

Secret Ravine Fish Passage Improvement Project

Dry Creek Conservancy and the City of Roseville implemented a project to enhance fish passage and habitat on Secret Ravine Creek in Roseville, Placer County, California. Secret Ravine is a perennial stream that supports spawning, seasonal rearing and migration of California Central Valley steelhead (*Oncorhynchus mykiss*) and spawning, juvenile rearing and emigration of Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*). An abandoned bridge and utility crossing on the creek presented a migration obstacle to the salmonids. This project removed the abandoned bridge and concrete-covered unused utility pipes and modified the channel bed to improve fish passage under all expected flow conditions. Removal of the migration barrier at the project site improved access to approximately 10 miles of potential spawning and rearing habitat upstream.



Improved fish passage was achieved by removing the bridge, abutments, concrete apron and abandoned utility pipes from the east channel. The east channel was lowered by approximately 1 to 3 feet below the current bed elevation to ensure that this channel becomes the dominant flow path. Portions of the stream banks adjacent to the bridge abutments were graded to improve floodplain function. Large woody debris structures were placed in the channel to provide habitat and induce local scour. Large boulders were placed at the upstream end of the west channel to control grade and ensure that the east channel is the favored flow path; at high flows both channels will be active.

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