



Salmon and Hydropower

... Next 3 Articles ...

Last year, on nearly every river mile in the Pacific Northwest, Indians, sportsmen, and the simply curious fished shoulder to shoulder and boat to boat for the first time in decades. They were fishing for record runs of chinook, sockeye, and steelhead. Merchants in Riggins, Astoria, Cle Elum, and other river towns barely kept milk, bread, coffee, and other staples on their shelves. Motels were booked, restaurants brought in extra help, and lines at gas pumps and boat ramps were long. The Salmon Economy, long spoken of by salmon advocates, was no longer a myth.

But as a historic fishing season unfolded, so did a water crisis. Columbia Basin snowpacks were at record lows, and relief in the form of precipitation never arrived. On January 10, 2001, the Columbia River Inter-Tribal Fish Commission (CRITFC) recommended to the Technical Management Team (TMT) that outflows be reduced and that water be conserved in the upper basin reservoirs for spring and summer fish migration.

Bad Decisions

Bonneville Power Administration's (BPA) reduction in funds for conservation from \$172 million in 1995 to just \$32 million

in 2000 compounded the effects of the water crisis (BPA Red Book). Good planners in the Northwest know that drought periodically visits the Columbia River Basin. Nevertheless, BPA, whose imminent shortfalls were masked for two years by unusually high snowmelt, sold power beyond the system's capacity to produce it.

Such mistakes led scrambling federal sys-

tem operators to make a series of sleight-of-hand proposals where power and dollars—rather than federal law—would drive river operations during the emergency. Three incidents in particular contributed to this situation and to the detriment of Columbia and Snake River salmon and steelhead stocks: the so-called power emergency, the abandonment of the spill program, and the Northwest Power Planning Council NWPPC's failure to carry out its plans over the last twenty years.

The Power Emergency

From February 12 through September 30, 2001, the Federal Columbia River Power System (FCRPS) operated under a BPA-declared emergency. The TMT (*see glossary -ed.*) ignored CRITFC recommendations to create water

reserves and instead released upper basin storage for power production. BPA based its declaration on an analysis of its financial health and on the system's ability to meet short-term regional power demands without jeopardizing future reliability. The emergency was actually a cash-flow solution. To reserve water for salmon rather than use it to make power increased the probability that BPA would have low cash reserves after making its annual Treasury payment. This cash-flow problem gained precedence over BPA's

the criterion for deviating from 2000 Biological Opinion spill levels, the multi-million dollar shortfall in uncollected revenues hung like the sword of Damocles over migrating salmon.

Cancellation of the Spill Program

Juvenile salmon have a limited number of routes through the Columbia/Snake system. Simply speaking, the choices are barging/trucking, turbines, screened by-pass systems, or spillways. Nearly thirty years of barging have failed to yield a smolt-to-adult return ratio that would rebuild a population. In their 2000 Biological Opinion, federal agencies pinned their in-river recovery strategy on a spill program after ignoring the overwhelming voice of the scientific community to breach the Snake River dams. Under tremendous pressure from BPA, federal river operators effectively garroted the river on April 3, 2001 through a no-spill declaration, thus removing the aggressiveness from their pledged "aggressive non-breach" program. The 2001 migration became a dirge without music. Absence of spill and flow augmentation in 2001 substantially compromised both in-migrating adults and out-migrating juveniles. The Fish Passage Center reported early on that migrating salmon were suffering "specific and quantifiable deleterious effects." The National Marine Fisheries Service (NMFS) reported only 2.6 percent of juvenile steelhead and 24 percent of juvenile chinook survived the trip through the hydrosystem.

