

**Appendix B-8**

**LAKE TAHOE RESTORATION PROJECTS  
ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES**

Project Name: Lower Blackwood Creek Restoration Project Agency: California Tahoe Conservancy  
 Prepared by: Adam Lewandowski Phone: 530-543-6054 EIP #: 657, 883, 27, 606  
 SNPLMA Project #: \_\_\_\_\_

**Identify estimated costs of eligible reimbursement expenses:**

**1. Planning, Environmental Assessment and**

**Research Costs** (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.) \$ \_\_\_\_\_ %

**2. FWS Consultation—Endangered Species Act** \$ \_\_\_\_\_ %

**3. Direct Labor (Payroll) to Perform the Project** \$ \_\_\_\_\_ %

**4. Project Equipment** (tools, software, specialized equipment, etc.) \$ \_\_\_\_\_ %

**5. Travel** (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.) \$ \_\_\_\_\_ %

**6. Official Vehicle Use** (pro rata cost for use of Official Vehicles when required to carry out project) \$ \_\_\_\_\_ %

**7. Cost of Contracts, Grants and/or Agreements to Perform the Project** \$ 1,187,500 95 %

**8. Other Direct and Contracted Labor:** Agency payroll for the Contracting Officer to do project procurement, COR, Project Inspector, Sec. 106 Consultation if required, NEPA Lead, Project Manager, Project Supervisor, and subject experts to review contracted surveys, designs/drawings, plans, reports, etc.; Also covered is the cost to contract for a Project Manager and/or Project Supervisor if contracted separately from other project contracts) \$ 62,500 5 %

**9. Other Necessary Expenses** (See Appendix B-11) \$ \_\_\_\_\_ %

**TOTAL:** \$ 1,250,000 100 %

**Estimated Key Milestone Dates:**

Milestones/Deliverables:	Date:
<b>Completion of environmental review</b>	<b>December 2008</b>
<b>Begin construction</b>	<b>June 2009</b>
<b>Complete construction</b>	<b>October 2009</b>
Final Completion Date:	December 15, 2009

**COMMENTS:**

**Additional matching funding of over \$1,000,000 has been provided by the State of California to cover all planning and design costs. Significant implementation funds will be provided by the US Army Corps of Engineers and Placer**

**County. Schedule may be subject to change if complications arise during design or environmental review**

**APPENDIX K  
LAKE TAHOE CAPITAL PROJECT PROPOSAL  
ROUND 9**

**Consistency with Lake Tahoe nomination criteria:**

Project nominations must qualify as an Environmental Improvement Program (EIP) project and be the responsibility of the federal government (federal share responsibility); and have a willing and ready federal sponsor.

Project nominations must be consistent with one of the focus areas in the June 2006 Federal Vision (pp. 8-9) (<http://www.fs.fed.us/r5/lbmu/documents/lbtec/revised-FV-Final.pdf>) and fit into at least one category.

**Capital Focus Area (as described in the 2006 Federal Vision): Watershed and Habitat Improvement**

**Circle a minimum of one category:**

1. Continued emphasis on fuels reduction in coordination with projects funded under the 2006 SNPLMA amendment (the “White Pine” amendment).
2. Continued implementation of projects approved in Rounds 5 through 8 which implement the EIP. Project proposal should clearly describe the phase/product being produced along with the consequence of not completing the project phase proposed for Round 9.

List project(s): \_\_\_\_\_

- ③. Project is consistent with and contributes toward TMDL pollutant reductions within the four source categories (atmospheric, urban & groundwater, forested uplands, and stream channel).

List category(ies): stream channel, forested uplands

4. Control of aquatic invasive species and prevention of new aquatic invasive species.

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**Project Name:** Lower Blackwood  
Creek Restoration Project

**EIP #:** 657, 883, 27, 606

**Lead Agency:** California Tahoe Conservancy  
**Federal Sponsor:** USDA Forest Service

**Contact:** Adam Lewandowski  
**Contact:** Craig Oehrli

**Threshold:** WQ, SC, V, W

**Phone Number:**  
(530) 543- 6054 (CTC)  
(530) 543-2681 (USFS)

**Threshold Standard:** WQ – 1,4,5;  
SC – 2; V – 1; W – 1,2

**Email Address:**  
Alewandowski@tahoe.ca.gov (CTC)  
Coehrli@fs.fed.gov (USFS)

**Funding Requested in this Round:**  
\$1,250,000

**Total Project Cost:**  
\$4,500,000

**Is this a multi-year Project? (If “Yes”, describe in the Detailed Project Description below number of years or phases and which year the requested funding will cover)**

No

**Project Summary (maximum 200 words): (applicable ONLY to this Round 9 project):**

The Lower Blackwood Creek Project will enhance the most downstream 4000 feet of Blackwood Creek. The project will reduce inputs of fine sediment into Lake Tahoe by reducing stream channel erosion in Blackwood Creek, and by treating existing upland sediment sources near the creek. The project will also improve aquatic and riparian habitat in the project reach.

