utilized for fashioning new instruments adapted to new situations.'"

"There is no bar against federal agencies following policies set by nonfederal agencies. The federal government has in fact agreed to be bound by state law in several areas ... The federal government can be subject to state law where there is a clear congressional mandate and specific legislation which makes the authorization of state control clear and unambiguous."

"Petitioners argue that, even if the Council is a valid compact organization, the appointments clause of the United States Constitution requires that Council members be appointed not by the state governors, but by the President because the Council exercises significant authority over the federal government ... The appointments clause is addressed to the separation of power between the President and Congress. No court has yet held that the appointments clause prohibits the creation of an interstate planning council with members appointed by the states."

"Petitioners' theory, however, would outlaw virtually all compacts because all or most of them impact federal activities and all or most of them have members appointed by the participating states ... The Council members do not perform their duties 'pursuant to laws of the United States.' Rather, the Council members perform their duties pursuant to a compact which requires both state legislation and congressional approval."

"More important, the states ultimately empower the Council members to carry out their duties ... As with any compact, congressional consent did not result in the creation but only authorized the creation of the compact organization and the appointment of its officials. The appointment, salaries, and direction of the Council members are state-derived ... The question, thus narrowed, because Council members do not serve pursuant to federal law, makes immaterial whether they exercise some significant executive or administrative authority over federal activity."

"Because Congress neither appoints nor removes the members of this Council, the balance of power between Congress and the President is unaffected. The Council violates neither the compact nor appointments clauses of the United States Constitution. The Act establishes an innovative system of cooperative federalism under which the states, within limits provided in the Act, can represent their shared interest in the maintenance and development of a power supply in the Pacific Northwest and in related environmental concerns."

"The preparation and consideration of the plan is a matter within Council authority over which the Act accords the Council considerable flexibility. For the same reasons that we defer to BPA expertise in construing other sections of the Act, therefore, we will defer to the Council's interpretations ... if reasonable."

"Petitioners argue that it is unreasonable for the Council to interpret cost effectiveness based upon a forecast which the Council itself concedes is 'very unlikely.' Petitioners argue that the Council cannot adopt a cutoff for

cost effectiveness unless it is 'more likely than not' that the predictions upon which it is based will be realized ... the Act allows the Council the flexibility to define cost effectiveness not in terms of current energy needs but by reference to whether a resource is 'forecast ... to be ... available within the time it is needed.' The Council is given the statutory mandate to make a forecast and to base its conservation plan on this forecast. Petitioners also argue that the Council is basing its plan upon projected energy costs and demands that the Council itself is unable to predict with accuracy. The Act does not require the Council to follow any particular method or timetable for forecasting the amount or cost of future energy demand; we do not find the 20-year forecast or the 4 cents/kwh cutoff to be unreasonable in light of the inherent indefiniteness of long-term energy forecasting."

"They [petitioners] contend that the plan must examine the cost effectiveness of each individual conservation measure because the Act uses the singular in referring to cost effectiveness of 'any measure or resource.' The Council's approach is correct. The Act does not require that each individual component of the model conservation standards be cost effective. The purpose of the conservation standards is to require the Council to examine cost effectiveness of standards which, when adopted in their entirety, result in cost effective energy savings. All that is required is that the model conservation standards be cost effective, when viewed as a whole."

"Petitioners argue that economic efficiency, like cost effectiveness, should properly be measured on a component-by-component basis ... Because the plan relies on marginal cost to measure economic efficiency, petitioners argue, the standards for economic feasibility are only theoretically feasible and therefore unreasonable ... The Council believes that marginal cost is a more accurate measure of energy cost than is average cost because of differences in market price for different consumers ... The plan's definition is consistent with congressional intent ... Petitioners have not shown the Council's definition of economic feasibility to be unreasonable."

"Petitioners challenge the technical, analytical process by which the Council arrived at its model conservation standards. The dispute centers on whether it was acceptable for the Council to arrive at its standards using industry engineering standards and computer simulations of energy usage, conservation and efficiency of various conservation measures ... The Act does not, however, mandate any particular method of forecasting under either the definition of cost effectiveness, or the section requiring the preparation of model conservation standards. The Council is given the direction under the statute to develop a forecast which provides model conservation standards that are cost effective, economically efficient and reflect regional geographic and climate differences ... the Council's use of four, 20-year forecasts was reasonable in light of its statutory mandate."

"The choice of methodology is a highly technical question which falls within the unique expertise of the Council. Unless an abuse of discretion is demonstrated, this court will not substitute its judgment on particular testing methodology ... The methodology used in the 1983 plan employed accepted industry standards and principles of analysis ... We express no opinion on the methodology and definitions proposed by the petitioners. Petitioners have not presented evidence before this court to raise serious doubt about the accuracy or reliability of the Council's computer simulation or the *Handbook of Fundamentals*, upon which the Council relied. We conclude that the Council did not abuse its discretion when it chose to rely upon industry standards and computer simulations in its calculations ..."

FISH AND WILDLIFE PROGRAM APPLICATIONS FOR AMENDMENTS

by Ruth Curtis

The Northwest Power Planning Council has received 89 proposed amendments to its Columbia River Basin Fish and Wildlife Program. The majority of these were submitted by Northwest fish and wildlife agencies; others were received from the region's Indian tribes, federal agencies and other groups. For the first time, a local government and a chamber of commerce have proposals for the program.

The fish and wildlife program was originally adopted by the Council in 1982 and amended in 1984. It was developed in response to a charge by Congress to protect and restore the basin's once teeming fish and wildlife populations to the extent they have been depleted by hydroelectric development and operations.

Recognizing that the program cannot be static if it is to remain vital and effective, the Council periodically reopens the program for amendments and asks for input from interested

parties throughout the Northwest. This allows the program to change to reflect the knowledge gained through study, practice and new technology.

Between July 9, 1985, and February 18, 1986, the Council asked interested parties to submit applications containing proposed amendments. The majority of the proposals submitted relate to resident fish and wild, natural, and hatchery propagation of anadromous fish (sections 700 and 800 in the program). Resident fish spend their entire lives in freshwater, while anadromous fish, such as salmon and steelhead, hatch in freshwater and migrate to saltwater to mature before returning to spawn in freshwater.

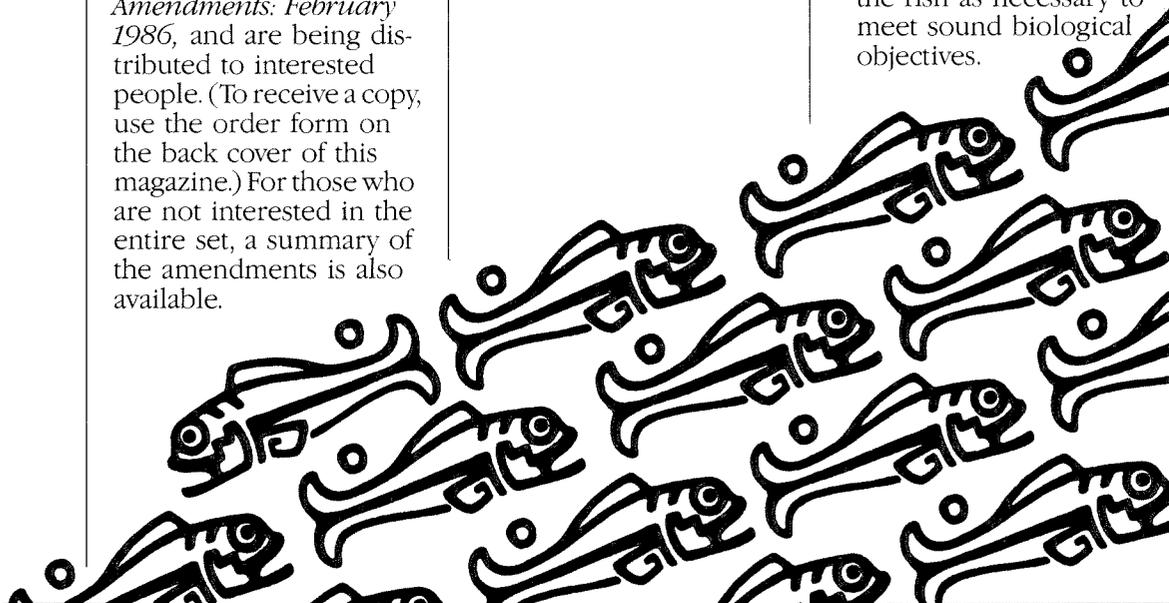
The Council will review the applications and, by February 18, 1987, either adopt, reject or modify the proposals. During this period, the public is urged to comment on these proposed amendments. The proposals have been bound into a five-volume set, *Applications for Amendments: February 1986*, and are being distributed to interested people. (To receive a copy, use the order form on the back cover of this magazine.) For those who are not interested in the entire set, a summary of the amendments is also available.

