

Appendix B-8

LAKE TAHOE RESTORATION PROJECTS ESTIMATED NECESSARY EXPENSES & KEY MILESTONE DATES

Project Name: Lake Tahoe Urban Forest Restoration and Fuels Reduction, Phase 4 of 4 Agency: USFS – LTBMU
 Prepared by: Brian Garrett Phone: 530-543-2617 EIP #: 10177
 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>0</u>	<u>0</u> %
2. FWS Consultation – Endangered Species Act	\$ <u>0</u>	<u>0</u> %
3. Direct Labor (Payroll) to Perform the Project	\$ <u>610,000</u>	<u>31</u> %
4. Project Equipment (tools, software, specialized equipment, etc.)	\$ <u>40,000</u>	<u>2</u> %
5. Travel (including per diem where official travel status required to carry out project, such as serve as COR, experts to review reports, etc.)	\$ <u>0</u>	<u>0</u> %
6. Official Vehicle Use (pro rata cost for use of Official Vehicles when required to carry out project)	\$ <u>100,000</u>	<u>5</u> %
7. Cost of Contracts, Grants and/or Agreements to Perform the Project	\$ <u>845,000</u>	<u>43</u> %
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)	\$ <u>145,000</u>	<u>7</u> %
9. Other Necessary Expenses (see Appendix B-9)	\$ <u>240,000</u>	<u>12</u> %
TOTAL:	\$ <u>2,000,000</u>	<u>100</u> %

Estimated Key Milestone Dates:

Milestones/Deliverables:	Date:
Prepare and Award Contracts	10/1/2010
Award Contract and Agreements	7/15/2011
Complete Hand thin Treatments	11/30/2011
Complete Mechanical Treatments	11/30/2012
Complete Rx Burning	11/30/2012
Final Completion Date:	12/31/2012

COMMENTS: Major milestones will be completed by the end of 2011, with the exception of mechanical treatments and burning of slash piles.

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

Project Name: Lake Tahoe Urban Forest Restoration and Fuels Reduction, Phase 4 of 4

Federal Agency Sponsor: USFS - LTBMU

Contact: Brian Garrett

Threshold: Vegetation

Phone Number: (530) 543-2617

Threshold Standard: Common Veg/Hazardous Fuels

Email Address: bdgarrett@fs.fed.us

Funding Requested in this Round: \$2,000,000

Total Project Cost:

LTRA Round 7	\$1,650,000 (Phase 1)
LTRA Round 8	\$1,500,000 (Phase 2)
White Pine Round 9	<u>\$ 570,000 (Phase 3, partial)</u>
TOTAL	\$3,720,000

LTRA Round 9 \$1,430,000 (Phase 3 partial, pending final approval)

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*
 - **If so, is the federal land involved important to successful implementation of the project?** This project is located solely on National Forest System lands within the Lake Tahoe Basin. This project can only be implemented on National Forest System land.
2. **Does the EIP identify the federal funding for the EIP project (project #)?** This project is listed in the EIP as number 10183.08.
3. **Does the project involve the conservation of a federal or regional threatened, rare, endangered or special interest species?** Included in the this project’s environmental planning process was the objective to protect or improve habitat for Forest Service Management Indicator Species (MIS) as well as threatened, endangered, or sensitive species. Stands being treated under this project that are located near Protected Activity Centers (PACs) for northern goshawk and California spotted owls have limited operating periods to prevent disturbance during the nesting season.
4. **Does the project involve an identified federal interest such as the detection and eradication of noxious aquatic or terrestrial invasive species?** This project includes identification, monitoring and manual control of listed noxious weeds on small urban forest parcels. Monitoring and control visits are conducted on all known populations 2-3 times per growing season. In addition, Parcel Condition Monitoring surveys are being conducted on

approx. 1000 urban forest stands per season and include surveys for invasive weeds. When populations are discovered, manual control action is taken.

During the environmental planning process for this project, field surveys were conducted to detect terrestrial invasive species. Based on these surveys, proposed hazardous fuels reduction treatments would be implemented to minimize the further spread of invasive species as well as project monitoring to ensure that if new locations are detected, control measures can be taken.

