

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

<b>Project Name:</b>	Update of Ecological Site Descriptions to include State and Transition Models	<b>EIP Number:</b> <i>(Required)</i>	525, 653
<b>Federal Agency Sponsor:</b> <i>(Required)</i>	USDA-NRCS	<b>Contact:</b>	Woody Loftis
<b>Threshold:</b>	Vegetation	<b>Phone Number:</b>	(530)543-1501
<b>Threshold Standard:</b>	V1	<b>Email:</b>	william.loftis@ca.usda.gov
<b>FUNDING REQUESTED IN THIS ROUND:</b>		\$ 150,000	

**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? Yes No**  
**If yes, is the federal land involved important to successful implementation of the project?**

This project would bring ecological site descriptions developed in association with the 2007 Soil Survey of the Tahoe Basin Area up-to-date via addition of state and transition models and additional vegetation data to support the models.

- 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**

This project would develop and add state and transition models to Ecological Site Descriptions to provide information on ecological functions (in regard to soil and vegetation components in particular) to assist with land management and restoration on ecological functioning (in regard to vegetation components and plant community phases in particular, under various natural or man-caused disturbance or management regimes) to assist with land management and restoration..

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

This project could identify sites with plant community phases containing threatened, rare, endangered, or special interest species. It could also provide knowledge about their function in an ecosystem as a whole and lead to more effective conservation practices with regard to such species.

- 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**

This project could identify sites with plant community phases containing non-native invasive terrestrial species and discuss their impacts of the species on ecological functions of the ecological site.

- 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**

This is a resource inventory project. Information gained could be vital to the success of future projects and possibly identify ecosystem services offered by the ecological sites.

**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):*

- 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).

This project would enhance existing ecological site data from the Soil Survey of the Tahoe Basin, Ca and Nv 2007 by updating them with state and transition model information. Rangeland ecological sites include non-forested wet meadows in the Basin. Forestland ecological sites cover tree and shrub covered portions of the Basin. The data would be entered into the USDA's ESIS (ecological site information system) database.

### **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.*

Advanced knowledge about state and transition theory and development of ecological sites, in particular, with regards to the wet meadow and riparian ecological sites, has been developed and incorporated within academic communities and land management agencies. This project would enhance and incorporate that knowledge together with the information provided in the Soil Survey (2007)

- 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.*

Round 12 would fund a small amount of field work to ground truth the effort and further support the development of alternative states and plant communities within the state and transition models, a significant amount of literature review, technical writing and data base population, and coordination of a scientific peer review process prior to certification and publication. It would fund the development of state and transition models, update of the ecological site descriptions, and their entry into the ESIS database.

This project is new to SNPLMA. No other funds will be needed to complete this project. This project is a continuation of work done during the update of the Soil Survey of the Tahoe Basin Area, California and Nevada which was Congressionally supported with earmarked funding in addition to agency funds.

This project is not scalable.

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

NRCS is ready to start work on this project in 2012.

- 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).

NRCS, USFS-WO, and BLM are working under a national MOU for development and use of ecological sites to assist land and natural resource management nation-wide.

*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)**

Expected outcome would be a more comprehensive understanding of ecological function and plant community dynamics within the ecological sites for the Tahoe Basin.

**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.

This project will provide increased knowledge as to the overall ecological function and processes involved with the ecological sites on forested and non-forested sites. By providing this information, information can be provided on water quality, soil conservation, vegetation, fisheries, wildlife, recreation, scenery and even to some degree air quality. Ecological sites will describe the information on how the soils and vegetation work together to impact, water, soil and air quality; what can be done to enhance wildlife habitat for many species, not just one in particular; and also how recreational use can impact specific ecological sites on specific soil types and how this may impact non-native species introductions.

