Appendix B-8

LAKE TAHOE RESTORATION PROJECTS
ESTIMATED DIRECT COSTS & KEY MILESTONE DATES

Project Name:	Chemical Control of Noxious Weeds	Agency:		U.S. Forest Service, LTBMU	
Prepared by:	Beth Brenneman	Phone:	(530) 543-2767	EIP #:	10184

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.)	$ 7,000	4	%
2. Direct Labor (Payroll) to Perform the Project	$ 6,000	4	%
3. Project Equipment (tools, software, specialized equipment, etc.)	$		%
4. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	$ 3,000	2	%
5. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	$ 4,000	2	%
6. Cost of Contracts, Grants and/or Agreements to Perform the Project	$ 75,000	45	%
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) These costs also include 2% for education and outreach.	$ 58,000	35	%
8. Indirect Costs (10% of lines 1 to 6)	$ 15,000	9	%
TOTAL:	$ 168,000	100	%

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Prepare and award of NEPA contract	Spring 2006
NEPA completion	Spring 2007
Prepare and award herbicide application contract	Summer 2007
Begin herbicide application	Summer 2007
Public outreach and education	Throughout project
Final Completion Date:	Fall 2007

COMMENTS:

A total of $60,000 was awarded to initiate the NEPA process (EIS) for chemical treatment of noxious weeds in Round 6 of SNPLMA. These funds will used for contracts, whereas the additional money requested in Round 7 is for completion of the NEPA process and to begin implementation.

APPENDIX I

LAKE TAHOE CAPITAL PROJECT PROPOSAL

Project Name: Chemical Control Treatment of Noxious Weeds

Capital Focus Area: Watershed Restoration and Habitat Improvement (Objectives 15 and 16)

EIP #: 10184

Lead Agency: U.S. Forest Service, Lake Tahoe Basin Management Unit

Contact: Beth Brenneman

Threshold: Vegetation

Phone Number: (530) 543-2767

Threshold Standard: V-1, Maintain Species Diversity and Richness; V-2, Uncommon Plant Communities

Email Address: bbrenneman@fs.fed.us

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

Total Project Cost: $210,000

Funding Request in this Round: $168,000

Project Summary (maximum 200 words):

Since 2002, the Lake Tahoe Basin Management Unit (LTBMU) has been inventorying, monitoring, and treating noxious weed infestations on National Forest System lands. All of the known infestations are treated either by clipping, digging, or manually pulling the weeds. Unfortunately, manual control efforts are not effective for all noxious weed species, and some infestations continue to increase in size despite repeated manual control efforts. Chemical control has been shown to be effective for some species that do not respond to manual control efforts. As a member of the Lake Tahoe Basin Weed Coordinating Group and to facilitate implementation of the integrated weed control efforts taking place in the Basin, the LTBMU will initiate the NEPA process in 2006 under Round 6 of the Southern Nevada Public Lands Management Act (SNPLMA). With Round 7 funds, the LTBMU intends to complete either an environmental assessment or environmental impact statement that will identify the herbicides and activities the Forest Service would implement on lands under our jurisdiction in an effort to combat noxious weeds. Once the NEPA process is complete, the LTBMU will award a contract for herbicide application on those infestations that continue to show an increasing trend.

Detailed Project Description:

Noxious weeds have been identified as the second greatest threat to the conservation of National Forest System lands. They spread rapidly because they are unchecked by the natural predators that control native plant populations and out compete natives by more readily obtaining precious moisture, sunlight, and nutrients. Noxious weed infestations lead to a decrease in the biodiversity of plants and the wildlife species that depend upon them. Noxious weeds also increase rates of erosion due to changes in root structure and

soil stability, which affects the water quality of Lake Tahoe through increased sediment input.