5. Does the project otherwise directly support federal implementation of capital projects in the EIP (e.g. technical assistance, data management, resource inventories, etc.)? This project proposal is for direct federal implementation of urban forest restoration and hazardous fuels reduction on National Forest System lands.

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

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.

The treatments being implemented under this project are included in the Lake Tahoe Basin Multi-Jurisdictional Fuels Reduction and Wildfire Prevention Strategy (Fuels Strategy). The location and timing of these treatments is being coordinated closely with local fire districts and fire safe chapter groups, who are implementing similar treatments on adjacent non-federal lands.

The treatments being proposed for implementation under this Urban Forest Restoration and Hazardous Fuels Reduction Project have proved effective under the extreme fire conditions experienced in June 2007 during the Angora Fire. The California and Nevada Tahoe Basin Fire Commission (Fire Commission) was formed shortly after the fire. The Fire Commission report made the following finding (Finding 20):

“Fuel reduction treatments implemented on National Forest urban intermix parcels within the Angora Fire reduced fire behavior from crown fire to surface fire as designed”

Within this Finding, the report states that the treatments (integrated resource management projects under the Urban Lot EA) *“exhibited modified fire behavior, including reduced ember production, and reduced heat and smoke allowing firefighters to be more effective.”* The finding goes on to state *“treated parcels also served as fuel breaks, allowing firefighters to safely protect structures and slowing fire spread”* and that *“eyewitness accounts, firefighter interviews and post fire on-site inspections indicated a significant reduction in fire intensity when fire entered treated urban lots (flame lengths were less than 4 feet).”*

The Fire Commission report also makes the following recommendation (Recommendation 51):

“ The Govenors should support fuels treatment prescriptions that proved effective in the Angora Fire on USDA Forest Service urban intermix parcels and encourage their continued use. In addition, the Govenors should request:

A. USDA Forest Service to consider more intensive treatments on steeper slopes where only pre-commercial thinning treatments are now occurring.

B. USDA Forest Service to continue implementing the current plan to have all 3200 urban intermix parcels treated by 2010.

C. USDA Forest Service to continue to implement the plan for maintenance of fuels treatments on urban intermix parcels, including utilization of stewardship agreements with local fire districts and stewardship permits for local land owners.”

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.

Projects : The first three implementation phases of this Urban Forest Restoration and Fuels Reduction project were approved in Rounds 7 and 8 of the Lake Tahoe SNPLMA and in Round 9 under both the Hazardous Fuels and Lake Tahoe SNPLMA. If this project is not funded in Round 10, it would result in the inability of the Forest Service to complete urban forest restoration and hazardous fuels reduction treatments on urban forest parcels analyzed in the South Shore Project and the Urban Lot EA.

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: Forested Uplands, Urban and Groundwater

a) **Describe whether, and how, the project demonstrates advanced, alternative, or innovative practices.** This project proposes to use low impact innovative technology equipment within streamzone areas of the project to treat hazardous fuel loads that are above desired levels and where conifer encroachment is displacing native riparian species such as aspen, alder and willow. Low impact innovative technology equipment will minimize the disturbance to soil hydrologic functions.

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.** This project does not propose specific monitoring to contribute to the state of TMDL knowledge.

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). This project would protect soils and stream environment zones (SEZ), which includes riparian and wetland areas, through incorporating best management practices as a contract requirement. Best management practices would include road maintenance and reconstruction to provide road surface stabilization, proper road drainage through installation of waterbars or rolling dips, maintenance or upgrading of drainage structures, ripping/subsoiling of temporary roads, limiting operating periods to dry soil conditions, protection of unstable lands, streamcourse and meadow protection, control of tractor skidding and log landing location, erosion prevention and control measures, and erosion control on skid trails. Where riparian vegetation within SEZs is being displaced by conifer encroachment, treatments would remove conifers using innovative technology vehicles and hand treatments to avoid or minimize the impact to soils and native vegetation. Conifer removal would enhance and restore native riparian vegetation (e.g., aspen restoration) to provide optimal water quality and enhance wildlife habitat. These measures would reduce the likelihood of fine sediments from entering waterways.

