NORTHWEST ENERGY NEWS

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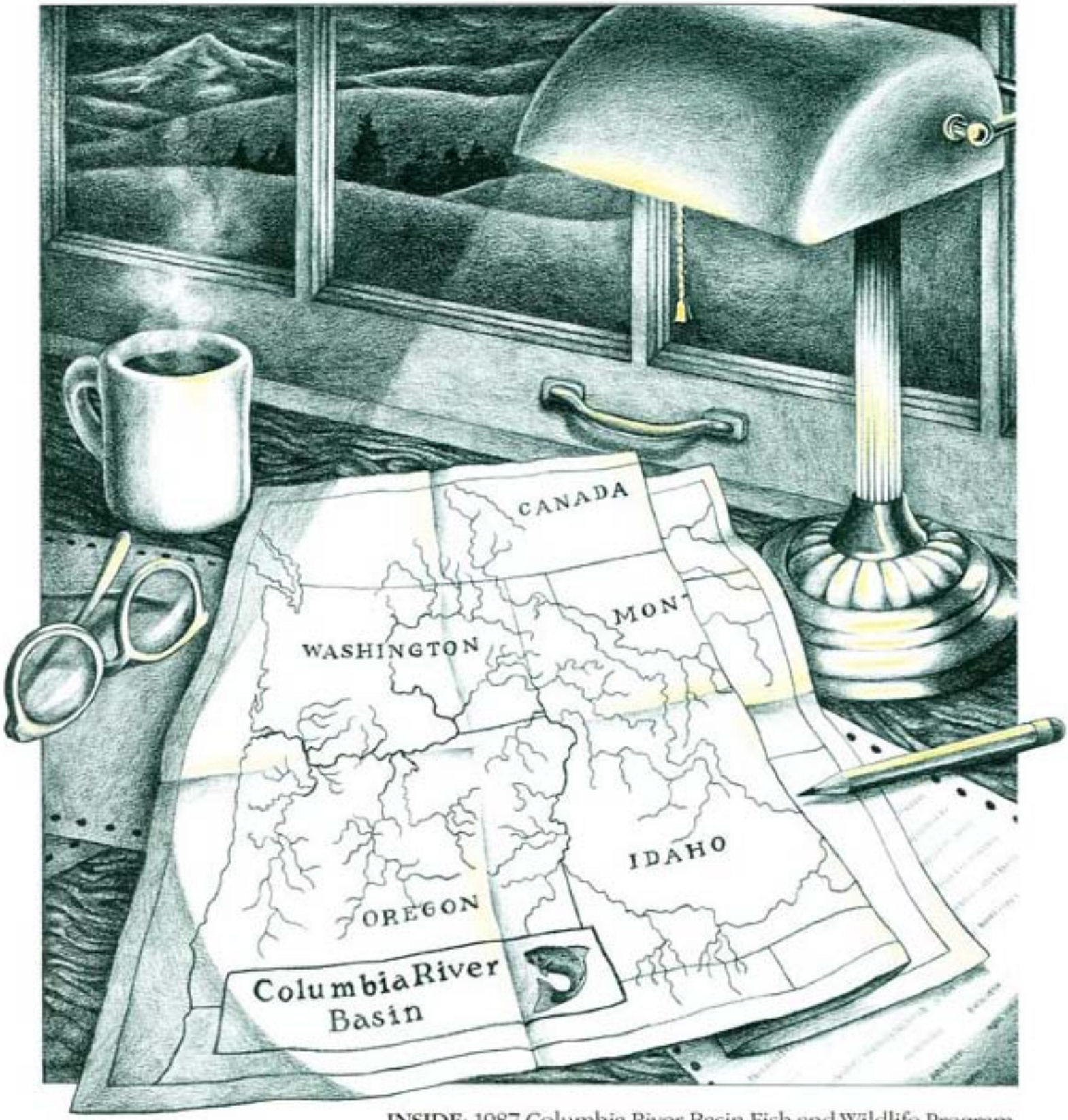

INSIDE: 1987 Columbia River Basin Fish and Wildlife Program

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ENERGY NEWS

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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

After more than a year of study and discussion, the Northwest Power Planning Council adoped its 1987 Columbia River Basin Fish and Wildlife Program. This issue of Energy News provides a summary of the new program. Copies of the complete program will be sent automatically to readers who received the draft program. If you have not received a draft of the program and would like to see the final, call our office or send in the order form on the back cover.

Something is missing from this issue—"In the News," our coverage of timely events in the fields of electrical energy and fish and wildlife. Because Energy News takes more than a month to move from written copy to printed magazine, we've decided to transfer more of the news items to the Council's monthly newsletter, *update*.

Energy News will continue to publish more in-depth analysis and feature stories, along with our "Shorts" section of brief news tidbits.

COVER ILLUSTRATION: This issue's cover and much of the art inside are by one of our regular contributing artists, Joan Barbour.

In the last issue of Energy News, we ran a chart showing 1986 fish counts at Bonneville Dam and what we described as the "previous high count ... since counting started in 1938." The "previous highs" listed were actually only the 10-year highs. We're running the list again, it's still good news, but we've corrected the all-time-high count. Thanks to Larry Korn, at the Oregon Department of Fish and Wildlife for his help finding the correct numbers.

FISH COUNTS AT BONNEVILLE DAM

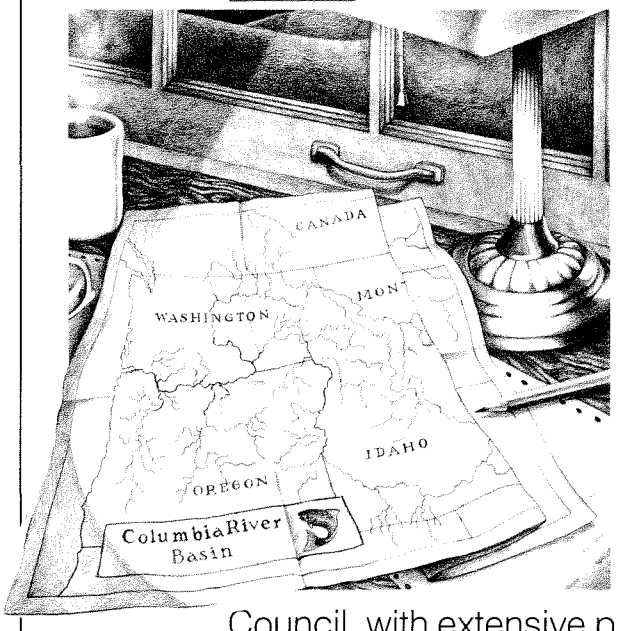
1986	HIGH SINCE 1938
Summer chinook	
31,041	135,000 (1957)
Sockeye	
58,099	235,200 (1953)
Spring chinook	
123,177	186,100 (1972)
Coho	
130,835	none higher
Steelhead	
379,429	none higher
Fall chinook	
416,802	none higher

Contents

THE COLUMBIA RIVER BASIN FISH AND WILDLIFE PROGRAM

by Carlotta Collette

From the air, the landmass of the Columbia River Basin seems to spread out in waves starting high and icy white in the Canadian Rockies and ending cool and blue in the estuary at the lip of the Pacific Ocean. The waves roll from fir forest green to the pale wheat and sand colors of eastern Oregon and the Palouse region of Washington. Like whitecaps, they lift up over the Cascades and then turn green again for the gentle swelling of the coastal range and the last slide down to the sea.



The vast basin covers parts of seven states, two nations and the lands of 13 Indian tribes. And that part of it reaching into Idaho, Montana, Oregon and Washington has been, since 1982, the setting for one of the most ambitious biological restorations ever attempted—the Columbia River Basin Fish and Wildlife Program. Developed by the Northwest Power Planning Council, with extensive public input, the program integrates hundreds of projects designed to bring back once abundant runs of salmon and steelhead and other fish and wildlife populations.

In February, after a solid year's re-examination, the fish and wildlife program was amended. The new program incorporates changes recommended by basin Indian tribes, state and federal agencies, operators of many of the region's hydroelectric dams, environmental groups, fishing and hunting organizations, local governments and civic organizations, utilities and other groups and individuals.

This issue of *Northwest Energy News* provides an overview and summary of the 1987 Columbia River Basin Fish and Wildlife Program. To order copies of the complete program, send in the order form on the back cover of this issue.

Illustration by Joan Barbour

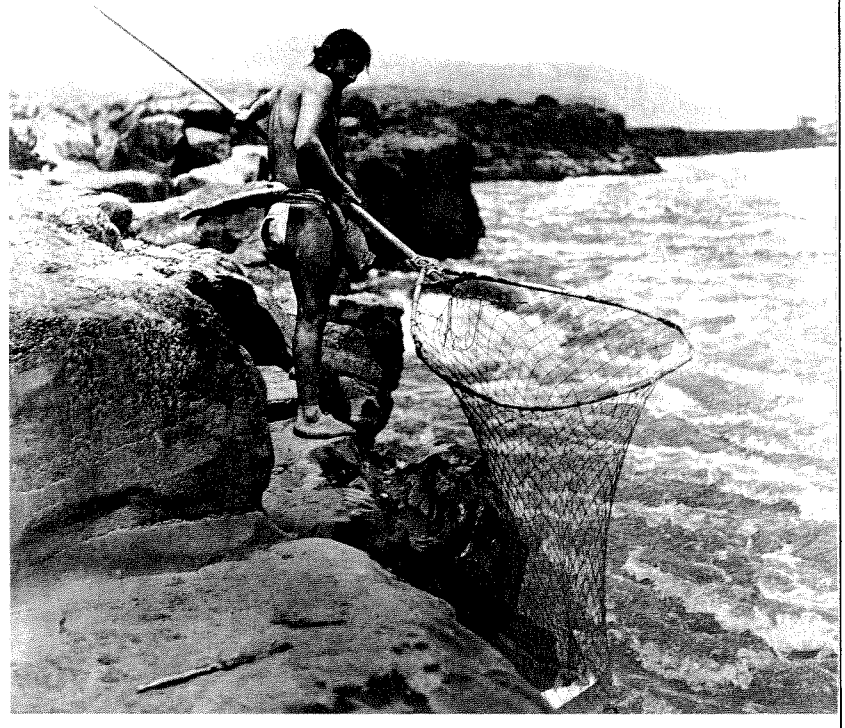
A DEBT TO THE PAST... AN INVESTMENT IN THE FUTURE

In all of the Columbia River Basin there is no more valuable resource than the Columbia River itself. Because of the river's steep rush to the sea (more than four-times the drop of the Mississippi), hydropower dams have been able to capture the force of the flow and turn it into low-cost electricity to light homes, irrigate farms and power industries. But such benefits were the product of a trade-off; the great value of the Columbia's hydropower potential has come at a cost to fish and wildlife in the basin.

The dams have altered river flows, flooded wildlife habitat and salmon spawning gravel, and blocked passage for migrating salmon and steelhead attempting to move from freshwater streams, where they are hatched, to the sea and back again. Estimated average annual salmon and steelhead runs before the dams were built numbered between 10 and 16 million fish. Annual harvests in the Columbia River fisheries of 30 to 40 million pounds of salmon and steelhead were not uncommon. In the 1880s, as many as 39 cannery operations shipped the basin's salmon to Europe and the rest of the United States.

But by 1980, Columbia River Basin salmon and steelhead runs added up to only about 2.5 million each year. In addition, nearly a third of the salmon and steelhead spawning and rearing habitat in the basin is now closed to fish migrations by impassable dams or flooded out by reservoirs. Tribal and non-tribal commercial and sport fishing have been critically affected by this destruction.

To encourage the region to recover some of those losses, Congress passed the Northwest Power Act of 1980. While the Act started out with an almost singular focus on rewriting the way electric power is developed and marketed in the Northwest, it emerged as the strongest piece of fish and wildlife legislation in the basin. The Act calls on the region's electrical ratepayers to protect remaining fish and wildlife in the basin and to rebuild animal populations adversely affected by the development and operation of the hydropower system.



Oregon Historical Society Photograph #70780

The Northwest Power Planning Council is charged with developing a program to coordinate protection and reconstruction efforts, but the Council relies heavily on the guidance of fish and wildlife managers. Furthermore, every action in the program must survive months of public scrutiny before being adopted.

Congress also specified criteria for the program to meet. They include:

☐ Only damages caused by hydroelectric dams can be rectified through the program;

☐ The Northwest's economical electrical supply cannot be jeopardized by actions in the program;

☐ Program activities must complement the work of state and federal fish and wildlife agencies and Indian tribes and recognize the legal rights of Indian tribes; and

☐ The best available scientific knowledge should be the basis for choosing one measure over another, but where two measures are equally sound biologically, the most economical alternative should be chosen.

