



USDA Forest Service
Pacific Southwest Region
Lake Tahoe Basin Management Unit



DECISION MEMO

For Implementation of the Lake Tahoe Ecosystem Underburn Project

El Dorado, Placer, Douglas, Washoe, and Carson City Counties, of
California and Nevada

DECISION:

Based on the analysis contained in this Decision Memo (DM) and associated project planning record, it is my decision to implement the Lake Tahoe Ecosystem Underburn Project as described in the proposed action (DM, pp. 4-8). My decision incorporates project design features, monitoring, and Best Management Practices as contained in this DM.

The project area encompasses 3,500 acres of National Forest System (NFS) lands across five counties in the Tahoe Basin. Prescribed underburning will take place on approximately 400-640 acres per year in stands that have been previously treated by hand and mechanical thinning, hand piling and pile burning. Within the project area ecosystem objectives will vary among all stands and will depend on meeting project purpose and need and design features (DM, pp. 2-4, 5-8). As described in the DM (pp. 5-6) a project burn plan will be prepared prior to implementation of specific treatment areas. The project burn plan will address the timing of year and the amount of surface fuel and understory consumption required to meet project objectives at each specific unit.

The key considerations I used in making my decision include:

- The project meets the purpose and need and addresses site-specific resource concerns by employing project design features, and Best Management Practices as described in this DM.
- The project is consistent with the LTBMU Land and Resource Management Plan, as amended. The consistency check is documented in the project planning record (Project Record Exhibit C1).
- The project was coordinated with and reviewed by Tahoe Regional Planning Agency and Lahontan Regional Water Quality Control Board staff. Both regulatory agencies had input into the design of the project and concur with the project as described in this decision.

- I received written and verbal input supporting this project as proposed. The “Public Involvement” section provides a summary of our efforts for this project during scoping and 30 day comment (DM, pp. 13-14). I received 2 letters from agencies during the 30 day comment period expressing their support and concerns of the project. A response to these comments is found within this DM in appendix C.

BACKGROUND:

In 2000, in response to a request by President Clinton, the Secretaries of Agriculture and Interior developed an interagency approach to respond to severe wildland fires, reduce their impacts on rural communities, and ensure sufficient firefighting capacity in the future. A strategy was outlined to reduce wildland fire threats and restore ecosystem health in the interior West. The strategy is built on the premise that within fire-adapted ecosystems, reducing fuel levels and using fire at appropriate intensities, frequencies, and time of year, is key to: restoring healthy, resilient forest conditions; sustaining natural resources; and providing public safety. The strategy resulted in the development of the National Fire Plan. This plan addresses five key points: Firefighting; Rehabilitation and Restoration; Hazardous Fuels reduction; Community Assistance; and Accountability. Reduction of hazardous fuels in the WUI is the essential focus of the plan, particularly in dense forest stands resulting from decades of fire exclusion.

This proposal would apply only to National Forest System (NFS) Lands within the Lake Tahoe Basin Management Unit (LTBMU) within the project area. While the proposal would reduce fuel loading in areas of WUI, the fire hazard would only be reduced up to private land boundaries, and cannot eliminate the threat to structures on private lands. To reduce fire hazard on private lands, landowners would need to assess fire hazards and treat their lands in tandem with the action proposed in the Lake Tahoe Ecosystem Underburn Project.

PURPOSE AND NEED:

1. Re-introduce fire into a fire adapted ecosystem and;
2. Use prescribed underburning to reduce and maintain desired fuel loading conditions in the WUI

According to the Lake Tahoe Watershed Assessment (2000), prescribed burning is one of the most effective means of reducing surface fuels and is also critical in restoring fire as an important ecosystem process. Restoring fire as an ecosystem process allows for increased resistance and resilience to large-scale disturbances that result from wildfire, wind, insects, and disease.

Prior to Euro-American settlement in the Lake Tahoe Basin, fires commonly occurred as a result of lightning and Native American burning practices. Fire is a component of forest health that can enhance tree and plant vigor and benefits wildlife through shaping vegetation, structure, composition, and landscape mosaics. In the case of prescribed burning, fire can benefit understory plants and trees by releasing essential nutrients that plants can utilize for growth (Neary et al. 2005). In the upper-montane forests of the

Sierra Nevada bioregion, shrubs and hardwood species typically sprout vigorously, whereas herbs and grasses either reseed or regrow quickly after a fire (Van Wagendonk and Fites-Kaufman 2006). In many instances, prescribed fire results in increased forest structural complexity and wildlife habitat heterogeneity (Pilliod et al. 2006). As a benefit, prescribed burning has potential to improve the long-term sustainability of habitat for some sensitive wildlife species as a result of increased tree and plant vigor, decreased risk for high severity fire, increased habitat heterogeneity, and recruitment of snags for cavity nesting species.

