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 (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	$ 3,800	6	%
4. Project Equipment (tools, software, specialized equipment, etc.)	$ 0	0	%
5. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	$ 0	0	%
6. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	$ 2,000	4	%
7. **Cost of Contracts, Grants and/or Agreements to Perform the Project**	$ 42,000	70	%
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)	$ 5,000	8	%
9. **Other Necessary Expenses** (See Appendix B-11)	$ 7,200	12	%
TOTAL:	$ 60,000	100	%

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Award contract for Final Construction Designs	**June 30, 2010**
Final Construction Designs Completed	**March 31, 2011**
Final Project Report	**May 31, 2011**
Final Completion Date (including project close-out)	**August 31, 2011**

COMMENTS:

None.

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

Project Name: **Meeks Creek Ecosystem Restoration**

Federal Agency Sponsor: **LTBMU** **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: $60,000 **Total Project Cost: $3,756,000**

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, all LTBMU land.**
   - 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 EIP#700**
3. Does the project involve the conservation of a federal or regional threatened, rare, endangered or special interest species? **Yes, restores riparian habitat that supports a number of TES species (p.5).**
4. Does the project involve an identified federal interest such as the detection and eradication of noxious aquatic or terrestrial invasive species? **No**
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**

List Capital Focus Area(s) **(as described in the 2006 Federal Vision):**

Watershed and Habitat Improvement

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.
   Round 6 - $350,000
   Round 7 - $385,000
   Round 8- $221,000
   Round 9 - $240,000
   Round 10 - $60,000 (this request)
   Round 11 - estimated $2,500,000

3. Project is consistent with and contributes toward TMDL pollutant reductions within the four source categories (atmospheric, urban & groundwater, forested uplands, and stream channel). List source category being addressed and integrate into the project nomination the following TMDL considerations (*see attached TMDL references – page 6). Source Category: **Stream channel**

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

This project will utilize proven methods based on sound geomorphic principles for the construction of a new stable channel form to replace the existing degraded channel. This approach will include the construction of a new stream channel within the constraints of the campground / recreation area and constructing a naturalized lagoon, without impacting the capacity of the adjacent marina. Additional, fish passage will be restored, without replacing the Highway 89 bridge.

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.

N/A. See monitoring sections later in this proposal.

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).

The Meeks Creek channel from the Highway 89 bridge to the mouth at Lake Tahoe is in a degraded state as a result of channelization and conversion of the natural lagoon into a marina. Construction of a new channel utilizing natural channel design techniques will reduce erosion rates from the channel itself, and construction of a lagoon will restore the barrier beach function of Meeks Creek and provide natural water quality treatment.

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

N/A

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):

The funds requested will complete construction and engineering designs to 100%, and permitting, for the channel restoration component of the Meeks watershed restoration plan. Previous Rounds (6,7,8) will complete 50% plans and environmental analysis for this project. Channel restoration design plans are anticipated to include design of a new stream channel, reconfiguration of adjacent campground and other recreation facilities, and design for restoration of a lagoon with a barrier beach at the mouth of Meeks Creek, that includes the existing Marina. Specifics will not be known until the NEPA process is completed on the existing 50% design plans (scheduled for completion by May of 2009, utilizing Round 8 funding). "100 %" construction and engineering plans are scheduled to be completed by March 2011.

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, previous and future

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).

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 and 8 is being utilized to conduct the NEPA planning process for both the Meeks Meadow Restoration Project (Phase I) , and the Meeks Channel Restoration Project (Phase II). Pre-NEPA analysis and scoping to identify a proposed action is scheduled for completion by January of 2009, with the final NEPA analysis and decision scheduled for completion by June of 2009. Round 7 and 8 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 2009. Round 9 funds were awarded to implement the full scale Meeks Meadow Restoration Project (200 acres between FY09 and FY12), which will consist of conifer thinning and removal, and prescribed underburns to restore the meadow vegetation community.

