

Estimates put two species at risk of extinction by 2040



Photo by Michelle Alaimo

Raceways, such as this one that's holding steelhead at the Salmon River Fish Hatchery in Otis, are used to raise hatchery fish. In 2023 Oregon Department of Fish and Wildlife hatcheries released more than 44,000,000 fish.

Tribal Council member wants to explore hatchery business

By Nicole Montesano

Smoke Signals staff writer

Fish hatcheries, like most everything else, have two opposing views.

"There's the pro-hatchery folks, who think we could solve all the salmon problems with hatcheries," Grand Ronde Tribal Fish & Wildlife Program Manager Kelly Dirksen said. "There're other folks who think hatcheries are the only reason we have problems. It's hard to have an open discussion when both sides are so bound to their positions."

Tribal Council member Matthew Haller isn't necessarily in the first camp, but said he is firmly pro-hatchery.

And while he agrees with habitat restoration efforts, Haller said he would like to see Tribal Council explore another option as well: Seeking grants to purchase the Salmon River Hatchery in Otis, which the Oregon Department of Fish and Wildlife is seeking to shutter for at least the next few years due to deferred maintenance costs.

Haller said he can't really remember a time when he wasn't fishing, recalling doing so from an early age. Hunting, fishing, gathering mushrooms and berries are Tribal traditions that kept food on his grandparents' table after Termination and these are traditions he is teaching his son.

"My grandfather always hunted and fished, gathered mushrooms," Haller said. "They relied on that; you couldn't just go to Winco. You had to come home with a box of meat somehow."

That tradition feels bone deep. "I don't know if we naturally just crave those foods, but I feel a lot healthier when I eat those foods, or meat that hasn't been processed in a plant," he said.

The state's plan to shutter the Salmon River Hatchery, at least temporarily, sets off alarm bells



Matthew Haller

for Haller.

"This is where I fish, where my family and friends fish," he said. "Without those hatcheries, I would never have caught my first fish."

Haller acknowledges that taking over the hatchery is an expensive proposition — an estimated \$30 million or more — and he agrees that the Tribe can't necessarily take on that expense without finding some form of funding for it.

"That would sink us," he said.

However, he would like the Tribe to invest a significant effort into seeking grants for the project.

Haller doesn't oppose the Tribe's Salmon Strength Team's focus on the pushing the Army Corps of Engineers to open more salmon habitat; those spawning grounds are badly needed, he acknowledged. But he said the team could pursue both approaches.

"It's important to have hatcheries so we can still have large enough fish runs to harvest," he said.

The Salmon Strength Team is a partnership between the Tribe's Natural Resources Department, Public Affairs Department, Tribal Council member Kathleen George and others, to advocate for salmon.

"We work at building a consensus and pro-salmon coalition," Dirksen said.

This year, ODFW commissioned a third-party review of the hatchery system. Reports are available at www.dfw.state.or.us/fish/hatchery/reliance.asp.

The agency is now gathering public comments and preparing a report for the state Legislature. ■

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after spawning provide fertilizer for riparian forests and aquatic plants, and food for insects.

According to the Canadian wildlife conservation group Pacific Wild, juvenile salmon are the primary insect predator in aquatic environments but after they die, their carcasses feed more than 60 species of insects.

"Salmon — that's a keystone species," Tribal Aquatic Biologist Brandon Weems said. "A lot of things depend on salmon, not just people."

For at least 14,000 years, Pacific Northwest Tribal people have been part of that cycle, relying on the annual salmon spawning runs for high-quality protein and essential fat, to supplement the deer, elk, lamprey, tarweed seeds, camas, wapato and other first foods the region so bountifully offered.

Salmon, smoked to preserve during the winter, provided important nutrients and was a high-value item for trade.

Before the arrival of Europeans, or pre-contact, the landscape was well-suited for salmon production. Braided river channels across the broad Willamette Valley and surrounding mountain ranges provided numerous streams where salmon fry lived until they were large enough to make the journey to the sea. They could hide there in quieter water when storms churned the river, find plenty of insects to devour and less competition from the millions of their brethren. Gravel beds provided ideal spawning grounds.

European settlers radically altered that landscape, confining rivers to single channels, installing numerous dams to produce hydro-power and control flooding, logging the trees that filtered, shaded and cooled the water, and draining wetlands for agricultural crops. The result has been catastrophic for Oregon's iconic fish.

Without those calmer back channels, Tribal Hydrosystem Compliance Specialist Lawrence Schwabe said, the young fish get pushed out to the ocean when they're much smaller and are subject to higher death rates.

The dams prevent young salmon from getting to the ocean and adult fish from returning to spawn. Few wild runs remain and those are down to a fraction of their historic numbers.

"Historically, Chinook runs were at 300,000 fish, now the 10-year average is 30,000," Grand Ronde Tribal Fish & Wildlife Program Manager Kelly Dirksen said in the fall of 2024. "Last year (2023), the chinook rallied and they got to 23,422."

Dirksen said the 2024 run was 21,989.

Winter steelhead are in even worse shape: The 2024 run was 8,908, up from 2,039 in 2023.

"In a reasonable year, we see 5,000 fish return," Dirksen said. "But in the winter of 2017, there were 780...It's no longer sometime in the future that we could lose

salmon. It's in my generation, potentially under my watch and while we're all still working."

Both spring chinook and winter steelhead are listed as threatened under the Endangered Species Act.

Tribal Council member Kathleen George, a member of the Tribe's Salmon Strength team, said experts believe these fish could be extinct within the next 30 years.

The assessments echo a report by the National Marine Fisheries Service published in July 2024, after it finished a 5-year review of the species' status.

In a press release, NMFS quoted lead reviewer Annie Birnie saying, "The real issue is that they need safe connections to and from the high-quality habitat we know is above the dams. As long as they remain cut off, we're unlikely to see signs of recovery."

The agency estimates that the two species are at risk of extinction by 2040.

Agreement on action, not on the details

Although there's broad agreement that action is needed, the devil lurks where it always does, in the details hidden in the murky backwaters of politics, money and conflicting interests.

Finding a way to increase salmon survival is an issue that often divides Oregonians more than it brings them together.

Hatchery fish have been the state's answer thus far but are a controversial subject. They provide almost all the salmon available for harvest, but are subject to genetic changes caused by the conditions they are reared in. They are also subject to catastrophic losses caused by human error or budget failures, and to the same environmental conditions that threaten wild populations.

According to the Oregon Department of Fish and Wildlife, 70% of salmon and steelhead harvested in the state come from a hatchery.

That's important not only for the genetics of different fish populations, but also for the allies and enemies the issue can attract among various political factions, Dirksen noted.

In some cases, he said, hatchery runs can muddy the situation to casual observers.

"We've had a near-record run of summer steelhead in the Willamette, and sockeye in the Columbia this year," Dirksen said in 2024. "But summer steelhead are not a native run in the Willamette. That's purely a hatchery run. Winter steelhead, which are native to the Willamette, are not in any better shape."

Salmon return to the streams where they are spawned, which leads to selective breeding.

"They're adapted to the pathogens there, the temperatures, the flows," Dirksen said. "Studies show that wild fish do have an edge."

Hatchery fish sometimes dilute those genes.

"Still, it's wrong to write (hatcher-

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