

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

Subregion: CENTRAL County: NEVADA & PLACER

Applicant: TRUCKEE RIVER WATERSHED COUNCIL

Project Title: COLDSTREAM CANYON DESIGN AND PERMITTING FOR CREEK AND FLOODPLAIN RESTORATION

Reference Number: SNC 070108

PROJECT SCOPE

This project would complete final design and construction documents, CEQA and permitting for creek and floodplain restoration work within Coldstream Canyon. All pre-project monitoring would be completed in preparation for grading, excavating, filling, and revegetating segments in the creek and floodplain.

Specific actions would include:

- Final restoration design, including peer review by a Technical Advisory Committee;
- Construction document completion (CEQA and permitting);
- Construction work plan and schedule;
- Pre- and post-implementation monitoring to establish the baseline of riparian and streamside vegetation pre-construction, and to determine results after re-contouring of channel and floodplain;
- One community outreach meeting with partners and interested members of the Truckee community to discuss final design.

PROJECT SCHEDULE

DETAILED PROJECT DELIVERABLES	TIMELINE
Data collection & mapping	September 2008
Final design and plan specification	September 2008
CEQA preparation/ permitting	October 2008
Pre-project monitoring	June – August 2008
Technical Advisory Committee/peer review	December 2008
Administration and oversight	December 2008
Final Report/Final Payment Request	December 31, 2008

PROJECT COSTS

PROJECT BUDGET CATEGORIES	TOTAL SNC FUNDING
Data collection and mapping and pre-project monitoring	\$19,000
Final design and plan specifications	\$38,000
CEQA prep/ permitting	\$22,500
Technical review and administration	\$12,000
GRAND TOTAL	\$91,500

Letters of Support:

- Stonebridge Properties
- California Department of Parks and Recreation
- Town of Truckee

Recommendation:

Staff recommendation is to fund this project at the requested level of \$91,500.

Project Summary

This proposal requests \$91,500 to complete the design and permitting for a creek and floodplain restoration project in the lower reaches of Coldstream Canyon. Project partners are the Truckee River Watershed Council and CA Dept of Parks and Recreation. Stonebridge Properties and the Town of Truckee are working in close cooperation.

Coldstream Canyon (Cold Creek) drains a 12.5 square mile watershed that extends from the crest of the Sierra Nevada to just west of the Town of Truckee. There is a long history of human disturbance of the canyon. Construction of the Central Pacific Railroad in 1860's extensively modified the natural drainage. Logging began in 1840's and continued through the 1960's. Gravel mining occurred during the 1960's and 1970's. The channel and floodplain were completely altered through construction of I-80 and other urban infrastructure.

The channel has been degraded by both cumulative watershed impacts and direct stream channel manipulation. Cumulative impacts include increasing the size and velocity of peak floods, increasing the sediment supply to the channel, or both. Direct alterations of the stream channel and floodplain include changes to the channel network such that reaches that were formerly depositional now produce sediment, negatively impacting aquatic habitat and substantially destabilizing of downstream channel reaches. Estimates from the 12/2005 flood are that 1600 tons of fine sediment was delivered to Cold Creek. Cold Creek is one of the largest human-caused sediment producers to the Truckee River, which is 303(d) listed for sediment.

Cold Creek was relocated and channelized to for gravel mining. The original floodplain was filled with mining spoils, leaving an unnaturally narrow, straight and deep channel. Substantial erosion occurred due to extremely high velocity and shear stress on streambanks. The creek no longer had access to floodplain. Streambanks were very high, and even the largest floods were carried entirely within the channel, creating enormous erosive stress on streambanks. In more recent times, extensive streambank erosion and deposition of coarse gravels bars has started to create limited areas of new floodplain. This is a very slow process and yields substantial amounts of both fine and coarse grained sediment. The restoration opportunity consists of working with this process by actively constructing floodplain that would be formed by the erosive processes of larger floods. By actively creating the floodplain, the fine sediment erosion can be significantly reduced, riparian vegetation and floodplain development significantly accelerated. The project would have both water quality and habitat benefits.

In the restoration 7,300 cy of streambank material will be excavated from the CDP- reach (and 15,200 cy from the adjacent Stonebridge-reach). The existing riparian vegetation community will be significantly expanded from approximately 3.8 acres to 6.3 acres and will create approximately 2.5 acres of new floodplain which would become riparian vegetation and habitat.