Oregon Historical Society Photograph #46592

HIGHLIGHTS OF THE NEW PROGRAM

- **A survey of salmon and steelhead losses**
- **An interim goal: Double the existing runs**
- **A new approach to salmon and steelhead planning**
- **New priorities for salmon and steelhead research**
- **Increased protection for mainstem migrating salmon and steelhead**
- **Increased hatchery production of salmon and steelhead**
- **A new policy for substituting resident fish in certain areas blocked to migrants**
- **The first plans to rebuild wildlife populations**

HIGHLIGHTS OF THE 1987 AMENDMENTS

Oregon Historical Society Photograph #42249

by Carlotta Collette

To accommodate changes in technology and new information, the program was designed to be regularly reviewed and amended when necessary. The overall program was first amended in 1984, with smaller amendment proceedings on individual sections in 1985 and again in 1986. The 1987 program, the result of a second overall amendment process that began in 1985, was adopted at the Council's February meeting in Spokane, Washington.

A SURVEY OF SALMON AND STEELHEAD LOSSES

The 1987 amendment process included the Council's exhaustive study to quantify salmon and steelhead losses in the basin and to identify the extent of the hydropower contribution to those losses.

The Council collected a mass of information on the size of Columbia River runs before development of any kind took place in the basin. More than 120 years worth of records of sport and commercial catches, cannery output and fish counts at the dams were pulled together for this review. Historical documents and archaeological records were studied to gain understanding about Indian uses of the salmon and the numbers of fish the Columbia and its tributaries once supported.

Along with these estimates of how many fish there might have been, Council researchers chronicled the ways in which the salmon began to be destroyed. They studied records of logging and mining operations that left streambeds ravaged and salmon spawning gravel washed away or silted over. They examined the growth of irrigated farming, cattle grazing, manufacturing and other developments that affected the life cycles of salmon and their ability to survive in the Columbia River Basin.

Then they looked at the hydropower system, the destructive roles of the dams and any compensation for fish losses carried out in conjunction with each project.

When all was gathered and totaled up, the Council suggested that predevelopment runs in the basin amounted to between 10 and 16 million salmon and steelhead each year. The Council also concluded that 7 to 14 million fewer salmon and steelhead are being produced in the basin now. Of this decline, about 5 to 11 million, or 75 percent, were judged to be victims of the hydropower system.

In compiling this information the Council noted that Chief Joseph Dam on the Columbia and Hells Canyon Dam on the Snake completely block off large portions of the basin's former spawning and rearing habitat. Remaining upriver fish runs must pass as many as nine dams in their struggle to get to their spawning areas. Consequently, more upriver-bound salmon and steelhead perished than did those bound for the lower river. Furthermore, most of the hatcheries and other mitigation efforts were concentrated in the lower river, leaving the upper basin fisheries particularly devastated.

This information supported the Council's decision to set the range of 5 to 11 million salmon and steelhead as the losses related to hydropower development, and to focus recovery efforts on the upper basin.

AN INTERIM GOAL: DOUBLE THE EXISTING RUNS

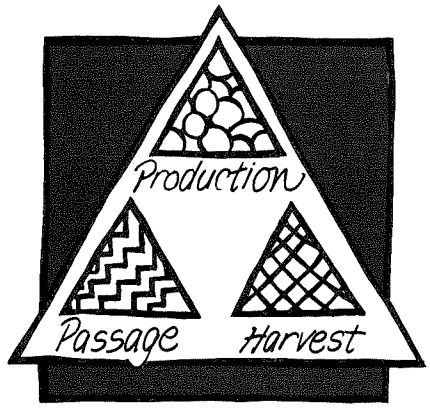
But the Columbia River Basin of today bears only slight resemblance to the basin as it existed 120 years ago. There is no way of knowing yet whether annual runs of 5 to 11 million fish can still be supported here, or whether the upper basin can accommodate the addition of millions of new salmon.

Until more is understood about the work ahead, the Council has adopted an interim goal of doubling the existing runs to make the basin home to about 5 million salmon and steelhead. The interim goal will provide a standard for measuring and evaluating the effectiveness of individual actions.

A NEW APPROACH TO SALMON AND STEELHEAD PLANNING

The current program is likely to result in a basinwide increase of about 1 million adult salmon and steelhead. Doubling the runs will require additional salmon and steelhead production in the basin. To determine which fish production methods will work best in subbasins of the Columbia, the Council will coordinate subbasin as well as systemwide planning efforts.

The systemwide planning must take into account three key aspects of fisheries reconstruction: 1) safe fish passage past mainstem dams; 2) managed harvests that protect ratepayers' investments and support rebuilding; and, 3) salmon and steelhead production in natural and artificial environments.



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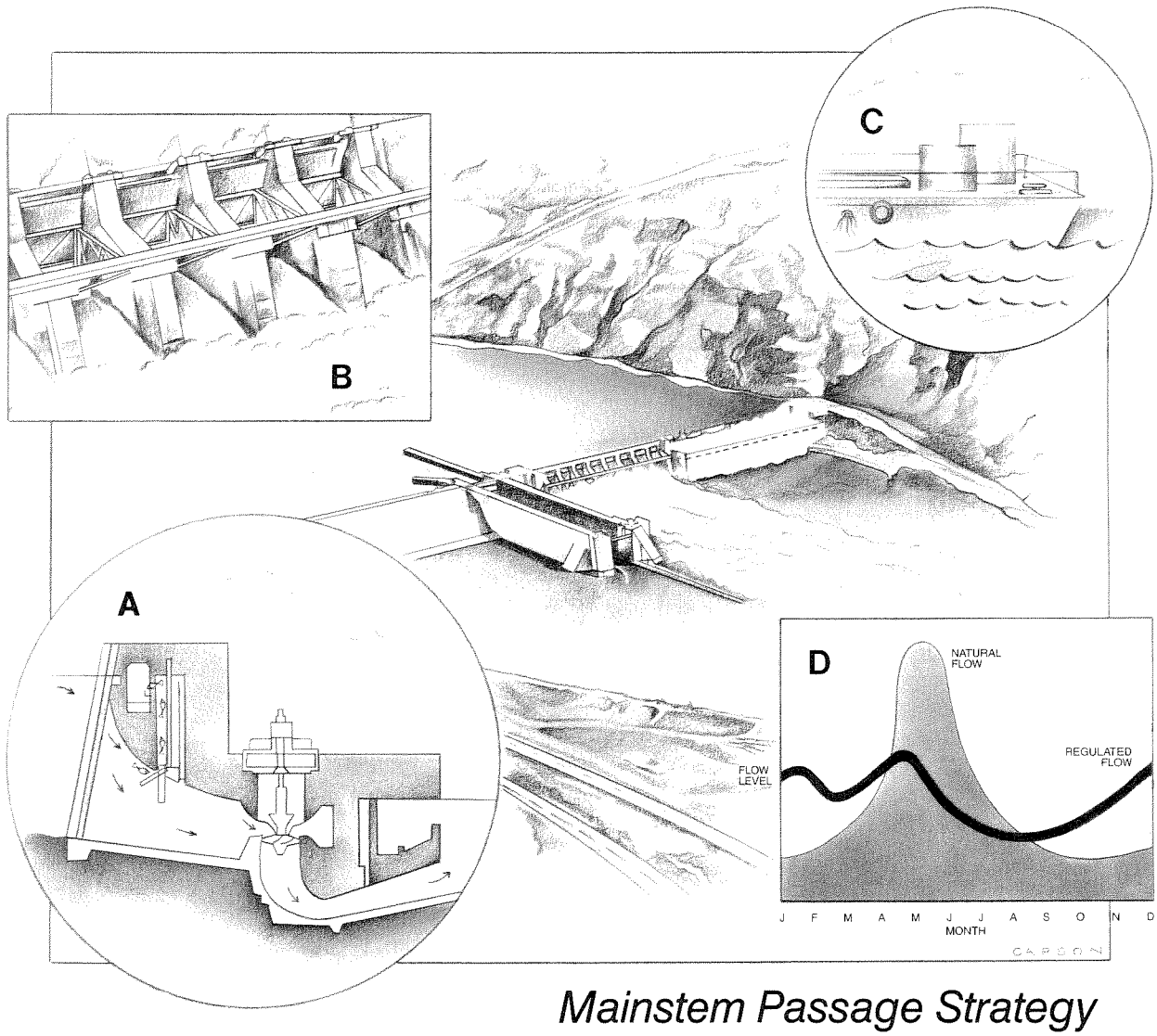


Mainstem Passage Strategy

The 1987 Fish and Wildlife Program emphasizes four means of improving the survival of juvenile salmon and steelhead attempting to migrate past dams in the Columbia and Snake rivers. A) Permanent bypass systems to divert young fish from the turbines are being installed at each dam. B) Until these are completed (by 1994), spills of water over the dams will enable juvenile migrants to avoid the turbines. C) Certain stocks of salmon and steelhead are also collected and transported around the dams in barges and trucks. D) Finally, to speed young fish through the system, a block of water is released in the spring when the dams would normally be storing the water to generate electricity later in the year. This water budget creates an artificial freshet to imitate the ones young fish used to ride before the dams were built.

But different entities are responsible for each of these three key areas. Production is controlled by state and federal agencies and Indian tribes that maintain habitat and operate hatcheries. The Bonneville Power Administration, Bureau of Reclamation, Federal Energy Regulatory Commission and Corps of Engineers share responsibility for mainstem passage.

Illustration by Lynn Carson

Harvest is managed by the Pacific and North Pacific Fishery Management Councils, the Columbia River Compact, the states, Indian tribes, Pacific Salmon Commission and, in some cases, the courts.

The Council's goal of doubling the runs will require a systemwide overview and evaluation to assure consistency. This systemwide perspective is emphasized in the Northwest Power Act in recognition of the biological, hydrological and institutional complexities in the basin.

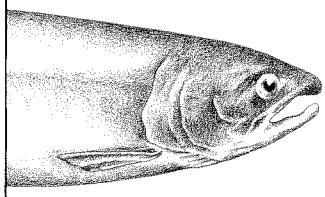
NEW PRIORITIES FOR SALMON AND STEELHEAD RESEARCH

Salmon and steelhead research, like the other fisheries work in the basin, is carried out by many institutions. Each organization has its own interest in the fishery and its own research objectives. This has led in the past

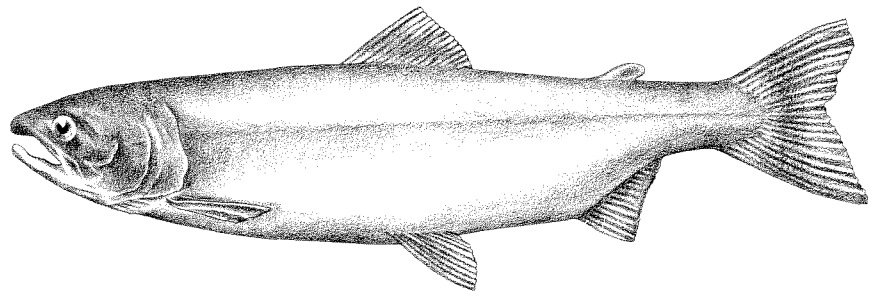
to a lack of coordination and information-sharing among the various groups. Consequently, there are major gaps in what is known about basin salmon and steelhead stocks and their survivability at different points in their life cycles. This is particularly true of wild and natural stocks.

The situation has improved in recent years with much better research coordination and shared goals and findings. It is now possible to identify immediate short-term research needs and to establish a framework for monitoring and evaluation so that long-term research needs can be sorted out and tracked.

The Bonneville Power Administration is the lead agency funding major portions of the fish and wildlife program's implementation. The U.S. Army Corps of Engineers also plays a critical program implementation role. Both agencies finance extensive research projects.



In the 1987 program, research priorities for Bonneville and Corps funding are spelled out. For Bonneville, these include studying the effectiveness of the water budget (a release of water from the dams in the spring that speeds juvenile salmon and steelhead to the sea); trying to ascertain what percent of juvenile migrant salmon and steelhead are killed in reservoirs; and developing ways to control fish diseases, increase hatchery production and supplement natural runs with hatchery-reared fry. For the Corps, the priorities are exploring mainstem fish passage improvements; and evaluating and increasing the reliability of transporting young fish in barges to get them past the mainstem dams.



