



Massive Shine Creek Culvert Fish Passage

Located near the Puget Sound community of Port Ludlow, Shine Creek is a culvert system produced in 2023 along the East Jefferson County waterway, opening a combined five miles of upstream habitat. In this case, the Shine Creek culvert needed to be massive. Kim Rydholm, WSDOT Fish Passage Delivery Manager, says her agency has been addressing salmon and steelhead passage issues since the early 1990s, creating a dedicated fish passage program. After years of litigation, the US District Court, acting in response to a request by 21 Northwest Washington tribes, ruled that the State of Washington has a treaty-based duty to preserve fish runs.

Project Details

Project Owner	Washington Department of Transportation
Architect/Engineer	WSDOT Fish Passage Program
Contractor	Seton Construction
Location	Port Ludlow, Washington
Project Scope	Jensen Box Culvert 18'W x 127'L x 16'H





Problem

Updating transportation infrastructure means more than replacing aging roads and bridges in the State of Washington. Other considerations come into play. A threatened salmon and steelhead population. Sport fishing tourism. Climate resiliency. And a federal injunction tied to fishing rights reserved in Native American tribal treaties. All these factors are embodied in the Washington Department of Transportation (WSDOT) Fish Passage Program, a multiyear initiative as a supplier of precast concrete culvert systems to protect and rejuvenate a sensitive ecosystem.

Solution

The natural fill material on either side of the stream serves as an invitation for wildlife to pass through rather than walking across the highway above it. This outcome will create safer conditions for both motorists and animals for years to come, since the new structures are built to last at least 75 years. Installed in August 2023, the Shine Creek system features massive components, with three-sided box culvert placed atop precast concrete stem wall footings. Each culvert section is 18' wide with an inside span of 17'. The stem wall and culvert together rise 16' when assembled. The overall length of the culvert is 127'. Each culvert unit weighs a hefty 45,646 pounds.

Key Outcomes

Habitat Restored

The addition of five miles of upstream habitat allowed the fish population and surrounding ecosystem to flourish.

Culvert Shines

From casting to installation, the box culvert allows the project to focus on the best way to reinforce the stream.

In the Spotlight

This project brought the spotlight onto the WSDOT's commitment to their Fish Passage program and just how important it is.