On the LTBMU, a full-time employee has coordinated the noxious weed program since 2002, and with the help of seasonal employees, repeated manual control efforts, mapping, and monitoring have been conducted. Unfortunately, despite 4 consecutive years of manual treatments, some weed infestations have not responded to treatment or continue to expand. Chemical control has been shown to be effective for some noxious weed species that do not respond to manual control efforts. The LTBMU is one of the few land managers in the Basin that has not implemented the use of herbicides as part of an integrated weed management strategy. The Lake Tahoe Basin Weed Coordinating Group, under permission from the Lahontan Regional Water Quality Board, has been utilizing herbicides to control small weed infestations on private, county, and State lands throughout the Basin. Placer, El Dorado, and Douglas counties have been using chemical controls to treat weed infestations lands under their jurisdictions. **In order to have a more comprehensive and effective program, it is imperative that the LTBMU include chemical control in an integrated weed management approach to treat expanding weed infestations.**

The following weed species have not been eradicated despite repeated manual control efforts: Canada thistle (*Cirsium arvense*), tall whitetop (*Lepidium latifolium*), Dalmation toadflax (*Linaria dalmatica*), yellow toadflax (*Linaria vulgaris*), St. Johnswort (*Hypericum perforatum*), and spotted knapweed (*Centaurea maculosa*). Successful control of these weeds will require a variety of integrated weed management methods. Herbicide use would provide another control option, in combination with the manual methods currently being utilized.

The following herbicides will be proposed for use on National Forest System lands: Chlorosulfuron for tall whitetop and toadflax; clopyralid for spotted knapweed; glyphosate or clopyralid for Canada thistle; and glyphosate for St. Johnswort. These herbicides are all appropriate for use in California, and Lahontan granted approval of a proposal submitted by the Lake Tahoe Basin Weed Coordinating Group in 2003 to allow use of these herbicides on small infestations in the Basin. Because of the long-term viability of noxious weed seeds, repeated chemical treatments may be necessary. The herbicide application would begin upon completion of the NEPA document, and continue until the weed seed bank has been depleted (when monitoring shows seedlings no longer emerging). Both the writing of the document and subsequent herbicide application would be contracted.

Describe the goals and objectives of the project:

- Prevent the establishment of new noxious weed infestations and the spread of existing infestations using an integrated weed management approach, including chemical treatments.
- Adaptively manage weed treatments based on monitoring data.
- Work cooperatively with other agencies and landowners to coordinate weed control efforts.
- Increase public and staff awareness of noxious weeds and their effects on the ecosystems that occur in the Basin.

Describe the anticipated project accomplishments:

Using an integrated weed management approach will increase the effectiveness of noxious weed treatments, resulting in eradication or a significant decrease in the size and number of invasive weed infestations. Public awareness will continue to be a priority and increase as a result of public education efforts. Weed sites will continue to be inventoried, monitored, and treatments adaptively managed.

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

Awarding the contract for the writing of the NEPA document should take place in the spring of 2006. The NEPA process should take at least a year, at which time an herbicide contract could then be awarded in the spring of 2007.

Describe partnerships for this project. (Include documentation):

Lake Tahoe Basin Weed Coordinating Group

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

(1) The questions the monitoring program is designed to answer
(2) The monitoring approach
(3) Whether this project monitoring fits in to a larger monitoring or research program

The monitoring program that will be implemented as part of the chemical control component of noxious weed treatments has been designed to answer the following questions:

1) Are the gross and infested number of acres occupied by weed infestations decreasing over time with chemical control?
2) If not, what would a more effective treatment method be?

The project monitoring program will consist of the following: Weed infestations that have not been effectively reduced in size by manual control will be evaluated for chemical control. Once the appropriate herbicide has been selected, it will be applied to the infestation. All pertinent details of the application process will be recorded. Follow-up project monitoring on a monthly basis will document changes in the infestation size. Reevaluation will be necessary if the herbicide does not reduce the infestation size.