INCREASED PROTECTION FOR MAINSTEM MIGRANTS

The need to improve mainstem passage and complement efforts by production and harvest managers to rebuild runs remains an important goal of the new program.

In the area of providing safe salmon and steelhead passage, the program was amended to allow for a sliding scale of spills at mainstem Columbia dams operated by the Corps of Engineers. What this means is that, unless water in the system is at critically low levels, better than 90 percent of the juvenile fish can be helped through the system by providing varying levels of water spilled over the dams rather than running it, and the young fish, through the turbines.

In poor water years, the program still requires enough spill to guarantee at least 90 percent survival for juvenile migrants at each dam. Each year, the Corps, fish and wildlife agencies and Indian tribes will work together to set spill levels and schedules.

But spilling fish-laden water over the dams is just a temporary solution. The permanent plan includes building better bypass systems to move young fish safely through each dam. These systems employ screens to direct fish from the turbine entrance into channels to pass them through the dam to the downstream side. The new program includes an updated schedule for completing these capital improvements at the dams.

The 1984 program called for all Corps construction of bypass facilities to be completed by 1989. Over the past year it has become clear that the Corps would be unable to meet that deadline, so, after consulting with the fisheries managers, the Corps and others, a consensus was reached on a new schedule that would have all projects completed by 1994.

Another key to providing safe juvenile fish passage on the Columbia is the Council's innovative "water budget." The water budget replaces the natural spring runoff young fish used to ride to the sea.

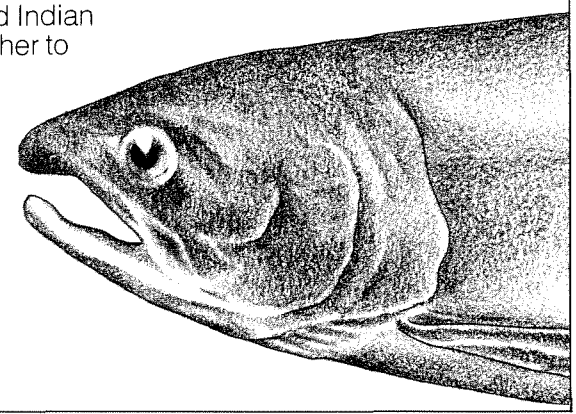


Illustration by Joan Barbour

Before the dams and reservoirs held back this annual rush of water, the migrants, called smolts because of the biological transformation they must undergo to travel from freshwater to saltwater, could make their journey in about a week. Because their adaptation is conditioned on water temperatures and timing, altered flows and water temperatures caused by the dams and reservoirs often prove fatal.

The dams store the spring runoff to use later in the year when power generation is required. Halting the runoff stalls the smolts, killing many of them outright. Still more die as the easy prey of predators who await the disoriented emergence of the fish from the downstream side of the dams.

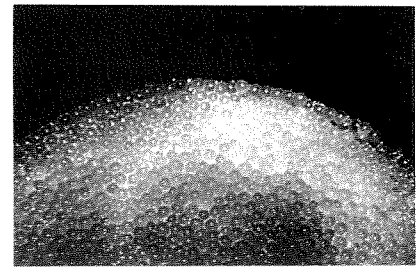
But, because the average life cycle of salmon is five years, it is still too early to gauge the long-term effects of the water budget. Each year, at least through the 1988 water budget season (April 15 through June 15), managers of the Fish Passage Center (formerly the Water Budget Center) will meet with dam operators and others to develop experimental uses and alternative procedures to increase the effectiveness of the water budget.

INCREASED HATCHERY PRODUCTION OF SALMON AND STEELHEAD

Historically, hatcheries have been the quickest means of increasing numbers of viable young fish in the Columbia River system. But hatchery production carries its own set of perplexities that must be dealt with if runs are to be doubled.

One difficult problem arises when hatchery fish and wild and natural fish mingle in the ocean; the wild fish are caught along with hatchery fish in the commercial harvest. If harvest limits are set low enough to protect wild stocks, hatchery fish are underharvested. If regulations allow more catch, to accommodate increasing numbers of hatchery fish, more wild fish are also caught. Since the wild stocks may contain genetic qualities that would be lost if these fish are overharvested, the Council is particularly interested in protecting these stocks.

But balancing increased artificial production with the need to protect wild and natural stocks calls for decisions by the fish and wildlife agencies and tribes. Before approving funding for new hatcheries, the Council now requires detailed "master plans" that describe sources for brood stock for the proposed facility, schedules for rearing and releases, alternate sites for releasing the young fish, management policies to protect genetic diversity and prevent disease, monitoring and evaluation plans, evidence of coordination with other fisheries managers and more.



In the 1987 amendments, one new salmon and steelhead hatchery, a smaller production facility and expansion of a third were given the go-ahead, pending Council approval of their respective master plans. The new hatchery, to be constructed in northeastern Oregon, will supply chinook and steelhead for release into the Hood, Umatilla, Walla Walla, Grand Ronde and Imnaha rivers, with the potential for seeding additional streams at a later date. Fish and wildlife experts anticipate production of between 2 and 3 million spring chinook fry. The smaller facility will produce salmon and steelhead in the 2.8 mile long fish ladder at the Pelton Dam on the Deschutes River in Oregon.

Expansion of the planned Umatilla Indian Reservation hatchery was also a feature of the program amendments. The hatchery was originally designed to produce 40,000 pounds of summer steelhead to be released into the Umatilla River. With alterations, the hatchery can add chinook to its scheme and increase production to 160,000 pounds each year.

Photograph by Carlotta Collette

Life Cycle Of Anadromous Fish

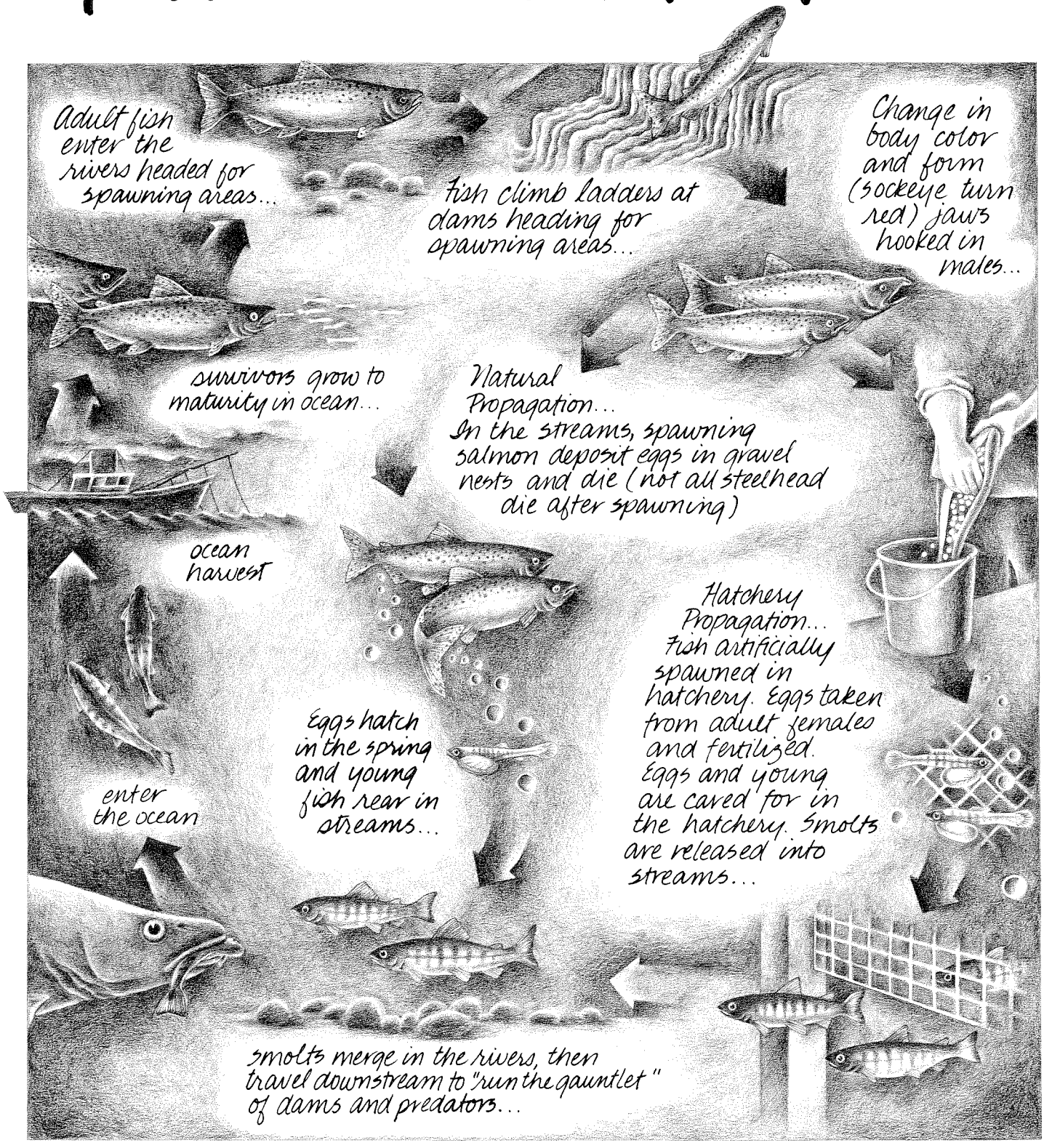


Illustration by Joan Barbour

Help for Montana Wildlife

By Paula M. Walker

Finned creatures are not the only ones addressed in the 1987 Columbia River Basin Fish and Wildlife Program. Bears, elk and other wildlife also enrich the Columbia Basin's distinctive character, a fact that was recognized by Congress in the Northwest Power Act when it directed the Northwest Power Planning Council to include wildlife in the program's mitigation efforts.

Wildlife habitat restoration is fundamental to the Council's commitment to lessen the impact of the damage caused by hydropower development in the basin. Modified from a proposal submitted by the Montana Department of Fish, Wildlife and Parks, the Hungry Horse and Libby dam plans are the first wildlife mitigation proposals to be included in the fish and wildlife program.

The plans call for the Bonneville Power Administration to fund the initial design stages of projects that will be developed in conjunction with the state of Montana. For most of the species targeted in the program, Bonneville also will be responsible for implementing and monitoring the success of the projects.

Located west of Glacier National Park in northwest Montana, the Hungry Horse and Libby dams were built in an area of spectacular beauty. Tourists from around the world come to Glacier to snap photos of its rugged peaks against crisp blue skies and to glimpse an occasional grizzly bear or bighorn sheep feeding on the mountainsides. The scenery doesn't end at the park's boundaries.

The mountains, streams and trees near Libby and Hungry Horse dams possess the same alpine qualities of nearby Glacier, attracting wildlife that dine on the variety of vegetation growing in the forests and along the lakeshores and riverbanks. Once, the water's edge provided meals for many more elk, bear, deer and other animals in that territory, but much of that habitat was flooded when the dams were constructed. Wildlife biologists estimate, for instance, that 175 elk were flooded out by Hungry Horse dam.

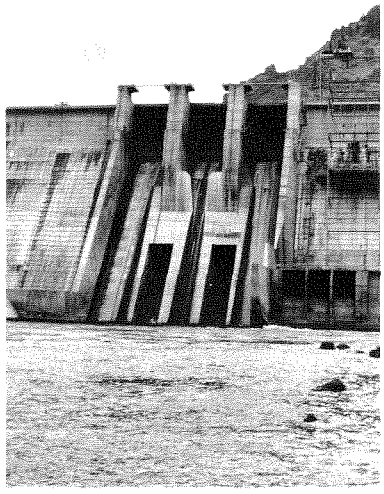
Because the dams are used for more than one purpose, the Council quantified how much of the wildlife and habitat losses should be borne by hydroelectric system ratepayers. Of the 175 elk losses attributed to Hungry Horse, for instance, the Council used a Congressional repayment formula to determine that 133 elk should be the target number ratepayers should be responsible for restoring.

For elk, black bear, grizzly bear, mule deer, white-tailed deer and bighorn sheep, the plans estimate the number of animals and acres of habitat whose loss may be attributed to the two hydropower projects. For waterfowl, Columbian sharp-tailed grouse and terrestrial furbearers (land-dwelling mammals such as the bobcat, lynx or the weasel-like pine marten), the Council has listed the estimated number of acres of habitat lost. (See chart.) Many of the wildlife plans involve acquiring easements to protect lands from further development in the hope that wildlife will flourish with less interference from humans or grazing stock.