Plans Made... But Not Followed

Congress spoke to the Northwest when it passed the Northwest Power Planning and

The Best of Times and the Worst of Times for Salmon

By Don Sampson

previous commitment to make fish and wildlife mitigation a priority over the Treasury. (*See BPA sidebar -ed.*)

While juvenile salmon were beginning to migrate from natal streams toward the sluggish Columbia River, \$85 million of power generated by the Columbia and sent to California went unpaid. BPA had based its financial analysis on the assumption that this debt would not be paid in the near future, if ever. When BPA's financial reliability became

Conservation Act in 1980. In that landmark legislation, the burden of sacrifice for the region's energy needs was shifted from fish and wildlife onto the citizens of the Northwest. The message was clear: fish and wildlife are not to be dismissed when they became inconvenient or costly. Balance and "equitable treatment" were to be inseparable from system reliability. The Act, in a sense, required river managers to operate a clean shop.

But since the late 1980s, the Columbia/Snake River hydroelectric power system has been over-appropriated, forcing power purchases from outside the system to meet demand. BPA has consistently limited its ability to structure rates to meet its fish recovery responsibilities, has failed to purchase additional power when needed, and has not responded to unforeseen changes in operating costs. Rate shortfalls contributed to BPA's financial concerns, not the least of which is debt it incurred through the financial failure of the Washington Public Power Supply System (WPPSS) nuclear energy project in the 1980s. (For more on WPPSS, see *Steve Weiss's article -ed.*)

When taken to task at a May luncheon of the City Club of Portland, Dick Watson, the Northwest Power Council's Power Division Director, strongly rebutted a claim that the Northwest's energy problems were the result of nonexistent or poor planning. There was no shortage of planning, he asserted, but rather a lack of action taken.

Voices of Reason

Two notable voices emerged from the white noise of the energy crisis: those of Senator Mark O. Hatfield and the Catholic Bishops of the Columbia Basin.

In their landmark Pastoral Letter, the Catholic Bishops

urged that the Columbia Basin be treated as a "sacramental commons," and asked citizens to promote social and ecological responsibility all for the sake of the "common good." Between the lines reads a warning that regional credibility is at stake.

In an address to a regional audience in March, Senator Hatfield acknowledged that the river's transformation from public servant to cash cow paints a bulls-eye on the back of regional preference. (See *Steve Weiss's article -ed.*) His remarks were permeated by the need to restore river management, at least in part, to some semblance of social service.

"Putting the money toward the public good would renew the dams' original purpose as a vehicle for profound social change," said Hatfield. "It's the right thing to do both morally and politically."

Hatfield spent many years in Congress fending off charges that BPA had outlived its mission to serve rural and poor communities by now serving a largely urban and well-to-do clientele. Others have objected to what they view as subsidized power from taxpayer-built projects. Shortly after Hatfield's March remarks, the Northeast-Midwest Institute unleashed a new round of published attacks on BPA. (See *glossary -ed.*)

CRITFC Proposes Conservation Strategy

Salmon originally evolved in a rapidly flowing river that rose with the spring freshet and diminished as summer turned to fall. This natural condition or "normative hydrograph" has been a hallmark of CRITFC river recommendations for several years, and never was it more needed than in 2001. Salmon's best chance hinged on water availability during the April-through-August migration. The CRITFC

2001 River Operations Plan was designed to give some equity back to the salmon while maintaining electric reliability for the Northwest if it were coupled with other operational and financial actions. The federal operators, NMFS and the NWPPC, rejected CRITFC's plan stating that power had to take precedence over salmon protection in 2001.

The treaty tribes also appealed to BPA to resuscitate its dormant conservation program and promote powerful conservation incentives for utilities in the form of future rate reductions. Additionally, CRITFC requested that spill be the priority use of BPA-purchased irrigation water. Neither request was considered. Still, the cost of purchasing the irrigation water reduced BPA reserves, which further entrenched the financial basis for the BPA self-declared emergency.

