

**STATE OF CALIFORNIA
SIERRA NEVADA CONSERVANCY**

**Sierra Nevada Conservancy Grant Program
Safe Drinking Water, Water Quality and Supply, Flood Control,
River and Coastal Protection Bond Act of 2006 (Proposition 84)**

Applicant: Plumas Corporation

Project Title: Greenhorn Creek Integrated Restoration Project

Subregion: North Central

County: Plumas

SNC Funding: \$341,000.00

Total Project Cost: \$565,460.00

Application Number: 694

Final Score: 85.75

PROJECT SCOPE

This project addresses channel erosion, fish passage barriers, and loss of agricultural productivity along Greenhorn Creek in American Valley near the town of Quincy in Plumas County. Land use along the channel is primarily agricultural. The project seeks to improve water quality and trout productivity by stabilizing actively eroding areas of stream bank and streambed, and restoring fish passage at two agricultural diversion dams. These actions will also stem the on-going loss of agricultural land to bank erosion, and protect the two diversion dams from failure.

The Greenhorn Creek Integrated Restoration Project is comprised of six (6) treatment areas along Greenhorn Creek in American Valley – four (4) to be funded under this grant. One of the six treatment areas was constructed in October 2011. The SNC funding will treat 13.6-acres of aquatic and riparian habitat and 2,720 feet of channel.

Two of the treatments specifically address bank stabilization, while the other two address fish passage and irrigation dam stabilization. The two bank stabilization treatment areas (Farnworth & Hansen/Shea/Labbe) will involve laying back 6-8 feet high eroding banks to a 2:1 slope, vegetating the banks and installing boulder vanes. The 2.8-acre Farnworth treatment area will treat 220 feet of bank and install 30 cubic yards of boulders in two vanes. The Hansen/Shea/Labbe treatment area will stabilize 900 to 1,800 feet of channel and install 220 to 435 cubic yards of boulders in 10 to 20 vanes. [Uncertainty with treatment at this location is due to the recent occupation of one of the eroding banks by bank swallows, a California threatened species. Pre-construction surveys and close coordination with the California Department of Fish and Game will determine the final degree of treatment in this area.]

The two fish passage treatments are located at agricultural irrigation dams, both of which are in danger of collapse. Bed erosion below both of these dams has created impassable fish barriers, and is undermining the bed on which the dams are built. Loss of these dams would be catastrophic for both Greenhorn Creek and the irrigators. The irrigators would lose substantial productivity from their irrigated pastures, and the channel would be subject to severe head-cutting, which would also lead to drying of the meadow (and subsequent loss of irrigation efficiency). On-going bed erosion has created an abrupt drop of eight feet at these dams to date. Treatment will consist of rock channel and floodplain structures that will stabilize the bed, allow upstream fish migration, and protect the dams. The structures will be constructed at a 5% grade. The structures are designed to require no maintenance, allow fish passage, and dissipate the energy of falling water. They are built with a series of riffles and pools in the constructed channel, and a rocked floodplain that will carry over-banking flood flows. The Reid Dam structure will require 4,000 cubic yards of rock, and the Shea Dam will require 2,800 cubic yards. Transporting these large volumes of rock would render the project prohibitively expensive without a nearby source. Some rock and transportation were donated to the project in 2010 by CC Meyers, Inc., and is now stockpiled five miles from the project site.

PROJECT SCHEDULE

DETAILED PROJECT DELIVERABLES	TIMELINE
Rock size engineering review	July 1-14, 2013
Pre-project monitoring data collection	July – September 2013
Construction contract advertised and awarded	July – August 2013
County grading permit received	August 2013
Stormwater Construction General Permit (CGP) documents registered	September 1, 2013
Shea/Hansen/Labbe Reach construction	September 15 – October 9, 2013
Shea Ranch fish passage construction	October 9-31, 2013
First six month progress report to SNC	December 31, 2013
Second six month progress report to SNC	June 30, 2014
CGP documents registered	August 15, 2014
Farnworth reach construction	September 1-9, 2014
Reid dam fish passage construction	September 10-30, 2014
Third six month progress report to SNC	December 31, 2014
Revegetation where needed	May 2015
Fourth six month progress report to SNC	June 30, 2015
Post-project monitoring data collection	July – September 2015
Final Report to SNC	December 2015
FINAL PAYMENT/FINAL PAYMENT REQUEST	March 1, 2016

PROJECT COSTS

PROJECT BUDGET CATEGORIES	TOTAL SNC FUNDING
Direct*	\$313,890.00
Indirect**	\$5,420.00
Administrative***	\$21,690.00
GRAND	\$341,000.00

* Direct: Direct costs are expenses necessary to acquire, construct, or to adapt property to a new or different use, or to improve property including land, buildings and equipment. The property/expense must have a useful life longer than one year.

** Indirect: Expenses involve ongoing operations, repair or maintenance costs, regardless of whether the repair or maintenance may last more than one year.

*** Administrative: Expenses associated with the administration of a project and may not exceed 15 percent of the total SNC grant request for direct and indirect costs.

PROJECT LETTERS SUPPORT/OPPOSITION

- Support
 - Plumas County Board of Supervisors
 - Feather River Coordinated Resource Management Group Executive Committee
- Opposition
 - None

PROJECT PERFORMANCE MEASURES

There are four Performance Measures common to all grants. In addition, grantees are required to include between one and three project-specific measures. Performance Measures listed here represent those proposed by applicants and may be modified through further discussion with SNC staff.

- Linear feet of stream bank protected or restored.
- Acres of land protected or restored.