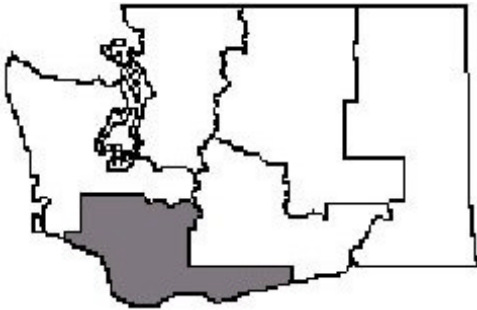


River restoration case study: *Hydropower Reform*

**Cowlitz River Project, Lewis County, Washington**



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**Background**

The Cowlitz River drains 2,460 square miles in southwestern Washington State before its confluence with the Columbia River. The main stem of the Cowlitz is formed from pristine glacial streams on Mt. Rainier and stretches 133 miles, fed by tributary streams that include the Tilton and Cispus rivers, and the Salmon, Olequa, Lacamas, Winston, and Silver creeks.



**Riffe Lake**, the reservoir behind Tacoma Power's Mossyrock Dam. Photo: Tacoma Power.

The watershed of the Cowlitz provides valuable habitat for many wildlife species including Roosevelt elk, deer, northern spotted owl, harlequin duck, bald eagle, mink, osprey, river otter, porcupine, and beaver.

The Cowlitz is renowned as one of the largest producers of salmon and steelhead in the Pacific Northwest. Historically, the Cowlitz produced over 30,000 spring chinook, 60,000 fall chinook, and abundant populations of coho, steelhead, and sea-run cutthroat trout. The thriving fish populations supported numerous wildlife species and provided an

outstanding recreational fishery.

Once home to some of the most bountiful salmon and steelhead runs in the Pacific Northwest, the Cowlitz has been severely degraded by the construction and operation of hydropower dams.

By participating in the relicensing of these dams, American Rivers is working to restore the once great fish runs in the Cowlitz – a key to the overall recovery of threatened salmon and steelhead populations in the region.

The formerly abundant anadromous fish runs in the river have plummeted since the construction of hydroelectric projects in the river in the 1960s. No dams exist between Tacoma's dams and the Pacific Ocean, providing an unobstructed migration corridor.

Created by the City of Tacoma, the dams were built over the objections of the State of Washington, which recognized the Cowlitz as a salmon sanctuary. Tacoma pushed

through construction of the dams, prevailing before the United States Supreme Court after a lengthy court battle.



The Cowlitz Trout Hatchery, about 6.5 miles downriver from Mayfield Dam. Photo: Tacoma Power.

The dams have drastically altered and damaged the river ecosystem. By blocking the migration of anadromous fish into the upper Cowlitz watershed and inundating low-lying floodplains, the dams have denied the fish access to critical spawning and feeding areas.

As a result, populations of spring chinook, fall chinook, and coho salmon and steelhead have dwindled to the extent of qualifying for protection under the Endangered Species Act. Many fish populations in the river have been sustained only through the use of hatchery-bred fish.

### Giving the project a makeover

Tacoma Power owns the Cowlitz River Hydroelectric Project, which includes three dams, from downstream to upstream: Barrier Dam, Mayfield Dam, and Mossyrock Dam.

The Project accounts for approximately 64 percent of the power generating capacity of Tacoma Power-owned facilities and provides some types of flood control.

Tacoma Power operates the project under a single license that officially expires on December 31, 2001.

The project relicensing presented a unique opportunity to secure dam operations that protect fish and wildlife, water quality, and recreation. When issuing a new license, the Federal Energy Regulatory Commission (FERC) is required to consider not only the power generation potential of a river, but to give equal consideration to energy conservation, protection of fish and wildlife, protection of recreational opportunities, and preservation of other aspects of environmental quality.

For the Cowlitz Project, Tacoma Power used a collaborative relicensing process, designed to improve communication between the licensee, resource agencies, and conservation organizations. Bringing all of these groups to the table allowed a compromise-based settlement to be included in the terms of the new license.

The licensee, Tacoma Power, cooperated with the resource agencies, conservation organizations and other interest groups, resulting in productive settlement negotiations and a successful collaborative relicensing process – all to the benefit of the Cowlitz River.

#### **Cowlitz Project Facts**

- **Status:** Settlement complete
- **Project Owner:** City of Tacoma
- **Purpose:** Hydropower, flood control
- **Dams:** Mayfield Dam (1963); Mossyrock and Barrier Dams (1968)

#### **Description (downstream to upstream)**

**Barrier Dam:** concrete fish barrier

**Mayfield Dam:** run of the river dam

Impoundment: 13-mile Mayfield Lake. Capacity: 162 MW

**Mossyrock Dam:** tallest in WA (606 feet)

Impoundment: 23.5 mile Riffe Lake. Capacity: 300 MW.

## Current Status

Settlement success!

On August 10<sup>th</sup>, 2000, a landmark settlement was signed that will open up over 200 miles of renewed habitat for fish and wildlife. American Rivers played a key role, leading the negotiations for the participating conservation organizations. Signatories included American Rivers, Trout Unlimited, Tacoma Power, the Yakama Indian Nation, and various federal, state, and local resource agencies.



Mossyrock Dam. Photo: Tacoma Power.

This successful opportunity to advocate for river restoration on the Cowlitz resulted in the following:

- **Improvements to fish passage.** Removal of the small Barrier Dam, fish ladders, better juvenile collection facilities and other fish passage improvements at the dams to allow **anadromous** fish to access the prime spawning habitat in the upper Cowlitz basin and migrate safely to and from the Pacific Ocean.
- **Innovative hatchery practices.** Hatcheries designed and operated to recover wild stocks in the Cowlitz River system. This involves using innovative rearing practices, low rearing densities, and encouraging the "wild" features of hatchery-bred fish. As wild fish runs return to the river, hatchery-bred fish will be phased out.
- **Improved instream flow regime.** Flow releases to mimic the natural flow patterns under which salmon and steelhead evolved in the Cowlitz, while maintaining power generation and flood control.
- **Habitat protection and restoration.** Funding for habitat acquisition and restoration to preserve and recover wetlands and riverine side channel habitat, vital to a healthy river ecosystem.

## Groups working on the restoration



The Conservation Caucus:

- [American Rivers](#), Northwest Regional Office: **Rob Masonis** & **Connie Kelleher**, (206) 213-0330.
- **Friends of the Cowlitz**: Dave Becker
- **Trout Unlimited**: Bill Robinson

**What you can do**

**Shorten the license term.** Submit comments to FERC pushing for the new license to last 35 years instead of 40 years. A shorter license term would significantly reduce the amount of damage the dams would inflict on the Cowlitz River system.

Public comments are extremely important and have a strong impact in decision-making at FERC. To find out how you can tell FERC to shorten the license term for the Cowlitz Project, call one of the contacts below or click [here](#) for more information on how to become involved in a FERC licensing process.

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**Acknowledgements**

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Map of Washington taken from the Washington Department of Fish and Wildlife.