Inside Reintroduction

Get the Facts

As co-owners of the Pelton Round Butte hydroelectric project, the Confederated Tribes of Warm Springs and Portland General Electric pay close attention to what's happening on the Deschutes River. This document addresses questions we've heard and information we're studying regarding water quality, salmon and steelhead, and hydropower operations.

Additional FAQ and data citations can be found on our website.

WHAT IS THE DESCHUTES FISH REINTRODUCTION PROGRAM?

From the 1950s to 2010, dams on the Deschutes River blocked the migration of ocean-going salmon and steelhead (anadromous fish). In 2005, when the Pelton Round Butte hydropower project was relicensed, PGE and the Confederated Tribes of Warm Springs began an ambitious effort to change that, alongside many partners in the Deschutes River Basin. The reintroduction program is a long-term project to restore anadromous fish runs to a fully reconnected Deschutes River Basin. Our strategies are always evolving, guided by the latest science and best practices from peer programs.

IS THE REINTRODUCTION PROGRAM A SUCCESS?

We are seeing incremental progress, and the science suggests we're on the right track.

- Our biologists monitor multiple sites and collect data year-round to help us understand how several variables affect water quality and fish survival over time. Together with our regulators and other experts in Central Oregon, we evaluate our progress and make thoughtful course corrections when the science supports them — an approach known as "adaptive management."
- For example, we now generate power at night during peak fish migration to attract salmon and steelhead toward our collection facilities when they're most active. We installed a net that guides fish toward the collection area and a stress relief pond to allow fish more time to recover after handling. We've begun releasing excess hatchery broodstock upstream of the project to help jumpstart spawning — a common strategy employed by other reintroduction programs. These changes have all shown positive results, and we expect to see more over time.
- Anadromous fish life cycles last four to eight years. This means it may take several years for us to see the results of our most recent changes. When it comes to high-quality science, patience is essential.

TRIBAL SOVEREIGNTY

"As a co-owner in the Pelton Round Butte hydroelectric project, we work together with our neighbors to restore our natural resources and secure the prosperity of our Tribes. In all things, we lead with deep understanding of Tribal ecological knowledge and fact-based information of natural resources, whether we are developing economic benefits or fish and wildlife restoration for future Tribal members. These are actions taken to preserve, protect and enhance our Tribal sovereignty that has existed, along with our songs, dances, prayers and longhouses, on the Columbia Plateau from time immemorial."

JONATHAN W. SMITH, SR. CHAIRMAN
Tribal Council of the Confederated Tribes of the Warm Springs Reservation of Oregon

HOW DO THE TRIBES AND PGE MANAGE WATER TEMPERATURE IN THE DESCHUTES?

The Selective Water Withdrawal (SWW) facility is the centerpiece of the Pelton Round Butte Project's Fish Passage Plan and allows for water quality, including water temperature management, downstream of the project.

- The SWW works by creating attractant currents in the surface of Lake Billy Chinook, guiding in juvenile fish and enabling their transport downstream.
- By mixing water from both the surface and depths of the reservoir, the SWW reduces the project's effect on temperature in the Lower Deschutes. The water blend released downstream targets what temperatures would be like without the dams' presence, restoring natural seasonal patterns.
- These patterns aid juvenile fish growth, particularly for fall Chinook, and preserve cold water — a limited resource — for when fish need it most.

DOES THE SWW AFFECT ENERGY PRODUCTION OR REVENUE?

No. The SWW's only function is to correct issues with water temperature and fish passage. If the science were to suggest a better way to operate the facility, PGE and the Tribes would work with our regulators to adopt those new procedures.

WHY NOT RELEASE COLD WATER FROM THE DEPTHS OF LAKE BILLY CHINOOK YEAR-ROUND?

Cooler water from the depths of Lake Billy Chinook is a finite resource that can be depleted if released too early in the year. If we do that — as we did before the SWW was constructed — we will cause the river to be unnaturally warm in the late summer and early fall, when migrating fish need cool water the most.

- To create more natural and more optimal conditions for fish, we add the available cold water to our blend strategically, to closely match "without-project temperatures" for as much of the year as possible — the temperatures we would expect the river to be without the dams' presence.
- This approach is supported by guidance from the Environmental Protection Agency, which identified cooler temperatures in August and September as a priority for fish.
- Even on the hottest days, water released from the project rarely, if ever, exceeds 62° Fahrenheit.

CLEAN ENERGY

"Together with the Confederated Tribes of Warm Springs and numerous partners in Central Oregon, we're using science-based strategies that benefit Deschutes Basin fish and wildlife, all while generating clean electricity that's critical to Oregon's clean energy transformation."

DEBBIE POWELL, VICE PRESIDENT OF UTILITY OPERATION
Portland General Electric

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WHY NOT USE THE SWW AND THE DAMS TO INSULATE THE LOWER DESCHUTES RIVER FROM THE CONDITIONS OF THE UPPER DESCHUTES BASIN?

It's all one river. As stewards of this area since time immemorial, the Confederated Tribes of Warm Springs know how important it is to manage the Deschutes as an interconnected system — not as separate pieces we can manipulate however we want. The SWW helps us restore a more natural, more connected ecosystem.

- The condition of the Lower Deschutes River is, in many ways, a direct reflection of water quality in the upper basin tributaries and reservoir, especially with regard to flows, temperature and nutrients.
- Our license requires that we operate our project as "run of the river," which means that flows entering Lake Billy Chinook are roughly the same as our output at the Reregulating Dam. The SWW allows us to do the same for water temperature, creating a blend of surface and bottom water that more closely matches what downstream temperatures would be like naturally, without the project.
- This means that improving water quality in the Deschutes will require basin-wide strategies. This approach will ultimately benefit all communities — both human and wildlife — upstream and down.

ARE DAMS, LIKE THE PELTON ROUND BUTTE HYDROPOWER PROJECT, GOOD OR BAD FOR THE ENVIRONMENT?

- Hydropower offers a consistent, reliable and low-cost source of clean electricity. As Oregon works to achieve its climate targets, projects like Pelton Round Butte play a key role.
- Pelton Round Butte generates nearly 500 MW of clean electricity. It is the largest, most productive hydropower system located entirely within the state of Oregon.
- Climate change is one of the biggest threats facing fish today. Scientists have documented rising river temperatures, altered ocean conditions and reduced habitat. While there's no doubt that dams can create challenges for fish, they continue to be a critical tool in the larger fight against climate change.
- Of the 2,500 hydropower projects in the U.S., around 200 are certified by the Low Impact Hydropower Institute (LIHI) for their environmental excellence. Pelton Round Butte was first LIHI certified in 2007 and was recertified in 2023, affirming that we're generating power in a way that respects Oregon's aquatic, terrestrial, cultural and recreation resources.

Visit portlandgeneral.com/healthydeschutes to learn more.

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