This project also includes implementing forest restoration and erosion control measures on urban forest parcels with existing disturbed areas (compacted soils, roads, etc...). These projects restore disturbed urban forest lands through soil de-compaction, re-contouring disturbed hill slopes, establishment of vegetation and blocking of access points to prevent further damage from unauthorized activities and vehicle use.

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):

Phase 4 of this project will continue implementation of fuels reduction treatments on National Forest urban parcels analyzed in the South Shore Fuels Reduction project and will be required to complete the remaining urban forest fuels reduction projects, approximately 100 acres.

These treatments have multiple resource objectives, both fuels reduction and forest health improvement. In addition, most of the acres to be treated are within or directly adjacent to riparian conservation areas and are designed to remove encroaching conifers from aspen forests and riparian plant communities. Treatments will be implemented using a mechanical cut-to-length system or hand removal. Treatment of slash will be either chipped and removed for biomass production or masticated on site. Creation of slash piles that will require future burning will be minimal.

Phase 4 of the Urban Forest Restoration and Fuels Reduction project will also continue

implementation of integrated resource management treatments as outlined in Alternative 3 of the LTBMU Urban Lot Environmental Assessment (ULEA). The first three phases of this project implemented both initial entry fuels reduction treatments and follow up maintenance treatments. It is anticipated that by the end of Phase 3, all available acres analyzed under the ULEA will have received initial entry fuels reduction treatments. Maintenance treatments will continue to be implemented in phase 4 of this project, on approximately 250 acres. These treatments have multiple resource objectives including retreating older fuels treatments to bring them up to current standards and to complement defensible space treatments occurring on adjoining private lands, invasive species control; soil stabilization and erosion control; hazard tree removal and treatment of insect and disease outbreaks.

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). This proposal is a continuation (phase 4 of 4) of the Urban Forest Restoration and Fuels Reduction project. The project is focused on the implementation of urban forest restoration and fuel reduction treatments on National Forest System urban forest parcels.

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).

Initial fuels reduction treatments and maintenance treatments including second entry fuels reduction, invasive species control, erosion control and restoration, and will be identified and scheduled for treatment. The environmental analysis (both South Shore Fuels Reduction and Urban Lot EA) has identified areas to be treated using both hand and mechanical treatment methods. The treatments implemented in the phase 4 project are a continuation of the first 3 phases of this project and this will be the final phase for completing all remaining treatments areas.

Field crews will layout the boundaries of the specific areas to be treated along with sensitive resources areas to be protected. Trees to be removed to meet the desired fuel reduction/forest health result will be identified within each specific area. Contracts and cooperative agreements will be prepared, advertised and awarded to accomplish the treatments within each specific area. Maintenance treatments will be primarily completed through partnerships with the Nevada Conservation Corps, Nevada Division of Forestry, and the local fire districts. Slash generated by these treatments will be chipped when feasible and piled when chipping is difficult. Slash and chip material will be made available for biomass utilization. It is expected this phase of project implementation would take one to two years to accomplish (field season 2010 and 2011).

Areas to be treated by hand would be those areas where slopes exceed 30%; no road access exists for mechanical equipment access, where stream zone areas are not conducive for low-impact equipment use or where small urban parcels are difficult for equipment to operate in. A combination of agency and contract hand crews would be used to thin live and dead trees along with down fuels. Where road access is available, cut material adjacent to roads may be removed for biomass utilization. The remaining cut material not removed would be piled by agency or contract crews. Where contract crews are used to accomplish this work, contract inspection by agency personnel would be conducted to ensure compliance with the contract requirements.

After piled material has cured for a period of one to two years, agency fire crews would burn the piles. It is expected that the burning of slash piles will take an additional one to two years to complete due to variable weather conditions and short burn windows. All work associated with this project is expected to be completed by December 31, 2012.

Areas to be treated by mechanical equipment would be those areas where slopes are less than 30% and road access exists for equipment, and stream zone areas where low-impact equipment could be used for removing material. Harvesters or hand felling would be used to thin live and dead trees. Thinned trees along with merchantable dead trees would be removed through a combination of whole tree skidding and log forwarding. Material not removed as logs, firewood, or biomass (e.g., slash and tops of trees) would be either chipped or masticated in place to reduce the fire danger and provide protective soil cover. Contract inspection by agency personnel would be conducted to ensure compliance with the contract requirements.