Governors Kitzhaber and Locke appealed for conservation and the public responded, in the belief that salmon would benefit. After a summer in which salmon repeatedly paid the price to keep BPA solvent, one distressed letter to *The Oregonian* summed up the feelings of many:

"The Bonneville Power Administration seems to believe that communities, cultures and individuals that care about and depend on salmon can be ignored, and salmon restoration plans can be put on hold. Where is the balanced approach? It's about the salmon, stupid. I can adapt by lessening my demand on electricity. I'm not stupid." (Excerpted from K. Michael Clark's letter to *The Oregonian*—July 9, 2001)

Frustrations such as these are the result of a problem that has been years in the making. Salmon advocates have not forgot-

ten the bureaucratic delay in 1999 or the election-year stonewalling in 2000 that victimized salmon restoration. Indeed, the decisions made thus far in 2001 threaten not only this year's migrating juvenile and adult salmon, but an overall investment of over \$3 billion in Columbia Basin salmon recovery since 1980. Short-term decisions to reduce spill and flow are squandering incremental gains made in the last two decades.

Tribal Energy Vision

The 2001 energy "crisis" has now subsided, with evidence mounting that it may have been more a fabrication of power marketers rather than an act of nature. California now has surplus power, reservoirs have refilled on schedule, market prices have dropped, and substantial new generation is scheduled to come on line in the next three years. The Council has projected an additional 4,350 megawatts of new generation by the end of 2002, which will reduce the likelihood of emergency operations by spring of 2002.

But the potential for crisis in the long term remains as western regional energy demand continues to increase. Future energy loads must be met wisely and



economically in a way that benefits salmon. Reducing the region's dependence on the Columbia River hydrosystem is critical if we are ever to take energy policy off the backs of the salmon.

Salmon and Hydropower

... continued ...

The CRITFC Tribal Energy Vision for the Columbia River identifies the elements of a comprehensive energy plan. It is designed to lower the long-term cost of delivered power, reduce the risks of higher future energy costs, improve fish passage and productivity by promoting conservation and alternative sources, and improve siting of new generation.

Until this vision is realized, the Columbia Basin's salmon crisis is far from over. Development and operation of the Columbia River system primarily for power, irrigation, navigation, and municipal and industrial use over the last several centuries has reduced salmon and other migratory species like Pacific lamprey to the brink of extinction. At the same time, we estimate that BPA's new wholesale rates are too low and will require an additional \$400 million per year to fund salmon recovery measures identified in the Biological Opinion and tribal recovery plans. Expensive? Yes. But the price of salmon recovery will never get cheaper.

A few weeks after publicly playing salmon recovery against rate increases, BPA Administrator Steve Wright told the region that the threats to long-term reliability and service of the federal hydropower system are linked to

salmon restoration success. The irony of Wright's statement could not be more obvious in a year that Federal Agencies made the Columbia more deadly to Salmon than ever before.

By any measure, Northwesterners treasure their salmon heritage. The Columbia River treaty tribes are determined not to let 2001 go down as the year that the Northwest Power Act died. CRITFC is committed to strengthening the links between analysts, planners, operators, and scientists. Our vision begins with the premise that we are all Salmon People.



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The Fallacy of Fish vs. Power

By Scott Corwin

New science and new attitudes are pushing the Northwest toward a comprehensive approach to the salmon recovery challenge.

When looking toward Oregon's future, many wonder how we can resolve the conflict between fish and power in the Columbia River Basin. Posing the problem as a dichotomy creates a convenient platform for headline writers and fundraisers who frame issues in the regional battles surrounding salmon recovery. But is this a useful way to approach the subject? Does it address the fundamental issues that the region must tackle to restore salmon and steelhead?

The notion that a battle rages between fish and power received a large boost last summer when policymakers made the difficult decision to modify the spill program that is intended to aid downstream migration of salmon and steelhead. Even though reducing spill averted an energy shortage that could have threatened human safety this winter, the decision led to assertions that the Bonneville Power Administration (BPA) and other federal managers needlessly sacrificed fish in favor of the region's need for power. The context

behind their decision paints a very different picture.

The Summer Crisis

Apart from any action taken by hydrosystem managers, the second-worst drought recorded in Columbia Basin history dramatically increased the mortality of fish last summer. A volatile power supply in the West, unprecedented energy prices prompted by the crisis in California, and a longer-than-expected shutdown of the Northwest's only nuclear plant added to the human component of this natural calamity.

