Washington state nears a plan to remove key culverts for salmon—after spending $4 billion

July 25 2024, by Mike Reicher, The Seattle Times

Credit: Unsplash/CC0 Public Domain

As the Washington State Department of Transportation spends billions of dollars removing concrete and metal pipes that block spawning

salmon, another state agency is finally finishing a strategy to fix all the state's fish migration barriers.

Department of Fish and Wildlife officials have revealed key parts of a plan to prioritize which of tens of thousands of these man-made blockages would, if replaced, bring back the salmon.

Without the strategy—which has taken more than four years to produce—the administration of Gov. Jay Inslee has been sinking billions into stream restorations that, in many cases, are ineffective or useless today.

Construction crews have ripped out the pipes, known as culverts, which run under state highways and replaced them with natural streambeds, but a Seattle Times investigation in March found the state was investing tens, even hundreds of millions of dollars, in so-called "orphan" culverts.

In many cases, The Times found that, even after the state removed a fish-blocking culvert, there were still barriers on those streams owned by other entities, effectively preventing salmon from swimming up to or far past the state's expensive project.

Overall, the Washington State Department of Transportation has spent or committed nearly $4 billion to removing barriers as part of a federal court order, and asked the Legislature last year for an additional $3.5 billion to $4 billion more to finish its list.

"I think there have been dollars spent at the state level on removing culverts that maybe weren't as strategic as they could have been," said Rep. Steve Tharinger, D-Port Townsend, chair of the House Capital Budget Committee. "And to be honest, I think it's eroding a little bit of public support for salmon recovery."

The newly-released prioritization system would begin with a statewide "mathematical optimization"—an algorithm—to determine which construction projects to begin first, in order to maximize public investment in salmon and orca recovery.

"Optimization tends to work very well across a very broad area where you have a large number of barriers," said Phil Roni, a fisheries scientist contracted by the state to help lead the prioritization. He presented aspects of the plan to the state's Brian Abbott Fish Barrier Removal Board, which awards grants for local restoration projects.

The formula would consider the length of habitat upstream, whether a replacement would benefit Chinook salmon (which are food for endangered orca), and whether the project would help other threatened or endangered species. Also, it would prioritize culverts that are downstream of other barriers—to avoid "orphan" projects.

A federal judge ordered the state in 2013 to repair or replace its culverts blocking salmon and steelhead in Western Washington, whether or not there were other barriers on the same stream. A group of 21 tribal nations had sued the state because culverts cut off habitat for spawning salmon, and the judge, Ricardo Martinez, found the state violated the tribes' treaty-based fishing rights.

But the court order only applied to state-owned culverts, not the thousands of others blocking salmon across the state. They might be owned by cities, counties, railroads and other private parties. Any landowner with a culvert that blocks migrating salmon is technically violating state law, but today the state doesn't force people to replace them, although the state is developing rules to encourage or force compliance.

In 2020, leaders in the state Legislature spotted the need to coordinate

spending with the culvert removal projects under the federal court order, and called for the prioritization strategy.

"We really need to be comprehensive if we want to successfully recover salmon," said Carl Schroeder, a fish barrier board member representing the Association of Washington Cities. "Hopefully (the strategy) will provide opportunities for some of our communities that just aren't going to be able to do this without grant support or state support."

After the Legislature asked for the strategy in early 2020, the COVID pandemic delayed planning. A state hiring freeze slowed the hiring of a fish passage strategist.

Still, some observers are frustrated it has taken more than four years to finish a report, while a gusher of government funds were available for culvert replacements.

In the intervening years, the federal government earmarked more than a billion dollars for culvert replacements under the Bipartisan Infrastructure Law, and WSDOT spent billions of mostly state dollars replacing its own culverts. Many projects in Washington won federal grants, but they weren't necessarily the state's highest priorities for salmon recovery or complementary to WSDOT projects.

Meanwhile, salmon populations have continued to decline.

Last summer, the state convened a panel of scientists to determine the best criteria and method to prioritize fish passage barriers. The science panel met eight times and came up with its draft recommendations this summer.

The state is spending about $418,000 on consultants, state fish passage strategist Jane Atha said.

The team, which includes consultants Triangle Associates and Cramer Fish Sciences, is also recommending regional salmon recovery groups score barriers based on specific criteria.

That local scoring, coupled with the statewide prioritization, would allow grantmakers to pick the best culverts and streams.

Atha and Roni acknowledged one key concern: data. Because culverts are so ubiquitous—think of the thousands of places in Washington where streams and roads cross—the state doesn't have a complete inventory of all barriers on salmon streams.

Cities have surveyed their barriers in Western Washington, but counties, which have the most extensive road networks and thus more barriers, have not finished their inventories. Much work remains east of the Cascades.

"A prioritization strategy is really only as good as the data that it draws upon," said Steve Manlow, who represents regional salmon recovery groups on the board.

There also isn't a complete inventory of privately owned barriers, such as small dams used for irrigation.

What's more, culvert assessments should be redone every 10 years to account for changing stream conditions and other factors, said Tom Jameson, fish passage manager at the Washington Department of Fish and Wildlife.

The department has nine crews for surveying barriers, with two people per crew, Jameson said. He added that funding is limited for hiring new crews.

This month, the Department of Fish and Wildlife circulated a draft of the prioritization strategy among tribes, seeking feedback. Atha expects to have a final strategy by December, after public input.

It's around that time the Department of Transportation will be back in front of the Legislature, revisiting its request for up to $4 billion more to fix the court-ordered culverts.

Citation: Washington state nears a plan to remove key culverts for salmon—after spending $4 billion (2024, July 25) retrieved 26 July 2024 from https://phys.org/news/2024-07-washington-state-nears-key-culverts.html