

ROUND 12 CAPITAL PROJECT NOMINATION FORM
LAKE TAHOE FEDERAL SHARE EIP CAPITAL PROJECTS
APPENDIX K

Project Name:	NEPA Resource Inventories, Surveys, and Analysis (NRI)	EIP Number: <i>(Required)</i>	667; 10163.48; 10163.5
Federal Agency Sponsor: <i>(Required)</i>	Forest Service - LTBMU	Contact:	Holly Eddinger
Threshold:	Soils, WQ, Wildlife, Fish, Veg	Phone Number:	530-543-2633
Threshold Standard:	Soils, WQ, special interest species, unique plant communities, habitats of significance	Email:	heddinger@fs.fed.us
FUNDING REQUESTED IN THIS ROUND:		\$ 560,000	

Federal Share EIP Consideration

Select "yes" or "no" for each question. If you have a "yes" response, briefly describe. *Projects must meet one or more of these 5 items.*

- 1. Does the project involve federal land? If yes, is the federal land involved important to successful implementation of the project?** Yes No

Yes, the project would continue to occur solely on federal lands managed by the USFS Lake Tahoe Basin Management Unit.

- 2. Is this project identified in the EIP? If yes, please ensure the EIP number is identified in the above project information box. If no, provide a description of the project's contribution to the EIP program.** Yes No

Yes, EIP #: 667; 10163.48; 10163.5

- 3. Does the project involve the conservation of a federal or regional threatened, rare, endangered, or special interest species? If yes, identify.** Yes No

Yes, the project is directly related to the conservation of species and their habitats by collecting pertinent information to help managers in the design of projects; provide data to forest, regional, and national species datasets; and provide key species protocol and monitoring plan development.

- 4. Does the project involve an identified federal interest such as the detection and eradication of non-native invasive species (aquatic or terrestrial)? If yes, identify.** Yes No

Yes, species data collected will provide information to managers on the location and detections of non-native invasive species both terrestrial and aquatic through species and habitat inventories.

- 5. Does the project develop knowledge and/or information to develop future capital projects in the EIP? (such projects that fulfill this function would include technical assistance, data management, and/or resource inventories)** Yes No

Yes, the project is directly related to contributing support in implementing capital projects by providing the necessary resource inventories, data management, and reporting.

Check all Capital Focus Area(s) that apply (as defined in the Federal Vision):

- 1. **Watershed and Habitat Improvement**
- 2. **Forest Health**
- 3. **Air Quality and Transportation**
- 4. **Recreation and Scenic**

Check 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 Fuels Reduction and Wildfire Prevention Strategy.**
- 2. **Continued implementation and/or completion of projects approved in Rounds 5 through 11 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 12.**

List Previously Approved Rounds and funding(provide project titles):

Round 7 (F079)	\$1,064,000
Round 8 (F115)	\$1,064,000
Round 9 (F130)	\$ 500,000
Round 10 (F151)	\$ 500,000
Round 11 (Fxxx)	\$ 375,000

- 3. **Project is consistent with and contributes toward TMDL pollutant reductions within the four source categories (atmospheric, urban & groundwater, forested uplands, and stream channel). NOTE: If “yes”, then please respond to questions in the Accomplishments section of the nomination proposal.**
- 4. **Control of aquatic invasive species and prevention and/or detection of new aquatic invasive species.**

Project Nomination Proposal Outline

Project Summary (a brief summary which clearly describes the proposed project –maximum 200 words)

- Summarize ONLY the Round 12 project (also summarize scaling of funding to be described in more detail in the “Project Description” section below).

The Round 12 NEPA Resource Inventory, Survey, and Analysis (NRI) project would focus on three main areas: 1. Biological Species and Habitat Inventories, Monitoring, and Assessments; 2. Angora Burn Area Monitoring; and 3. Long Term Streamchannel / Floodplain Restoration Effectiveness Monitoring.

For the Biological Species and Habitat Inventories, Monitoring, and Assessments portion of the project the proposed components include the completion of reports and assessments on data already collected in previous rounds of NRI, inventories & monitoring of species and habitats, and all necessary and related data entry, database management, and data GIS support needs.