John Mundinger, who heads the program for the Montana Department of Fish, Wildlife and Parks, says the big-horned sheep project near Libby is already under way. That project involves habitat enhancement activities, such as slashing, thinning and burning growth to improve forage production, as well as steps to monitor and evaluate the success of those activities by tracking the movements of the sheep and by studying what they have eaten. The department plans to implement similar projects to benefit mule deer at Libby and elk at Hungry Horse in July.

Cooperation among the Montana Department of Fish, Wildlife and Parks, the Pacific Northwest Utilities Conference Committee and the Western Montana Generating and Transmission Cooperative Inc. was an essential part of developing the plans. The 1987 Fish and Wildlife Program calls for Bonneville to examine the prospect of developing a trust fund to help finance the projects, which are estimated to cost $6 million to $20 million over the next 35-40 years, and to report its findings to the Council by this May.

Bonneville Power Administration Photographs



A NEW POLICY FOR SUBSTITUTING RESIDENT FISH IN CERTAIN AREAS BLOCKED TO MIGRANTS

Impassable dams such as the Chief Joseph and Grand Coulee projects on the upper Columbia River and Hells Canyon Complex on the Snake River permanently block salmon and steelhead from thousands of miles of spawning habitat. Returning ocean-going fish to these areas appears to be unfeasible. Nonetheless, some recompense must be made for the enormous loss of salmon and steelhead in these upper reaches of the basin.

The Council has established a policy for substituting fish that do not migrate to the ocean, called resident fish, in some areas where salmon and steelhead runs cannot be recovered. The first projects recommended as substitutions are located in the most severely damaged part of the basin—above Chief Joseph and Hells Canyon dams. The new program includes research, design and eventual construction of as many as five new hatcheries in these reaches, plus work to improve existing habitat.

THE FIRST PLANS TO REBUILD WILDLIFE POPULATIONS

The construction and operation of hydroelectric dams in the Columbia River Basin harmed more than just aquatic creatures. Land along rivers and streams is particularly valuable forage and nesting territory for many animal species. Waterfowl, deer, bighorn sheep, bear and terrestrial furbearers have all suffered population losses due to the inundation of their habitat, fluctuating reservoir levels and other symptoms of development that accompany dam construction.

The first plans in the program designed specifically to protect and revitalize wildlife other than fish were adopted in the 1987 amendments. (See box.)

Montana Wildlife Mitigation Plans

Project/Area	Target Species	Animal Losses Attributed to Hydropower Development	Habitat Losses Attributed to Hydropower Development
Hungry Horse	elk/mule deer	133 elk	6,650 acres of winter range
Hungry Horse	black bear	27-34	8,590 acres of critical habitat
Hungry Horse	grizzly bear	2-4	8,590 acres of critical habitat
Hungry Horse	waterfowl		1,863 acres (1,146 acres of prime habitat)
Hungry Horse	terrestrial furbearers		11,050 acres
Libby	white-tailed deer	1,340	8,745 acres of winter range
Libby	mule deer	485	10,586 acres
Libby	bighorn sheep	66	3,190 acres
Libby	Columbian short-tailed grouse		2,462 acres
Libby	waterfowl		10,460 acres (3,418 acres of prime habitat)

Major Dams of the Colu

Map information compiled by
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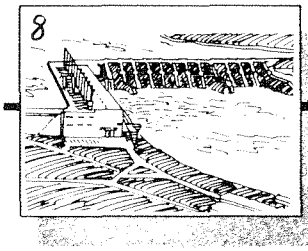
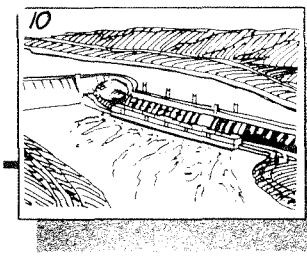
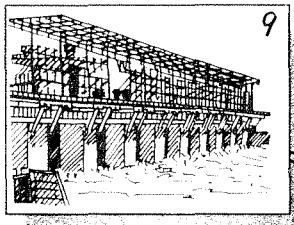
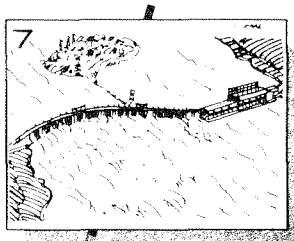
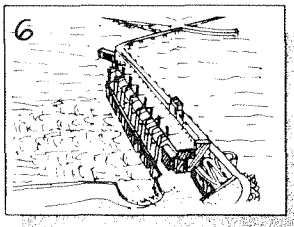
LYN NANCE-SASSER
Map by
STEPHEN SASSER and
LYNN CARSON

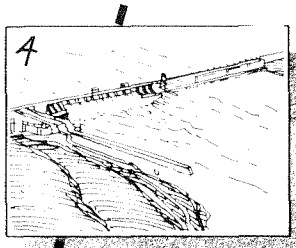


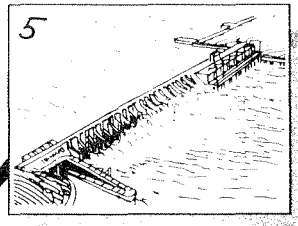


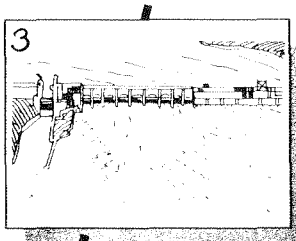


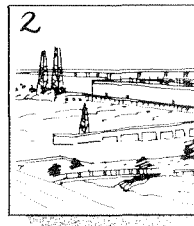


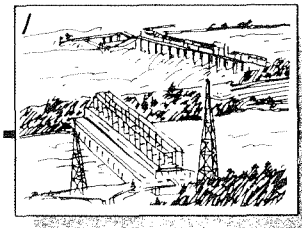












Washington

Seattle

10. Chief Joseph Dam

9. Wells Dam

8. Rocky Reach Dam

7. Rock Island Dam

6. Wanapum Dam

5. Priest Rapids Dam

4. McNary Dam

3. John Day Dam

2. The Dalles Dam

1. Bonneville Dam

Columbia River

Portland

Oregon

1. Bonneville Dam
Location: Bonneville, Oregon, River Mile 146.1. *Operator:* U.S. Army Corps of Engineers.

2. The Dalles Dam
Location: The Dalles, Oregon, River Mile 191.5. *Operator:* U.S. Army Corps of Engineers.

3. John Day Dam
Location: Rufus, Oregon, River Mile 215.6. *Operator:* U.S. Army Corps of Engineers.

4. McNary Dam
Location: Umatilla, Oregon, River Mile 292. *Operator:* U.S. Army Corps of Engineers.

5. Priest Rapids Dam
Location: Near Ephrata, Washington, River Mile 397.1. *Operator:* Grant County Public Utility District (PUD).

6. Wanapum Dam
Location: Near Ephrata, Washington, River Mile 415.8. *Operator:* Grant County Public Utility District (PUD).

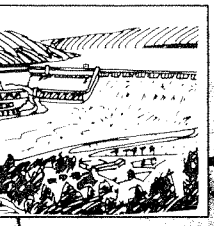
7. Rock Island Dam
Location: Wenatchee, Washington, River Mile 453.4. *Operator:* Chelan County Public Utility District (PUD).

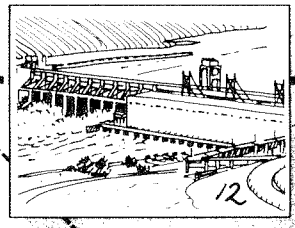
8. Rocky Reach Dam
Location: Wenatchee, Washington, River Mile 473.7. *Operator:* Chelan County Public Utility District (PUD).

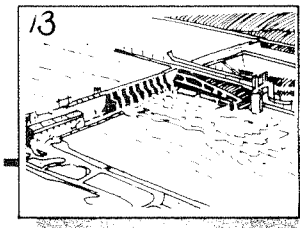
9. Wells Dam
Location: Azwell, Washington, River Mile 515.1. *Operator:* Douglas County Public Utility District (PUD).

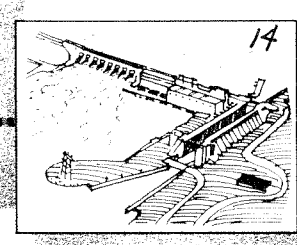
10. Chief Joseph Dam
Location: Bridgeport, Washington, River Mile 545.1. *Operator:* U.S. Army Corps of Engineer

mbia and Snake Rivers



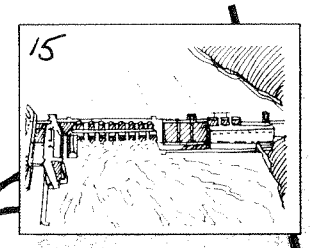






Montana

1.
Grand
Coulee Dam



Clearwater River

Lower
numental Dam

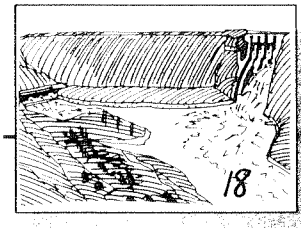
14. Little Goose Dam

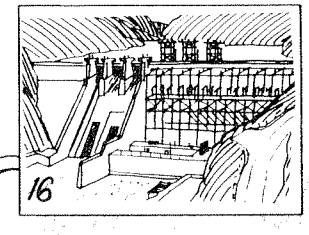
19. Dworshak Dam

12. Ice Harbor Dam

15. Lower
Granite Dam

Lewiston



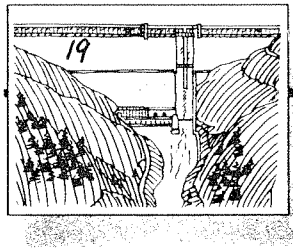


Snake River

16. Hells
Canyon Dam

17. Oxbow Dam

18. Brownlee Dam



Idaho

11. Grand Coulee Dam
Location: Grand Coulee, Washington, River Mile 596.6. *Operator:* U.S. Bureau of Reclamation.

12. Ice Harbor Dam
Location: Pasco, Washington, Snake River Mile 9.7 (from confluence with Columbia River). *Operator:* U.S. Army Corps of Engineers.

13. Lower Monumental Dam
Location: Matthaw, Washington, Snake River Mile 41.6. *Operator:* U.S. Army Corps of Engineers.

14. Little Goose Dam
Location: Starbuck, Washington, Snake River Mile 70.3. *Operator:* U.S. Army Corps of Engineers.

15. Lower Granite Dam
Location: Almota, Washington, Snake River Mile 107.5. *Operator:* U.S. Army Corps of Engineers.

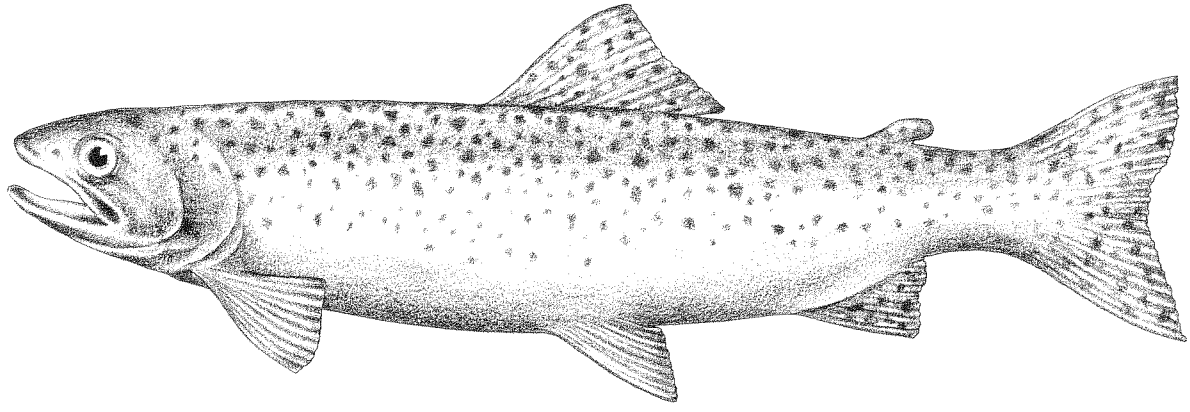
16. Hells Canyon Dam
Location: Oxbow, Oregon, Snake River Mile 247. *Operator:* Idaho Power Company (IPC).

17. Oxbow Dam
Location: Oxbow, Oregon, Snake River Mile 273. *Operator:* Idaho Power Company.

18. Brownlee Dam
Location: Cambridge, Idaho, Snake River Mile 273. *Operator:* Idaho Power Company.

19. Dworshak Dam
Location: Ahsahka, Idaho, North Fork–Clearwater River Mile 1.9 (from confluence with the Clearwater River).