In the midst of the crisis, the BPA announced a wholesale power rate increase of 46 percent, and entreated its customers to engage in widespread conservation efforts. In rural areas, where farmers use electricity to pump irrigation water and refrigerate produce, the price increase had an especially demoralizing effect.

During the power emergency, federal executives made the prudent decision to keep more water in the reservoirs in order to create important flexibili-

ty and power reliability to help us run our hospitals, traffic lights, heaters, and computers this winter. They also negotiated load reductions to preserve water for a smaller spill program for Snake River Chinook, the only Endangered Species Act-listed species that migrates downstream in the summer.

When deciding how to manage the fish crisis, river managers relied on a National Marine Fisheries Service (NMFS) study which estimated that adhering to an unmodified spill program would increase Snake River Chinook's survival rate by only 0.02 percent.¹ Another report, by the Northwest Power Planning Council, indicated that only 2 of these fish out of 1000 might be helped.² River managers' caution was not a decision against fish but a decision made in favor of human health and security.

What Do We Mean by "Power Interest"?

The notion that a monolithic "power interest" aligns a segment of the Northwest community against fish is misguided. Just as every Northwesterner has an interest in the restoration of healthy runs of salmon and steelhead, each also has a stake in the hydropower system. Hydropower accounts for 70 percent of the electricity capacity in the Northwest, and almost every citizen of the Northwest benefits from this power (http://www.bpa.gov/Corporate/KCC/ff/bpa_facts/). We have received clean and cheap power for so long that we take it for granted. Power from this system keeps 28.3 metric tons of carbon dioxide out of the air each year, the equivalent of taking 5.7 million cars off the road.³

In addition, the hydroelectric system makes possible many criti-

cal uses of the Columbia/Snake River, including navigation and irrigated agriculture. The system also supports recreation and controls flooding. Thousands of jobs have grown up around the river system and the industries these uses have created. For example, 43 percent of all U.S. exports of wheat are shipped on the Columbia River.⁴

Twenty-one years ago, at another time of great concern about power supply in our region, legislators challenged the fallacy of a fish vs. power dichotomy. The Pacific Northwest Electric Power Planning and Conservation Act of 1980 (PL 96-501, "the Act") clearly stated that fish and power be considered together and in a consistent manner. Section 4(h)(5) declares, "The program shall consist of measures to protect, mitigate, and enhance fish and wildlife affected by the development, operation, and management of such facilities while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply."

One of the authors of the fish and wildlife provisions of the Act, Representative John Dingell (D-MI), expressed this need to commingle power and fish con-

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cerns. Quoting the House Commerce Committee Report, he described the Committee's intent for the new fish and wildlife program by stating, "The recommendations are clearly required to include, as appropriate, a broad range of measures which could, for example, be regulatory or management-type, to 'protect, mitigate, and enhance' fish and wildlife and their spawning grounds and habitat. The objective is to give flexibility to all concerned to devise effective and imaginative measures that are also reasonable and will not result in unreasonable power shortages or loss of power revenues."⁵

Developing Solutions

Our interest in fish can co-exist with our need for hydropower if our leaders improve the fish and wildlife policy apparatus in the Northwest. The following suggestions highlight improvements needed to not only address short-term emergencies, but also implement a long-term comprehensive solution.

Clarify goals. NMFS and the state and tribal fisheries man-

agers need to adopt unambiguous policies for their agencies, and to unify behind consistent goals that will restore Columbia Basin Stocks to levels that will ensure survival. They could start by agreeing on a clear policy for hatchery production and harvest practices. This issue recently came to the forefront when a federal court ruled that NMFS could not exclude hatchery salmon from the protections given to endangered "naturally spawning" coastal coho salmon.⁶

Improve research, monitoring and evaluation. Unclear or conflicting sets of data and models impede the development of effective salmon policy. Enhancements in scientific research, monitoring, and evaluation of salmon and steelhead, both in a drought emergency and during the course of normal business, should help solve this problem.