For the Angora Burn Area Monitoring the proposed components include monitoring of vegetation (i.e. collecting data on post Angora Burn area on vegetation succession, conifer regeneration, snag fall and down woody debris recruitment, fuel development, tree mortality, and beetle populations); aerial photography, soil quality hydrophobicity measurements, erosion surveys, and water quality (i.e. measure sediment and nutrient concentrations).

For the Long Term Stream / Channel Restoration Effectiveness monitoring portion of the project the components include measurement and analysis of geomorphic and habitat parameters using SCI protocols and topographic surveying, and aerial photography; photopoints and transects to evaluate evolution / establishment of riparian vegetation; and measurements and modeling to calculate sediment load dynamics and load reduction (Blackwood), and water quality measurements (Cold Creek/High Meadows).

Project Description

Introduction

- Provide project background which explains the situation and state the problem and how it will be addressed.

Note: Focus needs to be the project in Round 12 not a history of an ongoing project or program.

The Round 12 NRI project would focus on three main areas: 1. Biological Species and Habitat Inventories, Monitoring, and Assessments; 2. Angora Burn Area Monitoring; and 3. Long Term Streamchannel / Floodplain Restoration Effectiveness Monitoring.

For the Biological Species and Habitat Inventories, Monitoring and Assessments, the components proposed include continuation of annual inventory and monitoring efforts (e.g. for selected species such as listed threatened, endangered, candidate, Forest service sensitive, or other special status species and or their habitats; stream condition inventory; botanical long term monitoring plots; post-project effectiveness monitoring; stream temperature monitoring; etc.) and the completion of reports and assessments from previous NRI round funding.

The biological species and habitat information has been used [and will continue to be used] 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).

For the Angora Burn Area Monitoring, the components proposed include the continuation of vegetation monitoring conducted by the Regional Ecology Program of the Forest Service to collect data and report on the Angora Burn area for vegetation succession, conifer regeneration, snag fall and down woody debris recruitment, fuel development, tree mortality, and beetle populations. Also proposed is the continuation of the water quality monitoring in the Angora Burn area to measure flow and sediment and nutrient concentrations, to evaluate longer term recovery of Angora Burn area tributary water quality over time, particularly as it relates to nitrogen concentrations which have shown the slowest rate of recovery. Water quality monitoring will also be used with other data to evaluate impacts of implemented restoration actions in the Burn Area. Monitoring will be focused at forest service boundary on Angora Creek, during spring runoff period. Funding is needed to cover up to three years of monitoring (2012 -2014). For soils, hydrophobicity would be measured and visual surveys to evaluate the erosion feature development in the Angora burn areas (in 2013). Angora aerial photography would be repeated in 2013 to evaluate erosion feature development and vegetation trends.

For the Long Term Stream Channel / Floodplain Restoration Effectiveness monitoring portion of the project, this component is needed because specific project funds only cover the first 2 years of post project monitoring. However ultimate success of these projects can only truly be evaluated in the 5 to 10 year time horizon. Data collected will be used to quantify effectiveness related to channel stability, water quality improvement, and habitat improvement, as well as to determine any channel maintenance needs. In 2012 and 2013, data collection and analysis will be needed at the following restoration projects: Cookhouse, and Blackwood Phase I, II, and IIIA.

- Describe what Round 12 is specifically funding; list the number of years the requested funding will cover; briefly describe how this project links into previous projects/rounds (identify and describe other round projects and funding received). Show scaling of project (reduced funding request and associated reduction in accomplishments).

***NOTE:** Focus should be on finishing current/phased projects. If project is new in Round 12, clearly identify if the project is for planning or implementation and how it will be completed with Round 12 funds. Identify if other funds will be needed to complete the project. Please identify total non-SNPLMA funds that are being contributed/dedicated to the proposed Round 12 project and the source of those funds.*

In Round 12 the NRI funds are expected to fund the continuation of the biological inventory and monitoring needs for the LTBMU and complete assessments and reports for data collected in previous rounds of NRI as well complete the first phase of Angora Burn Area monitoring. Due to the need for allowing funds to be available for at least two years for contract fulfillment and to allow for completion of field surveys in subsequent year(s) due to unforeseen complications (e.g. bad weather delays the start of the field season, large on-forest fire disrupts ability of field crews to reach survey sites, etc.) – the project is being proposed to be conducted for approximately four years, during which time it will also be used to leverage additional funding needed to continue the needed inventorying and analyses.