Consultations on the applications, hearings, and other opportunities for comment, both oral and written, will be announced in the Council's public involvement newsletter, *Update!* (Use the back cover order form to receive *Update!*)

The following criteria, required by the Northwest Power Act, will be used to evaluate the proposed amendments to the program:

- Measures in the program must protect, mitigate, and enhance fish and wildlife affected by the development, operation, and management of hydroelectric projects, while assuring the Pacific Northwest an adequate, efficient, economical, and reliable electrical power supply.

- The measures must complement the existing and future activities of the federal and state fish and wildlife agencies and the appropriate Indian tribes.
- Each program measure must be based on, and supported by the best available scientific knowledge.
- Where equally effective alternative means to achieve the same sound biological objective exist, the program must use the alternative with the lowest economic cost.
- Measures must be consistent with the legal rights of the appropriate Indian tribes in the Northwest.
- In the case of anadromous fish (primarily salmon and steelhead), the program must provide for improved survival at hydroelectric projects in the Columbia River system. The program must also provide sufficient water flows between projects to improve the production, migration, and survival of the fish as necessary to meet sound biological objectives.



One of the tasks the Northwest Power Planning Council set for itself in the 1986 Northwest Power Plan's "Action Plan" is a Western Energy Study.* The goal of the study is to bring together technical representatives from utilities, planning agencies and utility commissions in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming and Canadian utilities in

it south. A 220,000 volt tie line to shuttle an anticipated hydropower surplus between the Northwest and Southwest was under discussion as early as 1919. When the first construction began on Bonneville Dam in the early 1930s, a power transmission grid connecting Seattle, Spokane and Portland to points east into Montana and Utah, south into California and North into British Columbia was already on the drawing board.

International treaties for sharing the rich water resources that strad-

electricity from British Columbia to the Northwest, and from the Northwest to the Southwest and Rocky Mountain regions.

This interconnection of supply and demand in electrical resources is the fulfillment of a federal dream, a dream of "national cooperative pooling of electric power," as President John F. Kennedy put it. Pooling electricity has been enormously beneficial to all parties in the trading.

For example, surplus electricity from British Columbia and the Paci-

The Western Connection

by Carlotta Collette

British Columbia and Alberta, to identify the potential costs and benefits of coordinating and sharing the West's electrical power resources.

This spring, the Council will develop a detailed workplan and form a technical steering committee to begin the study. As work progresses, consultations with fish and wildlife agencies and Indian tribes, affected utilities, state energy and regulatory agencies, environmental groups, and other interested members of the public will provide opportunities to broaden the forum.

There were dreams of moving Northwest hydropower on giant power-lines down to California before there was either notable hydroelectric development in the Northwest or much of a market for

dle the border between the United States and Canada also predate development of those resources. Before the Columbia River dams were built, agreements between the United States and Great Britain had to be reached to guarantee flows to supply the dams downriver. The Boundary Waters Treaty of 1909 assured certain rights to navigation, domestic water supply, flood control, irrigation and wet lands recovery, conservation of fish and wildlife resources and water power development on waters that flowed between the United States and Canada.

By the 1980s, both the Pacific Northwest and British Columbia had developed enormous hydropower and thermal electrical generating resources and the transmission lines needed to transfer electricity throughout the West. Giant power conduits now deliver

fic Northwest is frequently shipped south during the spring and summer months when California's power use peaks. Later in the year, when the Northwest's winter needs call for more power, electricity can be returned.



The strategy saves California having to develop resources that would cost that state more to build than it spends on Northwest power. The Northwest also benefits by market-

ing hydropower that would otherwise be spilled over the dams. This kind of transaction, plus the current sales of additional surplus power to California, provides the Northwest with over \$800 million in revenues from California each year.

A similar arrangement is evolving as British Columbia develops its abundant hydropower resources for export to the United States. Under certain conditions, this province may be able to build hydro-generating facilities that will be less expensive than some new resources produced by utilities to the south.

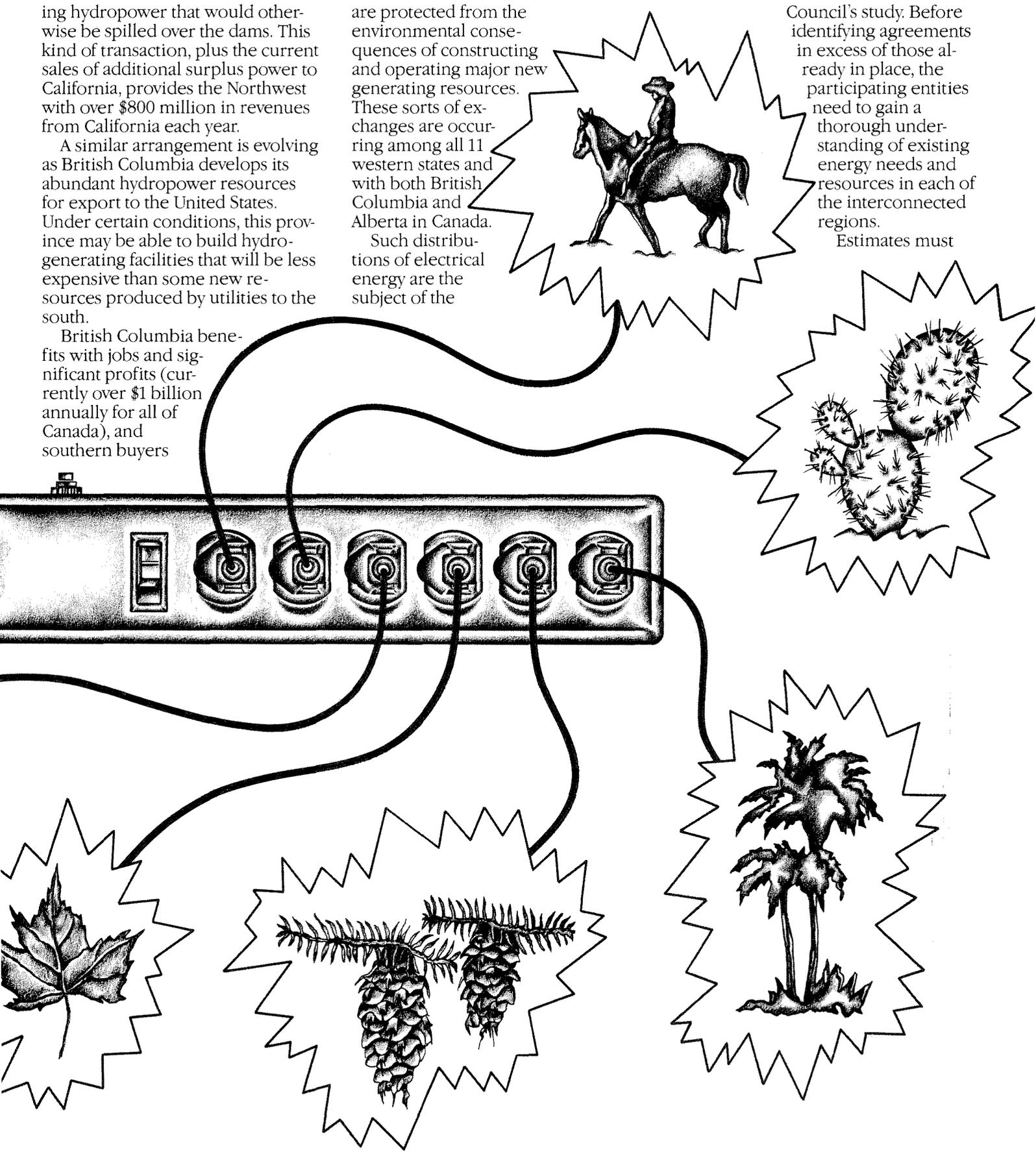
British Columbia benefits with jobs and significant profits (currently over \$1 billion annually for all of Canada), and southern buyers

are protected from the environmental consequences of constructing and operating major new generating resources. These sorts of exchanges are occurring among all 11 western states and with both British Columbia and Alberta in Canada.

