

Appendix B-8

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

Project Name: Meeks Creek Ecosystem Restoration Agency: USFS - LTBMU
 Prepared by: Stephanie Heller Phone: 530-543-2838 EIP #: 700
 SNPLMA Project #: _____

Identify estimated costs of eligible reimbursement expenses:

1. Planning, Environmental Assessment and Research Costs (monitoring)	\$ <u>1,000</u>	<u>.5</u> %
2. FWS Consultation—Endangered Species Act	\$ <u>0</u>	<u>0</u> %
3. Direct Labor (Payroll) to Perform the Project	\$ <u>50,000</u>	<u>17</u> %
4. Project Equipment (tools, software, specialized equipment, etc.)	\$ <u>2,000</u>	<u>1</u> %
5. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ <u>5,000</u>	<u>1</u> %
6. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	\$ <u>3,000</u>	<u>1</u> %
7. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ <u>173,000</u>	<u>58</u> %
8. Other Direct and Contracted Labor: (Agency payroll for the Contracting Officer to do project procurement, COR, Project Inspector, Project Manager, Project Supervisor, and subject experts to review contracted surveys, designs/drawings, plans, reports)	\$ <u>30,000</u>	<u>10</u> %
9. Other Necessary Expenses (See Appendix B-11)	\$ <u>36,000.00</u>	<u>12</u> %
TOTAL:	\$ <u>300,000.00</u>	<u>100</u> %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Award contract for Phase II engineering and design plans	January 31, 2009
Award contract for Phase I Meadow Restoration	June 30, 2009
Meeks Meadow Lodgepole removal complete	November 1, 2009
Construction plans and specifications for Meeks Creek complete	March 31, 2010
Final completion date	July 31, 2010

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

Capital Focus Area : 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): **EIP #: 700 Round 6 Meeks Creek Ecosystem Restoration (F043), Round 7 Meeks Creek Ecosystem Restoration (F084), and Round 8 Meeks Creek Ecosystem Restoration**

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: Meeks Creek Ecosystem Restoration	EIP #: 700
Lead Agency:USFS	Contact: Stephanie Heller
Threshold: F, WL, WQ, SR, V, SC	Phone Number: 530-543-2838
Threshold Standard: F-2, F-4, W-1, W-2, WQ-1, WQ-2, WQ-5, SR-2, V-1, V-2, V-3, SC-1, SC-2	Email Address: sheller@fs.fed.us
Funding Requested in this Round: \$300,000	Total Project Cost: \$5,440,000

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

We will implement the Meeks Meadow restoration project above Highway 89 (Phase I), and complete 100% design and construction plans for the Meeks Creek channel restoration below Highway 89 (Phase II) (see Fig. 1). Phase I will consist of the removal of lodgepole pine encroachment from approximately 250 acres in Meeks Meadow and removal of refuse and remains of abandoned buildings in the meadow from approximately 20 acres of the meadow. A contract will be awarded in June 2009 to implement Phase I, with completion scheduled for October 2009. Estimated cost for Phase I implementation is \$200 to \$240K.

We also request funding to complete construction and engineering designs (estimated cost \$60 to 100K) for Phase II, the channel restoration component of the Meeks watershed restoration plan. Phase II construction plans may include construction of new stream channel, reconfiguration of adjacent campground and other recreation facilities, and construction of a lagoon with a barrier beach at the mouth of Meeks Creek. Specifics of Phase II will not be known until the NEPA process is completed (scheduled for January of 2009, utilizing Round 8 funding). Construction and engineering plans for Phase II are scheduled to be completed by March 2010.

Detailed Project Description :

Phase I implementation will consist of the removal of lodgepole pine encroachment from approximately 250 acres in Meeks Meadow utilizing accepted techniques for timber and fuels removal. Specific techniques will be identified through the NEPA process. In addition, this Phase will include removal of refuse and remains of abandoned buildings from approximately 20 acres of the meadow.

In addition, the requested funds will pay for a contract to complete construction and engineering designs for Phase II (to be awarded in January, 2009). Phase II construction plans may include construction of new stream channel downstream from the Highway 89 Bridge, reconfiguration of adjacent campground and other recreation facilities, and construction of a lagoon with a barrier beach at the mouth of Meeks Creek. Specifics of Phase II will not be known until the NEPA process is complete. Construction and engineering plans for Phase II will be complete by March 2010.

The Meeks Creek Ecosystem Assessment Report (EAR) was completed in June 2006 (using Round 6 funds). The EAR identified restoration opportunities to enhance ecological function and water quality improvement within the Meeks Creek watershed. Using recommendations from the EAR, the funding awarded in Round 7 will be utilized to conduct the NEPA planning process for both the Phase I Meeks Meadow Restoration Project, and the Phase II Meeks Channel Restoration Project. Pre-NEPA analysis and scoping to identify a proposed action is scheduled for completion by May of 2008, with the final NEPA analysis and decision scheduled for completion by January of 2009. Round 7 funds are also being used to plan and implement a six-acre pilot project in cooperation with the Washoe Tribe of Nevada and California, to assess the effectiveness of different methods of lodgepole pine removal, starting in 2006 and continuing through 2008.

