

Appendix B-8

LAKE TAHOE RESTORATION PROJECTS ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES

Project Name: NEPA Resource Inventories, Surveys, & Analysis
Agency: USDA Forest Service, Lake Tahoe Basin Management Unit
Prepared by: Holly Eddinger (530) 543-2633
EIP#: 667; 10163.48; 10163.5;
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

\$ 245,000 49 %

4. Project Equipment (tools, software, specialized equipment, etc.)

\$ 25,000 5 %

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

\$ 20,000 4 %

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

\$ 150,000 30 %

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)

\$ _____ %
60,000 12%

9. Other Necessary Expenses (See Appendix B-11)

\$ _____

TOTAL: \$ 500,000 100 %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Conduct Analysis of 2009 Data	Oct 2009 – Mar 2010
Annual Monitoring Report 2009/2010	June 30, 2010
Collect 2010 Field Data	Mar 2010 – Dec 2010
Final Project Report completed	September 30, 2011
Final Completion Date: project close-out	December 31, 2011

COMMENTS:

None.

ROUND 10 CAPITAL PROJECT NOMINATION FORM
LAKE TAHOE FEDERAL SHARE EIP CAPITAL PROJECTS
APPENDIX K

Project Name: **NEPA Resource Surveys, Inventories, and Analysis**

Federal Agency Sponsor: **USFS, LTBMU**

Contact: **Holly Eddinger**

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Threshold: **Soils, WQ, Wildlife, Fish, Veg**

Threshold Standard: **Soils, WQ, special interest species, unique plant communities, habitats of significance**

Funding Requested in this Round: **\$500,000**

Total Project Cost: **\$6,878,000 (includes Rounds 7, 8, 9 actual + 10 thru 17 projected at \$500K/yr)**

Federal Share EIP rationale (select and describe appropriate EIP criteria from 5 items below – projects must meet one or more of these 5 items):

1. Does the project involve federal land? **YES, surveys conducted on LTBMU managed lands.**
 - If so, is the federal land involved important to successful implementation of the project? **YES**
2. Does the EIP identify the federal funding for the EIP project (project #)? **YES**
3. Does the project involve the conservation of a federal or regional threatened, rare, endangered or special interest species? **YES, surveys are conducted on TES species (see p.4).**
4. Does the project involve an identified federal interest such as the detection and eradication of noxious aquatic or terrestrial invasive species? **YES, surveys include these species.**
5. Does the project otherwise directly support federal implementation of capital projects in the EIP (e.g. technical assistance, data management, resource inventories, etc.)? **YES, resource inventories and data management.**

List Capital Focus Area(s) (as described in the 2006 Federal Vision): **Watershed and Habitat Improvement, Forest Health, Air Quality and Transportation**

Circle all that apply (must meet a minimum of one category):

1. Continued emphasis on forest ecosystem health/fuels reduction projects considering the LTBMU Stewardship Fireshed Assessment and Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy.
- ⇒ 2. Continued implementation of projects approved in Rounds 5 through 9 which implement the EIP. Project proposal should identify the applicable project(s) from Rounds 5 through 9 and clearly describe the phase/product being produced along with the consequence of not completing the project phase proposed for Round 10. **(NEPA Resource Inventories, Surveys, & Analysis – Rounds 7, 8, & 9)**
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 source category being addressed and integrate into the project nomination the following TMDL considerations (*see attached TMDL references – page 6). Source Category:
 - a) Describe whether, and how, the project demonstrates advanced, alternative, or innovative practices.

b) If project includes project level monitoring, describe ability of proposed monitoring strategy to contribute to the state of TMDL knowledge. Also describe if purpose of the capital project is to conduct data collection and/or analysis related to Lake Tahoe clarity.

c) Describe treatment approach for reducing pollutants, and/or measures to address connectivity between pollutant sources and Lake Tahoe or its tributaries. Identify target pollutants, and, to the degree feasible, provide quantitative estimates of project effectiveness at reducing pollutant loads (and/or a commitment to provide post-project estimates).

d) If appropriate, describe whether, and how, the project can be combined or coordinated with other TMDL implementation projects.