Such distributions of electrical energy are the subject of the

Council's study. Before identifying agreements in excess of those already in place, the participating entities need to gain a thorough understanding of existing energy needs and resources in each of the interconnected regions.

Estimates must



also be made of the range of future energy requirements, and the costs and availability of resources to meet those requirements. In addition, the potential for adding to the capacity of the existing transmission system needs to be quantified, and institutional and environmental constraints to resource developments and expansion of the interties need to be assessed.

Among potential new agreements the study will explore are the following:

- The Northwest could work with the Southwest to maintain the South's older, oil-fired generating plants as a back-up strategy to firm up nonfirm (not reliably available) power from the hydrosystem.

- The Bonneville Power Administration and British Columbia Hydro could combine their surpluses to make a long-term guaranteed sale to California.

- Better coordination in general between Bonneville and British Columbia Hydro could lead to more efficient operation of the two systems. Closer ties could profit both entities and possibly improve river flows for migrating fish.

The Western Energy Study could provide a forum for exploring these and other arrangements that can better integrate energy planning throughout the West. Such coordination can expand the Council's least cost planning strategy to the mutual benefit of all 11 western states and western Canada.

***The Western Energy Study is referred to as the West Coast Energy Study in the 1986 Northwest Power Plan. The name has been changed to more accurately reflect the breadth of participants, many of whom are non-coastal.**

MODELING the Columbia

by Carlotta Collette

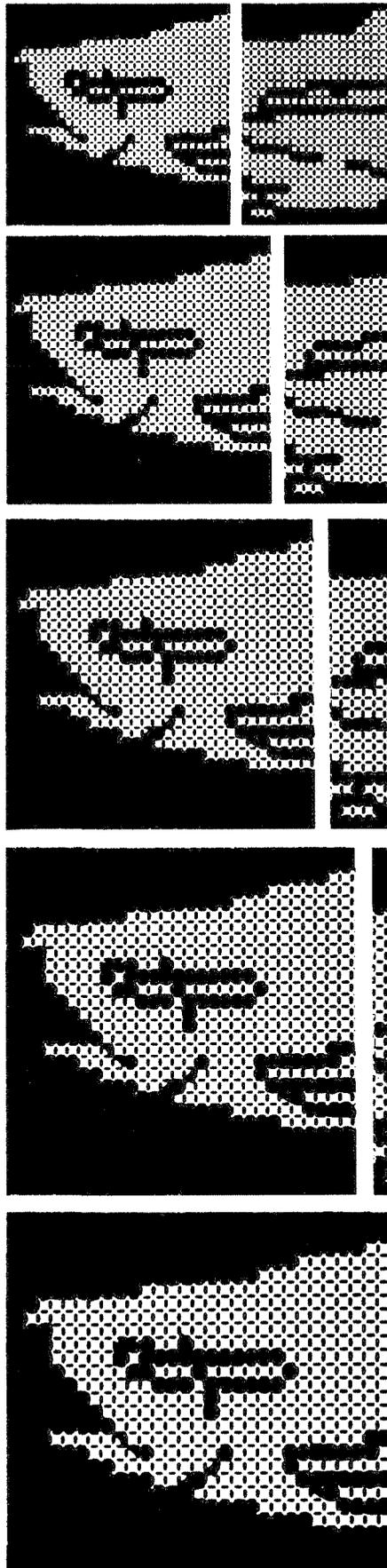
The workshop: building the model

There are four green squares on the computer screen. Bright green lines inside each square trace up and down. "Try decreasing ocean harvest," comes a voice from the back of the room. Carl Walters taps out a quick keyboard command and the green lines respond, rising slightly, dipping, then rising substantially. "Take out the dams, what happens then?" another voice queries. Walters plays out the new command and the green lines leap.

The small crowd of fisheries managers is pleased. Walters, an internationally recognized computer modeling specialist hired by the Northwest Power Planning Council, has just helped them restore the Columbia River Basin salmon and steelhead runs—at least as far as the computer is concerned. Cutting out fish mortality at the dams was an obvious, if impractical, gesture in the interest of improving the lot of salmon and steelhead in the Columbia. But the model doesn't distinguish realistic measures from unrealistic ones. People still have to choose what to do.

"The Columbia River Basin computer model is really an instrument that should stimulate better human thought, rather than distill human thought and give a neat, cut and dried answer," explains Northwest Power Planning Council member Kai Lee. "In fact, the model won't give us a simple answer. It won't tell us what to do. It won't drive us into a corner."

The four squares on the screen represent, in this case, adult and juvenile chinook salmon and steelhead trout in the John Day subbasin. The lines in the top boxes show the estimated numbers of adult fish in the tributary, the mainstem Columbia, the estuary at Astoria, and in the ocean. Below them are the numbers of juveniles at the mouth of the John Day and the numbers remaining as the run passes Bonneville Dam.



The room full of fisheries resource managers are from state and federal fish and wildlife agencies, Northwest Indian tribes, the Bonneville Power Administration, the U.S. Army Corps of Engineers, the U.S. Forest Service, electric utilities and regional anglers' organizations. They gathered in December and January to put together this computer simulation of the life cycle of the basin's anadromous fish resources in a workshop sponsored by the Council.

Guided by Walters and his compatriots from Environmental and Social Systems Analysts Ltd. (ESSA) of British Columbia, they assembled the computer model to organize available information about the basin's salmon and steelhead. Such organization makes it easier to see what data still need to be collected and what information appears to be inconsistent with other findings.

What can the model do?

"As far as I'm concerned," says Don Godard, Council member from Oregon, "the value of the computer model is that it can act as an accounting tool that allows us to collect and present a large amount of data in a comprehensive and cohesive way."

But the model can do more than collect and organize the data. It can also take that data and manipulate them to reflect actions the resource managers might take in the basin itself—only the computer is faster. Modeling the possible outcome of fish passage, habitat or harvest changes illustrates which aspects of the fish life cycles are most critical to increasing fish production and survival. Some enhancement measures may in fact have little or no positive effect on the long-term growth in fish runs. Others, perhaps considered less valuable, may turn out to be of great significance.

"The model will help us see what the basin actually looks like," adds Godard, "how much habitat is available, etc., and it will help us look at a lot of alternative strategies to produce more fish."

To break the model down into its component parts is to gain insight into the life cycle of the fish being modeled. The first component represents the production of fish within various subbasins. This phase includes the spawning, hatching and rearing of young salmon and steelhead in freshwater stream reaches or hatcheries. This segment of the model provides the number and specific stock of juvenile fish migrating from the subbasin to the ocean.

"The Columbia River Basin computer model is really an instrument that should stimulate better human thought, rather than distill human thought and give a neat, cut and dried answer."

—Kai Lee

The second component picks up the young smolts as they come into the mainstem hydroelectric system. A general model estimates survival through a single reservoir and dam, factoring in such things as a specific stock's ability to be guided past turbines rather than drawn through them. While this component does not distinguish fish by subbasin, it does incorporate the smolt output from the first component. This number is then run through the second component once for each dam the fish must pass.

Fish survival in the river, estuary and ocean, as well as ocean and river harvests, are accounted for in the computer model's third component. Estimates of smolt mortality in the estuary are subtracted from the number calculated to have made it past Bonneville Dam (the last dam on their way to the ocean). In the ocean, the modeled fish are subjected to natural and manmade harvests.

