



American Rivers

Thriving By Nature

America's Most Endangered Rivers of 2009

#3 Lower Snake River

Washington, Oregon, and Idaho

Threat: Four Dams

SUMMARY

Four dams on the lower Snake River have caused dramatic declines in the Snake River basin's once magnificent salmon runs and have stymied efforts to restore these fish. Removing the four dams and restoring a free-flowing lower Snake River will not only revive the salmon runs and a multi-million dollar fishery, it will eliminate a growing flood threat in Lewiston, Idaho and create an opportunity to modernize the region's transportation and energy systems. The Obama Administration and the Northwest congressional delegation must convene negotiations to forge a river restoration plan that will work for communities and salmon in light of the threats posed by dams and global warming.

THE RIVER

The Snake River originates in Wyoming and arcs across southern Idaho before turning north along the Idaho-Oregon border. The river then enters Washington and flows west to the Columbia River. It is the Columbia's largest tributary and the Snake River basin once produced about half of all spring chinook salmon returning to Columbia basin rivers. More than two million wild salmon and steelhead once returned to spawn in the Snake and its tributaries each year. Upstream of the four dams on the lower Snake, the river contains the most extensive freshwater salmon habitat in the lower 48. This includes the highest elevation salmon habitat in the world, and some of the most resistant to the effects of global warming.

The Snake River supports a vibrant recreation industry on its tributaries and Hells Canyon. A rare salmon fishing season in 2001 generated \$90 million in Idaho, an amount that would more than double if wild salmon and steelhead are restored to the population levels of the 1950s. The river is an important source of irrigation water for potatoes, sugar beets, and other crops.

THE THREAT

Four U.S. Army Corps of Engineers dams and 140 miles of slackwater reservoirs prevent salmon from migrating to and from the high-elevation spawning and rearing habitat in central Idaho, northeast Oregon, and southwest Washington. Lower Granite, Little Goose, Lower Monumental, and Ice Harbor dams create a hostile gauntlet of deadly turbines and warm, stagnant reservoirs full of hungry predators that have caused dramatic declines in the Snake River's salmon runs.

The system of dams and reservoirs kills 50 to 80 percent of juvenile salmon and steelhead as the fish make their way downstream to the ocean. Today, all of the river's salmon runs are either extinct or threatened with extinction.

Global warming is already affecting runoff patterns in the Columbia basin, causing mountain snow to melt earlier in the spring, which leads to lower summertime flows and higher summer water temperatures. If the dams remain in place, global warming could push the Snake River's remaining wild salmon runs to extinction. A free-flowing river, on the other hand, would allow salmon and steelhead quicker, safer access to high elevation habitat that is expected to remain hospitable for these fish even with substantial warming.

WHAT CAN BE DONE

The four dams should be removed to restore a healthy, free-flowing lower Snake River. Scientists estimate that the Snake River basin possesses roughly 70 percent of the salmon and steelhead restoration potential in the entire Columbia basin. Removing the lower Snake River dams would open up the salmon migration route between the sea and critical upstream habitat. Scientists also believe that, if adequate access for salmon is restored, the Snake River Basin could serve as a "salmon stronghold" well after other parts of the interior Columbia River basin become too warm. But time is of the essence: these salmon runs face increasing risk the longer they remain at marginal population levels.

The economic benefits of restoring the lower Snake River and its salmon and steelhead have been estimated in the hundreds of millions thanks to the income it would generate for commercial fishing up and down the Pacific Coast, increased recreational fishing from Astoria, OR to Stanley, ID, and new boating, camping, hiking, and hunting opportunities along the scenic lower Snake River.

Dam removal would also eliminate a growing flood risk in the town of Lewiston, Idaho, where sediment is piling up behind Lower Granite Dam, the uppermost of the four lower Snake River dams. If Lower Granite is not removed, Lewiston's levees, along with the city's railroad and highway bridges, will have to be raised substantially to protect the community from the ever-rising river. Raising the levees could cost taxpayers up to \$87 million and would further wall the city off from its riverfront.

The benefits these dams now provide can be replaced by other means, while still allowing the Northwest to have affordable, carbon-free energy. The dams produce the least amount of energy when it's needed the most, during the cold of winter and heat of summer when river flows are low. The energy from the dams can be replaced through a combination of cost-effective energy efficiency, wind power, and other clean energy sources.

The freight transportation benefits of the dams are also replaceable. Currently, a significant proportion of Northwest wheat farmers rely on Snake River barges to get their grain to market. Dam removal will require targeted upgrades to southeastern Washington's rail, highway, and Columbia River barge systems. The small amount of irrigation provided by only one of the four dams could continue by extending pumps to the free-flowing river.

WHAT CAN BE DONE

The 2008 Biological Opinion – or salmon plan – for the Snake and Columbia Basin calls for maintaining the expensive “status quo” dam management strategies that have failed to restore Snake River salmon and steelhead in spite of \$8 billion in federal expenditures over the last 30 years. The salmon plan also makes a mockery of the Endangered Species Act by allowing for only a barely detectable “trend toward recovery” rather than striving for sustainable population levels. American Rivers and 14 other fishing and conservation organizations have sued to invalidate the Biological Opinion.

2009 brings an opportunity to put real river restoration back on the table. This spring, a court will decide whether to uphold the 2008 salmon plan. If the plan is invalidated, the Obama Administration and the Northwest congressional delegation must convene negotiations that include discussion of lower Snake dam removal. If the plan is not invalidated, the Obama Administration should withdraw the Bush-era plan and convene stakeholders to forge a new plan that will work for Snake River salmon and Northwest communities in light of the threats posed by the dams and global warming.

CONTACT

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