

It's a challenging drive to Washington's ocean beaches as state spends billions to help fish

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It took 50 million years for salmon to evolve and only about 50 years to nearly wipe them out. Now, Washington's native salmon and steelhead populations are getting a reprieve—one stream at a time.

Travelers on state Route 8 and U.S. 12 between Olympia and Montesano have been swerving and slowing through five separate construction zones since spring 2023. It's part of a \$109 million culvert replacement project that aims to free up barriers to fish passage in Grays Harbor County.

The Olympia to Montesano work is a fraction of the \$3.95 billion the [state legislature](#) has authorized to improve fish passage in western Washington. WSDOT says it needs another \$4 billion to complete its projects by court-mandated 2030.

Why it's needed

Like the drivers headed to Long Beach and Ocean Shores, fish need their own watery freeways to travel between their spawning grounds and the ocean. Spawning salmon and steelhead head upstream while [juvenile fish](#) make their way downstream.

Culverts—those corrugated pipes parents warn kids not to play in—carry water under roads. They're effective but often become barriers to fish because water flows too swiftly, is too shallow or shoots out of the business end like a fire hose.

WSDOT recognized the problem in 1991. But by then, the vast majority of the state's major roadways had been completed. The problem barriers have been and will continue to take decades and billions of dollars to correct.

To date, the state has opened up more than 1,000 miles of fish habitat.

One size does not fit all

Because each stream is unique in its hydrology, topography, size and the

way it crosses underneath roadways, each crossing must be tailored individually, according to WSDOT project engineer Jason Mettler.

The streams on the SR 8/U.S. 12 project eventually drain to the Chehalis River. They are Camp Creek (just east of Montesano) and unnamed tributaries to Wenzel Slough (west of Elma), Vance Creek (south of Elma), Wildcat Creek (between Elma and McCleary) and Mox Chehalis Creek (east of McCleary).

A new box culvert will be used at the Mox Chehalis tributary site. The other locations will be corrected with pairs of full span bridges. When finished, fish will be able to navigate the channels more easily and in a natural environment.

On some of the bridges, drivers will notice a rise as they pass over the streams. That's to accommodate the possibility of high flows during flood events, Mettler said.

Camp Creek

The state Route 8/U.S. 12 project is WSDOT's most ambitious on the Olympic Peninsula with five sites and multiple bridges. On a recent June morning, WSDOT officials toured the Camp Creek segment of the project, east of Montesano, with a pair of reporters.

The Camp Creek site involves three new bridges. Two 112-foot-long bridges are being built for the east and westbound lanes of U.S. 12. The parallel Simmons Road, a Grays Harbor County road, is getting a 110-foot-long bridge. The Simmons Road and westbound bridges are already in use.

The bridges are being built while Camp Creek continues to flow through its culverts. The existing crossing carries traffic over a box (square)

culvert 12-feet-wide by 6-feet-tall with a center divider.

The new bridges will allow for a 17-foot-wide stream bed. Including banks needed for overflow during storms, the total opening width for each bridge is around 75 feet.

Shafts

During the media tour, workers were lowering a form into the ground to accommodate the pouring of a concrete support for the eastbound bridge. It and its kin will eventually reach 58 feet below ground level. U.S. 12 traffic is using the westbound bridge with a single lane temporarily apportioned for each direction.

The creek is being realigned to allow for a more natural flow. When highways were built in the mid-20th century, stream channels were often changed to be perpendicular to the roadway. While more efficient, it could also act as another blow to fish passage.

The Camp Creek crossings were built in 1968, Mettler said.

Trees

Natural forested streams on the Olympic Peninsula are full of fallen logs. They were once viewed as impediments. Biologists now know they provide habitat for fish as they slow streams down.

Drivers passing through the various worksites might notice recently harvested trees piled at the sites. The logs, with their [root systems](#) still attached, will be installed in the creek beds and provide hiding places for fish during all their life cycles.

"They can hang out and just do their thing and chill," said WSDOT spokesperson Doug Adamson.

"That's what we see in nature," Mettler said. "And that's what we use to replicate that. We will be recreating a stream trying to match the quality and the characteristics of it ... even down to the gravel size in that stream."

Rough waters downstream

After 21 Washington tribes asked the U.S. District Court to uphold salmon treaty rights in 2013, the court ordered the state to fix culverts that were barriers to salmon and steelhead in western Washington. The injunction requires opening 90 percent of the potential habitat area by 2030.

Out of the five streams on the SR 8/U.S. 12 project, four have partial downstream impediments, according to Kim Rydholm, a WSDOT engineer.

"They're not 100 percent barriers," she said "So there's some fish, at some stages of life that can get through those."

Some are county roads and others are on private property, according to WSDOT.

Despite the downstream barriers, WSDOT forges ahead with projects, compelled by the injunction. But, Rydholm said, the agency keeps downstream owners apprised of WSDOT's work. Funding from various sources, including the state Department of Natural Resources, is available for private landowners to improve fish passage.

"Restoration has to start somewhere," she said. "We feel like removing

our barriers, which are typically the most expensive and complex in a system, really paves the way for other barrier owners to correct their barriers."

Fish windows

Complicating the construction are so-called fish windows. Referring to time, a fish window is the period in which crews can legally work in stream beds. They correspond to periods when fish are not migrating, usually in summer.

"It is going to be pretty hectic," Mettler said. "We get a pretty small window of time to do the work within the stream."

The SR 8/U.S. 12 project is slated for completion in winter 2025. WSDOT said roadway work affecting drivers will be finished before then.

A daunting task

WSDOT's work represents a fraction of the barriers that block fish in the Chehalis River watershed. A database maintained by the state Department of Fish and Wildlife provides a sobering look at the hundreds of impediments fish face in the basin.

The agency offers fish passage services to landowners and organizations planning restoration projects.

In the meantime, WSDOT will continue the court mandated work to remove barriers on state roads. The agency estimates that an additional \$4 billion is needed to complete the plan by 2030.

"We have about 350 barriers to correct by 2030 to meet that particular requirement," Rydholm said.

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