The survivors, known as the escapement, are further reduced in numbers by commercial and sport fishing in the estuary and in the river itself. Additional mortality caused by upstream passage past each dam decreases the ultimate number of adults that finally make it to their tributary of origin. This remnant be-

comes the starting number for the next computer run.

This model is necessarily very general. Models that only depict mainstem passage, for example, can be much more detailed and might provide more information specifically relating to the dams and reservoirs. The Council's model is an attempt to integrate a lot of data into a simple format. It is designed to review possible outcomes of enhancement measures on a subbasin by subbasin and stock by stock basis.

"There's a real danger when you get a large number of people and a large number of specialized concerns," argues Walters. "It could degenerate into a super-complicated accounting system on what everyone is doing, without providing any clear overview of how it all fits together... you can't explore indirect impacts."

But the uncertainty about what might work and what might not is only half the problem, according to Lee. The other half is the complexity involved in all the organizations that share responsibility for the resource. That's why representatives from the key resource managers and interested organizations are working with the Council and the ESSA consultants to develop and evaluate the model.

The model and adaptive management

"Immediate action to save the fish in the Columbia River Basin is sorely needed," Council member Lee admits. "But, because we don't know everything we need to know about this basin, every fish and wildlife action we take is inevitably an experiment. We need to choose which experiments will give us more information to help us improve our actions over time. The model can help with that."

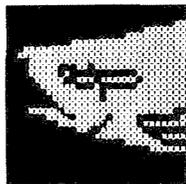
"The model can replicate actions, trying them in different subbasins to make sure the results are independent of variables in the settings. The model can also compare effects between subbasins. If you are going to test actions in some areas, you need other areas where you are not causing modifications, so you can see whether what you think you're doing is really making a difference."

Walters agrees. "There's been a tradition in fisheries work that when you're really uncertain about what to do you agonize a long time. Then you

take your best stab at it and make your best prediction of an outcome. That's really about the worst thing you can do. What you ought to do is identify how broad the range of possible outcomes is. Then use that range to plan better experiments to help you see where you're going. In the past, a lot of rather foolish investments have been made, not because anybody was sure they were going to work, but because there was this feeling of desperation about losing the resource."

The model, however imperfect, can create the opportunity to simulate a broad range of options—far more than could ever be attempted in the basin itself. Jean Edwards, from the Columbia River Inter-Tribal Fish Commission, suggests that this makes the model a useful planning tool, but, she cautions, "I wonder how refined we want to make it. The model could become more than a tool. It could become a bible."

That concern is the most common one voiced by participants in the workshop where the model was developed, and by people who have seen it in action in the ensuing months. Still, in many ways, the computer model of the Columbia Basin is the ideal tool for the Northwest's fish and wildlife program. It can explore the complex relationships that govern fisheries work in the basin. It can help guard against piecemeal approaches to the restoration. It can point up areas where more or less study is needed. What is perhaps most important, the model can provide a structure for talking and working together—a significant step forward in any major undertaking.



Shorts

America's streams are becoming cleaner, according to the U.S. Environmental Protection Agency. In 1984, 73 percent of the streams met "designated uses" as determined under the Clean Water Act of 1972. In 1982, only 64 percent met the standard. There are about 12 million miles of streams in the United States. (Source: Trout Unlimited, winter, P.O. Box 1944, Washington, D.C., 20013)

Wind farm output is on the increase in California, according to the California Energy Commission. While the first-quarter figures from 1985 were at only 40 percent of the level that energy developers had predicted, the second quarter showed a major upturn. Preliminary second-quarter figures show an output of 260 million kilowatt-hours as compared to 48 million in the previous three-month period. This was the first period of California's mandatory wind farm monitoring. (Source: Solar Age, November, 7 Church Hill, Harrisville, NH 03450)

Least-cost energy planning is not required by two-thirds of all state regulatory commissions, according to a survey conducted by Rep. Claudine Schneider (R-RI), a ranking minority member of the U.S. House Science and Technology Committee. The report notes that states making progress face the problem of inadequate resources to investigate low-cost energy efficient alternatives to power plants. The states report they also need more information about commercial applications of energy saving technologies. (Source: Solar Lobby News Bulletin, January-February, 1001 Connecticut Avenue, N.W., Suite 638, Washington, D.C. 20036).

Solar Age magazine celebrated its tenth anniversary this winter with a special round-up of the "best and worst" in solar from the past ten years. Under "IDEAS: Hardest to Understand" they list "Life-cycle costing"—one of the many kinds of costing that Northwest Energy News has had to struggle with, too. They also named former Bonneville Power Administrator Don Hodel as "best Energy Secretary" noting that he was "Informed, anyway." "Vapor barriers... I mean vapor retarders, or is that air/vapor retarders" was the top entrant for most confusing issue. A solar restaurant in Cottage Grove, Oregon garnered the "Frying Pan Solar" award, and a solar funeral home proposed for Camillus, New York got equal billing as the "Deadpan Solar" best. (Source: Solar Age, 7 Church Hill, Harrisville, N.H. 03450)

Idaho's kilowatt consumption tops the nation at more than four times the average use in New York. A survey of 130 of the nation's major utilities conducted by the Edison Electric Institute concluded that Idaho Power Company's residential customers used an average of 15,432 kilowatt-hours of electricity in 1985. In contrast, Consolidated Edison Company customers in New York used only 3,445 kilowatt-hours last year. The difference, according to Jim Taney, Idaho Power Company's director of public information, is based largely on rates that are "far lower than most utilities and because of the extreme weather we had in 1985." Idaho Power's customers pay about 4 cents a kilowatt-hour, while in New York the average rate is about three times that. The national average rate is 7.4 cents a kilowatt-hour. (Source: The Idaho Statesman, Boise Idaho)

Allan Scholz

by Carlotta Collette

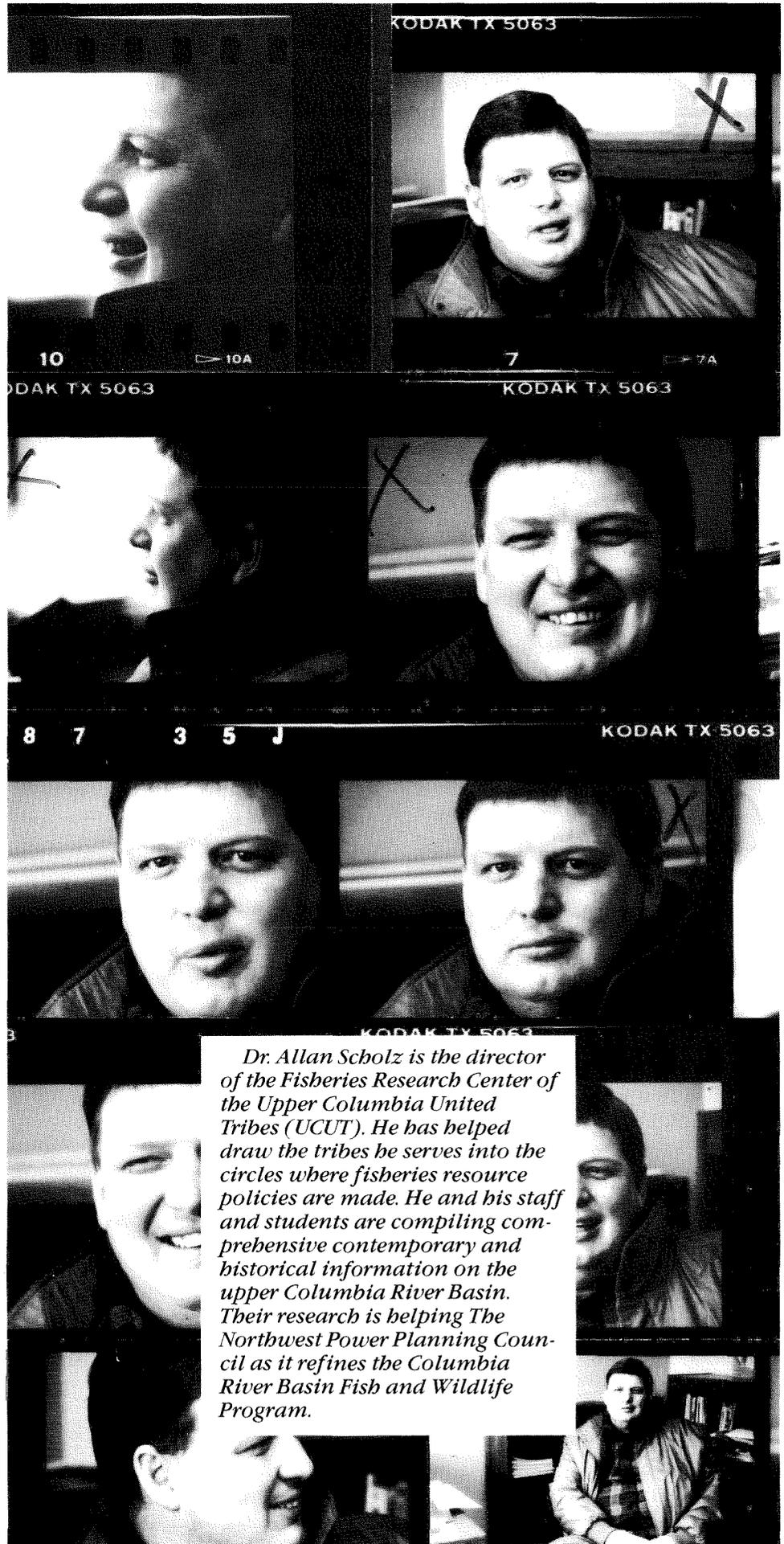
Some of them once caught salmon in the highest reaches of the Columbia River, up near the river's source in Canada. They were fishing tribes who relied on the salmon, steelhead and other fish for subsistence. Early explorers in the Northwest were impressed by the tribes' self reliance, their ability to live good lives by harvesting what was available naturally.