Clarify protocols. BPA and other federal agencies admirably plowed new ground this summer and quickly pulled together emergency criteria for river operations. Now the federal, state, and tribal agencies need to work together to clarify how they will protect human safety and protect fish as much as possible during future droughts.

Set priorities for water management. Policymakers in the region often react to the most immediate issue without considering the enduring effects of their actions. Water used now will not be in the reservoirs for the needs of fish later in the year. Clearly defining priorities ahead of time will enable federal, state, and tribal agencies to use water efficiently for the greatest biological benefit to salmonids.

Consider cost effectiveness. Those drafting the plans to implement the Biological Opinion

Salmon and Hydropower

... continued ...

and other salmon recovery directives need to pursue policies that are cost-effective. Even in a thriving economy there will not be unlimited funding available for these efforts. Electricity ratepayers have invested over \$4 billion toward the effort to preserve fish and wildlife. Customers who are footing the bill need to hold the resource managers accountable for results.

Address management conflicts. Policymakers must address the conflicts of law that have plagued fish recovery efforts, such as protections for predators that devastate salmon stocks. Interpretations of the Endangered Species Act, the Migratory Bird Treaty Act, and the Marine Mammal Protection Act, among others, must be coordinated with the ultimate goals of recovery.

Develop a comprehensive approach. None of the above suggestions will succeed unless the region unites to address the many factors besides hydropower that determine fish mortality. The early development of commercial fishing, mining, agriculture, and grazing, and the introduction of non-native fish species, each significantly reduced populations of salmonids in the Northwest.⁷

The three million salmon and steelhead (the largest number since at least 1938) that returned to the Columbia this year indicate that ocean conditions play a significant role in fish survival.⁸

Every viable salmon recovery strategy in recent years refers to a comprehensive "All-H" focus to address the causes of salmon mortality.

All-H refers to habitat, harvest, hatcheries, and hydropower. The concept is based on the realization that fish survival depends on many factors both inside and outside the hydropower corridor. Studies that support the All-H concept show markedly improved fish survival in the hydropower system in recent years, and emphasize efforts to restore the tributaries and estuaries where populations spawn and rear. Restoring the health of these areas promises the greatest gains in fish survival (See <http://www.salmonrecovery.gov/archive.shtml>). The Four Northwest States Governors' Plan, the Northwest Power Planning Council's 2000 Fish and Wildlife Program, the NMFS 2000 Federal Columbia River Power System Biological Opinion, and the Basin wide Recovery Strategy (All-H Paper) all embrace this direction (See Governor's plan at <http://www.governor.wa.gov/esa/srn/recommend.pdf>, Council plan at <http://www.nwcouncil.org/library/2000/2000-19/Default.htm>, and both federal plans at <http://www.salmonrecovery.gov/archive.shtml>). These documents form a strong body of work and underscore the obsolescence of the fish vs. power argument.

Conclusion

Clearly, Northwest residents want to utilize the hydropower system and preserve the great natural resources of the region. Both are possible if we support a farsighted scientific approach to salmonid restoration that is balanced with the safety of the Northwest's population in mind. The needs of fish and the needs of the hydropower system are not unavoidably incompatible. It is time to let go of the fallacy of fish vs. power.

Footnotes:

1. NMFS Paper, Expected Effects of 2001 Water Conditions and Alternative Summer Spill Operations on Juvenile Fish Survival Through the FCRPS, June 13, 2001
2. NWPPC, Issue Paper: Analysis of 2001 Federal Columbia River Power System Operations on Fish Survival, March 28, 2001
3. Pacific Northwest Waterways Association White Paper, Columbia-Snake River Issues, April 7, 2000, p.3
4. Ibid., p.5
5. Congressional Record, H10683, November 17, 1980
6. Alsea Valley Alliance et al. v. Evans et al., 99-6265-HO, Oregon, September 10, 2001
7. Jim Lichatowich, Salmon Without Rivers, 1999, Chapter 4; and Ernest Brannon, Paper to PSU Symposium July 2000, *The Salmon Crisis: A Lesson in Semantics*, p. 60
8. Columbia Basin Bulletin, 9/14/01, 2. *Columbia River Runs Approach 63-Year-Old Record*



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The Parity Paradox

By Eric Bloch, Oregon Member and Vice-Chair, Northwest Power Planning Council

21 years after the Northwest Power Act, the balance Congress sought between salmon and hydropower remains elusive.

