

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

U. S. Forest Service, Lake

Project Name: Aspen Community Restoration Agency: Tahoe Basin Mgmt. Unit
 Prepared by: Victor Lyon/Shane Romsos Phone: (530) 543-2749 EIP #: 10080
 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.)	\$ <u>70,000</u>	<u>35</u> %
2. Direct Labor (Payroll) to Perform the Project	\$ _____	_____ %
3. Project Equipment (tools, software, specialized equipment, etc.)	\$ <u>1,000</u>	<u>0.5</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 when required to carry out project)	\$ <u>3,000</u>	<u>1.5</u> %
6. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ <u>124,000</u>	<u>62</u> %
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)	\$ <u>2,000</u>	<u>1</u> %
TOTAL*:	\$ <u>200,000</u>	<u>100</u> %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Costs	Date:
Monitoring Plan Refined & Implemented	\$70,000	January, 2006
NEPA completed	\$70,000	June, 2006
Initiate Aspen Stand Treatment	\$60,000	November, 2006
Initial year of Project completed	\$200,000	May, 2007
Final Completion Date: at \$350,000/year total project Cost Estimated ~ \$4,050,000		December, 2016

COMMENTS:

Appendix I-2 GENERAL TAHOE PROJECT PROPOSAL

Project Name: Aspen Community Restoration
Lead Agency: U. S. Forest Service

EIP # 10080

Contact: Victor Lyon/Shane Romsos

Phone Number: (530) 543-2749

Email Address: vlyon@fs.fed.us

Threshold: V, W, SC2

Threshold Standard: V-1 Deciduous Riparian,
W-2 Riparian Habitat, SC2-2 Stream
Environment Zones

Total Project Cost: \$4,450,000

Round 6 Funding requested: \$200,000

Is this a multi-year project? Yes

Project Description:

This Aspen Community Restoration project will implement the restoration recommendations developed by the *Aspen Community Spatial Distribution and Condition Assessment Project* (EIP# 10029, Funded in SNPLMA Round 5 and scheduled for completion in November 2005). The overall goal of this project is to restore the biological integrity and vigor of declining aspen communities on federal lands in the Lake Tahoe Basin primarily through the removal of encroaching conifer trees. Round 6 funding for this project would be used to complete the necessary monitoring and restoration planning, environmental documentation (NEPA), pre-treatment aspen monitoring, and a limited initial level of project implementation.

Describe the purpose and need for the project:

Aspen ecosystems support an exceptionally diverse array of associated species (DeByle and Zasada 1980; Verner 1988) and generally occur in association with streams, wet meadows, and other wet areas. Aspen ecosystems were recognized as one of the Ecologically Significant Areas in the Lake Tahoe Basin (Watershed Assessment 2000) for their biological diversity and rarity. Unfortunately, this rare ecosystem type is being replaced by conifers due to changes in the historic fire regime. This project is necessary to sustain healthy aspen communities in the absence or suppression of natural wildfires, which thin out encroaching conifers, stimulate aspen regeneration, promote structural complexity in the canopy and a diverse and productive understory, and support an extraordinary degree of species richness, endemism, and diversity. The purpose of this project is to restore healthy ecosystem function, biological diversity, and seral trajectory to aspen stands identified by the Aspen Community Assessment Project.

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

The goals of this project are to restore healthy ecosystem function, biological diversity, and seral trajectory to aspen stands on the LTBMU. The objectives of this project are to: 1) control conifer encroachment, 2) stimulate aspen regeneration, 3) develop multiple age-class canopies, 4) develop diverse and productive understories, 5) provide naturally fire-resistant areas, and 6) enhance wildlife habitat quality. The Forest intends to achieve the goals and objectives of the project using the findings and recommendations of the *Aspen Community Spatial Distribution and Condition Assessment Project* to direct the planning, environmental analysis, implementation (which may include prescribed treatments such as conifer removal, root scarification, removal of senescent aspens, and/or prescribed burning), and monitoring of the Aspen Community Restoration Project.

Describe the anticipated project accomplishments:

This project will restore healthy ecosystem function and seral trajectory to selected aspen stands identified to be at risk in previous phases of the project. Phase one of the *Aspen Community Spatial Distribution and Condition Assessment Project*, which covered approximately one-half of the Forest, determined that 226 aspen stands (721 acres) were in the moderate to highest risk of loss categories (see Table 1).

Table 1. Aspen Stand Risk Assessments from Aspen Community Assessment Project, 2002-03.

Aspen Stand Risk	Number of Stands	Acres	Percentage (of Acres)
None	19	39	3 %
Low	100	500	40 %
Moderate	106	459	36 %
High	94	225	18 %
Highest	26	37	3 %
Totals	345	1260	100 %

The LTBMU anticipates that the number of aspen stands and acres will approximately double upon completion of the stand assessments across the remainder of the Forest. Restoration efforts will focus on those stands assessed to be in the ‘moderate’ to ‘highest’ risk categories. 226 stands (721 acres) currently fall into those categories. Therefore, the LTBMU estimates that approximately 452 stands (1442 acres) will be restored. The Forest intends to restore approximately 150 acres of aspen per year for the next 10 years to complete the project. The project will control conifer encroachment, stimulate aspen regeneration, develop multiple age-class canopies, develop diverse and productive understories, provide naturally fire-resistant areas, and enhance wildlife habitat quality.

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

The Forest completed aspen stand assessment surveys across approximately one-half of the Lake Tahoe Basin in 2002 and 2003. The LTBMU anticipates completing surveys of the remaining aspen stands in the Basin in 2005. The LTBMU also contracted Rocky Mountain Research Station to develop a general technical report describing ecology and management of aspen communities in the Sierra Nevada (with emphasis on the Lake Tahoe Basin) due to be completed by the end of FY2005.

Describe partnerships for this project (include documentation):

The LTBMU has contracted Rocky Mountain Research Station to develop a general technical report describing ecology and management of aspen communities in the Sierra Nevada (with emphasis on the Lake Tahoe Basin). The Forest anticipates that collaborative efforts with Rocky Mountain Research Station, the Tahoe Regional Planning Agency, California Tahoe Conservancy, California State Parks and Recreation, and Nevada State Parks for the Aspen Community Restoration Project. The LTBMU is also interested in developing a partnership with the Washoe Tribe.

For non-Science & Research Projects (i.e. restoration, planning efforts etc.) describe the anticipated project effectiveness monitoring program for use with adaptive management framework: The LTBMU will develop an implementation and effectiveness monitoring plan following the findings and recommendations of the *Aspen Community Spatial Distribution and Condition Assessment Project*. The Forest intends to implement aspen stand treatments and monitoring plans following rigorous scientific monitoring design. Monitoring will include pre and post treatment monitoring to record the response of aspen communities (plant and animal response) to restoration activities. In addition, photo-points will be established for each aspen stand restored to track long-term effectiveness and stand health.

Aspen Community Restoration Project Map

The project area includes aspen stands throughout the Lake Tahoe Basin Management Unit (shown shaded in tan on the map below). The project map also shows where phase I of the Aspen Community Assessment Project was completed in 2002-03 (purple-striped shading) and the locations of assessed aspen stands.