The previous NRI funding, and directly related funding, has been:

- Round 5 (**F027**) \$1,230,000 (Multi-species Inventory Monitoring Protocol Development) – *this [pre-NRI] comprehensive data collection and analysis project informed the development of the NEPA Resource Inventories & Analysis Program, both in terms of economies of scale in mapping Basin-wide species distributions and in terms of future opportunities to extend the datasets strategically (how to get the most ‘bang for the buck’); the key product is the report “Multi-Species Inventory and Monitoring - Sept. 2007”*
- Round 6 (**F068**) \$585,200 (Data Assessment & Monitoring Plans) – *this [pre-NRI] focused data collection and analysis project informed the development of the NEPA Resource Inventories & Analysis program, regarding adaptively managing the implementation of strategies to most efficiently fill data gaps; the key product is the report” LTUB Recommendations for Role of Urban Forests in Conserving and Restoring Biological Diversity in the Lake Tahoe Basin - May 2007”*
- Round 7 (**F079**) \$1,064,000
 - Tahoe Basin Science Conference (10 or more LTBMU participants)
 - USGS Angora Fire - Water Quality Monitoring
 - USGS Groundwater Inventory
 - Wildlife Monitoring Plans development
 - Annual Monitoring Report (organized by Key Management Questions)
 - Monitoring activities generated specific reports, including:
 - Angora Fire Hydrophobicity Monitoring - 2007 Field Report
 - Pre-treatment and Partial-treatment Forest Structure and Fuel Loads in the LTBMU Aug. 2007
 - Ground-Water Resources Inventory of the Lake Tahoe Basin – 2007
 - Role of Urban Forests in Conserving and Restoring Biological Diversity in the Lake Tahoe Basin Final Report - Mar. 2007
- Round 8 (**F115**) \$1,064,000
 - Tahoe Basin Science Conference (10 or more LTBMU participants)
 - USGS Angora Fire - Water Quality Monitoring
 - Angora Vegetation Study Wildlife Monitoring Plans
 - Wildlife Monitoring Reports completed and utilized in making adjustments to Protected Activity Centers (PACs) and Home Range Corridors for goshawk and spotted owl
 - TES Plant Species Monitoring Reports completed; data entered in NRIS.
 - Annual Monitoring Report (organized by Key Management Questions)
 - Monitoring activities generated specific reports, including:
 - 2008 Addendum - Angora Hydrophobicity Monitoring
 - Lonely Gulch Restoration Project Monitoring Report - Apr. 2008
 - Heavenly SEZ Fuels Reduction Project Monitoring Report - Mar. 2008
 - SEZ Pile Burn Field Monitoring - Aug. 2008
 - Angora Fire Vegetation Monitoring Annual Progress Report - Summer 2008
 - Northern Goshawk Population Monitoring in the Lake Tahoe Basin Final Report - Oct. 2008
 - American Marten Population Monitoring in the Lake Tahoe Basin Final Report - Aug. 2008

- Round 9 (**F130**) \$750,000
 - Tahoe Basin Science Conference (10 or more LTBMU participants)
 - Wildlife inventories updated, including: Northern goshawk, Spotted Owl, Willow flycatcher, Osprey, Bald Eagle, Golden Eagle, Peregrine Falcon, and bats; reports of the results are in production.
 - Botanical inventories updated, including: Meadow plots, TES plant site revisits, Draba monitoring sites, Grass Lake monitoring, Fen monitoring, and habitat model validation; reports of the results are in production.
 - Aquatic inventories updated, including: amphibian visual encounter surveys and basin-wide nongame fish assessment; reports of the results are in production.
 - TES Plant Species Monitoring Reports completed; data entered in NRIS.
 - Annual Monitoring Report (organized by Key Management Questions) is in review for finalization and posting to LTBMU's public website.
 - Monitoring activities generated specific reports, including:
 - 2009 Addendum to 2007 Angora Wildfire Hydrophobicity Field Monitoring Report - Jan. 2010
 - Angora Fire Vegetation Monitoring Annual Progress Report - Oct. 2009
 - Cookhouse Meadow Restoration Monitoring Report - Jul. 2009
 - Heavenly SEZ Fuels Reduction Project Vegetation Response Monitoring - Jul. 2009
 - Interim Monitoring Report for Blackwood Creek Phase I and II Restoration Projects
 - Marlette Creek Restoration Project Monitoring Report
 - Wildlife Program Annual Report - 2009
 - 2007/2008 Annual Forest Monitoring Report

