

**Appendix B-8
LAKE TAHOE RESTORATION PROJECTS
ESTIMATED DIRECT COSTS & KEY MILESTONE DATES**

Project Name: Biological Resources Monitoring Agency: US Forest Service
 Prepared by: Julie Roth/Shane Romsos Phone: 530-543-2600 EIP #: 10163.5
 SNPLMA Project # 10163.48,

Identify estimated costs of eligible reimbursement expenses:

1. Planning, Environmental Assessment and Research Costs (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.)	\$ _____	_____ %
2. Direct Labor (Payroll) to Perform the Project	\$ <u>225,000</u>	<u>38.5</u> %
3. Project Equipment (tools, software, specialized equipment, etc.)	\$ <u>10,000</u>	<u>1.7</u> %
4. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ _____	_____ %
5. Official Vehicle Use (pro rata cost for use of Official Vehicles required to carry out project)	\$ <u>15,000</u>	<u>2.6</u> %
6. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ <u>300,000</u>	<u>51.3</u> %
7. Other Direct Costs (for agency personnel to do procurements; COR; PI; NEPA lead; etc)	\$ <u>35,000</u>	<u>6.0</u> %
TOTAL*:	\$ <u>585,000</u>	<u>100</u> %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Status of current biological monitoring	12/05
Development of status/trend monitoring strategy	4/06
Peer-review of status/trend monitoring strategy	5/06
Development of implementation monitoring strategy	4/06
Peer-review of implementation monitoring strategy	5/06
Development of effectiveness (cause/effect) monitoring strategy	4/06
Peer-review of effectiveness (cause/effect) monitoring strategy	5/06
Implementation of 1 st year Pilot data collection (includes osprey & eagle breeding surveys, annual waterfowl survey, and TES & rare plant monitoring)	5/06-10/06
Revision of monitoring plan based on implementation results	2/07
Implementation of complete biological resource monitoring plan	5/07-10/13
Final Completion Date:	10/13

Appendix I-2
GENERAL TAHOE PROJECT PROPOSAL

Project Name: Biological Resources Monitoring
Lead Agency: U.S. Forest Service

EIP # 10163.48,
#10163.5

Contact: Julie Roth/Shane Romsos
Phone Number: 530-543-2600

Threshold: Wildlife, Fisheries and Botany
(Vegetation) Thresholds
Threshold Standard:

Email Address: jroth@fs.fed.us
Total Project Cost: \$ 4,095,000 (thru 2013)
Round 6 Funding requested: \$575,000
Is this a multi-year project? Yes (annual)

Project Description:

This project will develop a comprehensive, multi-agency, interdisciplinary biological resource monitoring and evaluation plan for the Lake Tahoe Basin. Specifically, the plan will identify key indicators of biological resource condition, select the most appropriate and scientifically based sampling and evaluation protocols, and complete initial monitoring needed to fill information gaps and to validate the overall plan effectiveness; included in these efforts will be a waterfowl survey, eagle and osprey breeding season surveys, and monitoring of TES species and rare plant communities. Information derived from the implementation of the plan will be used to determine the status of revised Threshold Standards identified in P7 (revised planning documents) and other specialized monitoring needs at the regional (Basin-wide) and project scales.

Describe the purpose and need for the project:

Currently no single comprehensive, coordinated plan has been developed to guide monitoring of biological resources within Lake Tahoe Basin. Individual project monitoring plans have thus far led to the creation of several disjunctive and incomplete biological datasets that are either difficult to interpret (e.g., poor design) or that have been interpreted individually and not collectively. Therefore, this Plan will define and coordinate biological monitoring efforts at both the forest and project scales (status/trend, implementation, cause/effect or effectiveness monitoring) and ensure that monitoring data are collected in the most appropriate, efficient and consistent manner such that results may be easily assimilated to evaluate management effectiveness and inform future management direction (i.e., adaptive management). Upcoming completion of the multi-species inventory and monitoring (MSIM) project in FY05 (including development of revised threshold standards and indicators, identification of wildlife-habitat relationships and reference conditions for several biological resources, inventory/distribution of multiple taxonomic groups in Lake Tahoe Basin and development/implementation of standardized monitoring protocols) will provide a solid foundation upon which the Biological Resources Monitoring Plan will be built. With appropriate documentation of periodic evaluations, the experience gained in developing this Plan will also serve to guide subsequent efforts to develop monitoring plans for other resource areas addressed by LTBMU's Adaptive Management Program and their integration into LTBMU's Comprehensive Adaptive Management Plan.