4. Control of aquatic invasive species and prevention and/or detection of new aquatic invasive species.

Provide an overall Project Summary (maximum 200 words): (describe ONLY this Round 10 project):

This project conducts approximately one year of basin-wide natural resource inventories and surveys for NEPA (National Environmental Policy Act) purposes and compliance with ESA (Endangered Species Act), NFMA (National Forest Management Act) requirements, augmentation of Forest Plan Status and Trend Monitoring, and evaluation of TRPA thresholds. Included are flora and fauna surveys (e.g., for establishment and management of special status species, Protected Activity Centers, Home Range Core Areas), programmatic long term forest restoration project effectiveness monitoring (>3 yrs post implementation), water uses and protection inventories, and post wildfire effects monitoring. Analyses of the information collected will yield key watershed-scale and landscape-level natural resource attributes and species population information. These are essential to putting in perspective the potential natural resource impacts of forest activities at localized sites (e.g., vegetation treatments, construction of roads and trails, motorized and non-motorized recreation, and restoration projects). Without this information, conducting the comprehensive cumulative effects analyses required by NEPA of each project would require substantially greater costs and time; by contrast, with the basin-wide information / data produced by this project, it is a relatively simple matter of integrating those basin-wide data with minimal project-specific information.

Additionally, results will be evaluated and utilized to adaptively manage the natural resources and forest activities. Impacts to resource conditions that can be associated with forest activities will spur action to mitigate impacts and to modify actions to minimize impacts of future forest activities. Data collection and analysis conducted through these efforts will be made available to the larger Basin Management System for its comprehensive evaluation of Tahoe Basin environmental resources.

Please provide clear and concise written responses to each of the items below.

Please state “not applicable” if you believe the item or question is not applicable to your project.

Is this project proposed as a multi-round project (previous or future)? (If yes, for previous or future projects describe in the Detailed Project Description below number of years or phases and which year the requested funding will cover).

YES.

Detailed Project Description (focuses on what Round 10 is funding; list the number of years the requested funding will cover; briefly describe how this project links into previous and future projects).

On a more detailed level, this project will provide one year of data collection and analysis for status-and-change and long term cause-and-effect information on physical resources (soil and water), aquatic, riparian, and terrestrial habitat condition, special status species and TRPA special interest vertebrates, aquatic warm water invasives, plants and plant communities of concern . This will provide the necessary information for cumulative effect analysis required by NEPA and evaluation of whether at the broad scale, Forest Management activities are meeting TRPA thresholds and Forest Plan objectives.

Biological status-and-trend components of the project include: avian special status species (bald eagle, California spotted owl, northern goshawk, osprey, and willow flycatcher), terrestrial special status species (American marten, Sierra Nevada red fox, wolverine, Pacific fisher), amphibian special status species (Sierra Nevada yellow legged frog), special status plant species and communities of concern (Tahoe draba (*Draba asterophora* var. *asterophora*) and Cup Lake draba (*D. a.* var. *macrocarpa*), and fen ecosystems -- together with their associated special status species), and warm water invasive species (large mouth bass, blue-gill sunfish, bull frog).

Long-term effectiveness monitoring of past stream channel restoration projects include measurements such as stream geomorphology, groundwater levels, and aquatic habitat features. The methodologies that will be used in all of these efforts are a combination of established protocols as well as field and analysis methodologies developed from more recent studies.

In addition, this project will provide data on post-fire wildfire effects related to soil quality, vegetation succession, hillslope stability, and channel condition. Data collection will take place within the Angora Fire Burn Area.

Round 10 funding will cover approximately one year of monitoring and analysis. This continues monitoring efforts funded and conducted in all previous rounds of SNPLMA, and [previously] the data collection funded through appropriated Forest Service budgets. It is expected this level of funding will continue for another three years (through 2012). This funding is combined with approximately \$250,000 of USFS appropriated funds annually, which is earmarked for management of corporate databases (NRIS, GIS, INFRA, FACTS), collection of specific regional scale monitoring data (BMPEP and IMPROVE air quality monitoring), and annual Forest Plan implementation monitoring and reporting.