- Round 10 (**F151**) \$500,000
 - In FY10 project funds were used for completing contracts for Angora Wildfire monitoring, and biological data collection throughout the forest for wildlife, botanical, and aquatic species (done in coordination with project funds from Round 9 NRI project).
 - Data summaries and analysis for these surveys, as well as preparing reports for the 2010 field season, will occur in FY11 Q1 – Q3 for this project.
 - Surveys in 2010 included:
 1. Wildlife: Northern goshawk, Spotted Owl, Willow flycatcher, Osprey, Bald Eagle, Golden Eagle, Peregrine Falcon, and bats.
 2. Botanical: Meadow plots, TES plant site revisits, Draba monitoring sites, Grass Lake monitoring, Fen monitoring, and habitat model validation.
 3. Aquatic: amphibian visual encounter surveys and basin-wide nongame fish assessment.
 - Annual Monitoring Report (organized by Key Management Questions) is under production.
 - Tahoe Basin Science Conference (10 or more LTBMU participants)
 - Monitoring activities generated specific reports, including:
 - 2010 Addendum to 2007 Angora Wildfire Hydrophobicity Field

Monitoring Report - December 2010

- Angora Fire Vegetation Monitoring Annual Progress Report - Dec. 2010

- Round 11 (**F165**) \$375,000 continues and extends Round 10 activities and begins additional monitoring and analysis of water uses and protections, especially for municipal supplies and groundwater-dependent ecosystems (fens, bogs, springs, wetlands, ponds, and streams). Funds have been received on Unit and work is underway to implement the project inventories and analyses; appropriate reports (as above, for previous Rounds) will be prepared following inventories.

In summary, the Round 12 NEPA Resource Inventory, Survey, and Analysis (NRI) project will accomplish the following inventory/monitoring and analyses (funding levels shown are approximate and actual distribution of funds may change depending on conditions at the time of implementation):

- Biological Inventory, Monitoring, and Assessments = \$350,000
- Angora Burn Area Vegetation Monitoring - \$60,000
- Angora Burn Area Water Quality - \$40,000
- Angora Burn Area Soil Hydrophobicity and Aerial Photography - \$15,000
- Long Term Restoration Effectiveness Monitoring - \$35,000
- LTBMU Indirect Costs (ONE + Env Ed) at 12% above total for NRI = est. \$60,000

These elements of the NEPA Resources Inventory, Survey & Analysis project total \$560,000.

- 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 once funding arrives on the LTBMU – estimated as quarter 2 of fiscal year 2012. The LTBMU has the capacity to carry-out the necessary work with a combination of in-house staff, summer temporary hires, and or with contractors.

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

The work will be conducted primarily by LTBMU staff and/or in coordination with and by the Regional Ecology Program of the Forest Service, and appropriate federal, state, and local partners. The work may also involve the coordination with researchers at Pacific Southwest Research Stations and various universities that will be utilized for completing and assistance with advanced statistical analyses and reporting if needed. 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). A portion of the Round 12 funds would be to continue partnership development with other agencies in order to address basin wide monitoring and evaluation needs.

Note: The form requests information about project goals, objectives, accomplishments, and questions the program is designed to answer across several different sections. These issues are closely linked and your individual responses should provide a cohesive description.

Goal – Purpose and Need (“larger” statement of future expected outcome – usually not measurable)

The overall goal of this project is to utilize a coordinated approach for inventorying and surveying natural resources on National Forest System lands within Lake Tahoe Basin in a basin-wide context 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. The project will also 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.