The funds requested in Round 10 will pay for a contract to complete 100% construction and engineering designs for restoration of the Meeks Creek Channel below Hwy 89 (plan to be awarded in January, 2010). The EAR identified that the current condition of this reach of Meeks Creek has been severely degraded due to the Hwy 89 Bridge Crossing, the Meeks Creek Marina, and other alterations in adjacent topography for recreation facilities. The channel has incised almost eight feet, and the historic lagoon and barrier beach eliminated. This project presents the only feasible opportunity to restore a barrier beach/lagoon system in the Tahoe Basin, and can be restored while keeping existing facilities largely in place. Conceptual plans (approximately 50%) have been completed as part of the EAR.

Funding will be requested in Round 11, ($2.5 Million) to implement construction of the Meeks Creek restoration project located between the Highway 89 Bridge and Lake Tahoe.

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 objectives of this phase of the project is to complete design plans (and acquire necessary permits) for the Meeks creek channel between the Hwy 89 bridge and Lake Tahoe. The goal is to recreate a geomorphologically stable channel and a functional lagoon where the channel enters into Lake Tahoe. This will create a system that is more resistant to erosion, that provides some level of natural water quality treatments from nutrient uptake, and that re-creates high-value habitat features in a restored lagoon where the creek enters Lake Tahoe. The expected benefits to environmental thresholds are described below.

<u>Water Quality (WQ)</u>
Streambanks will be more stable after the restoration, thereby decreasing sediment loading from this source. Nutrient uptake may be enhanced through creation of lagoon and barrier beach.

Fisheries (F)
Fisheries habitat (pools, cover, water temperature, and spawning gravels) will be enhanced for local fish populations and native amphibians. Fish passage under the Hwy 89 bridge will be restored.

Wildlife (W)
Riparian and meadow habitats for wildlife species, such as willow flycatcher, will be enhanced.

Vegetation (V)
Riparian vegetation types will be enhanced.

Recreation (R)

Creation of intact and functioning SEZ's 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.
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Describe the anticipated project accomplishments (i.e. products or identifiable environmental benefits being produced or implemented under this project):

Complete construction plans and designs for restoration of the Meeks Creek channel between the Highway 89 Bridge and Lake Tahoe.

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

Utilizing Round 6 funding, the LTBMU completed a comprehensive Ecosystem Assessment (June 2006) and Watershed Restoration Plan (January 2007). The 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 and identified restoration opportunities. Fifty percent design plans for this stream channel are also complete. Current Round 7 and 8 funding will be utilized to complete the NEPA analysis and decision, scheduled for completion by June of 2009**.** This project is a component of the LTBMU five year restoration plan for restoring degraded stream channels and riparian areas.

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 LTBMU has conducted the Meeks Creek Ecosystem Assessment with review and input from the TRPA, the Washoe Tribe of Nevada and California (Tribe), and the Lahontan Regional Water Quality Control Board. The LTBMU will continue to work cooperatively with these partners and in the environmental planning (NEPA) and permitting process. The permitting process will include review of final designs.

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

Restoration specialists on the LTBMU believe that by utilizing sound geomorphic principles for design, as well as established BMPs the risk of adverse impact to the environment is minimal.

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

No monitoring is included in this particular project proposal. Pre-project monitoring and

development of a monitoring plan has been addressed in previous Rounds. Future rounds will address post project monitoring.

1) **The questions the monitoring program is designed to answer: N/A (see above)**