Describe the specific goals and objectives of the project and describe how fulfilling those objectives will contribute to the achievement of one more environmental thresholds (air quality, water quality, soil conservation, vegetation, fisheries, wildlife, scenic, noise, recreation).

The overall goal of this project is to utilize a coordinated approach for inventorying and surveying natural resources in National Forest System lands within Lake Tahoe Basin in a basin-wide context, in order to provide watershed-scale and landscape-level reference conditions and analysis, and to quantify effects of various management activities (e.g., vegetation and fuels reduction treatments, recreation impacts, road decommissioning, and restoration projects) and environmental stressors (e.g., air pollution, water quality degradation, exotic species, etc) on soil, water, and biological resources related to desired future conditions or threshold standards in Lake Tahoe Basin, and to establish implementation and effectiveness monitoring guidelines for management/restoration activities that will allow individual projects to evaluate their success at attainment of -- or movement toward -- desired future conditions or threshold standards.

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

Comprehensive Annual Forest Monitoring Report (2009/2010), annual reports for individual elements of the monitoring program to be used in current NEPA analyses, updates to the Forest Five Year Monitoring Strategy.

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

This project will be ready for immediate initiation in FY10. As part of the Forest Plan Revision process currently underway, a monitoring strategy will be established that will aid in the implementation of this project. This monitoring strategy will also be coordinated with current efforts for development of an interagency (TRPA, Lahontan RWQCB, NDEP, USFS) Basin Management System.

Additionally, some portions of the natural resource inventories and surveys are currently under development. Key monitoring methodologies have previously been implemented by testing in the field for effectiveness and feasibility. Efforts relating specifically to some special status species have been ongoing since 1993. Thresholds, standards and indicators are being developed from data collected as part of those efforts. Therefore, a strong foundation is already in place for natural resources inventories, surveys, and analyses.

Staffing level at the LTBMU is sufficient to complete this work.

Describe partnerships for this project. (if applicable, project should identify committed/secured partner funding and/or other partner contributions (describe) and how it is integrated into the project):

The work will be conducted primarily by LTBMU staff; researchers at Pacific Southwest Research Stations and various universities will be consulted for assistance with advanced statistical analyses and testing of inventory and survey methodologies. We will continue to coordinate with other agencies within Lake Tahoe Basin (e.g., TRPA, State Parks, California Tahoe Conservancy, etc) to accomplish the inventories and surveys and share monitoring results (Tahoe Science Consortium, Lahontan Regional Water Quality Control Board).

Describe the estimated environmental risks from unintended consequences of the proposed project:

None; no construction, only monitoring.

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

The monitoring described below is also described in the LTBMU 5 Year Monitoring Plan, which will be updated on an annual basis.

- 1) The questions the monitoring program is designed to answer
 - a. **What is the current status and change in Special Status Plant and Animal Species (Listed Threatened and Endangered, Species of Concern and Species of Interest) populations within the Lake Tahoe Basin?**
 - b. **To what extent have desired conditions for aquatic and terrestrial ecosystems been achieved within the Lake Tahoe Basin and what are factors that affect achievement of desired conditions?**
 - c. **What are the water uses and protections (water rights) within and adjacent to the National Forest System lands in Lake Tahoe Basin?**

d. What are the short term (up to 3 yrs) and long term (5- to 10-year) ecological impacts from the Angora Fire? and has the fire and post fire restoration efforts affected desired conditions?