Objectives (specific measurable statements of action – Round 12 only - which when completed will move towards achieving the goal)

Note: Objectives will form the basis for the milestones/deliverables to be identified in Appendix B-8

- Describe how fulfilling objectives will contribute to the achievement of one or more environmental thresholds (air quality, water quality, soil conservation, vegetation, fisheries, wildlife, scenic, noise, recreation). Provide measures if applicable. For example: acres treated, miles of stream restored for each objective.

The NRI project provides data and the associated analysis for select status-and-trend species and begins to infer the long term cause-and-effect information on physical resources (soil and water), climate change resource vulnerabilities, aquatic, riparian, and terrestrial habitat condition, special status species and TRPA special interest vertebrates, aquatic warm water invasive, 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 may include: avian special status species (e.g. Bald eagle, California spotted owl, Northern goshawk, Osprey, Willow flycatcher), terrestrial special status species (e.g. American marten, Sierra Nevada red fox, wolverine) amphibian special status species (e.g. Sierra Nevada (mountain) yellow-legged frog), special status plant species (e.g. Tahoe draba (*Draba asterophora* var. *asterophora*) and Cup Lake draba (*D. a.* var. *macrocarpa*)) and communities of concern (e.g. fen ecosystems -- together with their associated special status species), and aquatic invasive species (e.g. bullfrogs).

Long-term effectiveness monitoring of past stream channel restoration projects (e.g. at Cookhouse Meadow and Blackwood Creek) and in the stream environment zone (SEZ; e.g. Heavenly Creek SEZ Fuels Reduction Project Area) include measurements such as stream geomorphology, groundwater levels, aquatic habitat features, and the response of riparian vegetation specifically in the Heavenly SEZ Fuels Reduction Project area.

Post-project effectiveness monitoring for projects such as the Sierra Nevada yellow-legged frog recovery project in the Desolation Wilderness would be included to ensure no fish are found in the project area by conducting visual encounter surveys and using gillnets around all project area lakes and associated ponds. As natural re-colonization from existing *R. sierrae* is anticipated, visual encounter surveys throughout the field season following eradication efforts are pertinent to determine if fish removal efforts are successful or if additional measure need to be incorporated to promote re-colonization.

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-wildfire effects in the Angora Burn area related to soil quality, vegetation succession, hill-slope stability, and channel condition.

Wildlife, fish, vegetation, and water quality are all heavily dependent on water supply. The Water Uses and Protection efforts will examine the uses of ground water and surface water in NFS lands in the Basin and how they affect the sustainability of the natural resources of the forest and its ability to provide ecosystem services (e.g., support municipal watersheds).

- Describe the estimated environmental risks from unintended consequences of the proposed project (if applicable).

None expected.

Accomplishments

- Describe the anticipated project accomplishments (i.e. products or identifiable environmental benefits being produced or implemented under this project), and how the project results/accomplishments will be communicated and made available to the public.

Note: Differentiate between direct and/or primary project effects and secondary and/or overall watershed effects.

A comprehensive Annual Forest Monitoring Report will highlight the accomplishments from this project (NRI) as well as other forest wide monitoring efforts. In addition, annual reports for individual elements of the monitoring program would be used in current NEPA analyses, updates to the Forest Five Year Monitoring Strategy, and updates to the Forest Plan monitoring plan. Reports and assessments will be posted to the LTBMU's publication site once finalized. See LTBMU's public website "publications" link to access the list of completed reports and links for their downloads.

- If you checked "yes" for the project being consistent with and contributing to TMDL pollutant reductions, please consider and integrate the following in the project description:

a) Describe whether, and how, the project demonstrates advanced, alternative, or innovative practices.

n/a

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.

The components of the RD 12 NRI project that involve contributions to the TMDL are interrelated with the currently working with design consultants to develop a methodology for estimating changes in sediment loading dynamics as a result of restoration actions in Blackwood Creek, based on a combination of field measurements and modeling. We would be using this methodology in 2011 based on 2010 conditions and we would repeat the methodology in 2013.

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).

n/a

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

n/a

Monitoring

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

- List the questions the monitoring program is designed to answer.