But as early as the 1830s and '40s, Protestant missionaries were already anticipating the devastating effect white settlers would have on the tribal existence. Some of the missionaries attempted to augment the hunting, fishing and gathering that supported the tribes, by teaching agricultural practices. But even these missionaries probably never imagined that the river itself would be controlled, that the fish would be blocked from the upper reaches.

The four tribes described below all have reservations above Grand Coulee Dam. That's what really unites them—all have been affected by the dam. Grand Coulee blocked the runs to the Kettle Falls where all of them fished. Three of the four tribes fished the Spokane River, too, before dams blocked it.

On October 23, 1983, the tribal councils of these upper Columbia tribes, the Coeur d'Alenes, Kalispels, Kootenais and Spokanes, joined forces to try to save what was left of their world. There are no salmon or steelhead left where these tribes reside. But they have accepted a challenge and are meeting it with a level of sophistication that is as impressive today as their early ability to gather what their world provided.

With a combined membership of just over 3,000, the four tribes are now able to guide the restoration, where possible, of at least a part of the life they have lost.



Dr. Allan Scholz is the director of the Fisheries Research Center of the Upper Columbia United Tribes (UCUT). He has helped draw the tribes he serves into the circles where fisheries resource policies are made. He and his staff and students are compiling comprehensive contemporary and historical information on the upper Columbia River Basin. Their research is helping The Northwest Power Planning Council as it refines the Columbia River Basin Fish and Wildlife Program.

Q. What prompted the upper Columbia, tribes to form UCUT?

A. When Grand Coulee blocked the runs in the upper Columbia, these tribes' culture took a nosedive because they lost their primary means of subsistence. Since that time they've often been left out of fish and wildlife issues in the Columbia Basin.

Shortly after the Northwest Power Act was signed [1980, resulting in the creation of the Northwest Power Planning Council], the four tribes decided to get together to participate in the Council's Columbia River Basin Fish and Wildlife Program. They hoped to address some of the losses they had suffered. They also wanted to try to revitalize their economy.

There were also a number of non-fish and wildlife issues that affected all those tribes. They hoped that by banding together and having four tribes speaking, instead of just one, they might be able to be heard a little bit better, not just on fish and wildlife issues but on other types of issues as well. Part of it is that, for example, when the tribes go to the Bureau of Indian Affairs for assistance, the Colvilles or the Yakimas, who are much bigger tribes, have the BIA paying a lot more attention to them.

Forming UCUT was natural for these tribes because three of them spoke the Salish language. The Coeur d'Alenes, Spokanes and Kalispels were all Salish tribes. The Kootenai tribe was a little different. Its language was different from the others.

There was also quite a lot of interaction among all four tribes. For example, the Coeur d'Alenes and Spokanes shared a salmon fishery on the Spokane River. The Kalispels used to come down and fish there on a regular basis as well. All four tribes would go to Kettle Falls and fish with the Colville tribes at the Kettle Falls fishery.

In addition, the Kalispels had a lot of camas roots on an extremely large prairie near their existing reservation, and most of the tribes came there in the spring. There was quite a lot of trading back and forth—it was actually a cross-utilization of resources.

Q. Were these Stevens Treaty tribes? [Governor Isaac Stevens, first governor of Washington state, negotiated treaties with many Northwest Indian tribes. The tribes surrendered millions of acres of land, but retained the rights to fish, hunt and, in some cases, gather roots and berries at their traditional sites.]

A. All these tribes are executive order tribes, except for the Kootenais in Idaho. They were a party to one of the Stevens' later treaties. The rest kind of got left out of Governor Stevens' process. Stevens had planned on coming back to sign treaties with those tribes, similar to treaties he'd signed with the other tribes. For one reason or another, he never made it back. It was just sheer accident that he didn't.

After a few years the President decided to sign executive orders establishing reservations for each of those tribes. So, the tribes have very distinct boundaries, but there was no specific mention made of fish at all. The tribes have interpreted that to mean that they have their aboriginal hunting and fishing rights, not only on their reservations, but on all the lands that they traditionally hunted and fished on.

That's never been really brought up in a court case. I suspect that if it ever came into the court they would probably have acknowledged the same rights as the Stevens' treaty tribes, at least in terms of their rights to fish. Rather than trying to go to court on the fish issue, I think the UCUTs wanted to see what they could work out in the fish and wildlife program.

The UCUTs have some special problems. They were some of the first tribes affected by hydropower development. There were several dams built on the Spokane River, which was a major tributary, before any of the mainstem dams were built. There may have been one or two other dams on the Columbia system, but I think one of the very first dams that was built was on the Spokane River. One of them was fairly low down, and it effectively blocked the upstream passage of fish beyond that point.

At the time that dam went in, it was pretty clear that at least steelhead were running about as strong as they ever had. During the late 1880s and early 1900s, the chinook population declined, but I think they were on the upswing again around the time the dams went in on the Spokane River.

One of the things that's happened since that time is that the tribes have tried a number of different occupations—mining and lumbering and a variety of other sorts of things. But, at the present time, there's roughly 80 percent unemployment on almost all of those reservations.

So, while these tribes recognize that the fish and wildlife program is mainly designed to benefit fish and wildlife, they see that it is also supposed to be consistent with Indian legal rights. What they're looking for are programs that can not only benefit the resource but help solve some of their unemployment problem at the same time.

Because of that high degree of unemployment, the tribes have to rely very heavily on subsistence hunting and fishing, just to make a go of it. It really is a very serious matter. They're heavily dependent on their fish.

One of the things that will happen if we improve the fisheries is that they will increase the fishing opportunities for individual tribal members, and thereby augment their subsistence fishing.

Q. How did you get involved in this?

A. A couple of years ago, when the four tribes got together, they wrote a grant proposal to the Administration for Native Americans (ANA) to fund some technical staff for the tribes to begin participating in the fish and wildlife program. Before the ANA grant came through, the Council directed the Bonneville Power Administration to fund some participation by the tribes in developing a joint proposal between the agencies and tribes. This was the initial goals study proposal. [See "Goals Process Update" on page 18.]

With that funding, the tribes hired me. I was teaching fisheries biology at Eastern Washington University in Cheney. I went up and interviewed with the UCUT executive board, which consists of two members of the tribal councils of each of the four tribes. We had a pretty good meeting.

At that point I decided that I really didn't want to leave Eastern, so I asked the tribes if they would be interested in having me work for them but work through Eastern. So we set up a UCUT Fishery Center at Eastern for the four tribes.