- 2) 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? (Note, a detailed monitoring plan and/or research plan is not required, however, enough detail must be provided to allow someone that is unfamiliar with the project to understand and evaluate the proposed methods and strategies)

Component Name	Inventory / Survey Approach
Biological Integrity of Aquatic Ecosystems	Implement field protocols to measure the biological integrity of major aquatic components including 1) Lake Tahoe (littoral fish life history status, biological pollutants index, zooplankton assemblage index,), 2) streams (Benthic Macroinvertebrate Index of Biological Integrity, riparian vegetation condition 3) Small Lakes (biological pollutant index, Herpetological Index of Biological Integrity, Waterbird IBI, others), 4) Wetlands (Biological pollutants index, herpetological IBI, Waterbird IBI, Wetland vegetation ecological status). In addition, factors that affect the biological integrity of aquatic ecosystems will be measured
Biological Integrity of Terrestrial Ecosystems	Implement protocols to measure and evaluate the biological integrity of major vegetation zones that comprise the terrestrial ecosystem of Lake Tahoe. Indicators for measurement include and are not limited to land bird index of biological integrity, vegetation structure and compositions (including measures of invasive plant species), snags and downed wood. In addition, factors that affect the biological integrity of terrestrial ecosystems will be measured
Status of Special Status Wildlife Species	Population status/trend and distribution of Special Status species including but not limited to: owls, goshawk, willow flycatcher, bald eagle, american marten, fox, wolverine, mountain beaver, mountain yellow legged frog. Include measure of man-induced factors that can affect population trends and distribution.
Status of Special Status Plant Species and Communities of Concern	Status/trend, distribution and abundance of Special Status plant species. Determine status/trend of community of concern health and to establish what factor affect status. Communities of concern include and are not limited to fens, cushion plants, and aspen.
Long Term Forest Management Effectiveness Monitoring	Continue data collection >3 years after implementation for selected forest restoration projects as identified in LTBMU 5 year monitoring plan, (ex. Cookhouse Stream Channel Restoration, Blackwood Phase I and II,)
Native Non-Game Fishes of Concern	Assess distribution of native non-game fishes within tributaries of Lake Tahoe. Identify population trends, life history, and demographics of pertinent taxa and local extirpation.
Warm Water Invasive Species	Assess distribution, migration, and habitats of warm water invasive fishes, amphibians and aquatic plants in tributaries immediately adjoining Lake Tahoe.
Water Uses and Protections	Maintain inventory of any new water uses within National Forest System lands within Lake Tahoe Basin; log all protective measures, including both physical and administrative (including special use permits and water rights permits).
Post WildFire Effects Monitoring	Assess impacts of moderate to high intensity wildfire, and post fire restoration in the Angora Creek Watershed on soil quality, hillslope stability, vegetation succession, and channel condition.

- 3) Describe whether the monitoring or research associated with this project fits into or is part of a larger monitoring or research program

These annual inventories and surveys provide the basin-wide context (baseline) within which to put project-level monitoring results in perspective, for comprehensive cumulative effects analyses and for adaptive management of the natural resources in National Forest System lands within Lake Tahoe Basin. These are summarized annually in the Annual Forest Monitoring Program Report, as well as every five years

in a comprehensive evaluation report. Information is used to inform NEPA analysis to develop proposed projects.

- 4) Describe how information from the monitoring and/or research will be used to improve the continued performance of the proposed project or future similar projects
See 3) above.

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

This proposal will remain posted on LTBMU's "SNPLMA website" and interested parties will use the project contact information supplied herein to communicate directly with the LTBMU contact. Significant interim accomplishments may be reported out as they occur, by posting to LTBMU's website. Discussion of project particulars may periodically occur during meetings of TSACC (Tahoe Science Agency Coordinating Committee), as well.

Results of the inventories and surveys, together with analyses of these datasets, will be summarized in an Annual Forest Monitoring Report, and posted on the LTBMU website. Further, the Interpretive Services staff will conduct public outreach at various locations (e.g., visitor centers, schools, public agencies) and during various events to educate the public concerning the principles, practices, and products of this project; an amount equal to two percent of the project costs is dedicated to this effort.

If applicable, include an 8 ½ X 11 map depicting the project.

Not applicable: The natural resource inventories and surveys are conducted at numerous randomly selected locations throughout Lake Tahoe Basin.