

PATAGONIA ON DAMS AND DAM REMOVAL

Environmentalist David Brower was once asked, “Why are you conservationists always against things?” He replied, “If you are against something, you are always for something. If you are against a dam, you are for a river.” I’m also a lover of wild rivers. That’s why our company has been involved in trying to take out obsolete and damaging dams since 1993.

-Yvon Chouinard, Founder/Owner Patagonia

Patagonia supports a transition toward lower-impact energy and water sources that, combined with conservation and increased efficiencies, cause less harm to ecosystems, communities and cultures.

For centuries dams have been built for flood control, irrigation, municipal water supply, and power production. All these needs can now be met more effectively through conservation, improved technology and better planning, without the negative and ecological impacts caused by blocking and degrading an entire watershed.

When most of us think of dams, we think big—of Hoover Dam that provides electricity to Los Angeles or the massive hydro dams on the Columbia River. But it’s surprising to learn how many dams we have and what shape most of them are in. Of the more than 80,000 dams monitored by the U. S. Army Corps of Engineers, roughly 26,000 pose what the Corps labels a “high” or “significant” hazard. Many dams represent a high cost for the little value they provide. Some no longer serve any useful purpose. All dams, despite their size, have a limited life span. Only 2,540 in the U.S. produce hydropower.

We recognize that traditional hydropower—using dams either large or small—avoids some of the high carbon emissions from fossil fuels and some of the human hazards and waste issues associated with coal mining and nuclear power. However, traditional hydropower has its own costs. Dams contribute significantly to climate change through the emission of methane from reservoir surfaces, turbines

and spillways. Dams also compromise the health of rivers that could otherwise mitigate some of the effects of climate change, including droughts, floods and waterborne diseases.

Dams disrupt flows, degrade water quality, block the movement of a river’s vital nutrients and sediment, destroy fish and wildlife habitat, and eliminate recreational opportunities. Reservoirs slow and broaden rivers, making them warmer, reducing water quality, and harboring destructive non-native species that disperse throughout the watershed and prey on and compete with native wildlife. The environmental, economic, and social footprint of a dam and reservoir may run the entire length of a river from headwaters to river mouth—and beyond, by blocking passage for keystone migratory species like salmon, which impacts not only fish but the entire surrounding ecosystem that relies on the fish for food and nutrients.

Interventions like costly fish elevators, trap-and-haul and modified water releases do not lead to true recovery for self-sustaining wild fish populations or provide a long-term solution to the many other negative impacts of blocking a river. These short-term band-aids, like our failing fish hatchery system, often take valuable time and money away from real long-term solutions like replacing dams with more effective options.

Removing dams has proven to be an effective way to restore entire watershed ecosystems, revive wild and sustainable fisheries and associated jobs, restore coastal beaches and wetlands, improve water quality, and improve the lives of

adjacent communities and native cultures. The case for the health of fisheries is exceptionally strong. For example, a year after the removal of the Elwha Dam, the largest run of Chinook salmon in decades returned to the river, with 75% of spawning fish observed upstream of the former dam site. Removing dams makes economic sense as well. The River Alliance of Wisconsin estimates dam removal to be three to five times less expensive than dam repair.

There is a growing movement to remove dams where the benefits—economic, environmental, safety, and cultural—outweigh the costs of maintaining and retrofitting an aging dam. The movement to take out obsolete and low-value dams is gaining momentum among their owners, federal and state agencies, non-profit groups, and communities around the country.

Patagonia is focused on the need to remove old, derelict and particularly harmful dams, including some dams, like the four lower dams on the Snake River, that provide marginal benefit far outweighed by the opportunities for the revival of now-endangered wild salmon populations and the jobs and communities they support throughout the Northwest.

There are a number of specific dam removal campaigns that Patagonia has supported for many years, including:

- Lower Snake River Dams: <http://www.wildsalmon.org/>
- Hetch Hetchy: <http://www.hetchhetchy.org/>
- Matilija Dam: <http://www.matilija-coalition.org/>
- Englebright Dam: <http://yubariver.org>
- Searsville Dam: <http://www.beyondsearsvilledam.org>
- Penobscot River Dams: <http://www.penobscotriver.org>
- Edwards Dam: http://www.nrcm.org/issue_edwardsdam.asp
- Rogue River Dams: <http://waterwatch.org>

With the successful implementation of new technologies and management practices, there are a growing number of superior alternatives to dams. Innovations have led to reduction of water use and waste at the residential, commercial, and agricultural levels that can eliminate the need for thousands of water storage dams. Examples include

low use water fixtures at home, utilizing reclaimed water, replacing lawns with drought tolerant landscaping, drip irrigation, and planting regionally appropriate crops.

Groundwater recharge basins and expanded flood plains along rivers can store and filter water without huge evaporation losses experienced at reservoirs, while improving wetland habitat, water quality, recreation, and providing natural flood protection for communities.

Energy-efficient technologies, adoption of low-impact energy sources such as solar, wind, tidal, wave, geothermal, and biomass are helping us transition to a cleaner energy future, allowing more dams to be retired. Even residential-size micro-hydro projects, at the very small scale, can be utilized on tiny creeks, upstream of fish migration corridors, in ways that reduce their negative impacts.