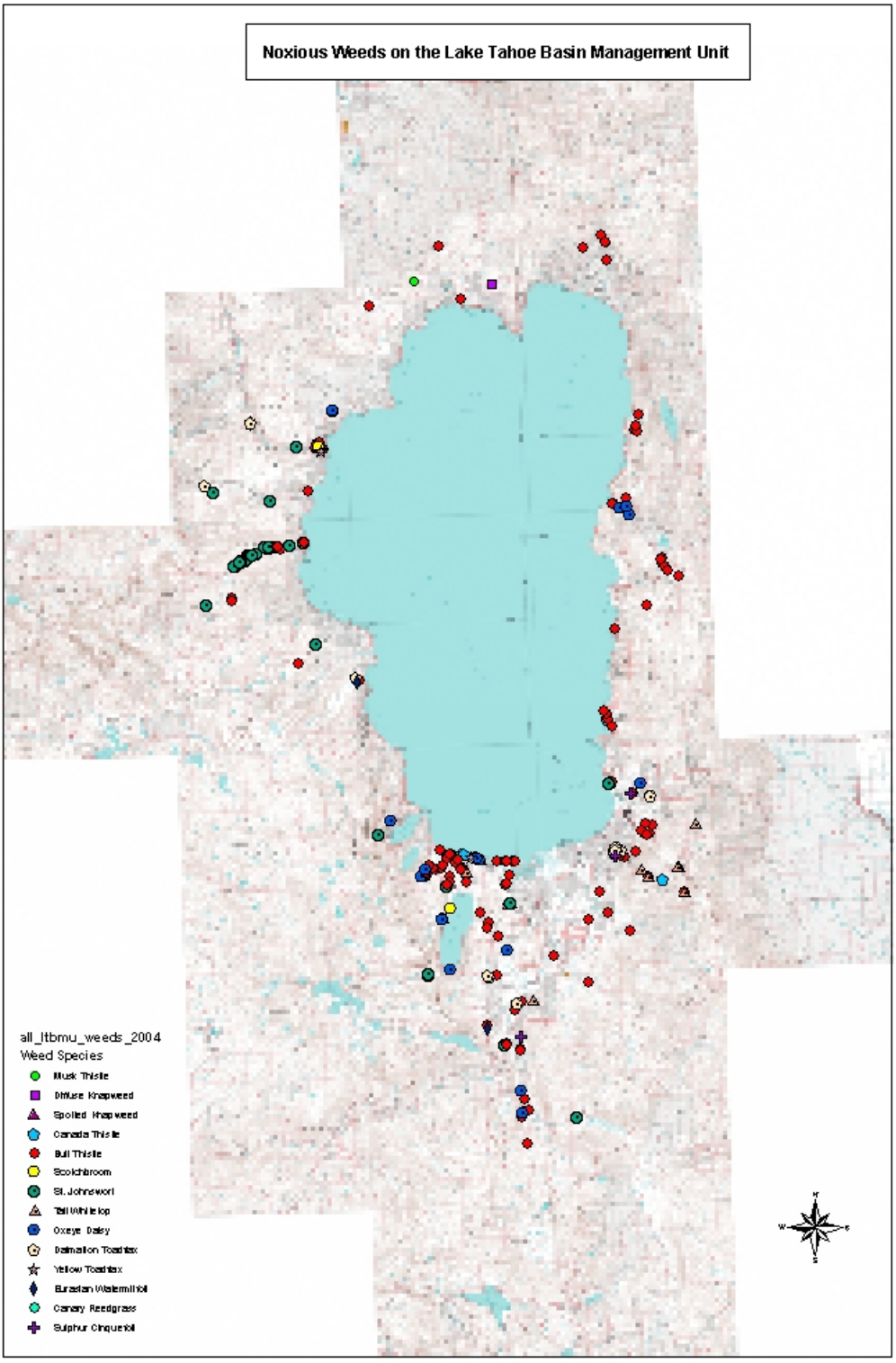
Describe how the project results will be communicated and made-available to the public.

Educational outreach will continue to occur at Earth Day and other public events. Posters will be submitted to local symposiums complete with monitoring results. The LTBMU noxious weed coordinator will continue to prepare an annual monitoring and activities report that is available upon request. The LTBMU will continue to work with the Lake Tahoe Basin Weed Coordinating Group which develops weed brochures, newspaper articles, and other information to alert the public of the threats to the environment posed by noxious weeds.

Further, the Interpretive Services staff will conduct public outreach at various locations (e.g., visitor centers, schools, public agencies) and during various events to educate the public concerning the principles, practices, and products of this project; an amount equal to two percent (2%) of the project costs is dedicated to this effort.

Include an 8 ½ X 11 map depicting the project.

See next pag


Noxious Weeds on the Lake Tahoe Basin Management Unit
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Weed Species
Musk Thistle
Diffuse Knapweed
Spotted Knapweed
Canada Thistle
Bull Thistle
Scotchbroom
St. Johnswort
Tall Whitetop
Oxeye Daisy
Dalmation Toadflax
Yellow Toadflax
Eurasian Watermilfoil
Canary Reedgrass
Sulphur Cinquefoil