Funding will be requested in future rounds (Round 10) to implement construction of the Phase II channel restoration project located downstream from the Highway 89 Bridge.

Describe the goals and objectives of the project:

The goal of the project is to take the knowledge gained in the Ecosystem Assessment Report and work cooperatively with watershed stakeholders to restore the natural physical and biological processes that support healthy ecosystem function in the Meeks Creek watershed. Specifically Round 9 funds will be used to restore approximately 250 acres of Meeks Meadow vegetation to approximate pre-Comstock era conditions through the removal of encroaching lodgepole pines and through other fuels reduction techniques as determined appropriate in the NEPA process. Additionally, 100% construction plans for the Meeks Creek channel restoration below Highway 89 (Phase II) will be completed with Round 9 funds. Phase II plans may include construction of new stream channel, reconfiguration of adjacent campground and other recreation facilities, and construction of a lagoon with barrier beach at the mouth of Meeks Creek. Specifics of this Phase will not be known until the NEPA process is complete, utilizing Round 7 funding.

Describe the anticipated project accomplishments:

The LTBMU, in cooperation with its partners in the Meeks Creek watershed, will:

- Restore approximately 250 acres of historic forest/meadow/SEZ plant and animal community complexes in the watershed.
- Complete construction plans and designs for restoration of the Meeks Creek channel downstream from the Highway 89 Bridge.

Describe the “readiness” of this project to move forward :

Utilizing Round 6 funding, the LTBMU completed under contract a comprehensive Ecosystem Assessment (completed June 2006) and Watershed Restoration Plan (completed winter 2007). The complete Ecosystem Assessment has given the LTBMU and the project Technical Advisory Committee (TAC) a thorough understanding of ecosystem function and its current state of impairment. The LTBMU can use this knowledge to proceed with the NEPA planning process (Round 7) from a solid foundation of scientific and economic data. It is anticipated that NEPA will be complete by January 1, 2009.

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

The LTBMU has conducted the Meeks Creek Ecosystem Assessment in full cooperation with the TRPA, the Washoe Tribe of Nevada and California (Tribe), the Lahontan Regional Water Quality Control Board, the California Tahoe Conservancy, and the California Department of Parks and Recreation. The LTBMU will continue to work cooperatively with these partners in the environmental planning process (NEPA).

The LTBMU signed a Cost Share Agreement with the Washoe Tribe of Nevada and California in June 2007 to provide funding to the Tribe to plan and implement projects to achieve mutual benefits to both parties in the restoration of the Meeks Creek watershed. The LTBMU staff is providing technical support to the Washoe for small-scale thinning and burning projects in Meeks Meadow that will serve as pilot projects for the larger restoration of the meadow.

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

1) The questions the monitoring program is designed to answer

- Are Best Management Practices (BMPs) implemented appropriately and effective in protecting water quality?

2) The monitoring approach

Round 9 funds will be used to conduct BMP implementation and effectiveness monitoring during Phase I implementation. This will be done using Region 5 BMPEP (Best Management Practices Evaluation Program) Protocols and the results incorporated into the Forest and Regional level BMP monitoring dataset.

Funding requested in this proposal will not be utilized for short- or long-term effectiveness monitoring of meadow restoration activities. Future, longer-term effectiveness monitoring will need to be funded through research proposals funded through the TSC process, or the USFS monitoring program funded through base appropriations and/or the SNPLMA funded NEPA Resource Surveys Project. Pre-project habitat condition and wildlife species monitoring has been collected utilizing existing funding.

3) Whether this project monitoring fits into a larger monitoring or research program

The monitoring identified for this project is part of the overall Forest Plan monitoring effort for the Lake Tahoe Basin Management Unit. Results and accomplishments of all Forest Monitoring are summarized every year in the Annual Forest Monitoring Report. When appropriate, interpretation of results is integrated at the programmatic, forest, and sometimes Regional level.

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.

Phase I

Wildlife (W)

Phase I (and Phase I) will improve the riparian and meadow system habitats for wildlife species, such as willow flycatcher whose foraging and nesting life histories depend on them.

Vegetation (V)

Phase I will restore riparian and meadow vegetation types to a pre-Comstock condition.

Phase II (if implemented using Round 10 funds)

Water Quality (W)

The Phase II stream channel restoration would restore fine sediment characteristics as well as nutrient storage and uptake capabilities, to a level expected for a site in this geomorphic and hydrologic regime. This project will also restore other water quality elements, such as stream temperature by increasing water depth and riparian vegetation coverage (stream shade).

Soil Conservation (SC)

The Phase II stream channel restoration will restore soil building and maintenance characteristics along Meeks Creek by designing and implementing natural channel designs, which promote stable/well vegetated stream banks that are more resistant to erosion.

Fisheries (F)

Habitat (cover, water temperature) will be enhanced for fish populations and native amphibians by Phase II.

Recreation (R)

Creation of intact and functioning SEZ's in Phase II will add overall recreational appeal to the area by improving the aesthetic value of the stream channel. Also, restored riparian vegetation will provide a visual screen between the different campgrounds and use areas adjacent to Meeks Creek.