I was especially interested in that arrangement because of the educational aspects that would be involved. One of the things we can do, that a lot of other tribes in the area can't, is we can offer educational programs for the Indian students. When there are people from the tribes who are interested in having their kids come to school at Eastern, we can have people go through biology programs specializing in fishery and aquatic biology. That way we can get Indians trained as fishery biologists.

The other thing we have the opportunity to do is offer on-the-job training classes out on the reservations themselves. The kinds of programs that can really help the tribes in terms of providing employment are things like hatcheries that will provide fish for that area.

In some areas, hatcheries are pretty much essential because the amount of spawning habitat in natural tributaries is fairly limited. Places on the Spokane reservation, for example, are greatly affected by reservoir fluctuations that flood the tributaries. Natural reproduction in those tributaries is pretty much precluded. If you want to develop a fishery around species like kokanee, rainbow trout and other resident salmonids, you have to go for hatchery production.

If the tribes are going to benefit, one of the ways is by operating hatcheries. They need trained people in order to be able to do that. So we have the facilities for training people before the hatcheries are built.



We have proposed amendments to the Council's fish and wildlife program mainly dealing with adaptive management strategies for hatcheries. The Council's adoptive management approach is really good for restoring or enhancing the fisheries because, while you're collecting the information to evaluate what works, you're also able to take actions to benefit the resource.

We would like to stock Franklin Delano Roosevelt reservoir [behind Grand Coulee] with some species of fish that we might have to raise in hatcheries, but we've got to monitor the effectiveness of that. So the other thing that's going to be possible to help the tribal unemployment is training enough members of the tribes to do this monitoring.

In addition, when we found out that the Council was going to compile information on salmon and steelhead losses, we started to collect scientific, historical and anthropological literature and anything that we could find that could apply specifically to the upper basin above Grand Coulee Dam.

There are a lot of historical observations about catches that were made by different tribes at certain times. For example, at Kettle Falls there are probably eight or ten different people who passed by—people such as Catholic priests, Protestant missionaries, fur trappers, people working on Governor Stevens' railroad survey, and a variety of those kinds of people. They all estimated what the catch was at Kettle Falls.

Over a period from about 1820 to the late 1880s, for example, almost everybody reported daily catches in excess of 1,000 fish. If you multiply that times the total length of the peak fishing season—about a two-month period—you come up with a rough estimate of the number of fish caught by the tribes there.

After getting all this information together about what the aboriginal run size was, and knowing what the current run size is, we tried to determine what percentage of those losses could be attributed to hydropower and what was due to other factors like logging.

To a large extent, I think that the information we've got is pretty consistent with the Council's own findings. There are no important contradictions. We wanted to provide some ideas that would indicate what the UCUT tribes feel might be appropriate ways to deal with these issues.

Since the tribes are owners of the resource, they benefit from this research and from actions taken in the fish and wildlife program. The tribes don't have any alternative. The subsistence fishery was the people's jobs, the people's food and much more. The Council's program is the best way to try to get some of this back.



THE GOALS PROCESS UPDATE

by Ruth Curtis

This June, the Northwest Power Planning Council will make a preliminary decision on the extent of the electrical ratepayers' responsibility for restoring the Columbia River Basin's fish runs damaged by the hydropower system. In the next step, objectives for improving the fish production of individual stream basins will be examined.

These actions are part of the goals process, a major study the Council has been engaged in since last fall. The process is designed to define the scope of and the framework for the Council's program to protect and enhance the salmon and steelhead resources damaged by hydroelectric development in the Columbia River Basin.

Goals were not included in the original program, adopted in 1982, because swift, remedial action was needed to protect the fish, and more study was needed before goals could be discussed. They are now being developed in an extensive weaving together of research, regionwide discussions and policy decisions.

In the last several issues of *Northwest Energy News*, the process has been tracked and reported upon. Below is a description of the major current activities.

Losses and hydropower responsibility

A staff report documenting the decline of the salmon and steelhead in the Columbia River Basin was approved by the Council this February after extensive public review. The

report, *The Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin*, concludes that the average annual salmon runs basinwide have declined by 7 to 14 million fish since major development has occurred in the basin. In addition, 31 percent of the salmon and steelhead habitat has been lost since 1850. (See box for additional details.)

These losses had many causes, but the Council is instructed by the Northwest Power Act to focus on those related to the hydropower system's development and operation. An issue paper dealing with the degree to which the hydropower system contributed to the fishery losses and the extent to which Northwest ratepayers are responsible for restoring salmon and steelhead runs was released for public review at the April 9 and 10 Council meeting. Council staff estimates that salmon and steelhead runs declined by 5 to 11 million fish as a result of the development and operation of the 136 hydropower projects in the basin. (This paper encompasses two issue papers formerly called "Contributions" and "Goals Package.")

Both the losses report and the responsibility issue paper were developed with the aid of the Losses and Goals Advisory Committee, composed of representatives from various interests in the Northwest.

Public comment on the hydropower responsibility issue paper will be taken at the May 14 and 15 Council meeting in Seattle, Washington, and written comment will be accepted through May 20. The Council is scheduled to make a decision regarding the size of the hydropower responsibility, in early June.

Production planning

Once the extent of this responsibility is established, production objectives for the basins of individual tributaries, known as subbasins, will be determined. Preliminary work on these objectives is already underway.

Four workshops were held this spring, at which Northwest fishery experts discussed individual geographic areas and developed alternative strategies for producing fish in the subbasins. One of the tools used is a computer model of salmon and steelhead life cycles described on page

In June, an issue paper discussing alternative production strategies will be distributed for public review. From these alternatives, the Council will make a preliminary choice, in the late summer, about specific, short-term objectives that will be the building blocks for meeting the hydrosystem's responsibility toward these fish resources. Further public comment will be sought in the amendment process next fall.

The development of production objectives is an area in which the Council will be particularly aware of the Congressional charge that the Council's fish and wildlife program "complement" the activities of the Northwest's fish and wildlife agencies and Indian tribes.

One of the Council's concerns has been to coordinate its production objectives process with ongoing negotiations in *U.S. v. Oregon*. This court proceeding involves the Idaho, Oregon and Washington fishery agencies and four Indian

tribes (Nez Perce, Umatilla, Warm Springs and Yakima). Originally focused on harvest allocation disputes between the tribes and agencies, U.S. v. Oregon now has broadened into settlement negotiations addressing salmon and steelhead production as well as harvest.

(To receive copies of the documents mentioned here, use the order form on the back cover.)

SUMMARY OF LOSSES REPORT

The Columbia River Basin has between seven and 14 million fewer salmon and steelhead now than it held before development began in the Northwest in the mid-nineteenth century. Furthermore, nearly one third of the salmon and steelhead habitat in the basin has also been lost.

Before development by white settlers in the 1800s, salmon and steelhead runs in the basin ranged from about 10 to 16 million fish. In contrast, the current run size averages about 2.5 million fish.

At one time, salmon and steelhead inhabited the entire Columbia River Basin up to the Arrow Lakes in Canada and below Shoshone Falls on the Snake River. Since about 1850, the estimated salmon and steelhead habitat in the entire basin has declined from about 13,000 miles of stream to only 9,000 miles, a 31 percent loss.

The report indicates that fish runs and habitat in the upper Columbia and upper Snake river areas were the most damaged by

development. Much of the habitat in these areas has been permanently blocked or inundated by the federally-operated Chief Joseph and Grand Coulee dams in the mid-Columbia River area and development in the Snake River Basin, such as the privately-owned Hells Canyon Complex.

Data on historic fish runs have been gathered from every available source ranging from recorded fish counts at hydroelectric facilities and other sites to the accounts of Indian tribal elders and historical records from early settlers. Sources include historical, anthropological, and archaeological data.

Descriptions of current runs are based on adult fish counts, redd (spawning nest) surveys, and harvest records.

Impacts on fish runs of a variety of development activities including hydropower, fishing, irrigation, logging, mining, grazing, and agriculture are also examined in the report. Hydropower development in the basin has primarily blocked

and altered fish habitat, and obstructed both juvenile fish passing downstream and adult fish returning upstream to spawn.