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)**

   N/A

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

   N/A

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**

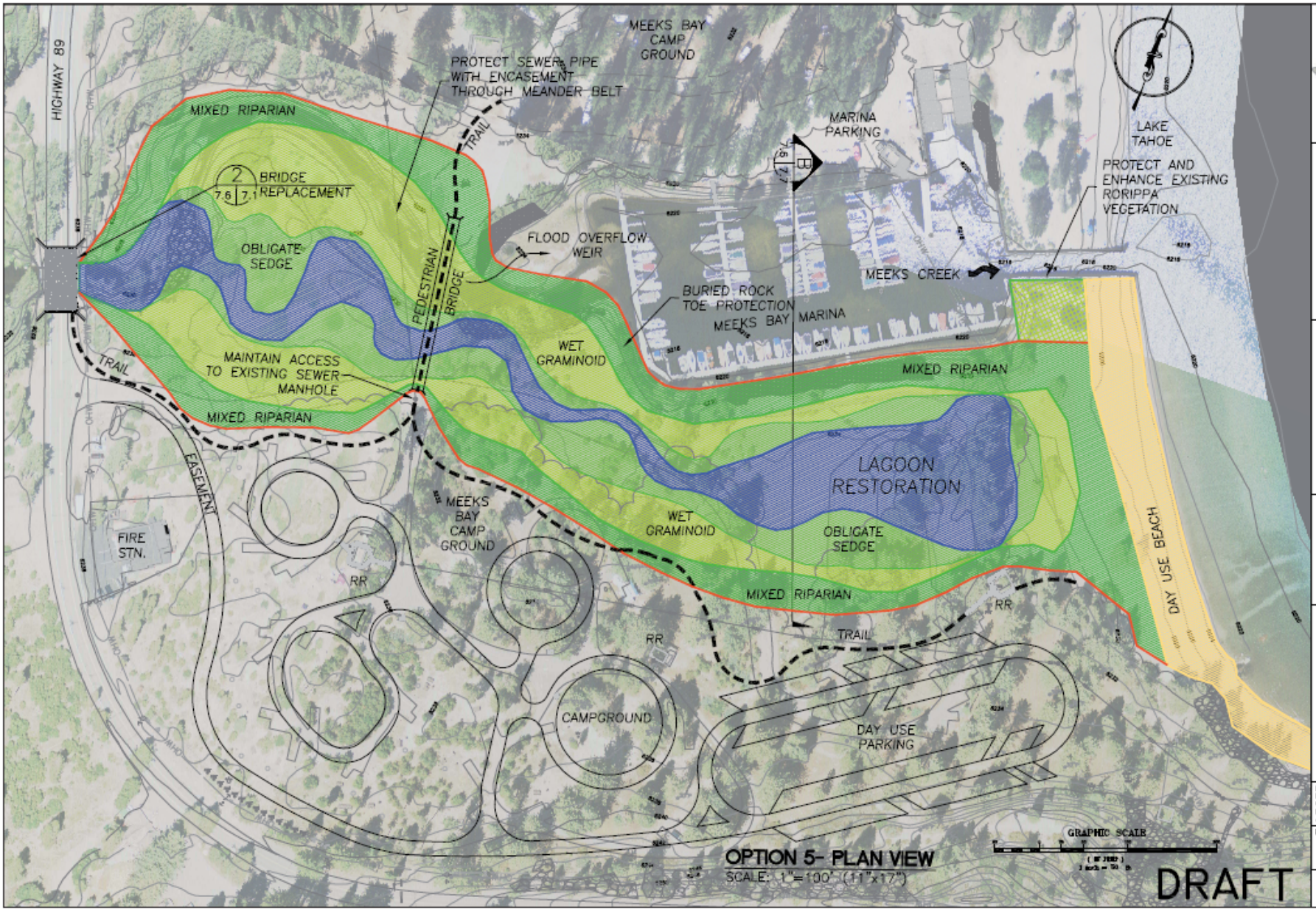
   N/A

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.

Completed design plans will be included in the Storm Water Pollution Prevention Plan (SWPPP), which is required as part of the Lahonton NPDES permit application. The SWPPP will be available for public review and comment prior to permit issuance.

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



SH+G ENGINEERING

U.S. FOREST SERVICE

LAKE TAHOE BASIN MANAGEMENT UNIT

OPTION 5

MIXED USE RESTORATION

MEEKS CREEK

ECOSYSTEM IMPROVEMENT OPTIONS

DESIGNED BY: N/A
DRAWN BY: R.T.C.
CHECKED BY: M.L.S.
DATE: 12/08
JOB NO.: 03-384

BAR IS ONE HALF INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS

Figure 8