2) Describe the risk to the environment from failure of the proposed project

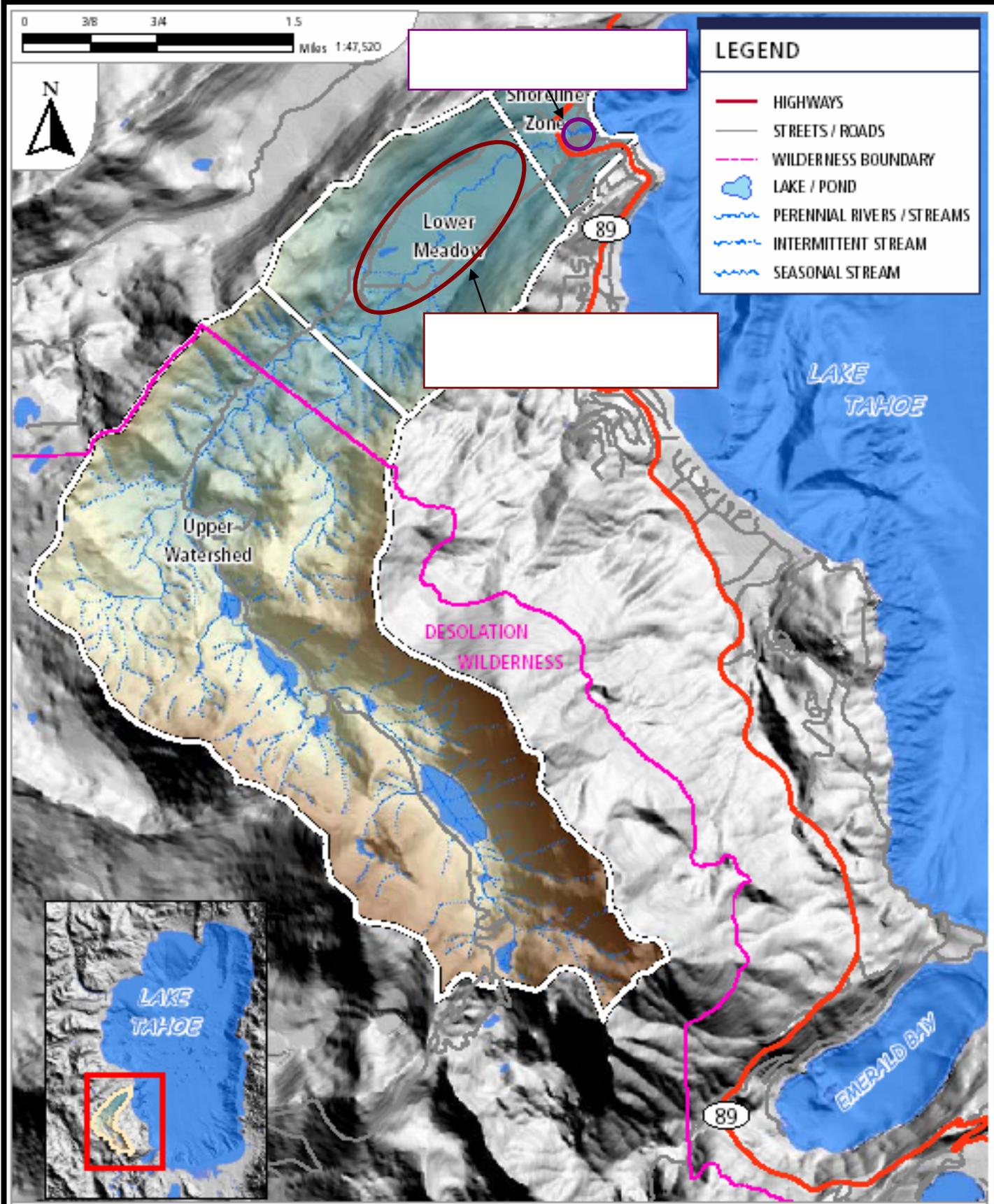
If the vegetation treatments fail, the meadow ecosystem will persist in a degraded state, i.e., overstocked stands of lodgepole crowding out more desirable riparian plant species, and overabundance of dead wood / fuels.

A failure to develop construction plans for the Phase II restoration would delay the restoration of the Meeks channel below the bridge, resulting in a continued degraded condition of this channel, which is currently not connected to a floodplain and is not an ecologically functioning lagoon.

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

The information created from this project will be disseminated to three audiences: 1) the general public, 2) other resource agencies, and 3) the broader scientific community. The audiences will be informed respectively through the USFS website, public/interagency meetings and peer-reviewed publication. Additionally, because Meeks Bay is a high profile location the use of interpretive signs and programs around the project area will also be considered.

Include an 8 ½ X 11 map depicting the project. See Fig. 1



LEGEND	
	HIGHWAYS
	STREETS / ROADS
	WILDERNESS BOUNDARY
	LAKE / POND
	PERENNIAL RIVERS / STREAMS
	INTERMITTENT STREAM
	SEASONAL STREAM

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