Appendix B-8

LAKE TAHOE RESTORATION PROJECTS
ESTIMATED DIRECT COSTS & KEY MILESTONE DATES

Project Name: Meeks Creek Watershed Ecosystem Restoration Project 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.)	$ 20,000	9	%
2. **Direct Labor (Payroll) to Perform the Project**	$ 75,000	34	%
3. **Project Equipment** (tools, software, specialized equipment, etc.)	$ 15,000	7	%
4. **Travel** (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	$ 2,000	1	%
5. **Official Vehicle Use** (pro rata cost for use of Official Vehicles when required to carry out project)	$ 3,000	1	%
6. **Cost of Contracts, Grants and/or Agreements to Perform the Project**	$ 65,000	29	%
7. **Other Direct Costs** (direct labor for agency personnel to do project procurements; COR; PI; personnel assigned as NEPA lead; personnel assigned to review contracted surveys, designs/drawings, reports, etc.; project manager and/or project supervisor; and contracted costs for project manager and/or project supervisor if contracted separately	$ 20,000	9	%
8. **Indirect Costs**	$ 21,000	10	%
TOTAL*:	$ 221,000	100	%

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Ecosystem Assessment complete	June 2006
Ecosystem Restoration Plan complete	December 2007
NEPA for Meeks Creek complete	October 2008
Construction plans and specifications for Meeks Creek complete	December 2008
Meeks Creek Project construction begins	July 2009
Meeks Creek Project construction complete	October 2010
Final Completion Date: (including monitoring)	2020

Milestones in Bold font will be accomplished with funding secured in this Round.

APPENDIX I

LAKE TAHOE CAPITAL PROJECT PROPOSAL

Project Name: Meeks Creek Watershed Ecosystem Restoration Project	**Capital Focus Area: Watershed Restoration and Habitat Improvement**	**EIP #: 700**
Lead Agency: USFS - 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
Is this a multi-year Project? Yes (If "Yes", describe in the Detailed Project Description below number of years or phases and which year the requested funding will cover)	**Total Project Cost:**	$5,440,000
	Funding Request in this Round:	$221,000

Project Summary (maximum 200 words):

A contract is in place for the completing of the assessment and potential restoration options. The assessment will determine past, present, and desired ecosystem conditions and develop conceptual restoration solutions. Upon completion of the assessment, the LTBMU will conduct the NEPA planning process, develop an Ecosystem Restoration Plan, that includes 100% construction plans and specifications for the project focus area, and implement selected projects to restore natural physical and biological processes that sustain healthy ecosystem function in the Meeks Creek watershed.

Detailed Project Description:

The USDA Forest Service, Lake Tahoe Basin Management Unit (LTBMU) requests funding from the Southern Nevada Public Lands Management Act to develop and implement a comprehensive Restoration Plan for the Meeks Creek Watershed Ecosystem.

In August of 2003 the LTBMU initiated a contract with Swanson Hydrology and Geomorphology (SH&G) to conduct a comprehensive assessment of the Meeks Creek Watershed Ecosystem. A final Ecosystem Assessment Report was complete June 2006. The purpose of this assessment is to:

1) understand how the ecosystem functioned prior to Euro-American settlement
2) identify human activities that have altered or currently impair ecosystem function
3) compare current ecosystem function to pre-disturbance conditions, and to reference sites around the Lake Tahoe Basin
4) describe future desired conditions for the watershed ecosystem
5) propose management actions to restore the natural physical and biological processes that sustain healthy ecosystem function in the Meeks Creek watershed

The LTBMU began developing a set of proposed actions for the restoration of the Meeks Creek Watershed Ecosystem August 2006. These proposed actions will initiate the NEPA planning process and eventually become projects that will be the foundation of the Restoration Plan. Included in this set of proposed actions will be a single proposed action for the Project Focus Area (from the Hwy 89

bridge to the mouth of Meeks Creek at Lake Tahoe). Under their existing contract SH&G will assist the LTBMU with the NEPA process by providing conceptual project designs, technical presentations, and alternatives analyses. Upon completion of the NEPA process, the LTBMU and SH&G will produce a comprehensive Restoration Plan for the entire Meeks Creek watershed, including 100% construction plans and specifications for the selected project in the Project Focus Area. The Restoration Plan will also include monitoring, adaptive management, and maintenance plans for all of its restoration projects.