MAJOR ACCOMPLISHMENTS OF THE FIRST FIVE YEARS



In the five years since the first Columbia River Basin Fish and Wildlife Program was adopted, much has been accomplished by the many organizations involved in carrying out the program and other recovery efforts.

The accomplishment most frequently applauded is the increased and continually growing cooperation among the program's original planners and newcomers to the process. Observers who were not privy to the years of struggle among competing interests in the basin may not fully appreciate the careful negotiations that led to this new spirit of shared goals.

But five years is barely the duration of one salmon life cycle in the basin. Some of the first emerging fry of 1982 will push back up the Columbia this year—if they have survived their long travels. The river basin they find will be more hospitable than the one they left, and their young will experience even more nurturing in the "new and improved" Columbia River Basin.

It is likely, for example, that there will be more adult salmon and steelhead returning to the basin to spawn this year than in the years that preceded the fish and wildlife program. The 1985 signing of the treaty between the United States and Canada to regulate salmon interceptions in the North Pacific means that more Columbia River Basin salmon were allowed to escape harvest in the ocean fishery last year. That leaves more of these powerful fish to follow their inherited routes back to the spawning gravels they left four or five years earlier. The Council supported and encouraged negotiations and funding for this treaty, but the region's fish and wildlife agencies and Indian tribes deserve the credit for building the consensus on which it is based.

In addition to new regulations governing the taking of Columbia River salmon stocks, passage for both adult and juvenile migrants has been improved; production in both natural and artificial environments has been increased; projects to protect and enhance non-ocean-migrating fish and wildlife have begun; and innovative processes and policies have been developed to guide the reconstruction efforts. What follows is a list of some of the major accomplishments in the basin's fish and wildlife community over the past five years.

Protection for juvenile migrants

■ Bypass systems to divert young fish from turbine intakes are in design or construction stages or are completed on 13 mainstem hydropower projects.
■ Until these bypass systems are completed, spills at dams provide non-turbine passage for many young fish.
■ A water budget was instituted in 1983 to provide flows to speed migrating juvenile salmon and steelhead through the system each spring.
■ In the Yakima River Basin and elsewhere in the Columbia Basin, dam bypass systems and the removal of other obstructions have cleared the way for both juvenile and adult salmon and steelhead. In the Yakima, if the schedule holds, all 20 passage projects will be completed by 1989. Returning adult salmon and steelhead numbers in the Yakima Basin have grown from 2,000 in the early 1980s to 12,000 in 1986.

Production of additional salmon and steelhead

■ More than 80 new projects to repair salmon and steelhead spawning habitat and increase natural production are under way or completed in the basin (not including the Yakima Basin work noted above).
■ Six new salmon and steelhead production facilities have been initiated in the Yakima, Umatilla, John Day and Deschutes subbasins, as well as in northeastern Oregon and on the Nez Perce Indian Reservation.

Resident fish production and protection

■ The first hatchery completed under the program, the Cabinet Gorge Kokanee Hatchery near Clark Fork, Idaho, is now producing kokanee (landlocked sockeye) to be released into Lake Pend Oreille. This hatchery will provide 20 million fry each year.
■ A resident fish hatchery on the Colville Indian Reservation near Chief Joseph Dam in northeastern Washington is nearing construction. As much as 50,000 pounds of trout are expected from the hatchery.
■ Operations of several dams in northwestern Montana are being altered to afford protection for spawning kokanee and other resident fish.
■ An agreement was reached among Montana Power and Light, the Montana Department of Fish, Wildlife and Parks, the Bonneville Power Administration and others, to provide water from the Painted Rocks Reservoir to protect resident fish in the Bitterroot River.
■ Planning for future resident fish hatcheries in the priority areas above Chief Joseph Dam on the Columbia and the Hells Canyon Complex on the Snake River is included in the 1987 program.

Protection from future hydroelectric development

■ The first basinwide data base on salmon and steelhead production was developed to help identify areas of the basin that should be protected from future development.
■ Encouraged by the Council and other organizations, the Federal Energy Regulatory Commission is now examining, on an experimental basis, the cumulative impacts on fisheries of more than one hydroelectric project in Idaho's Salmon River Basin.

Protection for other wildlife

■ The first major wildlife mitigation projects were approved in the 1987 program. These cooperative efforts will ultimately provide habitat restoration for some 1,800 deer, 130 elk, 30 black bear and grizzlies and over 60 bighorn sheep in compensation for wildlife losses at Hungry Horse and Libby dams.
■ Effects on wildlife of hydropower development and operation are being studied in other parts of the basin.

New processes and policies

■ For the first time, research on salmon and steelhead in the basin will be coordinated basinwide.
■ A new computer model of the life cycle of Columbia River salmon and steelhead can now increase the understanding of the relationships of salmon and steelhead production, mainstem mortality and harvest regulations.
■ The first comprehensive compilation of information on the extent and causes of salmon and steelhead declines in the basin was produced and distributed by the Council.
■ A determination of the extent of salmon and steelhead losses resulting from the development and operation of the hydropower system is now included in the program along with a goal of doubling the runs.
■ An adaptive management approach has been incorporated into the program to help measure and interpret both successes and failures in the program's implementation.

COMPUTER MODELING AND MAPPING:

Salmon and Steelhead Go "On-Line"

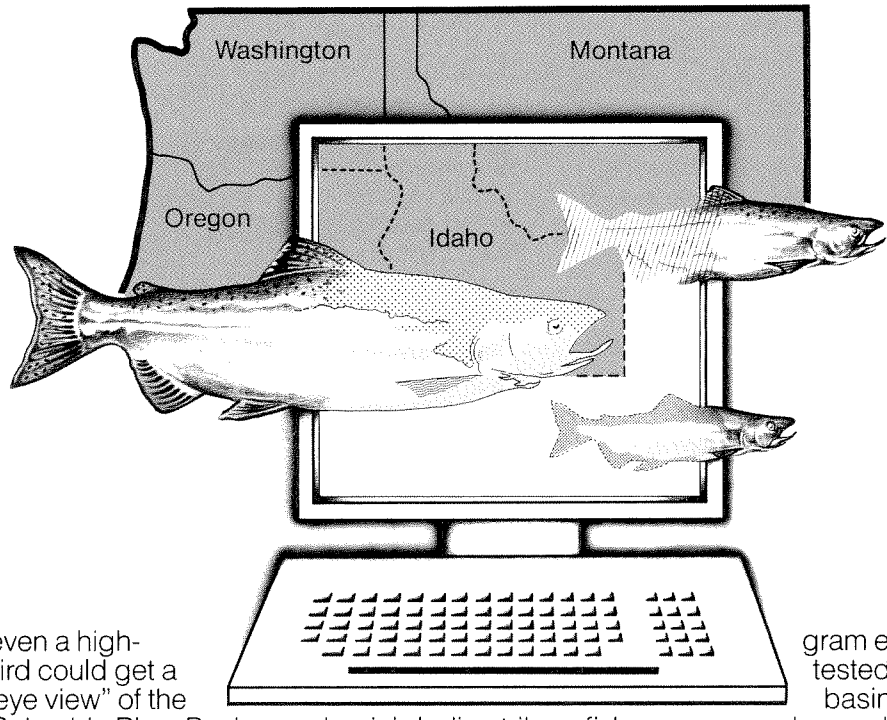


Illustration by Lynn Carson

Not even a high-flying bird could get a "bird's eye view" of the whole Columbia River Basin. But a computer can. A computer can digest every "bit" of information available on, in this case, salmon and steelhead in the basin, from historic run counts to timing of fish runs, from existing habitat to distribution of various salmon and steelhead stocks. With the computer, technicians can compile this information and organize the data in meaningful ways.

Over the past year and a half, the Northwest Power Planning Council has been feeding its computers more details about Columbia River Basin salmon and steelhead than have ever been collected in one place before. Two distinct systems have been created; a computerized model of the life cycle of Columbia River Basin salmon and steelhead and a comprehensive data base on salmon and steelhead habitat in the basin.

The Council, working with representatives from the basin's Indian tribes, fish and wildlife agencies and others, will use the model to evaluate efforts to improve basinwide conditions for salmon and steelhead. Modeling the possible outcomes of fish passage, production or harvest changes can illustrate which aspects of the fish life cycles are most critical to producing sustainable runs. Relatively untested actions can be explored in the modeling exercise before more significant investments of time and money are committed to them.

This year, as the Council broadens its systemwide planning by moving into subbasins of the Columbia to customize salmon and steelhead projects, the computer model will be particularly useful. With the model's storehouse of information about the many tributaries of the Columbia (supplied in part by the salmon and steelhead data base), program efforts can be tested in different subbasins. Comparisons can be made, and a broad range of options can be studied. The simulated effects of work in one area can be juxtaposed and integrated with basinwide effects.

The salmon and steelhead data base characterizes stream reaches throughout the Pacific Northwest. More than 350,000 miles of year-round streams were mapped from confluence to confluence. Data describing salmon and steelhead and their habitat in each stretch of river were correlated with information about other fish and wildlife uses of each stream reach. Cultural, recreational and archaeological values were also cross-referenced in the data base. The data base will soon be used to assess the consequences of altering any of these reaches for hydroelectric generation. The Council will then consider setting aside certain areas to be protected from development. ■

Shorts

Anyone interested in the power supply system behind their electrical outlets should take a look at a soon-to-be-released guidebook, Public Power Essentials, by the Public Power Council in Portland, Oregon. The guide reviews Northwest electrical industry history from the post-Civil War progressive movement to more recent events. It examines the roles of the Bonneville Power Administration, the Northwest Power Planning Council and other power-related institutions. While the primary focus of the book is public power, it provides an overview of the electrical power industry as a whole. (To reserve a copy, contact Pam Taskey at the Public Power Council, 500 N.E. Multnomah, Suite 729, Portland, Oregon 97232, 503-232-2427.)

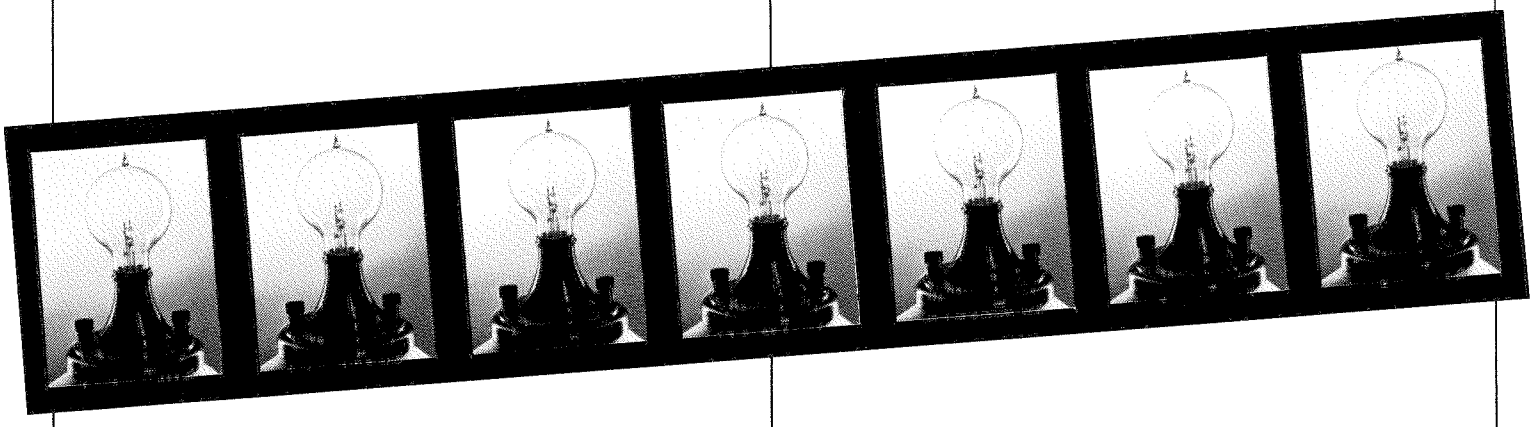
Free advice for Oregon manufacturers on how to profit by saving energy is available through Oregon State University. The school's new Energy Analysis and Diagnostic Center, one of 13 across the country, is managed by the University City Science Center in Philadelphia, under an agreement with the U.S. Department of Energy. The service will help both small and medium sized manufacturing companies. (To participate, contact: Dr. Greg Wheeler, 344 Batcheller Hall, Oregon State University, Corvallis, Oregon 97331, 503-754-2515.)

