

# South Fork Klaskanine River Restoration Project

A collaborative effort among local, state, and federal agencies, programs, and individuals to restore habitat and upstream migration for wild trout and salmonids.

## Project Overview

The South Fork Klaskanine restoration project was a collaborative effort to provide wild salmonids, trout, and lamprey with upstream access to spawning and rearing habitats. The project removed a channel spanning concrete diversion dam, replacing it with a low-head diversion that allows the Clatsop County hatchery to obtain its water right while providing fish with unimpeded upstream migration. In addition, the project provided a fish screen, stabilized the streambed against a headcut by re-building channel features, and provided instream habitat complexity. A total of 3.1 miles of spawning and rearing habitat on the South Fork and another low gradient tributary was made accessible for fish.



The dam restricted upstream migration of adult and juvenile salmonids, trout, and lamprey (Pre-project photo on left from North Coast Watershed Association). The dam was replaced by a fish passable constructed riffle (right).

## Integrating Agency Programs: Efficient Results

A unique attribute of the South Fork Klaskanine Restoration project was the seamless integration of federal and state agencies and programs to achieve efficient results. The end product was that more technical and financial inputs were provided than any one agency or program could have done by itself. In a relatively short time period, agencies worked together to provide professional survey, hydraulic analysis and modeling, engineering design, technical review, federal and state permitting and compliance, financial assistance, contracting, construction, and project oversight.

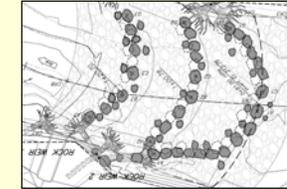


NRCS provided survey and engineering technical assistance for the project. This was a vital component in ensuring that the final design would meet the County's water right while providing fish passage for all target species.

## Species Benefits

This project directly benefits several species of Federally listed wild salmonid, trout, and lamprey by providing access to upstream spawning and rearing habitats. Juvenile and adult movements had been impeded by the dam. Now, juvenile winter flow refugia, juvenile summer thermal refugia, and adult spawning habitats will be accessible.

- Coho
- Chum
- Steelhead
- Chinook
- Coastal Cutthroat Trout
- Pacific Lamprey



Geomorphic riffle-weir structures: from design to reality. These instream habitat features serve multiple purposes: to divert water for the County's hatchery, to allow fish unimpeded up and downstream movement at high and low flows, to provide instream habitat, and to stabilize the overall grade of this section of river to ensure both objectives are met over time.

## A Small Dam Removal Model?

This project could serve as a template for other water diversion dams in the region. The process of providing site appropriate instream technology for reliable water diversion as well as unimpeded up and downstream fish passage in both high and low flows could be applied to many other sites.

USFWS, NRCS, NOAA, and ODFW are all committed to working together to meet local needs while restoring habitat for anadromous fish.



USFWS, ODFW, and NRCS collaborated on fish salvage to prepare the work area for dewatering (left). ODFW was the lead agency on the fish screen survey, design, and fabrication. Clatsop County and local partners built the concrete structure into which ODFW will install the screen components. Contractors from Henderson Land Services remove the dam (right).

**Acknowledgments:** This project was a collaborative effort between many local, state, and federal agencies, non-profit organizations, and private entities. Many individuals performed integral duties to make this restoration project a reality. Special thanks should go to the following below and many others not identified:

- Clatsop County Fisheries Program
- Natural Resources Conservation Service – Wildlife Habitat Incentives Program
- US Fish & Wildlife Service – Partners for Fish & Wildlife Program
- National Marine Fisheries Service
- NOAA – Community-Based Restoration Program
- ODFW – Screening and R & E Board
- American Rivers
- OWEB
- CREST
- Clatsop SWCD
- Weyerhaeuser Corporation
- Bergerson Construction
- Astoria Builders Supply
- Hampton Affiliates
- Ed Fisher Construction
- Englund Marine Supply
- Longview Fibre
- Big River Excavation
- Natural Solutions
- Nygaard Logging
- Numerous other participants