Upon completion of NEPA and the Restoration Plan, the LTBMU will begin implementing projects. These restoration projects, though not yet developed, will likely involve technically complex, multi-year construction phasing, based on the character of ecological impairment related to the Hwy 89 bridge and the Meeks Bay Marina. It is anticipated that construction will be complete in 2011.

The $221,000 requested in Round 8 will be utilized to conduct the NEPA planning process, administer the existing contract, develop project designs and complete the Ecosystem Restoration Plan, and continue ongoing collaboration with project partners such as the TRPA and the Washoe Tribe. Additional funding for implementation of this project will be requested in 2009.

Describe the goals and objectives of the project:

The goal of the project is to take the knowledge gained in the Ecosystem Assessment and work cooperatively with watershed stakeholders to restore the natural physical and biological processes that support healthy ecosystem function in the Meeks Creek watershed.

The objectives are to:

- complete the NEPA planning process for the Project Focus Area by fall 2008
- complete an Ecosystem Restoration Plan by winter 2007
- work with CalTrans and SH&G to design a new Hwy 89 bridge by summer 2008
- complete construction plans and specifications for the Project Focus Area by winter 2008
- obtain regulatory permits and retain contractual services from a qualified construction firm by winter 2008
- implement a restoration project in the Project Focus Area beginning in summer 2009.
- work with the Washoe Tribe to develop and implement small ecosystem and cultural restoration projects throughout the watershed (implementation beginning in summer 2006)

The goals and objective of this project are consistent with the Riparian Conservation Objectives of the Sierra Nevada Forest Plan Amendment. In particular Standards and Guidelines Associated with RCO #2

100. Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.

Describe the anticipated project accomplishments:

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

- restore two acres of historic Stream Environment Zone (SEZ) and associated fluvial geomorphic function from Hwy 89 to Lake Tahoe
- restore thirty two acres of historic forest/meadow/SEZ plant and animal community complexes in the watershed

- facilitate an active management role for the Washoe Tribe in the watershed, including reintroduction of historic Washoe cultural practices such as management of plant communities for pharmoecological purposes
- restore fish passage to 4 miles of stream from Lake Tahoe to the upper watershed
- re introduce Lahontan cutthroat trout to the watershed
- enhance aesthetic values to thirty two acres in the watershed including the Hwy 89 corridor, the Meeks Meadow and the mouth of Meeks Creek
- reduce chronic turbidity of water discharged from Meeks Bay Marina to Lake Tahoe

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

The LTBMU is operating under an existing contract with SH&G to complete a comprehensive Ecosystem Assessment (complete June 2006) and a long-term Restoration Plan (complete 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 from a solid foundation of scientific and sociopolitical data. The LTBMU has fully involved and gained buy-in from its partners on the TAC over the past year.

The LTBMU is also currently under contract with Dr. Michael L. Morrison, a recognized expert in the field of Wildlife Restoration. Dr. Morrison is developing a Wildlife Restoration Plan for the Meeks Creek watershed in coordination with Watershed Restoration Planning. For the past year Dr. Morrison has conducted surveys for vertebrate and invertebrate species (including small and mid-sized mammals, birds, bats, butterflies, and reptiles and amphibians) in the project area and at reference points around the Lake Tahoe Basin. His work will provide an empirical assessment of wildlife conditions in the watershed and become a key component to the Ecosystem Restoration, Monitoring and Adaptive Management Plans.

Describe partnerships for this project. (Include documentation):

The LTBMU has conducted the Meeks Creek Ecosystem Assessment in full cooperation with the TRPA, the Washoe Tribe, the Lahontan Regional Water Quality Control Board, the California Tahoe Conservancy, the California Department of Parks and Recreation, and CalTrans. The LTBMU will continue to work cooperatively with these partners in the development of a comprehensive Restoration Plan.

The LTBMU initiated a Special Agreement with the Washoe Tribe in September 2004 that provides funding which allows the Tribe to continue working collaboratively with the LTBMU to plan and implement projects to achieve mutual benefits to both parties in the restoration of the Meeks Creek watershed (see Appendix 1, Wyden Agreement). Additionally, the LTBMU 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 This funding requested in the Round will only cover pre-project monitoring. Project effectiveness monitoring will be accomplished through funding secured in future Rounds.)

What are the existing hydrological, geomorphic, and biological conditions of stream

segments/floodplains targeted for restoration?

(2) The monitoring approach

A monitoring approach will be defined in a monitoring plan during the NEPA process. It is anticipated funding in this round will be used to establish current condition related to vegetation, water quality, groundwater levels, macroinvertebrates for restoration planning and pre-project monitoring data.