For the second time in as many years, the U.S. Congress has approved national appliance efficiency standards and sent them on to the White House. The legislation, sponsored by Washington Senator Dan Evans, former Northwest Power Planning Council Chairman, was vetoed by the president last year, but this year he signed it. Besides a majority of the Congress, the bill pulled support from both appliance manufacturers, who welcomed the consistency of national rather than state-by-state standards, and conservationists. The conservation side estimated that energy consumers could save as much as $28 billion by the year 2000 if major home appliances were made more efficient.

Five-Year Status Report on the Pacific Northwest Power Act released by U.S. General Accounting Office. The report covers "the progress made in developing and implementing the electric power planning, fish and wildlife and public involvement programs" carried out by the Northwest Power Planning Council and the Bonneville Power Administration. (The report is available from the U.S. General Accounting Office, P.O. Box 6015, Gaithesburg, Maryland 20877, 202-275-6241. Request report number GAO/RCED-87-6.)

Utilities and their customers and regulators can find guidance on planning to meet future electrical needs at the least possible cost, from a compilation of articles published recently. *Least-Cost Electrical Strategies: An Information Packet* was compiled by the Energy Conservation Coalition in Washington D.C. It contains information about forecasting electrical use, promoting energy conservation, designing conservation programs, integrating smaller power resources and writing least-cost planning legislation, regulations and policies. (Copies are available for $15 from: Energy Conservation Coalition, 1525 New Hampshire Ave. N.W., Washington, D.C. 20036.)

Quick kilowatt card may encourage conservation in Walla Walla, Washington, if a Pacific Power and Light Company demonstration is successful. The card, similar to a credit card, records the amount of electricity a person purchases from the utility in advance of use. Back at home, the card is slipped into its own meter, which records and displays the amount of electricity available. The meter then tracks electrical use with the digital display changing every 10 seconds. As the balance of prepurchased electricity decreases, residents can make decisions about turning out lights or turning down thermostats. About four days before the power is used up, the meter starts warning residents that the supply is running out. Only one other city in the country—Anoka, Minnesota, where the system was developed—has tried the new meter and card experiment. (Source: *Union Bulletin*, Box 1358, First and Poplar Streets, Walla Walla, Washington 99362)



Bonneville Power Administration Photograph

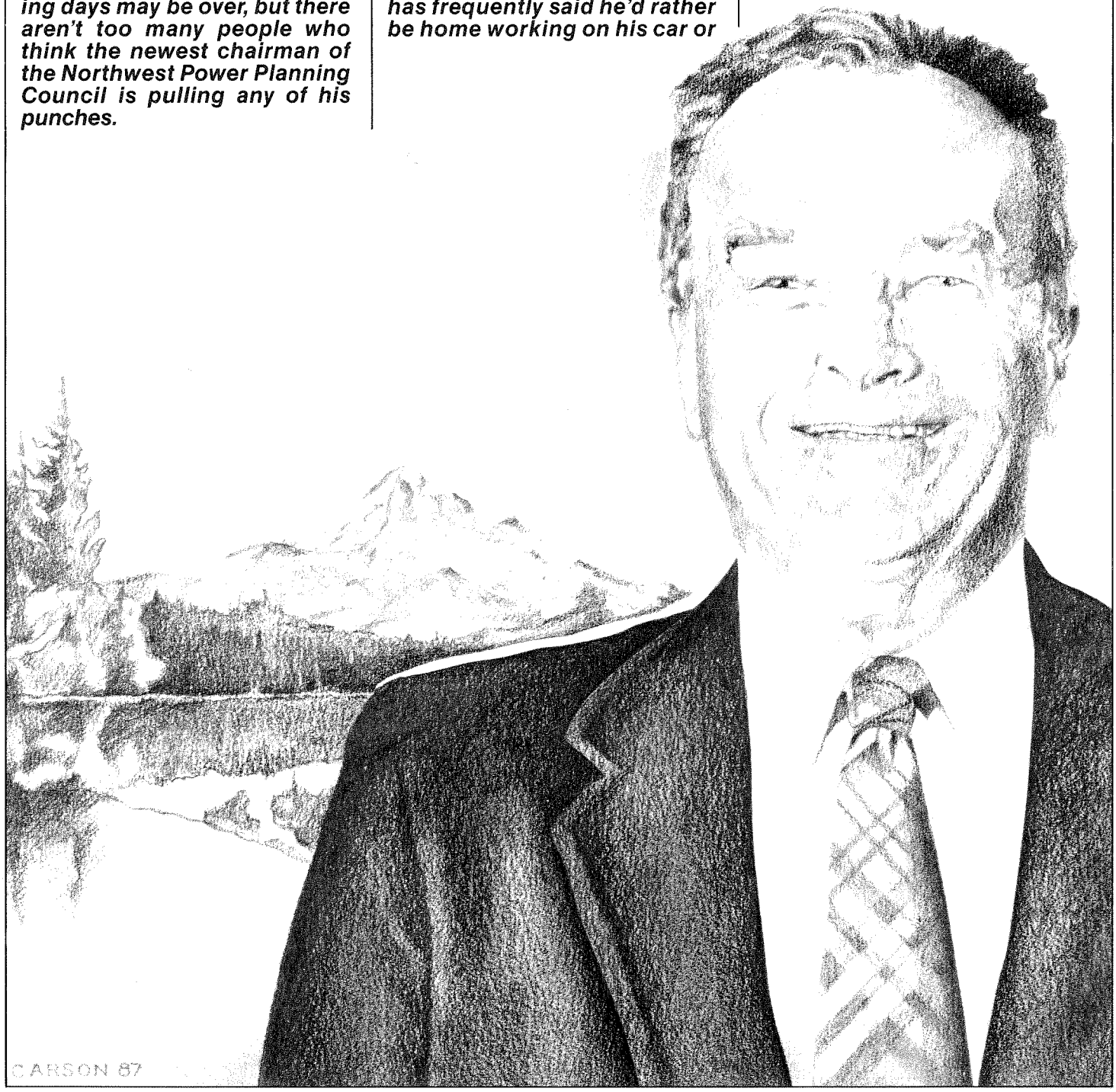
Dulcy Mahar Interview with

BOB DUNCAN

As an amateur boxer, Bob Duncan won 34 fights in a row. Of those days, he says, "I thought I was about the greatest thing that ever entered the ring, until I got my clock cleaned good in the 36th fight." His boxing days may be over, but there aren't too many people who think the newest chairman of the Northwest Power Planning Council is pulling any of his punches.

The five-term U.S. Congressman and former speaker of the Oregon House still speaks his mind, still asks a lot of direct questions and still likes to get a direct answer.

For a man who, over the years, has frequently said he'd rather be home working on his car or rebuilding his Yachats, Oregon beach house, he's had a long and active career in public service. It began when, as a Jackson County (Oregon) attorney, he came up against the



death penalty. Duncan makes no secret of the fact that the main reason he ran for the Oregon state legislature was to see what he could do to get rid of capital punishment.

His interests and the issues he took on widened rapidly. He became speaker of the Oregon House and was asked by some state Democratic party leaders to run for governor. Instead, he ran for the U.S. Congress, eventually representing two different districts and chairing the House Appropriations Subcommittee on Transportation. He was also on the Democratic Steering and Policy Committee.

Politically, he was a hard man to categorize—liberal on civil rights and other human rights issues and conservative on fiscal and environmental issues and foreign affairs. He feuded over Vietnam with Wayne Morse, but called him "the brightest guy I ever met."

He went into Congress like a lion, but didn't come out like a lamb. In a retirement interview, he likened Congress to Gulliver—tied down by hundreds of tiny cords, each individually weak but collectively powerful. He felt that during his tenure Congress had lost strength by dissipating control among subcommittees, caucuses and their staffs.

Government, he also said, was taking on too much. He railed against the "bureaucrats," and still does today. His most enthusiastic support was for timber and rangeland programs. He dominated the House Appropriations Subcommittee on the Interior and won substantial budget increases for reforestation, timber sales and road construction. A supporter once said that Duncan recognized, what his critics did not, that Portland lives off the agriculture and timber outside the city.

A familiar theme with him was that programs should pay for themselves. While not an "across-the-board" budget cutter, he was constantly looking for ways to economize and subsidies to challenge. He despised what he perceived as "meddlesome" government regulations and had a lawyer's suspicion of "precedent." In a controversial move that brought a blast from his party (and another from his wife), he voted against an extension for the equal rights amendment on grounds it would set a precedent, although he had endorsed the original legislation.

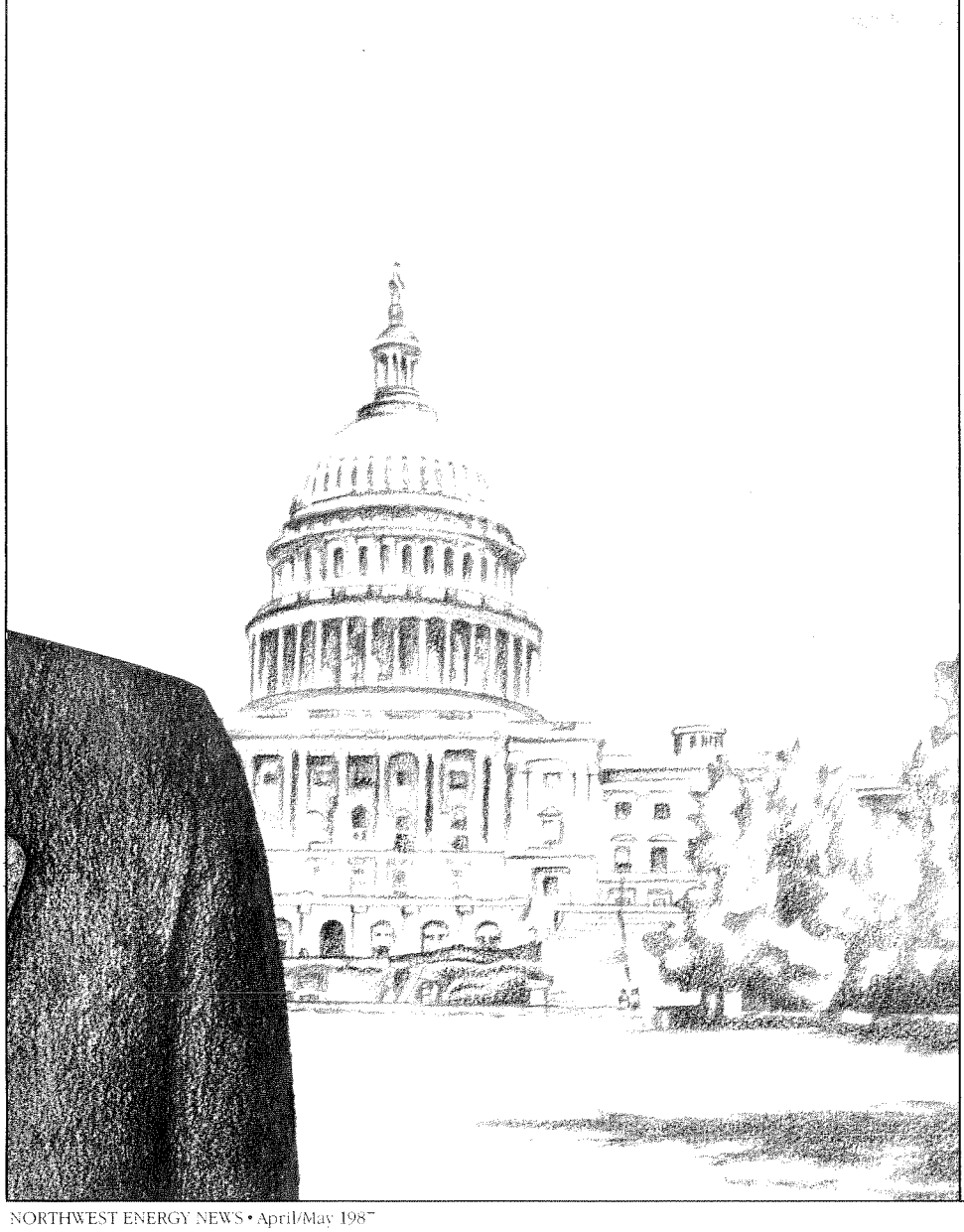


Illustration by Lynn Carson

His budget consciousness was and is storied. It is said that he once sent an aide out to get some oars for his boat. When the aide returned and told Duncan the best price was 75 cents a foot, Duncan is said to have asked how short the oars could come.

