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Restoring Salmon Nation

Demolishing dams on the Klamath River

by by Laurel Peña



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When telling the story of a river, it is best to start at the source. The story of the Klamath River begins in controversy. In the high desert of central Oregon, marshlands feed the first tributaries in the 15,000-square-mile Klamath watershed. These headwaters – slow streams and lakes – are very different from the middle and lower river, which roars through rugged canyons on its push to the sea. It can be hard to see the connection between these two parts of the river, and this disconnection is the source of the controversy.

The relationship between the upper and lower Klamath has been severed by a series of dams on the mainstream, below the town of Klamath Falls, Oregon. Nutrient-rich desert tributaries (including the Williamson, Sprague, and Sycan rivers) once provided spawning and rearing habitat for the Klamath's famous runs of Spring Chinook salmon. These salmon would return from the ocean weighing up to 100 pounds. Many Native tribes depend on the Spring Chinook run to meet their subsistence and spiritual needs. Starting with the Yurok tribe at the mouth of the river, the run of returning salmon would next reach the Karuk and Shasta, ending with the upper Klamath tribes at the headwaters. An elaborate system of resource sharing served to regulate fishing. This self-managed system included a schedule of spiritual ceremonies based around the salmons' return.

Unfortunately, since 1918, dams have completely blocked the salmon's access to hundreds of miles of crucial habitat, reducing the once-strong run to a relic of a few hundred fish. The tribes have been forced to shift their reliance onto the less-prized but now more abundant Fall Chinook, which can spawn below the dams.

"The spring fishery in Karuk country was the staple. That was the bread and butter. That was the biggest run of fish," Karuk tribal vice-chairman Leaf Hillman told a visiting anthropologist in 2003. "All of the tribes have transitioned to the fall fishery because it's the only one there. There's a few spring fish left, but it's not worth counting. It's certainly nothing you can depend on."

This survival strategy is now failing as well. Young salmon swimming to the ocean are routinely suffering an 80 percent mortality rate, blamed by fisheries scientists on the Klamath's declining water quality. Once again, fingers are pointing at the dams and the reservoirs behind them, which provide ideal breeding grounds for parasites that infect the fish. In 2002, a massive fish die-off of more than 60,000 adult Fall Chinook was blamed on poor water quality. For many years now, the Yurok and Karuk tribes have been unable to meet their needs for salmon. Meanwhile, the tribes above the dams have not fished for salmon in almost 90 years.

Fixing the world



Regina Chichizola The salmon's survival is crucial to the survival of the Klamath nations' culture.

Now the Klamath nations have a rare opportunity to bring the salmon home. The Federal Energy Regulatory Commission is in the process of relicensing four hydroelectric dams on the river. In an effort to convince federal officials to decommission the dams, Native communities and their environmental allies have launched a grassroots campaign. The river protectors have lobbied county officials in the Klamath watershed, held rallies and press conferences from Portland, Oregon, to Sacramento, California, and organized marches to draw attention to the salmon's plight. Dam opponents are also trying to bring pressure to bear on the investment companies that have financial

interests in the utilities operating the dams. If successful, the demolition of the Klamath dams would mark the largest dam removal in history.

Conservation is not a new concept on the Klamath River. The spirituality of the Yurok and Karuk tribes (like most Indigenous nations) revolves around stewardship of the natural world. This sense of responsibility finds its most direct expression in the World Renewal ceremonies held along the river to ensure the proper functioning of the ecosystem.

Stewardship and responsibility are so ingrained in the river cultures that it has been emotionally difficult for many tribal members to acknowledge the river's decline. With signs of the Klamath's failing health growing increasingly evident, there is a feeling among many area residents of helplessness, of being held hostage by upstream conditions that have major effects downstream. This is changing now that the grassroots campaign to remove the four dams gains momentum.

The dams were built without any provision made to accommodate the historic migration of the native salmon. Whereas many hydroelectric plants feature fish ladders that allow spawning salmon to cross over the dam, the four Klamath dams up for relicensing lack even this dubiously effective technology. A fish hatchery at aptly named Iron Gate – the first of the dams – has failed to make up for the impact of lost spawning habitat and is currently the target of a water quality lawsuit.

When the Federal government made creating fish passage a condition of relicensing, PacifiCorp, the owner of the dams, suggested a plan that involved loading salmon into trucks, driving them around the dams, and delivering them to their historic spawning grounds at the headwaters. This proposal was rejected by a federal court. PacifiCorp is now considering building fish ladders – against the advice of many fisheries experts who question their effectiveness.

