

Appendix B-8

LAKE TAHOE RESTORATION PROJECTS ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES

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

Agency: USFS/LTBMU

Prepared by: Susan Norman Phone: 530-543-2662

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.)

\$ 0 0 %

2. FWS Consultation—Endangered Species Act

\$ 0 0 %

3. Direct Labor (Payroll) to Perform the Project

\$ 365,000 49 %

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

\$ 15,000 2 %

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

\$ 10,000 1 %

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

\$ 20,000 2.5 %

7. Cost of Contracts, Grants and/or Agreements to Perform the Project

\$ 250,000 33 %

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.)

\$ 0 0 %

9. Other Necessary Expenses (See Appendix B-11

\$ 90,000 12 %

OTAL: \$ 750,000 100 %

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Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Finish Data Collection for 2009	October 2009
Finish Data Analysis of 2009 Data	June 1010
Report of status and change of natural resources on LTBMU 2009	July 20010
Final Completion Date (incl. project close-out)	September 2010

COMMENTS:

**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/lbec/revised-FV-Final.pdf>) and fit into at least one category.

Capital Focus Area (2006 Federal Vision): Watershed and Habitat Improvement AND Forest Health, Air Quality and Transportation

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): Round 7 and 8, NEPA Resource Surveys and Inventory.

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): _____

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

Project Name: NEPA Resource, Surveys and Analysis EIP #:667, 1063.48,1063.5

Lead Agency: Forest Service, LTBMU

Contact: Sue Norman

Threshold: Soils, WQ, Wildlife, Fisheries, and Vegetation

Phone Number:530-543-2662

Threshold Standard:Soils, WQ, special interest Species, unique plant communities, habitats of Significance

Email Address: snorman@fs.fed.us

Funding Requested in this Round: \$750,000

Total Project Cost: \$5,128,000

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) YES

Project Summary (maximum 200 words): (applicable ONLY to this Round 9 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, and evaluation of TRPA thresholds. Included are water uses and protection inventories, post wildfire effects monitoring, BMP implementation and effectiveness inventories, air quality monitoring, and flora and fauna surveys (e.g., for establishment and management of special status species, Protected Activity Centers, Home Range Core Areas). 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). Conducting the comprehensive cumulative effects analyses required by NEPA will then be a relatively simple matter of integrating these basin wide data with the project-specific information from proposed and previous projects in a watershed.

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.

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).

On a more detailed level, this project will provide annual status-and-change and cause-and-effect information on special status species and TRPA special interest vertebrates, aquatic warm water invasives, plants and plant communities of concern to provide the necessary information for cumulative effect analysis required by NEPA. Components of this 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 (mountain yellow legged frog, yosemite toad), 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), warm water invasive species (large mouth bass, blue-gill sunfish, bull frog). This information will also be used as components of indices of biological integrity (IBI) which will be used to monitor and adaptively manage both the terrestrial and aquatic resources of the forest. 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.

This project also provides forest level data on soil and water protection BMPs implementation and effectiveness, per established regional standards and protocols (BMPEP, 2002), maintaining inventory water rights and uses per national direction and guidance, as well as maintains data collection of the Bliss IMPROVE air quality monitoring site.

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 9 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 four years (through 2012).

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

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 (2008/2009), 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 etc.):

This project will be ready for immediate initiation in FY09. 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.

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.

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

The work will be conducted primarily by LTBMU staff; researchers at PSW 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 project monitoring that will be implemented as part of this project including:

The project is in itself a natural resources monitoring and evaluation program on National Forest System Lands in Lake Tahoe Basin

1) The questions the monitoring program is designed to answer

- a. What are the water uses and protections (water rights) within and adjacent to the National Forest System lands in Lake Tahoe Basin?
- b. 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?
- c. 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?
- d. Are the BMPs used in current and past projects within and adjacent to the National Forest System lands in Lake Tahoe Basin implemented as planned and are they effective in preventing soil losses and water-quality impacts?
- e. 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) 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.)

Component Name	Inventory / Survey Approach
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).
BMP Effectiveness	Utilize BMPEP (Best Management Practices Effectiveness Program) protocols for evaluation of the completeness and correctness of implementations of BMPs at current forest activity (project) sites; utilize the BMPEP protocols to log the effectiveness of BMPs in providing water-quality protection at current and past sites of forest activities.
Air Quality	Maintain IMPROVE air quality monitoring site at Bliss State Park to provide status and trend data on air quality constituents.
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.
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
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.
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) 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)

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.

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.

See goals and objectives stated above. Fulfilling these objectives will lead to more informed decision making, as these data and analyses are utilized in NEPA process to develop projects.

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 does not succeed, information will not be available to inform decisionmaking, leading to less certainty regarding assessment of existing conditions and effectiveness of projects.

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

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.

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.