

Bliss Project – Fish Passage Improvement at Carpinteria Creek

This project improved upstream steelhead trout migration by removing the keystone barrier in the Carpinteria Creek watershed, replacing it with a clear span bridge, and naturalizing the creek channel.

Fifty years ago, Carpinteria Creek was home to plentiful runs of steelhead trout, which migrated each spring to spawning and feeding habitat in the upper watershed. But over the years, barriers to fish passage, degraded water quality, loss of stream habitat, and other problems have reduced steelhead to occasional visitors. The number of spawning fish in the creek and other streams in the area has declined to a small fraction of historic levels, and it continues to fall. Today Southern California steelhead is an endangered species.



Despite its problems, Carpinteria Creek offers great potential for steelhead recovery. Thirty years ago, the City of Carpinteria refused to allow the creek to be channelized with concrete for flood control. Now, unlike many other South Coast streams, its channel still runs freely under open spans (rather than through culverts) at both the Union Pacific tracks and the 101 freeway. The upper reaches of the creek contain great fish habitat, and water flows year round through the urban reach of the creek. Along much of the creek, there's a tall tree canopy that maintains the cool water that steelhead require. Because of these features, Carpinteria Creek may offer the best opportunity among all the urban streams in southern Santa Barbara County for restoring significant steelhead runs in the near future.

Like salmon, steelhead are anadromous fish: they are born and reared in freshwater, move to the ocean to grow and mature, and return to freshwater to reproduce. Because of their migratory habits, steelhead are more sensitive to certain conditions in a creek than resident fish.

The Carpinteria Creek watershed---the land area that drains rainwater and urban runoff into the creek---covers 9,600 acres (or 15 square miles) and runs from headwaters in Los Padres National Forest to the estuary at Carpinteria State Beach. It includes residential neighborhoods, commercial and other urban areas, farms, parks, roads, and open spaces. Everything that goes on within the boundaries of the watershed can affect the creek.

The funded project is a fish passage restoration project in Carpinteria Creek at the Bliss property low-flow crossing in Carpinteria, California. Approximately 500 lineal feet of Carpinteria Creek was restored. The project includes channel

grading, removal of a low-flow crossing and the construction of step pool structures, and the installation of a new bridge to replace the concrete low-flow crossing. The purposes of the restoration project are to facilitate the re-establishment of fish movement through the project area and provide year-round, all-weather access to the Bliss site.



Bridge installed over Carpinteria Creek on Bliss Property

Project partners included the State Coastal Conservancy, Natural Resources Conservation Service, Los Padres National Forest, Earth Island Institute, National Oceanic Atmospheric Administration, and United States Fish and Wildlife Service.