There's also a story that may or may not be apocryphal. When a piece of his razor broke, he wrote to the company for a replacement. The company wrote back that they hadn't made that part since 1881, but that he could get one of their new razors for $1. When Duncan told an audience in Oregon this story, a man in the audience announced that he used the same razor and his had also broken. He offered to put the good parts of his razor together with Duncan's to make one that worked. Duncan agreed. The two tossed a coin for the repaired razor. Duncan won, and, as of this writing, he's still using it.

Between terms as a lawmaker, Duncan returned to private law practice. In 1980, he was a rumored candidate for Secretary of the Interior in then President-elect Reagan's cabinet. Asked what he thought about that, he replied, "I thought they were drunk."

A native of Illinois, Duncan attended the University of Alaska but eventually graduated from Wesleyan University in his home state. His law degree is from the University of Michigan. In World War II he was a naval aviator. He is the father of seven children and his wife, Marijane, is often described as a "saint" by those who know her—and him.

Q. At the time you joined the Council, you said you weren't sure if this body was necessary. Have you changed your views?

Yes, I have. I guess I've made up my mind. If the Council hadn't come along, we'd have had to invent it. I think it's been useful, in my judgment, primarily as a catalyst for cooperation. But, it's gotten off into some blind alleys. I think some of the things that the Council did early on, that engendered a great deal of resistance, probably weren't necessary in the long run, and yet may have been necessary in the short run to help the Council get started and stake out its ground. I'm talking about the model conservation standards.

In a free society, a program that enjoys the bare majority is not apt to really succeed. If the people don't accept it, it ain't going to work.

I suppose it's ironic that we finally prevailed, in the Supreme Court, on a challenge to those standards, while, in subsequent revisions, we deleted the provisions that probably were the most offensive and most instrumental in getting the litigation started. I can't help but think that if we had worked a little harder at the consensus process in those early days, we might have avoided the harsh litigation with the Seattle Master Builders.

I think, now that the litigation is behind us and the Council has revisited model standards and made some changes, it's vitally important we open up conversations and consultations with the Seattle Master Builders, as we have with other builders around the region, to try to extend the consensus that I think we have developed around the rest of the region. I thought Morris Brusett [Montana Council member] did a superb job of developing a consensus on the model conservation standards. And I think we'll find Mr. [Tom] Trulove [Washington Council member] moving in that direction with respect to the Seattle Master Builders.

Another area where I noticed early on that the Council had been useful was when I went to Montana and I saw the Montana Power Company and the Kootenai Indians and the Montana fish and game people all sitting at the same table and all supporting the same fish and wildlife program. In my judgment, that couldn't have happened prior to the Council having come into existence. Perhaps we're not entirely responsible for it, but we're entitled to some credit for getting people to sit down and talk. There's a new relationship between the tribes and the agencies in the Northwest. It may not be all to our credit, but we certainly are entitled to a share of it. And if we didn't do anything else but that, I think we have been useful.

Q. How do you see the Council at the moment?

Don Godard, Kai Lee, Gerald Mueller and Larry Mills have done a remarkable job, along with Jan Carpenter and her staff, in working out major amendments to the fish and wildlife program. Now I hope we can escape the discipline and leave the drudgery of working and reworking the basic plans and concentrate instead on trying to get some major projects out of the planning stage and into the action stage.

We also have a much better working relationship among the Council members right now than has always been the case. We can discuss problems much more openly without fear of people personalizing political positions. We are operating more in the consensus-developing mode among ourselves, and it seems to me that if we have any hope of developing a consensus among the warring

factions of the Northwest, we must first get our own house in order. I think we have done and are doing that.

We have an infinitely better relationship with the Bonneville Power Administration at this point than we have had in a long time. We have substantial efforts underway to create that same kind of a close relationship with the [U.S. Army] Corps of Engineers. We neither want to preempt nor be preempted by these other agencies. Yet, I think we'll get further in the goals that all of us espouse if we substitute a cooperative attitude for a confrontational attitude.

Q. What are your priorities as chairman of the Council?

As far as the energy plan is concerned, I look for a lot of progress in conservation, now that we have the new amendments to the model conservation standards in position. I look for us to have an opportunity to try to do something with respect to manufactured housing and in respect to getting the financial institutions to give full credit for energy-efficient houses. It doesn't look as though the needs of the region are going to require any other substantial [electrical resource] acquisitions.

In respect to the fish program, I want to see if we can't move on the question of mainstem [Columbia River] passage [for ocean-migrating fish] — one of the key problems that has to be solved. If it isn't *the* most important, substantively, it is *one* of the most important, and, certainly from a symbolic standpoint, it is perhaps the most important.

We have to proceed with subbasin planning now. We have to stimulate research efforts. I think it's possible to improve the record of our hatcheries from the general standpoint of genetics and health. I'd like to do something with respect to reservoir mortality, which in many respects strikes me as a more significant problem than passage through the dams.

Q. What are the areas that you personally enjoy working in the most?

Building my house in Yachats. If you mean on the Council, I'm never going to know how to punch all these computers or design the programs. But I hope that I can bring a little tempering to the computer mentality with my personal experience and common sense, or whatever you want to call it. I don't say they're always in conflict, but there are times when I've considered it [computer analysis] to be out of touch with reality.

I suppose if I have had any talent, it's been in the field of trying to reconcile conflicting viewpoints to bring about consensus. I can only recall one vote we ever had to take on my subcommittee in Congress. I tried to work that same way in the legislature. In a free society, a program that enjoys the bare majority is not apt to really succeed. If you have a theoretically perfect program that the people don't accept, it "ain't" going to work.

Q. The future of the two Washington Public Power Supply System (WPPSS) nuclear plants seems to be a classic case of the need to balance computer analysis with policy judgment. On the one hand you have studies that show the plants could have significant economic value to the region. On the other, you have an increasingly harsh political climate for the plants. Can you take that into account, along with the analysis, when you are making decisions?

Well, you can and you do and I do. I think the longer they are held, the less likely it is they will ever be built. But there's another factor people forget — the energy crisis of the early '70s. I was in Congress, on the interior appropriations subcommittee, trying to deal with that problem day in and day out, totally frustrated at the inability of divergent committees fighting over turf to ever get anything done creatively to help us fight it.

We exceeded our authority and brought out a legislative program that was largely adopted. We got a strategic petroleum reserve; we got an alternative energy program in place; we got a multibillion dollar program layed on to develop substitute liquid fuels. And then, as we knew was entirely likely, the cartel began to dissolve. Rapid reduction in the price of that petroleum imperiled — and indeed destroyed — every one of those programs.

The alternative energy programs at the federal energy level are substantially dismantled. They aren't filling the petroleum reserve anymore. And our imports of petroleum products are going back up, while our own domestic production and exploration is as low as I think it's ever been, certainly as it's been since 1974. I can see another energy crisis. I believe it's just as inevitable as it is that you and I are sitting here. At some point, it's going to come along.

Many of the people who clapped and cheered when WPPSS was proposed as a prudent way to attack, what appeared to be, a severe energy shortage, are now among the most critical of the WPPSS projects. Those same people, I venture to guess—if the wheel turns again as I think it will, and the resource is gone or we've plowed it under, destroyed it—they'll be just as critical of those short-sighted people who plowed under those nuclear plants.

If it cost an awful lot to keep the plants going, I'd say, no, the risks aren't worth the cost. It just seems to me that the cost to keep them is so little at this point compared to the potential that they may be useful. That's a factor too that the computers can't take into consideration. They can't take into consideration the political climate today, which I agree is very hostile and adverse. Neither can they take into consideration how rapidly that political climate can change.

Q. What are your reflections on the 6(c) process?[1] You appeared to be a prime mover in the talks with Bonneville.

Well, that's again another area in which I thought I might be useful to help develop a consensus. I think the key player ultimately turned out to be Mr. [Bob] Saxvik [former Council chairman from Idaho], and of course Mr. [Jim] Jura [Bonneville administrator] was absolutely essential. He turned Bonneville completely around in my judgment. And I think the Council was useful. I think the new members were useful in convincing not only Mr. Jura but the staff that we didn't necessarily think Bonneville was the repository of all evil.

I think we were able to induce a measure of trust that did not exist before. And I can understand Bonneville's suspicion of the Council. Bonneville's been supreme in this field out here since the '30s, and the Council's a new kid on the block. If I had been over there for a long time, I'd be jealous of their prerogatives and not want to surrender them up lightly to a group of do-gooders like the Council.

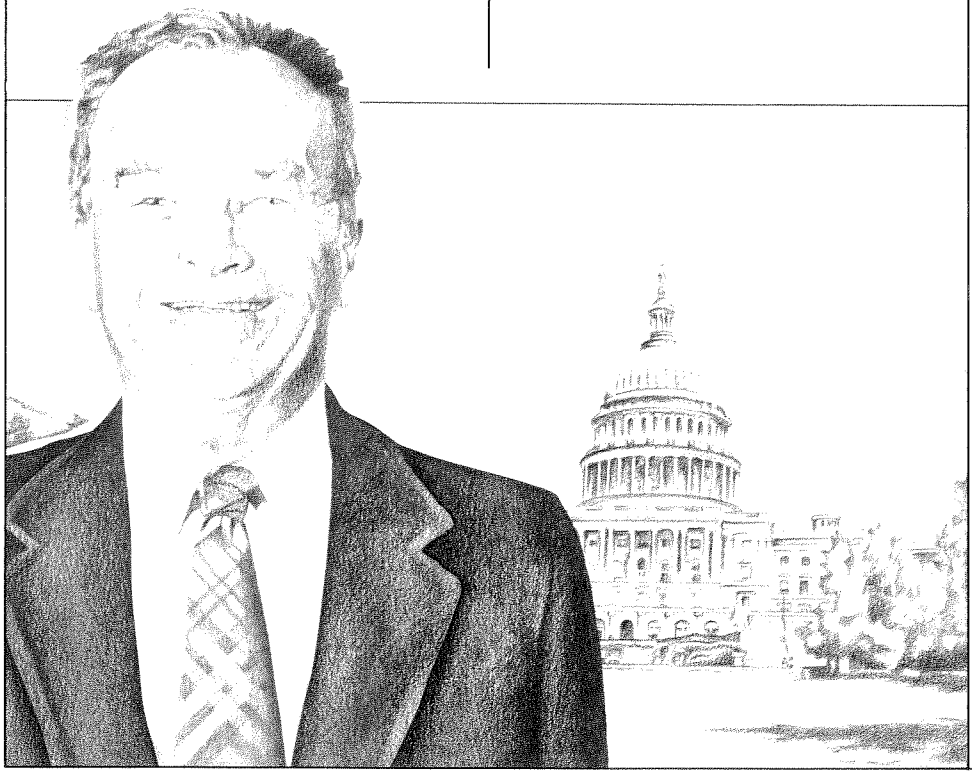
I think that in our plenary sessions, if you want to call them that—in our negotiations—some of the hard-liners on the Bonneville staff were shocked and amazed that there were sentiments expressed by members of the Council with which they were in total agreement and which were completely the antithesis of what they thought would be the unanimous and uniform position. So I think it was a great exercise in confidence building, which really was only partly consummated when we each issued our separate statements of policy. They'll not be fully consummated until we've had some experience with the 6(c) process.

Q. How do you perceive the relations between the Council and Bonneville now? You said they were the best ever.

Well, I think they're infinitely better than they were when I came on. I don't know that they are the best ever, but I suspect they are, from what I've heard. And I look forward to it continuing. I have no reason to believe it won't continue, so long as Mr. Jura's there. But I'm hoping that we have institutionalized this relationship so that it would continue and improve no matter who was on the Council or who was the administrator.

Q. What do you think of Mr. Jura?

I like him! I think he's first class. I think he's just the guy for the job at this time. He has not been captured by the bureaucracy. He appreciates the fact that we live in a changed and continually changing society; that nobody, no matter how dominant a force he may have been in the past, can operate without taking cognizance of the viewpoint of other players. He has demonstrated more than a willingness—almost a compulsion—to open up the Bonneville Administration to the public view. I've never



[1] Section 6(c) of the Northwest Power Act requires that major acquisitions by the Bonneville Power Administration are consistent with the Council's power plan. This past year, the Council and Bonneville went through lengthy negotiations and regional review to establish compatible processes for determining consistency.

known, for instance, another government agency to divulge its budget until it was delivered on Capitol Hill.