**Detailed Project Description (focuses on what Round 9 is funding; list the number of years or phases the Round 9 requested funding will cover; if phased, briefly describe how this project links into previously phased projects including what remains for Rounds 10 and beyond).**

Blackwood Creek Watershed is a major contributor of fine sediment into Lake Tahoe, contributing more sediment per acre than any other watershed in the basin. In the downstream portions of Blackwood Creek, severely eroding banks, user-created trails adjacent to the creek, and a disconnection from historic floodplains contribute to the sediment loading. Much of the downstream portion of the channel have significantly impacted riparian and aquatic habitat. Riparian vegetation is non-existent throughout much of the project reach. This impacts the approximately 80% of Mammal, bird, reptile, and amphibian species occurring in the Tahoe Basin that require riparian habitat for some stage of their life cycle. In addition, aquatic habitat in the project reach is degraded due to the lack of shading and cover that would be provided by riparian vegetation. The existing degraded state of the stream is a result of historic land uses in the watershed, channel constriction, and floodplain encroachments. The Lower Blackwood Creek Restoration Project involves stream channel and bank modifications intended to restore a degraded channel and compensate for the negative impacts of historic watershed alterations and floodplain encroachment. The project will reduce sediment inputs and improve aquatic and riparian habitat conditions in the lower portion of the watershed. The project represents the most downstream project in a comprehensive watershed restoration effort that is being led by the USDA Forest Service, Lake Tahoe Basin Management Unit and the California Tahoe Conservancy. The Lower Blackwood Creek Restoration Project will work in concert with the upstream projects to result in significantly improved water quality and habitat conditions throughout the watershed. A coordinated project development process has been used for project planning. This process ensured that input from regulators and federal, state, and local agencies was incorporated into the project from the beginning. The California Tahoe Conservancy has authorized over \$1,000,000 for project planning. This funding will cover all planning and design for the project. The U.S. Army Corps of Engineers and Placer Legacy, a division of Placer County, will tentatively provide additional funding of approximately \$2,250,000. The requested SNPLMA funding would cover the existing unfunded implementation costs.

**Describe the goals and objectives of the project (those applicable ONLY to this Round 9 project):**

The project will reduce fine sediment inputs into Lake Tahoe by reducing channel erosion in Blackwood Creek and minimizing upland sources near the lower portion of Blackwood Creek. The project will also enhance riparian and aquatic habitat along the most downstream 4000 feet of Blackwood Creek by increasing the area of riparian vegetation and increasing shaded riparian aquatic habitat.

**Describe the anticipated project accomplishments (i.e. products or identifiable environmental benefits being produced or implemented under this project):**

The project will result in the restoration of approximately 3000 feet of stream channel. Eroding banks will be re-contoured to create floodplain “benches” and the toe of the banks will be stabilized to reduce erosion. Native riparian vegetation will be planted to stabilize banks and improve riparian and aquatic habitat. Upland sediment sources, including heavily eroded trails, will be treated to reduce sediment inputs into the creek. The result will be a decrease in the amount of fine sediments entering Lake Tahoe from stream channel and upland forest areas, enhanced fisheries and habitat for other aquatic species, and enhanced habitat for riparian dependant species.

**Describe the “readiness” of this project to move forward (urgency, capacity, capability, environmental documentation etc.):**

The project is currently in the planning stage with existing funding available for all remaining planning activities. Alternatives are being completed and environmental review is scheduled to begin in March 2008. Construction is scheduled to begin in the summer of 2009. SNPLMA Round 9 funding would allow the project to proceed on this schedule and would make it possible to leverage other funding sources, which are currently available.

**Describe partnerships for this project. (if applicable, project should identify partner funding [committed/secured] and how it is integrated into the project)**

This project has had close collaboration with many area agencies, both funding and regulatory. The California Tahoe Conservancy has committed over \$1,000,000 to the planning and design of the project. The U.S. Army Corps of Engineers is currently entering into an agreement to fund approximately \$1,000,000 of implementation costs. Placer Legacy, a division of Placer County, will potentially fund \$1,500,000 of implementation costs. The requested SNPLMA funding would provide the final \$1,250,000 needed to implement the project. Many agencies have been involved in collaborative project development effort including: Tahoe Regional Planning Agency, California Tahoe Conservancy, USDA Forest Service, US Army Corps of Engineers, Placer County, Lahontan Regional Water Quality Control Board, and CalTrans.

**Describe the project monitoring that will be implemented as part of this project including:**

**1) The questions the monitoring program is designed to answer**

The project will develop a comprehensive monitoring plan that will answer questions regarding the effect of the project on Water Quality, terrestrial and aquatic habitat, and vegetation. The monitoring approach will be based on monitoring guidelines developed by the interagency Upper Truckee River Watershed Advisory Group.