Today, there are 58 dams in the Columbia River Basin constructed exclusively for hydropower operations, with the largest concentration in the mainstem of the Snake River. In addition, there are 78 multipurpose projects in the basin which include hydropower production among their uses.

While hydropower development in the Columbia River Basin began in the late 1800s, the first major mainstem development took place in the 1930s. Rock Island Dam, the first dam to span the mainstem, was built in 1933 by Puget Sound Power and Light Company (later acquired by Chelan Public Utility District). Bonneville Dam, the first federal dam on the Columbia, was completed by the Corps of Engineers in 1938.

— DM

In The News

Process questioned on BPA program for aluminum industry

The Northwest Power Planning Council is calling for public comment on a Bonneville Power Administration proposal to purchase conservation from the Northwest's aluminum smelters. The staff issue paper raises questions about Bonneville procedures on the proposal, but does not take issue with the proposal itself.

The Aluminum Smelter Conservation/Modernization Program would provide financial incentives to promote improvements in energy efficiency at the smelters. The objective is to help the smelters compete more effectively and continue providing stable revenues to Bonneville. While the Council has no basic disagreement with these objectives, Council Chairman Robert Saxvik explained, the Council is concerned that Bonneville is not following the resource acquisition provisions set down in the Northwest Power Act.

In an issue paper called "Bonneville Conservation/Modernization Program and Resource Acquisition Provisions of the Northwest Act," the Council raises questions about Bonneville's obligations under the Northwest Power Act.

The Act stipulates Bonneville may not acquire what is called a "major resource," (a resource over 50 megawatts acquired for five years or more) before determining

through a public review process whether such a resource is consistent with the Council's Northwest Power Plan. Once Bonneville has determined that it is consistent, the Council may also make its own determination of consistency.

"The Act requires this review for consistency because Congress intended that the Council's power plan ensure that the region purchase only the resources it needs and that it purchase the lowest cost resources first," according to Saxvik.

The section of the Northwest Power Act that provides for a consistency determination for major resources is section 6(c). Because Bonneville's Conservation/Modernization program is designed to acquire between 200 and 250 megawatts of energy conservation for a period of more than five years, the Council staff believes the proposal must be reviewed by the Council under section 6(c).

Bonneville believes that a section 6(c) review should be undertaken only if an individual smelter proposes efficiency improvements that would result in savings exceeding 50 megawatts. Since it is unlikely that an individual smelter would have those savings, under Bonneville's proposal it would be possible to bypass the 6(c) process,

Saxvik noted. "We believe this thwarts Congress's intentions in the Northwest Power Act," he said.

"Under Bonneville's interpretation, virtually no conservation program would be submitted for review."

The Council has proposed an expedited schedule for a section 6(c) review so the process could be completed with little or no delay of the Conservation/Modernization Program. Bonneville has declined to conduct such a review. At this time, the Council has no issue with the merits of the Conservation/Modernization Program, itself. "The issue here is the procedure which Bonneville is following and the precedent it could set," Saxvik emphasized.

The Council will take oral comment on the subject at its May 14-15 meeting in Seattle and is taking written comment through Friday, May 16. Written comment should be mailed to the Council's Central office, listed on page 2.

—DM

Council takes action on mainstem passage

The Northwest Power Planning Council recently voted to amend the section of its Columbia River Basin Fish and Wildlife Program dealing with downstream fish passage. An outcome of the action will be greater protection for wild and natural summer and fall chinook runs

in the Snake River, runs which are currently at low levels.

The amended program measure still requires a minimum 90 percent fish survival rate at eight mainstem dams operated by the Corps of Engineers, but now covers 80 percent of the downstream runs.

The action extends spill to cover the summer runs up to August 15 as well as spring runs. Spill releases fish-laden water through a spillway that bypasses a dam's turbines. Prior to the amendment, spill was employed only when non-firm power (hydropower over and above what is guaranteed in a dry year) was available. The new measure would allow spill even when it means diverting the water from generating firm power, thus ensuring fish protection in low-water years.

During the action, the Council rejected an additional proposal by fish and wildlife agencies and Indian tribes to increase the interim spill fish survival requirement from 90 to 94 percent. The majority of the Council felt there was insufficient evidence to indicate the change would provide any significant biological improvement in salmon and steelhead populations. Where—in the words of the Northwest Power Act—two proposals would be "equally effective means of achieving sound biological objectives," the

In The News

Council is required to adopt the proposal with the minimum cost.

"While the states of Washington and Idaho supported a 92 percent survival rate," Council Chairman Bob Sakvik said, "in the end they voted for the Oregon-Montana position of 90 percent in order to give direction for the 1986 season. It's my view that the mainstem passage action should not be viewed as final. It will be revisited in the Council's 1986-87 fish and wildlife program amendment process, and all interested parties will have an opportunity to present their viewpoints again."

The fish and wildlife agencies and Indian tribes have already submitted an amendment seeking more spill than currently called for in the program. The Council will consider that application in the amendment proceedings.

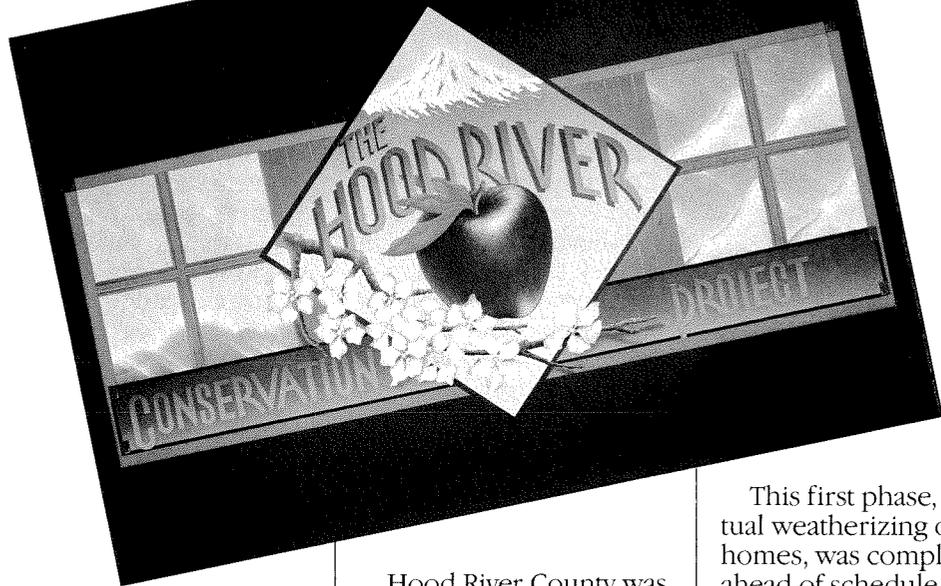
Other considerations in the Council's current decision included fish mortality in reservoirs, according to Montana Council member Gerald Mueller. "Spilling more water to increase dam passage survival will not help if the additional fish survivors die in the reservoirs," Mueller said. He noted that the Council has called for actions designed to learn more about increasing juvenile fish survival throughout the Columbia River Basin system.

— DM

Hood River homes fully weatherized

"Behold Hood River. Go and do likewise," was the ringing proclamation at the March celebration of the weatherizing of nearly every electrically heated home in Hood River County, Oregon. Senior staff attorney, Ralph Cavanagh, from the Natural Resources Defense Council, delivered the proclamation as one of the designers of the ambitious \$21 million conservation project.

The Hood River Conservation Project is a research effort set up to tap and monitor the potential of residential electrical energy conservation in a typical Northwest community.



Hood River County was selected because it sits squarely in the middle of a climatic transition zone between the maritime climate west of the Cascade Mountains and cooler, arid eastern Oregon. This location offers a sampling of Northwest climates. Hood River's housing stock also mirrors housing typical throughout the rest of the region.

The three-year project is funded by the Bonneville Power Administration and administered by Pacific Power and Light Company and the Hood River Electric Cooperative. The Northwest Power Planning Council, Pacific Northwest Utilities Conference Committee, Natural Resources Defense Council and Northwest Public Power Association all share in coordinating and monitoring the project.