Ways to use the tool:

- Valuable communication tool for determining the effects of climate change, by describing the baseline vegetation found on different soil components.
- Valuable communication tool for guidance on restoration strategies.
- Valuable communication tool on integrated weed management strategies.
- Valuable communication tool on past history of use and ecological dynamics.
- Valuable communication tool on wildlife uses in relation to various plant communities of an ecological site

Furthermore, it is anticipated that this project will provide information necessary and/or useful to other projects in currently being proposed in SNPLMA and in the Lake Tahoe Basin in general. For example, this information could be extremely useful in regards to all the work that is being done in regards to Stream Environment Zones. It could also be helpful with efforts such as Aspen Community Restoration and Big Meadow Fire Regime Restoration.

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

None.

### 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.*

The result of this project would be full ecological site descriptions including state and transition models stored in the ESIS database for all sites that were developed in the Tahoe Basin. The data will be made available to the public via the internet.

- 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.

This is new knowledge. Ecological sites are an innovative way to bring all ecological factors together by correlating the soils with the vegetation, and allowing a more complete discussion of the processes and functions that are necessary to maintain the ecological site and if these processes or functions are disrupted by natural or man-caused disturbances different impacts can and will occur. In particular, riparian complex ecological site concepts are still being developed and attempt to describe these communities as an ecological unit driven by hydrologic processes, which are different from the upland ecological processes. This approach is an advanced way to correlate the soils and vegetation dynamics in riparian and wet meadow systems, and will be extremely useful to the understanding of use and management and restoration potentials for these habitats in the Tahoe Basin.

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.

There is not any project level monitoring however this project is intended, in part, to show the effects to the ecological site as a result of different management actions.

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).

As an example, this project could shed light on effects to the ecology of a site as a result of management activities.

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

## 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.

There is not any project level monitoring however this project is intended, in part, to show the effects to the ecological site as a result of different management actions.

- 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.

Peer review by scientists and land managers with universities and agencies will occur as state and transition models and draft update ecological site descriptions are developed.

- 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.*)

Peer review by scientists and land managers with universities and agencies will occur as state and transition models and draft update ecological site descriptions are developed. Ecological site descriptions will not be certified and published until after peer review.

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

This project will provide significant information for other programs and program development. This includes the SEZ program and Fuel reduction. Ecological sites are a national interagency effort, and this information will be added to this national effort between the BLM, USFS-WO, and NRCS.

- 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.

These ecological site documents are dynamic and can be adapted at any time in the future as new data and research information is available to enhance these ecological concepts within these ecological sites. This will ensure that as new information is available the users will always be able to use the most up-to-date science and information to assist in management and restoration.

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

Project Name:	Update of Ecological Site Descriptions to include State and Transition Models	Agency:	USDA-NRCS
Prepared by:	Woody Loftis	Phone:	(530) 543-1001 x104
SNPLMA Project #:		EIP #:	525, 653

**Identify estimated costs of eligible reimbursement expenses:**

<b>1. Planning, Environmental Assessment and Research Costs</b> (specialist surveys, reports, monitoring, data collection, analysis, NEPA, etc.)	\$ _____	_____ %
<b>2. FWS Consultation – Endangered Species Act</b>	\$ _____	_____ %
<b>3. Direct Labor (Payroll) to Perform the Project</b>	\$ 25,000	17 %
<b>4. Project Equipment</b> (tools, software, specialized equipment, etc.)	\$ _____	_____ %
<b>5. Travel</b> (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ 5,000	3 %
<b>6. Official Vehicle Use</b> (pro rata cost for use of Official Vehicles when required to carry out project)	\$ 5,000	3 %
<b>7. Cost of Contracts, Grants and/or Agreements to Perform the Project</b>	\$ 82,500	55 %
<b>8. Other Direct and Contracted Labor:</b> 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)	\$ 10,000	7 %
<b>9. Other Necessary Expenses</b> (see Appendix B-11): Indirect costs associated with implementing a project, such as support services, budget tracking etc.	\$ 22,500	15 %
<b>TOTAL:</b>	\$ 150,000	100 %

**Estimated Key Milestone Dates:**

Milestones/Deliverables:	Date:
State and Transition Models for 33 Ecological Sites	12/31/2012
Start Date	12/31/2011
<b>Final Completion Date:</b> 12/31/2012	