Billy Frank's light bulb illuminates a vexing issue for the Pacific Northwest—can we have salmon and inexpensive hydropower too?

This dilemma has been with us as long as dams have blocked rivers, and over the years we have struggled mightily both to confront and avoid it. Facing up to this question has been our region's legal mandate since at least 1980, when Congress passed the Northwest Power Act.¹ That statute authorized the states of Oregon, Idaho, Montana, and Washington to form the Northwest Power Planning Council. It instructs the Council to prepare a program to protect the fish and wildlife of the Columbia River Basin that have been affected by hydropower dams and to ensure the region an adequate, efficient, economical, and reliable power supply as well.² The Act also addresses the federal agencies that operate or regulate both the publicly owned and privately owned dams and reservoirs of the basin—particularly the Bonneville Power Administration (BPA), the US Army Corps of Engineers, the Bureau of Reclamation, and the Federal Energy Regulatory Commission—commanding them to provide “equitable treatment” for fish and wildlife with the other purposes of the hydropower system. In other words, the Act implies that the value of fish and

wildlife is equal to the more widely recognized uses of the hydropower system, such as electricity generation, transportation, and flood control.

This new law directly addressed the difficult balance between salmon and dams in two important respects. First, the Act itself explicitly acknowledged that the system of dams and reservoirs in the Columbia Basin

had, indeed, greatly diminished the fish and wildlife resources of the area. Second, and perhaps more importantly, passage of the Act acknowledged that equitable treatment of fish and wildlife had not been considered in past dam management, and that this equity was important enough—and unlikely enough to occur on its own—to warrant federal legislation. The very first protection program that the Council prepared in

1982 acknowledged that a “new day” had arrived for fish and wildlife:

The overriding principle of the Act is clear—that hereafter fish and wildlife interests and power interests shall cooperate as partners in the development, operation and management of the Columbia River hydroelectric system for the benefit of all citizens of the Northwest.³

While it seems clear that Congress envisioned that the Council would elevate fish and wildlife interests to a point of

equity with a reliable regional power supply and other dam and reservoir purposes, the law provides no clear guidance for achieving the desired balance, nor even a definition of the statute's desired end states. In legal terms, how will we know when we have protected fish and wildlife as the Act intended? How, too, will we know when we have achieved an “adequate, efficient, economic and reliable power supply?” Moreover, even

if the Council could determine the desired balance, it would still need to persuade several federal agencies to operate the dams accordingly. Much like a traveler with a vague notion that he'd like to spend the winter in a warmer climate, but lacking a roadmap or even a specific destination, the Council has spent the past 21 years on mostly exploratory missions, sometimes seriously thinking it had found the “end states” commanded by the Act, only to find—through court ruling, scientific review or political power shifts—that it was mistaken.

More Flow, Less Power

The Council's first attempt at “equity” came in its 1982 Fish and Wildlife Program (the Program). This first Program responded to recommendations from fish and wildlife agencies and Indian tribes by creating the concept of an annual “water budget” to increase flows in the mainstem Snake and Columbia Rivers when juvenile salmon and steelhead are migrating to the ocean. The water budget is a block of water that was to be reserved behind upriver storage dams each winter for release in the two months between April 15th and June 15th, when most of the juvenile fish migrate. The Council requested that federal power system managers include the water budget (originally 4.64 million acre feet: 3.45 in the Columbia measured at Priest Rapids Dam, and 1.19 in the Snake measured at Lower Granite Dam) as an operational requirement, assuming that some of the water would be used to make electricity and some would be spilled to ease salmon migration, resulting in an average annual hydropower loss of 550 megawatts of guaranteed, or firm, power.