What is the current status and change in Special Status Plant and Animal Species (Listed Threatened and Endangered, Forest Service Sensitive, Species of Concern and Species of Interest) populations within the Lake Tahoe Basin?

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?

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?

What are the uses of ground water and surface water in NFS lands in the Basin and how do they affect the sustainability of the natural resources of the forest and its ability to provide ecosystem services (e.g., support municipal watersheds)?

To what degree have stream/channel floodplain restoration projects improved ecological conditions?

- Describe any coordination with, or input from, the science community on monitoring and adaptive management that has occurred on the development of this nomination and what changes (if any) to the project were made as a result of this input.

The work will be conducted primarily by LTBMU staff and or in coordination with and by the Regional Ecology Program of the Forest Service. Previous data collection and monitoring plan development have all been in done in coordination with researchers at Pacific Southwest Research Station (PSW) and multiple university research students and staff. 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, TRPA).

- 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.*)

All components of the NRI proposal involve inventory, monitoring, and assessments by using for example established Regional protocols (e.g. Stream Condition Inventory for aquatic habitat assessments) and or monitoring plan guidance. In several cases protocols and monitoring plans have been developed from previous rounds of NRI or its precursor SNPLMA project (F068) (e.g. Northern goshawk status & trend monitoring plan) or are in development by the current active rounds of NRI projects in which long term monitoring plans for species and communities are considered as one of the outcomes of the project. The project goals and objectives can be verified by the annual reporting documents and deliverables produced.

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

The NRI project provides a baseline of information that has been and will continue to be included in other larger monitoring and reporting for the Forest Service efforts (e.g. Natural Resource Information Systems (NRIS) and National Monitoring and Evaluation Framework) as well as provide staff support for the Lake Tahoe Basin efforts on the Basin M&E program. The 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. In addition, the monitoring provides a baseline that can be used to address trends that may be linked to changes in climate (e.g. stream temperature monitoring, long term monitoring of individual species adapted to late melt snow).

- 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.

The 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. In addition, the monitoring provides a baseline that can be used to address trends that may be linked to changes in climate (e.g. stream temperature monitoring, long term monitoring of individual species adapted to late melt snow).

Attachments

- If applicable, include 8 ½ X 11 map depicting the project
n/a

Appendix B-8
LAKE TAHOE RESTORATION PROJECTS
ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES

Project Name:	NEPA Resource Inventories, Surveys, and Analysis (NRI)	Agency:	Forest Service - LTBMU
Prepared by:	Holly Eddinger	Phone:	530-543-2633
SNPLMA Project #:		EIP #:	667; 10163.48; 10163.5

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	\$ 10,000	1 %
3. Direct Labor (Payroll) to Perform the Project	\$ 280,000	47 %
4. Project Equipment (tools, software, specialized equipment, etc.)	\$ 10,000	1 %
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	3 %
6. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	\$ 20,000	3 %
7. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ 100,000	25 %
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 contract(s)	\$ 60,000	8 %
9. Other Necessary Expenses (see Appendix B-11): Indirect costs associated with implementing a project, such as support services, budget tracking etc.	\$ 60,000	12 %
TOTAL:	\$ 560,000	100 %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Project Plan including Budget Allocation	9/30/2013
Inventory, Assessments, Monitoring of Biological Communities - Field Data Collection, Annual Reports, Assessments	9/30/2015
Inventory, Assessments, Monitoring of Angora Burn Area - Field Data Collection, Annual Reports, Assessments	9/30/2015
Inventory and Assessment of Water Uses & Protections	9/30/2015
Inventory, Assessments, Monitoring of Long Term Streamchannel / Floodplain Restor. Effectiveness - Field Data Collection, Annual Reports, Assessments	9/30/2015
Final Completion Date: 12/31/2015	

COMMENTS: Deliverable dates incorporate at least a two year contract fulfillment need and allows for completion of field surveys in subsequent year(s) due to unforeseen complications (e.g. bad weather delays the start of the field season, large on-forest fire disrupts ability of field crews to reach survey sites, etc...). Other Necessary Expenses is a set amount of 12% of the project's estimated total for the LTBMU. An additional 6 months is also included for the administrative task of closing the project.