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 goals for this project are to facilitate the protection of life and property, the restoration of fire dependent ecosystems, the enhancement of fire suppression capabilities, enhancement of forest health, and enhance defensible space work occurring on adjacent private lands.

Describe the anticipated project accomplishments (i.e. products or identifiable environmental benefits being produced or implemented under this project): At the conclusion of phase 4 of this project, all hazardous fuels reduction treatments analyzed on National Forest urban parcels under the South Shore EIS and the Urban Lot EA will be completed. Specific deliverables for phase 4 of this project are:

- Approximately 100 acres of hazardous fuels reduction on urban forest parcels analyzed in the South Shore EIS project
- Approximately 250 acres of maintenance treatments on the Urban Lot EA projects (maintenance treatments, include hazardous fuels reduction, timber stand improvement/hazard tree removal, restoration, and revegetation of disturbed areas, and invasive species control)

Describe the “readiness” of this project to move forward (urgency, capacity, capability, environmental documentation, interagency agreements, etc.): The Urban Lot Environmental Analysis was completed in 1995 and 2002 and the Southshore environmental analysis for this project is scheduled for completion by April 2009. This project has been identified as a high priority project for the Lake Tahoe Basin Management Unit. The urban forest lands managed by the Forest Service are located within and adjacent to urban core areas. Urban forest restoration and hazardous fuels reduction project are critical to achieving fuels reduction and defensible space goals being implemented by local government and private property owners. Urban forest lands and the restoration projects being implemented on them reduce the amount of urban storm water runoff and soil erosion by maintaining healthy forest stands and restoring disturbed soils.

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):

This project partners with the Tahoe Regional Planning Agency (TRPA), Lake Valley Fire Protection District, South Lake Tahoe Fire Department, Fallen Leaf Fire Department, Tahoe-Douglas Fire Protection District, North Lake Tahoe Fire Protection District, North Tahoe Fire Protection District, Lake Tahoe Basin Region of the Nevada Fire Safe Council for the implementation of a portion of the Fuels Strategy, and the Lahontan Regional Water Quality Control Board for project implementation under the portion of this project covered under the California Environmental Quality Act (CEQA).

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

The most likely unintended consequences of this proposed project would be treatment areas that would not receive any treatment. The prevalent environmental risks associated with this would be for growth rates of trees to decrease due to high levels of competition and as stands reach and persist at maximum densities, they would remain at high risk of widespread mortality from insect and disease outbreaks and/or wildfire.

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

- 1) **The questions the monitoring program is designed to answer:** To what degree are best management practices implemented and effective in protecting soil and water resources?
- 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):** An adaptive management monitoring approach will be used to monitor implementation and effectiveness of the project. This monitoring will involve data collection before, during and after the project.
- 3) **Describe whether the monitoring or research associated with this project fits into or is part of a larger monitoring or research program:** Current examples of the types of monitoring questions addressed and past efforts initiated related to Fuels Reduction Projects can be found in the LTBMU 5 Year Monitoring Plan. This includes forest level BMP implementation and effectiveness monitoring, and project level effects monitoring of changes to soils, vegetation structure and composition, and fuel loading. There has also been a recently completed and one ongoing research project examining the effects of fuels reduction practices and fire on water quality. Monitoring and research opportunities to augment and complement these existing efforts will be evaluated and determined through the environmental analysis process. Funding for monitoring identified in the NEPA decision could be come from other sources in addition to dollars available in this project proposal.
- 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:** Pre- and post-project monitoring would occur within sensitive or critical treatment areas (e.g., streamzones) as specified in the project environmental assessment to provide for sound adaptive management as implementation occurs. This forms the basis for improving implementation methods for future projects.

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

Results and accomplishments will be summarized in the Annual Forest Monitoring Program Report, as well as project specific monitoring reports. Project specific monitoring reports will be 1 to 5 years post project implementation, depending on variables being monitored.

Figure 1, Project Area