An adaptive management monitoring approach will be used to monitor implementation and effectiveness of this project with funding secured in future rounds. This monitoring will involve data collection before, during and after the project. The existing contracts with SH&G and Dr. Michael Morrison include development of a monitoring plan that will track project effectiveness relative to trends of target physical and biological processes. The results of this continuous long-term monitoring will trigger project maintenance actions when predetermined goals are not met. Some of the key ecological parameters that may be monitored are:

- dynamic stability of fluvial geomorphic processes under a full range of discharges (stream channel dimension, pattern, and profile, stream channel and floodplain connectivity, etc.)
- expansion and self-perpetuation of riparian plant communities
- species composition, number and diversity of benthic macroinvertebrates, small and mid-sized mammals, birds, bats, butterflies, reptiles, and amphibians Really?
- survival and reproduction of species of special concern such as Tahoe Yellow Cress, Lahontan cutthroat trout, and willow flycatcher

Implementation monitoring will focus on the use of BMPs during construction and determining if the project was constructed according to design.

(3) Whether this project monitoring fits in to a larger monitoring or research program? Part of LTBMU Forest Plan monitoring program, as described in LTBMU 5 Year Plan, 2006.

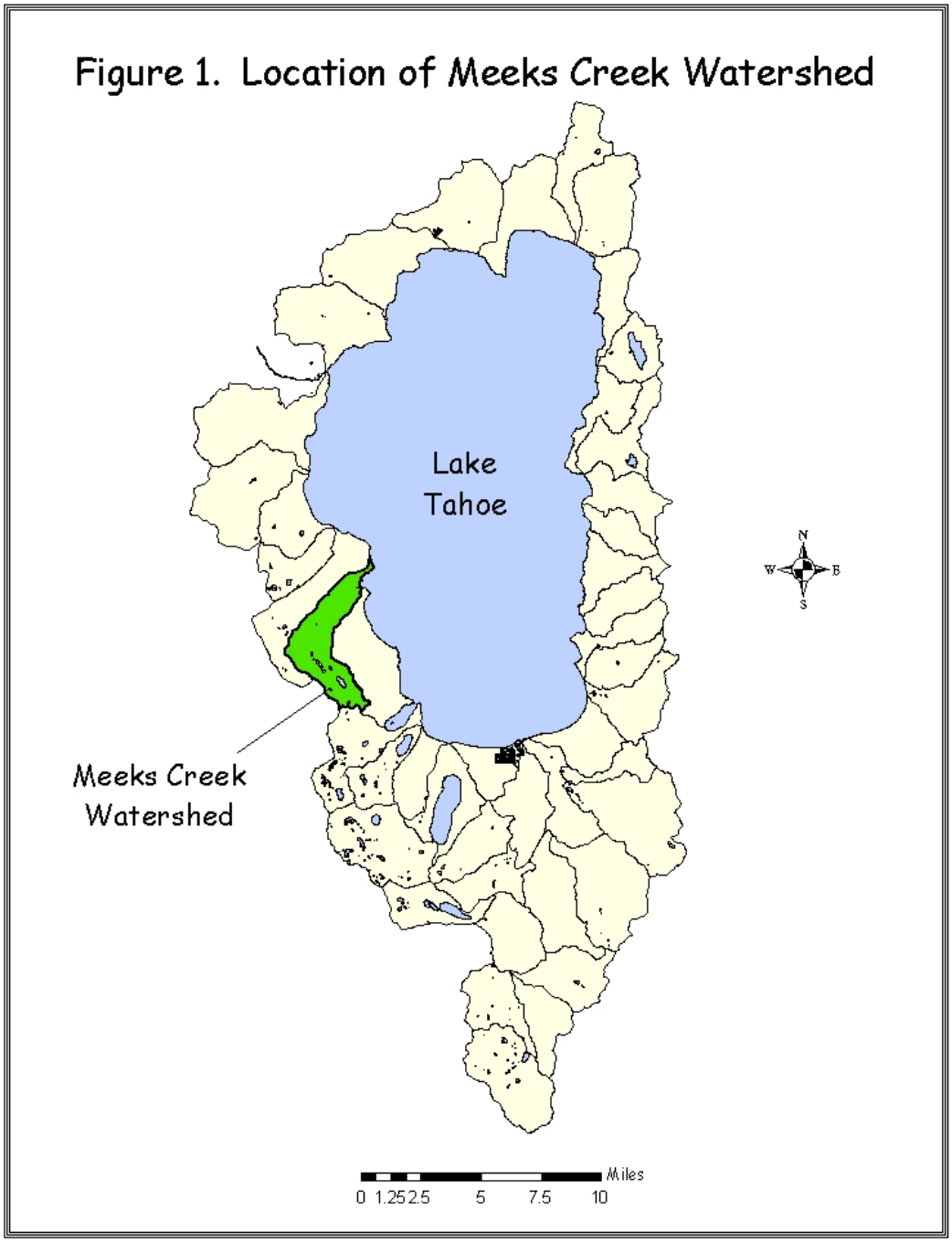
Describe how the project results will be communicated and made-available to the public.