“They talk about cheap electricity. Hydropower. It's not cheap. It's all been paid for by the salmon. When these lights come on, a salmon comes flying out.”

— Billy Frank Jr.,
1991 Nisqually
Tribal Member
Chairman, Northwest
Indian Fisheries
Commission



Salmon and Hydropower

... continued ...

The Council reiterated its commitment to the water budget in its 1984 and 1987 revisions of the Program by including a proposed schedule of firm power flows for the April 15 to June 15 period to provide a base from which to measure the water budget. In 1991 and 1992, with data showing a continuing decline in wild salmon and steelhead stocks, the Council supplemented the water budget with additional measures intended to increase salmon and steelhead survival in the mainstem.

Concern arose over whether even the original 4.64 million acre-feet were ever provided, because the water accounting system envisioned by the Council—the system of base flows—was never developed. In addition, the water budget flows were unpopular with fish and wildlife agencies and Indian tribes, who contended that the water budget focused on spring-migrating fish at the expense of summer migrants, and that the amount of water was not enough to make a significant difference in fish travel time. The controversy over the Council's water budget approach appeared justified when Columbia River Salmon stocks began to be listed under the Endangered Species Act.

Fewer Salmon, More Lawsuits

In 1993, 11 years after the Council issued its first Program, salmon runs continued to decline—particularly those in the Snake River, where four stocks (a species within a specific geographic area) had been listed for protection under the Endangered Species Act (ESA).

Fish and wildlife agencies, Indian tribes, and salmon advocacy groups were growing increasingly frustrated with the Council and its failure to protect salmon. Environmental groups sued the Council, arguing that it had failed to achieve the equitable treatment for fish and wildlife that the Act intended.

Also in 1993, the National Marine Fisheries Service (NMFS), acting pursuant to its authority under the ESA, issued its Biological Opinion on the Operation of the Federal Columbia River Power System (FCRPS)—the 29 federal dams and reservoirs on the Columbia and Snake River. That Biological Opinion concluded that normal hydro-system operations did not jeopardize the endangered Snake River salmon. In response, many of the same groups that had sued the Council also sued NMFS, challenging its Biological Opinion.

Both the Council and NMFS lost in court. The U.S. Ninth Circuit Court of Appeals rejected the Council's Program because it did not defer to the views of fishery managers when it was amended, as required by the Power Act. The Court noted that the Program adopted river flow measures favored by dam operators despite overwhelming consensus among [fishery] agencies and tribes that significantly higher

flows and more scientifically based biological objectives were needed. The U.S. District Court in Oregon rejected NMFS's biological opinion because it "too heavily geared toward a status quo that has allowed all forms of river activity to proceed in a deficit situation," resulting in "relatively small steps, minor improvements and adjustments—when the situation literally cries out for a major overhaul."

Following these rulings, the Council revised its Fish and Wildlife Program and reissued it in December 1994. In this revision, the Council called for periodic reservoir draw downs on the Snake River—long advocated by most of the fish and wildlife agencies and the tribes—intended to increase river velocity and speed migrating fish to the mouth of the Columbia. The Council also commented in its Program, however, that "for the near term, it is not clear when and how mainstem fish and wildlife objectives can be achieved along with the other authorized purposes of the hydropower system."

This revised Program, arguably the Council's (and the region's) most meaningful effort to achieve equity for fish and wildlife, was rejected. The federal dam operators chose, instead, to implement the new NMFS Biological Opinion issued in the wake of the district court's decision which did not include a draw-down plan. Ironically, the Council's program for mainstem draw-down was created under the Power Act, which was considered by environmental advocates to be weaker than the Endangered Species Act. In this case, however it would have delivered a more aggressive salmon recovery plan than the ESA-based Biological Opinion.

Where Do We Go from Here?

Equity has been difficult to achieve because, as already noted, the Council was provided little guidance or definition, and it has never stopped to consider what equity for fish and power in the Columbia Basin truly means. To move forward, the Council must recognize that equity is both our destination and our roadmap.