Critics of these “techno-fix” solutions to the salmon problem point out that fish passage is only half of the issue. Water quality would not be improved by ladders or trucking programs. Even if salmon somehow bypass the dams, their offspring will still face a stew of parasites and toxic algae in the river as they journey to the sea. Last summer, extremely high concentrations of *Microcystis aeruginosa* algae were measured in the Klamath reservoirs – nearly 4,000 times the World Health Organization's “moderate health risk” level. The most common parasites found in the dead salmon – *Ceratomyxa shasta* and *Parvicapsula minibicornis* – are known to breed in the warm still waters behind the dams.

Aside from the biological questions, there are also financial reasons for removing the dams. An economic assessment by the NGO [Ecotrust](#) has priced dam removal at around \$100 million – half the cost of retrofitting the dams with fish ladders. The California Energy Commission recently [released an independent study that reached the same conclusion](#). In a press release, Commissioner John Geesman stated, “Using PacifiCorp's own numbers, the new analysis clearly indicates that it is best for the ratepayer that these four dams be removed.” Given that the four dams together produce only 151 megawatts of electricity (less than 2 percent of PacifiCorp's output), it seems to make both economic and ecological sense to remove the dams and fix this small but important part of the world.



Regina Chichizola: Hoopa dancers at a ceremony to heal the Klamath River

There are national precedents for removing the Klamath dams. According to the environmental group [American Rivers](#), 460 dams have been removed nationwide in the past 40 years. The removal of the Edwards Dam on the Kennebec River in Maine is seen by many as an encouraging example of what could happen in the Klamath Basin. In 1997, the Federal Energy Regulatory Commission refused to relicense the Edwards Dam without the expensive construction of fish ladders, leading the dam's owner to choose removal as the cheaper and more fish-friendly option. With many other dams seeking relicensing in the coming decades – over 150 in California alone – river restoration faces an unprecedented opportunity.

Bloodline of our people

“To understand the river’s processes, you have to step outside yourself and become a sociologist.” So said a lifelong resident of the Klamath watershed at a government hearing convened to deal with water quality concerns. The river and the people are so intertwined that ecological issues are inseparable from issues of human rights. The survival of the salmon is crucial for the survival of the Klamath River’s native cultures, the small towns clinging to the river’s banks, and the coastal fishing communities that saw a complete shutdown of their industry last year due to the Klamath crisis.

PacifiCorp has engaged in settlement talks with 28 stakeholders, including tribes, fishermen, and farmers. This process is scheduled to reach a resolution sometime within the next few months. While many who depend on the river are hopeful that a settlement can be reached, the grassroots campaign for dam removal continues.

Other river residents have put their energy into developing a local media collaborative to tell their side of the story. A recent DVD release spotlights both downriver fishermen and upriver farmers, using interviews to show how dam removal can benefit both groups. From e-mail alerts and Web sites to a radio documentary, locally produced media has played a large role in the campaign.

Major environmental groups such as the [Sierra Club](#) and [Friends of the River](#) have weighed in on the side of dam removal. Local groups, such as the venerable [Northcoast Environmental Center](#), have joined in as well, with petitions and cut-and-send letters addressed to the relevant agencies. In May, tribal members traveled to Omaha to attend the shareholders’ meeting of Warren Buffet’s Berkshire Hathaway, which owns PacifiCorp. That same week, the tribes joined with environmental groups and

river business owners in a lawsuit against Berkshire Hathaway claiming that the dams negatively impact the health of both salmon and people. But it is the actions of individuals that perhaps speak the loudest about the strong feelings involved in this issue.

In 2003, students at Hoopa High School organized a “Fish Run” from the mouth of the river to the Fall Chinook spawning beds upstream. It was their response to the disastrous fish kill a year previously, when young tribal members were confronted with a horror their elders could not explain – tens of thousands of rotting salmon washing up along the river’s banks.

Two of the organizers, Kayla Carpenter and Erica Chase, were [honored with the Brower Youth Award](#) for their work. Now in its fifth year, the run was expanded in 2006 to reach the base of Iron Gate dam, mirroring the futile journey of Spring Chinook blocked from their natural habitat.



call on investors to open the river.

Regina Chichizola: Dam opponents attended the annual meeting of Berkshire Hathaway to

“The Hoopa, Yurok, and Karuk people believe that the salmon is our brother and sister,” says Tasha Norton, a teenager who, like many people in the area, traces her lineage back to all three tribes. Raised in this environment of shared destinies and responsibilities, Norton is already a seasoned activist. Like many others she has devoted much time and energy to the dream of a restored river, abundant salmon runs, and thriving local communities. “It’s a part of our family, because it played such an important role to us back in the old days,” Norton says. “We believe that the river is the bloodline of our people. It connects us.” While speaking, she pushes back the sleeve of her sweatshirt to show the veins of her wrist. “If you look at your hand, it reminds me of the river and how it flows down. We turn to the river for strength. Our houses face the river. In the morning we pray to the river to help us, to keep us strong. If our river’s not strong, our people will not be strong.”

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