

The Guilty Environmentalist

Sim Salmon 2000

The Pacific Northwest spends millions of dollars—no, make that hundreds of millions of dollars—each year to protect and preserve fish. Not just any old fish, but the Almighty Salmon: Sockeye, steelhead and chinook, among other species, have been listed by the federal government as threatened or endangered.

The Endangered Species Act requires extensive mitigation efforts to eliminate any and all threats to the survival of a listed species. Since under law this is an ultimate priority that cannot be balanced by economics, property rights or common sense, the fish-saving effort comes directly at the expense of the Pacific Northwest's major export commodity (besides Microsoft-ware)—hydroelectricity.

Utilities and the Bonneville Power Administration in particular have been designated the deep pockets for funding all sorts of mitigation schemes to support fish runs and to increase numbers of salmon returning from the sea.

Money is spent for scientific studies. Money is spent for hatcheries to produce salmon clones. Money is spent on scooping young fishies out of the water, putting them in trucks and driving them down the road to avoid dams. Money is spent on fish ladders to make it easier for old salmon to make it upstream and on "fish-friendly" turbines that don't puree the young smolts on their way down.

Money is lost on changing hydrogeneration patterns to accommodate the fish reproduction cycle.

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Even more money might soon be lost on dismantling existing dams.

I have a better idea. Give the money to me.

I'll use it to develop a new solution to the Northwest fish problem—one that will give everybody what they really want: Direct control over the river system.

I call my plan Sim Salmon 2000. It's a computer game, modeled on the popular Sim City™ series produced by Electronic Arts. After I've spent just a small portion of my fee (\$10 million) on installing the latest in network hardware and system servers to accommodate on-line multi-player interactions, and on other necessary toys, I will be able to distribute the "Sim Salmon Survival Kit" in the form of CD-ROM to every interested party in the Pacific Northwest.

The "game board" is a simulation of the Pacific Northwest river system. Each player is given charge over a particular species or subspecies (dozens to choose from) with its own cycle and route through the system. Initial allocations of smolts (ranging from 200,000 to 1 million in size) are released in a gigantic flush into the river system. The object is to get as many fish as possible to reach the ocean, survive and return for spawning. Success is calculated by the return ratio. Fall below 2 percent returns and your species is non-viable; fail to improve and you are extinct.

Sound simple? There are complications.

In this game, each player is also the owner and operator of hydroelectric facilities along the river route. The power plants kill fish that pass through (based on a National Marine Fisheries depletion

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model found in Appendix A of the most recent Biological Opinion), but they also generate money that the players use to conduct and install mitigations. Simply reducing power operations guarantees that the funding will dry up and more fish will die. Players show their skill in devising and agreeing on mitigations with other players to maximize fish returns while minimizing impacts on generation.

A bonus feature is the "Power Plant Paint Box" that lets players design their generation units in more aesthetically pleasing colors and shapes. If enough money is created through hydro generation, players can also replace dams with non-river impacting technologies, such as wind turbines and solar panels.

Even the basic Sim Salmon game has enough electronic complications to keep players enthralled for hours, days and months at a time. Aside from dams, a variety of threatening scenarios are randomly generated by the game, and players must react:

Fluctuating river levels caused by variable rainfalls and snow melts directly impact both the ability to flush fish downstream in spring and power generation.

Poisonous irrigation water spills into tributaries to eat away the fish populations passing by.

Hydro relicensing greatly increases costs to players and can force abandonment of facilities.

Urban and industrial developments spring up on the banks, diverting water, filling in estuaries and otherwise altering the set river patterns in adverse ways.

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A roving band of sea lions sets up shop at the mouth of major rivers, gobbling down fish as they try to reach the ocean (similar to PacMan).

Japanese fishing boats trawl the off-shore waters with large nets, able to capture as much as 30 percent of a school in one swoop.

More disastrous scenarios include a radioactive spill from a nuclear preserve on the banks of the Columbia that destroys the river system, or a global warming of ocean waters threatens all life in the sea with extinction. Such hazards are categorized as "game killers" ending the play and life as we know it.

The only condition is that players must agree to devote all their time and attention to the Sim Salmon game. No further litigation, regulatory maneuverings or political lobbying. The real-world fish and utility system continues without interference as the "control case" against which game outcomes are measured.

In the end, everybody wins.

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