I have thought that if Bonneville had operated a decade ago as it is operating today, the Council would never have come into existence. And I'd like to think that maybe someday this would become so institutionalized that once again we could pick up our tents and steal silently away and save the region $6.5 million. We are part of a system of checks and balances, and I suppose the government being what it is and bureaucracy being what it is, we can't expect the system to remain balanced if we remove the checks. So at this point I'm not carrying around a resolution to abolish the Council—yet.

Q. Sometimes you appear frustrated with the Council, that it's a noble idea but it's not working as you had hoped. How would you change it if you could wave a magic wand?

I had been Speaker of the House in Oregon for two terms. When I got to Congress, I didn't think that institution [Congress] was working. I thought it was hopelessly inadequate. It was slow. It was cumbersome. It was duplicative. I still think that to a considerable extent, but I slowed myself down. At first I got on my horse and I figured I'd go out and change it all, rebuilding Congress in the image of the Oregon State Legislature, which I thought was infinitely more efficient. And then I sat at my desk one night with a bottle of Blitz, and it occurred to me that the federal government had been functioning for a couple of hundred years and really had done fairly well. And that maybe there were some reasons for their doing things the way they were that I wasn't yet aware of. So I slowed down a little bit.

The same thing may be true of the Council. I don't want to come on and totally change the way the Council works. I want to learn first why they're doing things the way they are. And if there are valid reasons other than "well that's the way we did it yesterday," then we ought to leave things alone. But I want to constantly re-examine the Council and how it functions and see if it's useful or can be improved.

Q. What specific projects are you most interested in?

On the power side, we want to do what we can (although we have no real power here) to see that manufactured housing is built to energy-efficient standards. We don't control that. It's controlled in the Department of Housing and Urban Development. I think that represents substantial competition, particularly in the lower income fields, for the stick builders, and we want to make it easy for them to cooperate and build to the model conservation standards.

If Bonneville had operated a decade ago as it is operating today, the Council would never have come into existence.

Then, to the extent that the Super Good Cents homes are a better value, that ought to be reflected in higher prices and the higher prices ought to be reflected in higher mortgage values. That would enable people on a set amount of income to buy an energy-efficient house. These are people who may be excluded today because of the unwillingness or slowness of lending institutions to recognize the extra value these houses can command on the market.

Now on the fish side, I would like to make the mainstem passage and mechanical bypass a high priority. That's difficult to do because it's going to cost money. Improvements to those dams ultimately get charged back to Bonneville, and Bonneville is having all kinds of financial difficulties right now. Nevertheless, I think that mainstem passage is important, and I'd like to see the Council concentrate on it.

I'd like to be able to do something about the reservoir mortality [of juvenile salmon and steelhead]. I think that's a major, major problem. Maybe there's nothing we can do about it, I don't know. But we have, I think, laid that out as one of the items we want to see some research done on, and I hope we can continue to support and move forward there. The logical steps there too are that we work with the hatchery program to improve the health of the products and to minimize the genetic impact of the hatchery program.

I have read several places where it's been accepted that it's impossible to get [ocean-migrating] fish past the Hells Canyon, Chief Joseph or Grand Coulee dams. Well, that may be true. But I remember that somebody asked Einstein one time how he discovered the theory of relativity, and he responded that he challenged a fundamental precept. I have always, I guess, tried to challenge fundamental precepts, and I have thought that it's important, particularly in government research and development, that we stay out on the cutting edge. Maybe out a little farther on the technology than we expect the private sector to go. We certainly did that with the space program, and it's paid for itself many, many times over.

The story of progress in this country is not great big steps forward, but a lot of little incremental steps. Ultimately somebody builds on failures of a lot of other people and achieves success. Everything that I've bet on hasn't won. But a few of them do. Maybe there's some way we can get fish back over Grand Coulee and Chief Joseph. I don't know that there is, but I would like to take another look at it. ■

Super Good Cents® CELEBRATION

by Jim Nybo

For two years now, Northwest utilities have been promoting the Northwest Power Planning Council's model conservation standards for new electrically heated buildings through the Super Good Cents Program. Super Good Cents is a marketing program to help utilities promote energy-efficient new homes through public education and technical and financial assistance. Recently, the Council joined the Bonneville Power Administration, the region's Super Good Cents utilities and builders who specialize in energy-efficient construction to celebrate their progress and recognize those with top performance this past year. The event was the annual Super Good Cents Awards Banquet.

Council Chairman Bob Duncan, of Oregon, set the tone of the event in his keynote remarks. Speaking to the utility representatives in the room, Duncan noted that people who live in energy-efficient homes are happy customers. "When you insulate their homes," he said, "you insulate them from rate shock." Utilities participating in the program also help stabilize regional electric loads, he added.

Handing out the awards was Master of Ceremonies Syd Berwager, acting deputy conservation manager at Bonneville. The winners came from all around the region.

In the category of the most efficient Super Good Cents home built, the grand prize winner was Don Greene of Greenewood Homes in Ashland, Oregon. The winning home uses a highly efficient heat pump for space heat, super snug windows and an airtight drywall construction method to weather-seal the house. Other winners in this category included Larry Schuldt of Idaho Falls, Idaho, and John Jaeger of Jackson Hole, Wyoming.

That some builders have grabbed on to the Super Good Cents program was evident in the category of builder of the largest number of Super Good Cents homes. The grand prize winner was Ben Brachvogel of Dujardin Development in Everett, Washington. Brachvogel's company built 22 Super Good Cents single-family homes as well as a 38-unit multifamily complex.

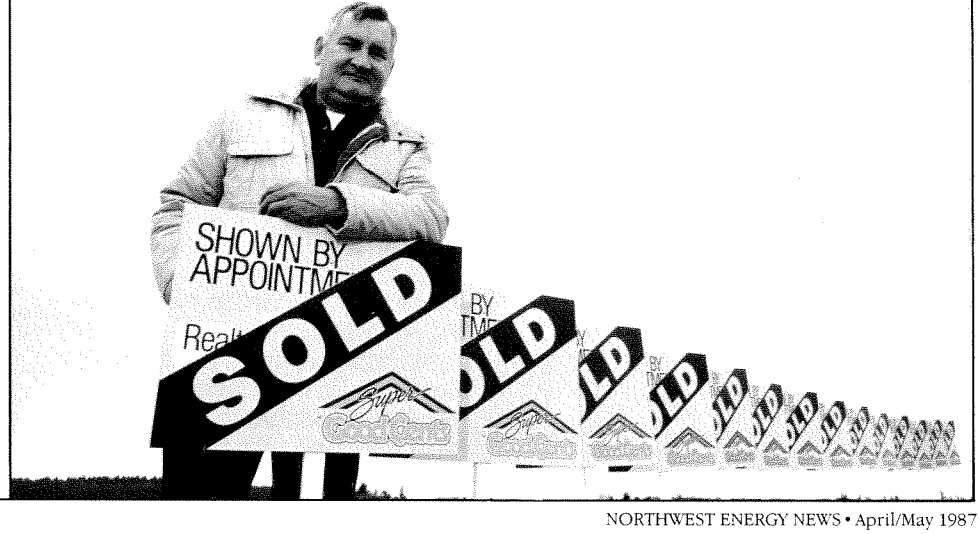
Other winners in this category included Larry Medinger of Medinger Construction Company in Ashland, Oregon. His company is developing an entire Super Good Cents subdivision, which will ultimately include 31 homes. Vernon Peterson from Wenatchee, Washington, who built three Super Good Cents homes, and Mark Olsen of Co-Pro, Inc., in Idaho Falls, Idaho, who builds nothing but Super Good Cents homes, also took awards for the number of Super Good Cents homes they've constructed.

The Super Good Cents marketing program is viewed by many in the housing and utility industries as an alternative to adopting more stringent building codes to achieve the savings of the model standards. Consequently, there is a great deal of regional interest in seeing how effectively utilities can promote energy-efficient construction.

The awards for outstanding utilities in the region tell an important story. These awards are given in different categories based on the number of new housing starts in the utility service area. From small service territories with few housing starts to large territories, the winners were: the Columbia Rural Electric Association in Dayton, Washington, with 83 percent of new electrically heated homes meeting the standards; the City of Ashland, Oregon, with 80 percent; Inland Power and Light in Spokane, Washington, with 36 percent; Eugene Water and Electric Board in Eugene, Oregon, with 16 percent; and the Snohomish County Public Utility District in Everett, Washington, with 11 percent.

The Grays Harbor County Public Utility District was also honored in a special category for having 26 percent of the district's new electrically heated homes built to the model conservation standards in that part of the county not in Bonneville's program for early adoption of the model standards.

By the end of 1986, 79 utilities had signed up for the Super Good Cents Program, over a thousand housing units had been completed or were under construction, and over 3,000 builders had been trained in Super Good Cents construction techniques.



Grand prize winner Ben Brachvogel of Dujardin Development in Everett, Washington, built the largest number of Super Good Cents homes in the region last year.

Bonneville Power Administration Photograph

Calendar

April 22-26—Association of American Geographers Annual Meeting at the Hilton Hotel in Portland, Oregon. The 1987 program will focus on the Pacific Northwest. For more information: Association of American Geographers, 1710 16th Street, N.W., Washington, D.C. 20009, 202-234-1450.

May 13-14—Northwest Power Planning Council meeting at the Wenatchee Convention Center, Wenatchee, Washington.

May 20-22—"IAQ 87: Practical Control of Indoor Air Problems" in Arlington, Virginia. Sponsored by the American Society of Heating, Refrigerating and Air-Conditioning Engineers. For more information: Judy Marshall, ASHRAE, 1791 Tullie Circle N.E., Atlanta, Georgia 30329, 404-636-8400.

June 10-11—Northwest Power Planning Council meeting at the Ashland Hills Inn, Ashland, Oregon.

June 15-19—1987 Cogeneration Congress in Cherry Hill, New Jersey. Sponsored by the Association of Energy Engineers, the New Jersey Department of Energy and Energy Initiatives (a subsidiary of New Jersey Central Power and Light). For more information: Association of Energy Engineers, 4025 Pleasantdale Road, Suite 420, Atlanta, Georgia 30340, 404-447-5083.

June 22-26—International Symposium on Fisheries Acoustics, in Seattle, Washington. Sponsored by the Northwest and Alaska Fisheries Center of the National Marine Fisheries Service. Organized with the cooperation of the International Council for the Exploration of the Sea, and the Food and Agriculture Organization of the United Nations. For more information: Martin O. Nelson, National Marine Fisheries Service, 7600 Sand Point Way, N.E., Building 4, Seattle, Washington 98115-0070, 206-526-4165.

June 23-26—Hydraulic Turbine Testing Workshop/Seminar at the Red Lion Columbia River Inn in Portland, Oregon. Sponsored by the Electric Power Research Institute and the Bonneville Power Administration. For more information: Antonio Ferreira, Electric Power Research Institute, c/o NEPLAN, P.O. Box 2010, West Springfield, Massachusetts 01090.

July 8-9—Northwest Power Planning Council meeting in Idaho. Call the Council office for location.

July 11-16—"Solar '87" the 12th annual national passive solar conference in Portland, Oregon. Sponsored by the American Solar Energy Society and the Solar Energy Society of Canada. For more information: Phil Barrett, Solar Energy Association of Oregon, 2637 S.W. Water Avenue, Portland, Oregon 97201, 503-224-7867.

August 12-13—Northwest Power Planning Council meeting in Kalispell, Montana.

August 19-21—"Waterpower '87" in Portland, Oregon. Sponsored by the American Society of Civil Engineers. For more information: American Society of Civil Engineers, 345 E. 47th Street, New York, New York 10017.

September 9-10—Northwest Power Planning Council meeting in Idaho. Call the Council office for location.

November 2-6—"Fourth International Conference on Artificial Habitats for Fisheries" at the Knight Center/Hyatt Regency Hotel in Miami, Florida. Sponsored by Florida Sea Grant College Program, U.S. National Marine Fisheries Service, American Fisheries Society, Washington State Department of Fisheries and others. For more information: Dr. William Seaman, Florida Sea Grant College Program, Building 803, Room 4, University of Florida, Gainesville, Florida 32611.

Compiled by Ruth L. 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 possible.)

Publications

- ☐ 1987 Columbia River Basin Fish and Wildlife Program (Please do not check if you ordered the Draft Amendment Document. It will be sent to you automatically when available in late spring.)
- ☐ 1986 Northwest Power Plan
- ☐ Proposed Amendment to the 1986 Northwest Power Plan: Model Conservation Standards for General Conservation Programs.

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)

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

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