Describe the goals and objective of the project (for Science & Research Projects describe Key Management Questions being addressed):

Primary objectives of this project will be to 1) develop a comprehensive, interdisciplinary monitoring plan for biological resources within Lake Tahoe Basin (e.g., wildlife, ecology and botany)

that incorporates and builds upon existing monitoring projects, 2) identify the most efficient design/strategy for conducting status/trend monitoring of wildlife, fisheries, botany and habitats at the forest scale (based on Multi-species Inventory and Monitoring project data analysis, and revised threshold standards and indicators), 3) propose a coordinated approach (through interdisciplinary work groups) for conducting cause/effect monitoring in an experimental context in order to quantify effects of various management activities (e.g., vegetation and fuels reduction treatments, recreation impacts, road decommissioning) and environmental stressors (e.g., air pollution, water quality degradation, exotic species, etc) on biological resources related to desired future conditions or threshold standards in Lake Tahoe Basin, 4) 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, 5) implementation of the Biological Resources Monitoring Plan, and 6) evaluation of the status and implementation of biological monitoring efforts at LTBMU. Additionally, data management standards will be identified for all projects associated with the Biological Resources Monitoring Plan such that information may be readily synthesized for reporting and informing management within the Adaptive Management Program underway at LTBMU.

Describe the anticipated project accomplishments:

The primary products produced from this project will be an adaptive-management driven Biological Resources Monitoring Plan for Lake Tahoe Basin, and interpretations of the results of monitoring conducted during the initial implementation (summer '06). Guidelines for coordinated data management and information gathering across all biological monitoring projects will be established and reporting guidelines and intervals will be designated. The Plan will include: status/change monitoring, implementation monitoring, cause/effect monitoring, and effectiveness monitoring components, as directed by LTBMU's Land and Resource Management Plan (and its amendments, including the Sierra Nevada Framework Plan Amendments). The Plan and the results of its initial implementation will be incorporated into the annual update of LTBMU's Comprehensive Adaptive Management Plan.

Describe the "readiness" of this project to move forward (environmental documentation, etc.):

This project will be ready for immediate initiation in FY06. As part of the Pathway 2007 process currently underway, a program for guiding the development of monitoring plans at LTBMU has been established (Adaptive Management Program) which will aid in the initiation of this project. Additionally, some proposed components of the Biological Resource Monitoring Plan (e.g., status/trend monitoring) have been under study in the Multi-Species Inventory and Monitoring project at LTBMU (funded in FY04 and FY05 by round 5 SNPLMA). Key methodologies have been implemented/tested in the field for effectiveness and feasibility. Thresholds, standards and indicators are being developed from data collected as part of that effort, and the efficiency of the status/trend monitoring design and associated monitoring metrics are being evaluated. Therefore, a strong foundation is already in place for the development of a Biological Resources Monitoring Plan at LTBMU.

Describe partnerships for this project (include documentation):

LTBMU staff will conduct the project and will work with USFS researchers (e.g., PSW) to obtain expert input regarding efficiencies of monitoring design, aid in modeling exercises and product reviews. LTBMU staff will coordinate with other organizations operating within Lake Tahoe Basin (e.g., SAG, TRPA, FWS, State Parks, CTC, and Lahontan RWQCB) to facilitate the development and implementation of consistent monitoring strategies throughout Lake Tahoe Basin.

For non-Science & Research Projects (i.e. restoration, planning efforts etc.) describe the anticipated project effectiveness monitoring program for use with adaptive management framework:

N/A

Include an 8 ½ X 11 map depicting the project, or research/study area.

The Biological Resources Monitoring Plan will be developed for, and implemented throughout, Lake Tahoe Basin.