Fish continue their upstream, downstream journeys

Taking an asset management approach helps them along

In 1997, Governor John Kitzhaber and the Oregon Legislature established The Oregon Plan for Salmon and Watersheds aimed at restoring Oregon's dwindling wild salmon and trout populations and improving watershed health statewide. More than ten years later, many public and private institutions continue to work collaboratively to advance the plan's goals and ODOT is still providing vital support as salmon and watershed health improve throughout the state.

The highway crossing over Honey Creek now has a natural stream channel that provides improved passage for both juvenile and adult fish. Biologist Ken Cannon noted he saw several adult Coho salmon spawning in the creek above the project just a month after it was completed.

Fish passage program created

Early on, fish passage — or the ability of fish to get to and from their spawning grounds — was identified as a major limiting factor in restoring this critical ecosystem. To help improve habitat connectivity across state highways, we created the fish passage program, housed in the Natural Resource Unit of the Geo-Environmental Section.

We can sometimes help fish get through by simply installing inexpensive plastic weirs inside existing culverts. More often, however, it involves replacing undersized culverts with larger bottomless arch structures, partially buried concrete box culverts with simulated stream bottoms, or bridges — and these are anything but simple. These types of projects have to go through the State Transportation Improvement Program to become part of regional STIP or maintenance projects.

Best bang for fish buck

With a minimal budget and hundreds (or thousands!) of potential projects around the state, how do we choose which fish passage to fix? We consider several factors to get the "best bang for our fish passage buck," and we usually start by referring to the Oregon Department of Fish and Wildlife's priority list. ODFW's list shows culverts that don't meet state fish passage guidelines. It also provides basic information about the culvert, the amount and condition of fish habitat up and down stream of the structure, and the species present. The Fish Passage Program coordinator takes the information from the prioritized list and solicits projects from our region environmental staff. Projects are then selected based on cost, available funding, habitat restoration occurring in the same watershed, importance of the project for salmon recovery, the region's ability to deliver the project, and overall agency need.

Clearly, selecting projects is a challenge, so to improve the process, we are looking at several new tools. These new selection tools will help focus restoration efforts in key watersheds and make the fish passage program more transparent to the community and stakeholders.

Better informed choices

Asset Management efforts are also helping the program. With AM, we are improving inventory data for culverts and other relevant transportation assets, and this information is helping better inform project choices and maintenance activities. When we use AM effectively, we can identify new opportunities for the Fish Passage Program where combined efforts reap combined benefits.

Since 1997, we've completed 119 fish passage projects, improving access to more than 409 miles of stream habitat. Those are big numbers for a small but important program; yet there's so much more to do. By continuing to prioritize projects and work with project delivery teams, region environmental staff and highway maintenance crews, we will keep helping fish move along and watersheds get healthy.

For more information about our fish passage program, contact Ken Cannon, Aquatic Biology and Fish Passage Coordinator.