



Washington's Disappearing Rivers

by the CAP Public Lands Team February 2018

Note: On April 9, 2018, the authors added policy recommendations to this fact sheet.

Rivers are the lifeblood of Washington. They irrigate crops, provide clean drinking water, serve as habitat for fish and wildlife, and fuel a \$26.2 billion¹ outdoor recreation economy in the state.

But rivers are under immense pressure. As documented in the Disappearing Rivers analysis—the first comprehensive snapshot of the state of Western rivers—climate change, dams, development, and an ever-changing landscape are placing increasingly more stress on the waterways that are so inextricably tied to the health of Western communities and economies.

Across the West, nearly half of all rivers—49 percent—are modified from their natural state. That's more than 140,000 unnatural river miles, or enough to circle the earth nearly six times.

In Washington, 46 percent of all rivers are altered.

That's equal to 16,819 unnatural river miles—enough to cross the state more than 70 times.

Of the 11 Western states in the Disappearing Rivers analysis, Washington had the third least altered rivers in the West. When broken down by size, 68 percent of all major rivers, 42 percent of all smaller streams and rivers, and 42 percent of all headwaters are altered.

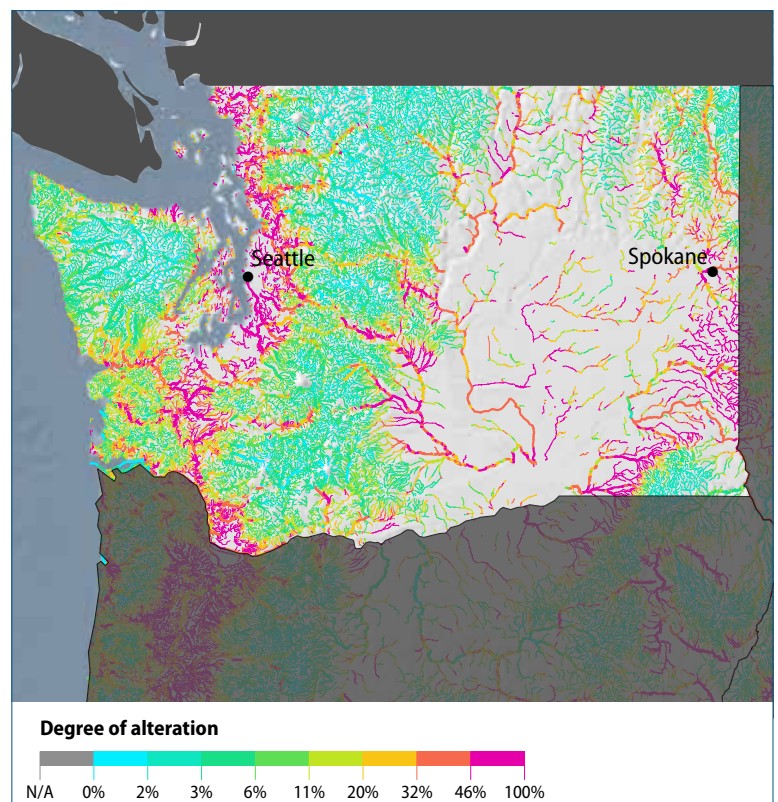


FIGURE 1
Unnatural rivers in Washington

Modification by flow restriction and floodplain alteration

Share of headwaters that have been modified	Share of smaller rivers and streams that have been modified	Share of major rivers that have been modified	Share of all rivers that have been modified
41.9%	42.1%	68.4%	46.0%

Source: Dylan Harrison-Atlas and others, "Description of the approach, data, and analytical methods used to evaluate river systems in the western U.S." (Truckee, CA: Conservation Science Partners, 2017), available at <https://disappearingwest.org/rivers/methodology.pdf>.

In Washington, three of the most-altered, major rivers are the Stillaguamish River, the Colville River, and the Naches River, at 47 percent, 44 percent, and 43 percent, respectively.

River degradation is being driven both by development within waterways and in the surrounding floodplains. In Washington, 10 percent of rivers no longer flow freely due to obstructions and development within rivers—most notably the 751 major dams in the state. Forty-four percent of rivers flow through lands that are significantly developed and altered by human activity.

Rivers also play an important role in Western economies. The Disappearing Rivers analysis found that watersheds in the West with the highest concentration of rivers drive 717 percent more outdoor recreation spending than those with the fewest rivers. In Washington, there is 519 percent more outdoor recreation spending in watersheds with the highest concentration of rivers, fueling an impressive portion of the state's \$26.2 billion² outdoor recreation economy.

Despite the degraded state of rivers in Washington and across the West, policies that promote conservation and protect public lands can have an enormous effect on water. The Disappearing Rivers analysis found that rivers that flow through protected lands are on average 50 percent more natural than rivers that flow through unprotected areas. Washington has the third greatest percentage of protected areas within its boundaries of all 11 Western states. This relatively high amount of protection for lands within the state is a driving reason that Washington has the third least altered rivers in the West.

Recommendations

There are several actions that policymakers could take to conserve remaining natural rivers; restore damaged rivers; and protect the economic and ecological health of the state.

1. **Protect what's left of the large, natural rivers in Washington.** Through the Wild and Scenic Rivers Act and other tools that protect both land and water, the state should set an ambitious goal to prioritize protections for its 1,089 miles of major rivers that are natural and currently unprotected. The Washington Legislature should establish a state river protection system to help accomplish this goal.
2. **Conserve and restore Washington's headwaters.** The state should partner with federal land agencies, cities, and utilities to expand watershed restoration efforts and direct consistent funding to projects that protect the resources provided by forest headwaters, such as clean drinking water and salmon habitat.
3. **Rethink Washington's river infrastructure.** Washington is the site of the largest dam removal in U.S. history, which occurred on the Elwha River.³ The state should continue to lead by re-evaluating dams and flood-control infrastructure; modernizing necessary facilities; and restoring natural processes where built infrastructure is no longer a net benefit.
4. **Collaborate with private landowners in Washington.** The state should encourage wider adoption of watershed plans to prepare proactively for future water uses and environmental challenges.⁴ It should also continue to partner with federal agencies to support private lands conservation that protects and restores rivers and streams.

To explore the data, sources, interactive map, and the full project, visit DisappearingWest.org/rivers.

Endnotes

1 Outdoor Industry Association, "Washington," available at <https://outdoorindustry.org/state/washington/> (last accessed November 2017).

2 Ibid.

3 U.S. National Park Service, "Elwha River Restoration," available at <https://www.nps.gov/olym/learn/nature/elwha-ecosystem-restoration.htm> (last accessed March 2018).

4 Washington Department of Ecology, "Watershed plan archive," available at <https://ecology.wa.gov/Water-Shorelines/Water-supply/Streamflow-restoration/Watershed-plan-archive> (last accessed March 2018).