These guidelines were developed for monitoring similar projects within the Lake Tahoe Basin and are the result of coordinated efforts between the California Tahoe Conservancy, USDA Forest Service, US Geologic Survey, California State Parks, City of South Lake Tahoe, Lahontan Regional Water Quality Control Board, Tahoe Regional Planning Agency, and subject experts from a number of universities and consulting firms. Monitoring will include implementation monitoring to ensure the project is implemented as planned, effectiveness monitoring to evaluate the adequacy of project design in achieving goals, and status and trend monitoring to track the longer-term response of resource conditions. This information will be used to ensure compliance with regulatory requirements, guide adaptive management, and provide guidance for the design of future projects.

- 2) **The monitoring approach (describe the methods and strategies [i.e. monitoring, research, or both] that will be used to verify whether the project goals and objectives have been met. A detailed monitoring/research plan is not required, but enough detail must be provided to allow someone that is unfamiliar with the project to understand and evaluate the proposed methods and strategies.)**

The following approaches will be taken for each of the monitoring groups listed below:

Photographs:

Groundbased photopoints will be established throughout the project area and in conjunction with other surveys. Photographs will be used as an efficient tool to monitor changes in channel planforms, plant communities, and vegetation structure.

Geomorphology:

Existing cross-sections will be re-surveyed periodically to monitor changes in channel geometry. This information may guide adaptive management.

Water Quality:

The downstream end of the project reach will be monitored for sediment. This monitoring will determine the annual and storm sediment loads entering the lake after the project and will be compared to existing baseline information.

Vegetation:

Vegetation will be monitored with ground photos. Ground photos will be used to measure the vigor of vegetation along the restored reach. Photos will be linked to local groundwater elevations to determine the seasonal effects of the project.

Aquatic and Terrestrial Wildlife:

Stream channel habitat typing will occur along the restored reach to measure changes in aquatic and riparian habitat. Macroinvertebrate surveys will be conducted to measure changes in aquatic habitat condition and water quality and point counts will be conducted to measure avian responses to the project. Components of other monitoring groups such as vegetation, photos, geomorphology, and hydrology will be utilized to help assess habitat quality in order to determine a comprehensive assessment of the project's effect on wildlife.

- 3) **Whether this project monitoring fits into a larger monitoring or research program (including how information from the monitoring and research will be used to improve the continued performance of the proposed project or improve future similar projects)**

Numerous other stream and habitat restoration projects are planned throughout the Lake Tahoe basin over the next few years and it is anticipated this monitoring will be used to evaluate overall effectiveness of projects in the basin. There has been a concerted effort by agencies in the basin to develop consistent protocols for monitoring and this plan will utilize those protocols. Restoration of the Upper Truckee River in South Lake Tahoe has led the effort to develop consistent monitoring methods for this type of project. The result of that effort has been a guide for development of this plan. The water quality monitoring has also been designed to answer key questions needed in the development of the Lake Tahoe TMDL. It is anticipated that this monitoring can be a key component to the larger regional research efforts on evaluating restoration effectiveness on water quality, hydrology, wildlife, and vegetation. The results of monitoring will also be used to trigger adaptive management in order to continually improve the ability of this project to meet its objectives.

**Describe these two items which will be considered along with the above project monitoring information by the Tahoe Science Consortium related to research and monitoring resource areas and the effectiveness of environmental restoration activities:**

- 1) Describe the specific goals and objectives of the project and describe how fulfilling those objectives will contribute to the achievement of one or more environmental thresholds.**

Objective 1, Reduce stream channel and upland sediment inputs into Blackwood Creek: This objective is directly tied to attainment of several water quality and fisheries thresholds including WQ-1 Littoral Lake Tahoe, WQ-4 Tributaries, WQ-5 stormwater runoff, surface water, and F-2 stream habitat.

Objective 2, Enhance Aquatic and riparian habitat conditions: This objective will directly affect several soil conservation, wildlife, fisheries, and vegetation thresholds including: SC-2 Stream Environment Zone Threshold Standard, F-2 Stream Habitat, W-1 Special Interest Species, W-2 Habitats of Special Significance, and V-1 common vegetation.

- 2) Describe the risk to the environment from failure of the proposed project (i.e. if the project fails what is the environmental consequence).**

If the project fails there could be adverse effects to water quality and wildlife. The project will utilize proven methods for design and construction that have been used on similar projects to reduce the possibility of failure. In addition, significant mitigation measures will be taken to reduce any potential impacts associated with project implementation or failure. These measures include, but are not limited to installation of temporary BMPs, dewatering of the channel prior to any manipulation, construction and removal of temporary access roads and effectiveness monitoring.

**Describe how the project results will be communicated and made available to the public.**

Through the overall environmental review process a series of public meetings have been held and are planned for the future. It is also anticipated results of the monitored will be presented at various regional venues such as LTIMP and local science conferences.

**Include an 8 ½ X 11 map depicting the project.**

# Lower Blackwood Creek Project Location

