



Policy Perspective

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Spending More Money Cannot Protect Endangered Salmon

Are we getting what we pay for?

A revealing look at the economics of saving the salmon

By Lon L. Peters

In 1980 Congress gave the Northwest Power Planning Council economic as well as environmental responsibilities. The Council must plan resources to meet part of the region's future demand for electrical energy, as well as put together a program to enhance fish populations in the Columbia River Basin. Because the Columbia and Snake Rivers support both fish and hydroelectric power, actions that can help the fish have a variety of economic impacts, both raising the cost of energy and increasing the need for new energy resources; the two responsibilities created an obvious tension.

Many have long suspected that the Council has resolved this tension by avoiding hard economic choices, but now our suspicions are confirmed: environmental goals will be pursued notwithstanding their economic impacts, even when economics can help make environmentally sound decisions. The Council's recent actions on a new salmon recovery program leave the impression that we can solve this important ecological problem by simply throwing more money at it.

These decisions ignore two fundamental questions.

First, given that the region has collectively spent about \$1 billion over the last ten years taking actions prescribed by the Council to help the fish, why do we now face petitions under the Endangered Species Act that could disrupt important sectors of the Northwest economy?

Second, given that the Council's programs have not in fact worked, what is the best way to tackle the problem we now face?

The answer to the first question is that the Council has adopted a business-as-usual attitude since the beginning, aiming at higher quantities of fish without considering the complex, biological impacts of that goal. Wild salmon populations in the Northwest in fact declined due to several factors, including excessive harvest, hydroelectric dams, water pollution, grazing, clear-cutting, road-building and other human activities, even deliberate actions by state agencies in Idaho to poison spawning grounds and introduce species that prey on sockeye.

To replace these lost wild fish, Congress and the states directed that money be spent on "artificial" fish, spawned in hatcheries to be caught in the rivers and oceans. Since the 1930's, the hatchery fish have themselves spawned several potent political forces: fish harvesters (regulated businesses), harvest managers (state and federal agencies), and hatchery operators (mostly state and federal agencies).

The Council long ago chose not to challenge these political forces, instead directing since

1980 hundreds of millions of additional dollars that should be spent creating more hatchery fish and flushing them down the river, to be caught and sold for \$5.98 a pound at the supermarket. Unfortunately, hatchery fish can spread diseases and compete for food with naturally-spawning or wild populations. In addition, imperfect regulation of the harvest has allowed too many wild fish to be swept up in nets that cannot distinguish them from the hatchery model.

By aiming at simply increasing fish populations instead of solving an environmental problem, the Council ensured long ago that we would find ourselves facing new disruption and greater

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expense. The new petitions under the Endangered Species Act are directed toward protecting the wild stocks that are threatened not only by dams, logging, and other actions, but by the very fish created to replace them.

The second question asks what we should do in the future to avoid repeating the mistakes of the past. The answer here lies in the application of the principles of “least-cost planning,” which the Council has used extensively in power planning but has refused to seriously consider in “fish planning”. Least-cost planning, as exercised by electric and gas utilities across the country, involves establishing a goal (such as meeting a certain forecast of electricity demand) and then finding the least cost combination of means to achieve that goal. In fact, least-cost planning for fish is required by law, but the Council has for ten years taken the attitude that economic costs can be ignored when making environmental decisions.

Least-cost planning for fish would entail the following basic steps. First, a biological goal or set of goals must be established. This would involve difficult choices, because the Council’s Fish and Wildlife Program has emphasized increasing numbers of fish, whereas the purpose of the Endangered Species Act is conservation of the species, implying genetic diversity but perhaps smaller absolute numbers of fish. In fact, implementing the Council’s “quantity” goals probably conflicts with the “quality” goals of the Act, because the hatchery fish interfere with the survival of their wild cousins.

Second, all alternative means of achieving the biological goals must be assembled and their biological benefits and economic costs tabulated. In some cases that information is currently available, but many proposals have been accompanied by steadfast refusals to recognize the costs or to even estimate the benefits to the fish. In this step we would recognize uncertainty: we know that some actions will help the fish, but we are much less certain about others. It seems obviously foolish to spend vast sums on actions with highly uncertain results, especially when less money can achieve the same goals more reliably.

Third, we must pick a combination of actions to help the fish that is “least-cost.” In effect, all proposals would end up competing for a limited amount of funds, which is a standard budgeting exercise, at least in the business community. Least-cost planning for fish, of course, would require hard choices that involve both economic costs and biological benefits. It would also mean living within a budget, instead of just continuing to increase spending

even as we find out that tens and probably hundreds of millions of dollars have been wasted pursuing the Council’s goals. The Council has been allowed to avoid these hard choices for ten years, because no one has held it accountable for the costs and benefits of its decisions, and because no limits have been set on spending. The result has been both economically irrational and biologically unsound.

The impacts of decisions in the Council’s first decade were masked by the substantial regional surplus of electrical energy in the 1980’s. Dedicating the equivalent of about one-half of the Trojan nuclear plant in water from the region’s power system to assist fish migration did not by itself threaten huge rate increases or blackouts. As rates were increasing rapidly anyway as we absorbed the costs of an ill-fated nuclear power development program, there was no political backlash against the costs of the Council’s fish protection measures. Now, however, the Council’s newest

decisions would take away an amount of hydropower equal to the other half of Trojan, at a time when the surplus is gone and we are facing the need for expensive new energy resources. When consumers ask why their electrical bills are increasing, we will have to answer honestly, and explain that the Council has decided to double or triple our annual investment in salmon so that they can continue to find it on the dinner table.

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We already spend \$150-200 million per year to protect the region’s salmon. In contrast, the total value of harvested salmon at the dock may be only \$15 million per year. Have we decided as a society that commercial fishing is so essential to the Northwest way of life that we should take hundreds of millions of dollars annually from some residents to support an industry that the market says is worth tens of millions of dollars? Or have we decided that simply knowing that the fish are out there in the Columbia is worth billions of dollars over time? Is it wise to just throw more money at programs that use scarce water resources to flush diseased fish down our rivers? Or does it make more sense to close down the hatcheries until we figure out how to reform them, and temporarily require commercial harvesters to switch to sport fishing until the stocks are rebuilt? If we only had to think about saving the fish at the lowest possible cost to society, it would be simple. Unfortunately, politics will surely get in the way; neither the fish nor those footing the bill will be better off.

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