Results/accomplishments summarized in Annual Forest Monitoring Program Report, as well as project-specific monitoring reports. Project-specific monitoring reports will be produced one to five years after project implementation, depending on the variables being monitored and the questions to be answered.

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 around the project area will also be considered.

Include an 8 ½ X 11 map depicting the project.



Appendix 1. Wyden Agreement between LTBMU and Washoe Tribe of NV and CA

USDA Forest Service FS-1580-1 (11/02)

COST SHARE AGREEMENT
COST REIMBURSABLE AGREEMENT
(Reference FSH 1509.11)

1. Federal Identifier No.	2. Amend. #	3. Authority	4. Exp. Date
04-PA-11051900-027		Wyden, Pub.L.105-277, as amended	09/30/2008

5. Agency	6. Cooperator
Name USDA Forest Service, LTBMU, Ecosystems Restoration	Name Washoe Tribe of Nevada and California Taxpayer ID # 88-0120754
1st Line Address 35 College Drive	1st Line Address 919 Highway 395 South
2nd Line Address	2nd Line Address
City South Lake Tahoe State CA Zip Code 96150	City Gardnerville State NV Zip Code 89410
7. Agency Principal Contact	8. Cooperator Principal Contact
Name Jim Howard	Name Marie Barry
Phone: 530.543.2657	Phone: 775.265.8682
Email: jmhoward@fs.fed.us	Email: marie.barry@washoetribe.us
1st Line Address (enter address if different than above):	1st Line Address (enter address if different than above):
2nd Line Address	2nd Line Address
City State Zip Code	City State Zip Code

9. Purpose - give brief explanation of what parties going to do (attach extra sheets as needed)

USDA Forest Service, LTBMU, Ecosystems Restoration (ER) will conduct ecosystem assessments and restoration plans in the Meeks, Tallac, Taylor, and Spring Creek watersheds. As part of these comprehensive assessments and long-range restoration plans, Washoe Tribe Environmental Protection staff will contribute time equal to .5 pft per year to assist ER in asessing historic conditions, determining future desired conditions, and planning projects.

10. Statement of Mutual Benefits and Interest (attach extra sheets as needed)

Under the Sierra Nevada Forest Plan Amendment the LTBMU is directed to restore ecosystem function and manage its lands to maximize multiple resource benefits in the Lake Tahoe Basin. Because the Meeks, Tallac, Taylor, and Spring Creek watersheds contain Washoe ancestral lands, and because the Washoe Tribe manages the Meeks Bay Resort and Campground under Special Use Permit with LTBMU, the Tribe also has a vested interest in restoring ecosystem function and managing these lands to maximize multiple resource benefits. Through coordinated and cooperative planning between LTBMU and the Washoe Tribe, an effective and mutually beneficial plan can be developed for the future management of these lands.

11. Funding Summary (attach detailed financial plan to support summary)

Federal	Non-Cash	Inkind	Reimb. Coop.
Sub-Total Funding	125,160	0	30,000
Total Federal Funding	$155,160.00		

Non-Federal	Non-cash	Inkind	Cash
Sub-Total Funding	0	0	0
Total Non-Federal Funding	$0.00		

12. Job Code (for payment to cooperator) NFVW0904

13. Agency Administrative Contact	14. Cooperator Administrative Contact
Name Karine Wagner, Grants & Agreements Coordinator Phone 530/587-3558 Email karinewagner@fs.fed.us	Name Marie Barry Phone 775/265-8682 Email marie.barry@washoetribe.us

15. Approval Section (this agreement is effective as of the last date written below)

Agency Approval	Cooperator Approval
Signature Date 9-20-04	Signature Date 9/16/04
Title Forest Supervisor	Title Chairman For Chairman Wallace