Equity as a Destination

Identifying—and then reaching—our destination begins by adopting a new view of the hydropower system, one that does not accept it as either immutable or the predominant power supply of the future. That may sound heretical in a region with a rich history of hydropower largess, but the truth is that dams are machines, and machines become antiquated, both mechanically and conceptually. The federal dams have more than fulfilled their original purpose of electrifying the rural West at a low cost. We have accepted them as the region's primary power supply for many decades—it is now time to rethink that dominance.

The Northwest Power Act provides such an opportunity to the Council, insofar as it is required to ensure the region an adequate, efficient, economical and reliable power supply. The Act, however, does not say hydropower supply. Clearly, Congress saw hydropower as one part of the region's mix of generating resources; it also made energy conservation a key resource to meet future demand for power. We have the opportunity, then, to think broadly about our future power supply, with special focus on adding resources that can reduce our dependence on hydropower. This is not a new

idea. The Council's power planning has promoted a broad mix of resources since its inception, but the matter is more critical today. It has become quite clear that our over-reliance on the Federal Columbia River Power System has made it all but impossible to have a power supply that meets our current and future demand for electricity while simultaneously protecting river-dependent fish and wildlife.

Equity as a Roadmap

Only when we know our destination can we move forward productively on the difficult path to reach it. In the decisions we make every day that affect fish, wildlife, and power—and they are many—no one interest can be presumed sacrosanct. Risks and benefits must be fairly allocated during good times and in times of crisis. Such guidance was woefully absent in the decisions made this summer to address the drought conditions on the Columbia River. Because of our absolute dependence on the Federal Columbia River Power System, last spring and summer we were forced to choose between reserving water to generate electricity this winter and helping ensure the survival of juvenile salmon and steelhead migrating to the ocean. Everyone involved clearly understood that reducing spill would kill more fish at the dams—yet that is exactly what we did because saving water for power was deemed more important than releasing it for fish. In short, the fish absorbed the brunt of the crisis, while power interests and even the financial health of the BPA were largely protected.

The drought forced us to make this choice because it reduced hydropower generation

capability by about 4,000 megawatts in the region—enough power to supply four Portlands and the City of Eugene. Drought or no drought, we should strive to never again find ourselves in this position.

We can start down this road with the Council's planning process. Its 2000 Fish and Wildlife Program articulates a strategy for the Federal Columbia River Power System that focuses on providing conditions that "most closely approximate the natural physical and biological conditions" and "assure that flow and spill operations are optimized to produce the greatest biological benefits with the least adverse effects..." In 2001, the Council is further amending its Program with a plan for mainstem river and dam operations. The mainstem plan gives the Council the opportunity to recommend operations that emphasize a more natural hydrograph (the conditions, boundaries, flow, and related characteristics of surface waters)—even if that means drawing less electricity from the dams. What the dams do not produce in power can be restored in other ways, including out-of-region purchases, conservation, renewables, and natural gas-fired power plants. More broadly, the mainstem plan provides a venue in which to rethink the roadmap to a truly equitable and balanced power system for the long term.

Moving Beyond the Impasse

Achieving equity between salmon and power is, understandably, a difficult thing. The scale has been weighted heavily in favor of power—not necessarily because society favors dams over fish, but because we have not sufficiently diversified our power supply and, therefore, feel we

have no other choice. Moving beyond this historical imbalance will take time. The vision of the Power Act—of a Northwest that enjoys affordable, reliable electricity and abundant fish and wildlife—is an achievable, if somewhat undefined, end state, but undoubtedly one we must work towards. Every journey begins with a first step, and neither we nor the salmon can afford to delay any longer. The glow from Billy Frank's light—and the salmon that die for it—remind us that our work is not yet done.



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Footnotes:

1. Pacific Northwest Electric Power Planning and Conservation Act, Public Law 96-501 (The Northwest Power Act, hereafter the Act), 16 USC 839
2. 16 USC 839b(h)(5)
3. Columbia River Basin Fish and Wildlife Program, Nov. 15, 1982, Page 1-1