

Greenhorn Creek Project

DESCRIPTION:

Over 2,800 feet of Greenhorn Creek and 17.6 acres of flood plain were reconstructed using geomorphic techniques. Meanders were reconstructed and lined with natural material and vegetation to stabilize the eroding stream bank. A trail was built along the project site to provide public access. During the 1997 flood, the project was damaged and the channel re-routed. Maintenance work was done consisting of the installation of five boulder vanes to redirect the flow away from the bank, transplanting vegetation, and some minor channel re-shaping.

SPONSORS:

FEDERAL: Plumas National Forest, Soil Conservation Service, Agricultural Conservation and Stabilization Service;
STATE: Wildlife Conservation Board, California State Water Resources Control Board, California Department of Forestry and Fire Protection, Cal

PROJECT RESULTS:

Monitoring of results has been on-going since re-vegetation was completed in June 1992. These efforts have been done by the U.S. Forest Service, the California Department of Fish and Game, the Soil Conservation Service, and Quincy High School students. Substrate particle size changed immediately following project construction, from 30.7% of fine particles on the stream bottom to only 4.7% afterward. The stream channel width was reduced to 30 feet. The project has since been subjected to three major flood events. Although the meander reconstruction did not hold in 25-50% of the project reaches, there was no significant stream bank erosion. Re-vegetation success was high (79% of transplanted trees, and 87% of container stock living after one year). Willow transplants did well, and grasses showed good germination in the first year. Fish population was surveyed before the project, but not since. However, many recently hatched brown trout have been observed in the project area. Population of macro-invertebrates has not changed significantly in either the project or control sections of the stream. Bird population has not changed in either species or numbers, and is not expected to until significant long-term changes in vegetation occur.

PROJECT REPORTS (IF AVAILABLE):

Greenhorn Fact Sheet 1991

<http://www.weebly.com/uploads/4/0/5/5/40554561/greenhorn1991factsheet4.pdf>