This first phase, the actual weatherizing of homes, was completed ahead of schedule and under budget, according to Don Peters, from Pacific Power and Light. About 96 percent of the county's electrically heated homes — 2,987 in all — were made super energy efficient thanks to the project.

Phase two, the ongoing monitoring of the program, includes 17 separate studies. Final results from these studies, which include social as well as technical concerns, will be available in mid-1987.

The project has already become a model for programs in Sweden and New York State. In Sweden, a country about the same size as the Pacific Northwest, the Swedish State Power Board is developing a large-scale conservation project like Hood River's.

Niagara Mohawk Power Company, the utility that serves all of New York outside New York City, is using the same research designs and community advisory board as were used in Hood River for their energy efficient appliance studies.

— CC

In The News

Congress urged against NW conservation cuts

Who controls the Northwest's energy future—the Northwest itself or the federal government? This is a question Northwest Power Planning Council members raised before Congress in testimony before House and Senate appropriations subcommittees holding hearings on the Bonneville Power Administration's budget in April.

The Council's main concern centers on a U.S. Office of Management and Budget proposal to cut \$21.7 million from Bonneville's fiscal year 1987 energy conservation budget. The Office of Management and Budget also intervened in Bonneville's 1986 budget, resulting in significant cuts. Under the proposed cut, all conservation programs could suffer.

Assuming residential conservation (which is already at the minimum viable level) would not be cut, all other programs could be reduced by 25 percent. This includes building conservation capability in the commercial, industrial, and agricultural sectors as well as conservation expenditures for public agencies and customers. The latter is largely the model conservation standards program. If model conservation standards funds were not cut, all the other capability building programs would see a 33 percent cutback.

In 1974, Congress passed the Federal Columbia River Transmission System Act making Bonneville a self financing agency. Under this act, revenues for the agency's operation come from sales of power, not from the federal treasury. "Self-financing was supposed to free Bonneville from the uncertainties of the annual federal budget cycle so that it could operate its power marketing activities in a businesslike way," Council Executive Director Ed Sheets pointed out.

In 1980, Congress passed the Northwest Power Act, which directed the Council to conduct regional power and fish and wildlife planning and gave Bonneville new authority to finance conservation and acquire power from other resources.

"As a result, we thought we had the tools to do planning and implement programs to meet our energy needs," Sheets said, "but these tools appear to be frustrated by the proposed cuts. The Office of Management and Budget's actions raise a real question about who controls the Northwest's energy future."

Bonneville's total proposed budget for 1987 is \$2.9 billion, approximately the same as its revised 1986 budget. Expenditures for building the capability for conservation include testing and designing programs so they can be put into place quickly when

the region needs the power. The Council's power plan gives high priority to building such conservation capability in order to prevent more costly expenditures for thermal power plants in the future.

—DM

Calendar

March 1 - June 30— "Energy Smart Design for Commercial Buildings," a series of Northwest workshops on integrating energy efficient design into construction projects without increasing costs, sponsored by the Bonneville Power Administration. For information: MCC Associates, Inc., P.O. Box 7472, Silver Spring, Maryland 20907, 1-800-622-6200 or (301) 589-8130.

May 2, 5, & 7— "Energy Codes Enforcement Workshops" to provide training for code officials on the new 1986 Washington energy code and Super Good Cents specifications, sponsored by the Washington State Energy Office. May 2, in Everett, Washington; May 5, in Spokane, Washington; and May 7, in Yakima, Washington. For information on workshops: Gretchen Hastings, A&C Consultants, Inc., (404) 939-1047. For information on other code training opportunities in Washington: Bob Sullivan, Washington State Energy Office, (206) 586-5055.

May 7-9— "Tools for Managing Energy," annual conference of the Interstate Solar Coordination Council at the Portland Marriott Hotel, Portland, Oregon. For information: Jon Biemer, Bonneville Power Administration, (503) 230-3457, David Robison, Oregon Department of Energy, (503) 378-4040, or Lawrence & Craig, P.O. Box 40244, Portland, Oregon 97240.

May 14-15— Northwest Power Planning Council meeting in Seattle, Washington.

May 21— "Commercial Energy Forum: Understanding Building Analysis Performance from an Empirical Perspective" at the Monte Carlo Restaurant, Portland, Oregon, sponsored by the Oregon State University Extension Energy Program. For information: Susan Vogt (503) 241-9172.

May 28— "The Oil Price Collapse: Effects on Electric Utilities," at the SEATAC Red Lion Hotel, Seattle, Washington, sponsored by Clearing Up and ARTA Associates. For information: Sonja Bruce, Clearing Up, P.O. Box 9157, Queen Anne Station, Seattle, Washington, (206) 285-4848.

June 3-5— "4th Annual Renewable Energy Technologies Symposium and International Exposition" at the Anaheim Convention Center in Anaheim, California. For information: Barbara Flynn, Renewable Energy Institute, 1516 King St., Alexandria, Virginia 22314, (703) 683-7795.

June 5— Hydropower Assessment Steering Committee meeting in Olympia, Washington. Please call the central office for more information.

June 8-14— "11th Annual National Passive Solar Conference" at the University of Colorado in Boulder, Colorado. For information: Susan Burley, 2030 17th St., Boulder, Colorado 80302, (303) 443-3130.

June 11-12— Northwest Power Planning Council meeting in Idaho. Please call the central office for location.

June 21-22— "15th Annual Columbia River Short Course," an overview of the complex issues facing the Columbia River and Columbia River Gorge, presented by Washington State University and Oregon State University through the Sea Grant Marine Advisory Program. For more information: Mike Spranger, (206) 543-6600, or Suzie Higert, (206) 696-6018, Washington Sea Grant Program, 1919 NE 78th Street, Vancouver, Washington 98665.

July 9-10— Northwest Power Planning Council meeting in Washington. Please call the central office for location.

July 21-August 22— "Fisheries Data Management Using Microcomputers," a training program offered by the Consortium for International Fisheries and Aquaculture Development and Oregon State University. In Corvallis, Oregon. For more information: CIFAD Training Programs, 443 Snell Hall, Oregon State University, Corvallis, Oregon 97331, (503) 754-2624.

August 13-14— Northwest Power Planning Council meeting in Kalispell, Montana.

August 25-September 18— "Fisheries Economics," a training program offered by the Consortium for International Fisheries and Aquaculture Development and Oregon State University. In Corvallis, Oregon. For more information: CIFAD Training Programs, 443 Snell Hall, Oregon State University, Corvallis, Oregon 97331, (503) 754-2624.

Compiled by Ruth Curtis

COUNCIL PUBLICATIONS ORDER FORM

Please send me a copy of the following publications of the Northwest Power Planning Council. (Note: not all publications are available immediately, but will be sent to you as soon as they are.)

Issue Papers

- Staff Issue Paper on Bonneville's Conservation/Modernization Program for the Direct Service Industries (see page 20).
- Hydropower Responsibility Issue paper — Columbia River Basin Fish and Wildlife Program Goals Study (See page 18. This combines elements of issue papers previously called "Contributions" and "Goals Package.")
- Production Planning Issue Paper — Columbia River Basin Fish and Wildlife Program Goals Study (see page 18).

Other Publications

- 1986 Power Plan (Do not check if you ordered the draft plan. The final plan will be sent to you automatically when available.)
- 1986 Applications for Amendments — Columbia River Basin Fish and Wildlife Program (A five-volume set — see page 5).
- Summary of 1986 Applications for Amendments — Columbia River Basin Fish and Wildlife Program.
- Staff Report on Compilation of Information on Salmon and Steelhead Losses in the Columbia River Basin (see page 19).

Mailing Lists

Please add my name to the mailing lists for the following newsletters. (Note: do not check if you already are receiving them.)

- Northwest Energy News* (this bimonthly magazine)
- Update!* (public involvement newsletter mailed with the Council meeting agenda)

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(Or call Judy Allender at the Council's central office, (503) 222-5161, 1-800-222-3355 in Idaho, Montana, and Washington, or 1-800-452-2324 in Oregon.)

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