



# Coyote Creek Tributary Fish Passage & Stream Restoration at Atkinson's

## Project Background & Description

This project restored 1400 feet of a Coyote Creek tributary on the Atkinson Farm along Territorial Hwy. Project goals were to improve fish passage, restore instream habitat, improve water quality, and enhance riparian vegetation. This seasonal tributary has the potential to provide good spawning and rearing habitat for resident cutthroat trout, sculpin, and other native fish living in this tributary and Coyote Creek.

An undersized culvert at the upstream end of the site created higher velocity stream flows that caused erosion and a barrier to fish passage. In addition, the tributary was straightened around 50 years ago, which led to accelerated stream flow, increased erosion, channel incision, and reduced the amount of stream habitat for fish. Blackberry became established along the stream, which outcompeted native trees and shrubs. Because of the steep, eroding stream banks, it was difficult to keep under control with mowing.

This project was funded by the landowner and a grant from the Oregon Watershed Enhancement Board. In addition, Council volunteers from Lane Community College and the University of Oregon donated many hours of time planting willow stakes, trees and shrubs.



**Before the project:** The existing channel was deeply incised and lined with non-native Himalayan blackberry.



**After the project:** The blackberry were removed and replaced with native trees and shrubs. In this section, the channel was reconstructed with stream rock and log weirs. The channel cross-section is wider and shallower, which decreases erosion and improves floodplain connectivity.

## Project Location



Project Site: ★



## Restoration Techniques

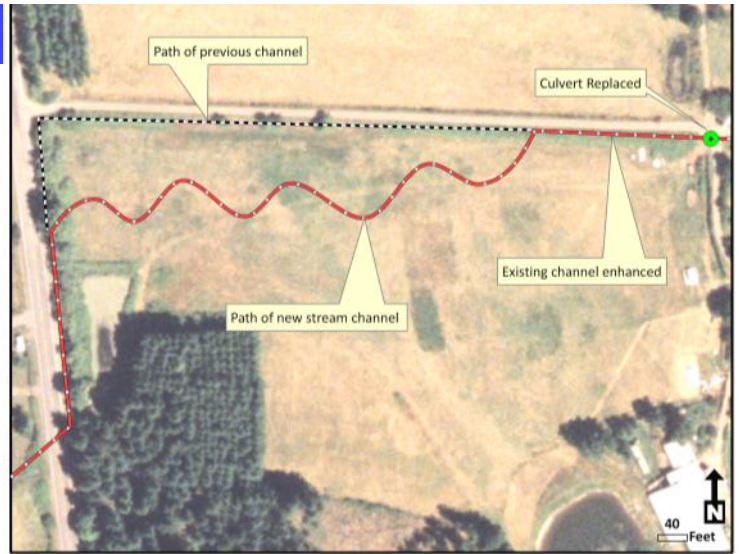
We replaced the original 18" culvert with a 66"x 51" corrugated metal pipe arch. It was filled with two feet of river rock to provide a continual stream bed through the culvert. The first 230' of existing channel downstream of the culvert was raised by adding 95 yd<sup>3</sup> of river rock and 10 log weirs. 1,150' of new channel was excavated across the landowner's pasture and the excavated material was placed in the abandoned channel segment along the driveway. Log weirs buried at 25' intervals, erosion control fabric, and grass seeding are currently stabilizing the new channel section. Over time, newly planted native willows, trees, and shrubs will keep the channel from eroding.



**Pre-project:** The 18" culvert was undersized and its outlet was perched above the stream.



**Post-project:** The new 66" by 51" culvert was bedded with river rock to create a natural stream bottom.



**Site Map:** The line shows the path of the tributary. The section leading away from the driveway represents the 1,150' of newly excavated channel.

## Project Benefits

- ◆ Improved fish passage
- ◆ Return stream channel to historic path
- ◆ Improved quality and increased quantity of aquatic and riparian habitat
- ◆ Enhanced water quality through reduced bank and channel erosion



**After the Project:** Volunteers planted hundreds of native trees and shrubs along the tributary channel. The tubes help protect the seedlings and increases moisture levels.

The Long Tom Watershed Council serves to improve water quality and watershed condition in the Long Tom River basin through education, coordination, consultation, and cooperation among all interests, using the collective wisdom and voluntary action of our community members.

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