As directed by the Sierra Nevada Forest Plan Amendment Record of Decision (SNFPA) (2004) the desired fuel loading conditions for WUI under high fire weather conditions (90th percentile conditions) are for wildland fire behavior in treated areas to be characterized as follows: (1) flame lengths at the head of the fire are less than 4 feet; and (2) the rate of spread at the head of the fire is reduced to at least 50 percent of pre-treatment levels. WUI contains two primary sub-classifications, with the Defense Zone extending approximately ¼ mile from capital improvements, and the Threat Zone extending approximately 1¼ miles beyond the Defense Zone. At the project level, WUI classification is determined based upon factors of topography, existing fuel type and fuel loading, as well as local weather conditions.

Why Here:

Areas proposed for underburning are areas that reside within identified priority treatment areas recognized in Community Wildfire Protection Plans (CWPPs) and the Lake Tahoe Basin Multi-Jurisdictional Comprehensive Fuels Reduction and Wildfire Prevention Strategy (December 2007). These areas have accumulated sufficient fuel loads and ladder fuels that allow an unplanned fire ignition to transition from a surface fire to a crown fire and for a fire to exceed SNFPA (2004) desired conditions for the WUI. A planned ignition as proposed with this project using prescribed underburning would allow surface fuel reduction to occur under favorable fuel moisture and weather conditions allowing for managed treatment. According to First Order Fire Effects Modeling (v5.0, 2006) results shown in table 1, post underburning treatment conditions result in meeting desired condition for the WUI. Treating fuels through underburning would reduce flame lengths to approximately 2 feet, the rate of fire spread to approximately 7 chains per hour (1 chain equals 66 linear feet), the fire line intensity to approximately 27 btu/ft², and a transition to crown fire is not likely to occur. By limiting the crown fire potential, the potential spread of a wildfire to adjacent stands and certain wildlife habitats would be reduced significantly through the project.

Why Now:

The project is being proposed now to reduce and maintain the desired fuel loading following initial thinning treatment and to re-introduce fire into a fire adapted ecosystem. As a result of previous vegetation thinning and fuel reduction treatments the stand conditions would allow prescribed underburning to take place under managed conditions that reduce the risk of an escape occurring outside of control lines and reduce the risk for

high fire severity to occur. A high severity fire has potential to jeopardize human life and property, destroy sensitive plant and wildlife habitat, and increase erosion potential and sedimentation in watersheds that drain into Lake Tahoe. In addition, these areas have a historic fire return interval of 5-18 years as described in the Lake Tahoe Watershed Assessment (2000). A fire return interval of 5-18 years indicates that frequent low intensity fires are a common component of this ecosystem and introducing prescribed underburning now would help bring fire back into the ecosystem. As forest fuels accumulate with time, previously treated areas require maintenance using underburning to reduce surface and ladder fuel loading. These areas also require underburning because fire is an integral process and component of a healthy ecosystem.

Table 1. Fire Behavior Predictions using pre-treatment (current fuel loading) and post treatment (predicted fuel loading) parameters (First Order Fire Effects (v5.0, 2006). Modeling for pre and post treatment scenarios was done under 90th percentile weather conditions.

<u>Area 1 - El Dorado County</u>		
<u>Outputs</u>	<u>Pre-treatment</u>	<u>Post-treatment</u>
Flame Length (ft)	7 ft	2 ft
Rate of Spread (chains per hour)	44 chains/hr	7 chains/hr
Fireline Intensity (btu/ft ²)	337 Btu/ft ²	27Btu/ft ²
Crown Fire Transition	Yes	No
<u>Area 2, 3, and 4 - Placer, Carson City, Douglas and Washoe Counties</u>		
<u>Outputs</u>	<u>Pre-treatment</u>	<u>Post-treatment</u>
Flame Length (ft)	10 ft	2 ft
Rate of Spread (chains per hour)	31 chains/hr	7 chains/hr
Fireline Intensity (btu/ft ²)	782 Btu/ft ²	27Btu/ft ²
Crown Fire Transition	Yes	No

PROPOSED ACTION:

The project would reduce surface and ladder fuel accumulations and re-introduce fire into a fire adapted ecosystem on approximately 3500 acres of National Forest System (NFS) lands. This will be accomplished by prescribed underburning 400-640 acres per year in stands that have been previously treated by hand and mechanical thinning, hand piling and pile burning. Underburning is the application of surface fire below an overstory of trees and is used to restore forest health and to mimic the historic process of low-intensity fire. Underburning treatments will typically be implemented in the fall, however based on USFS specialist's desired conditions and the available "burn window" some may be conducted in the spring and or summer. Underburning has varying ecological effects which produce a heterogeneous stand that more closely resembles a functioning ecosystem. These treatments will aid in the recycling of nutrients into the soil, creating a mosaic effect to surface fuels and vegetation which will benefit, grasses, forbs, shrubs

and trees, providing optimal habitat conditions for certain wildlife. The largest individual stand that would be underburned at any given time and location would be approximately 100 acres. Existing roads and trails would be utilized for control lines as available. Control lines are a comprehensive term for all constructed or natural fire barriers and treated edges used to control a fire. Control lines would be constructed with hand tools and no mechanized equipment would be used for this project except for chainsaws. All constructed control lines would be rehabilitated after project completion. Rehabilitation activities would include using hand crews and hand tools to rake in berms created from control lines, install water bars, and scatter downed wood where appropriate.

The proposed treatments would take place in five counties including El Dorado, Placer, Douglas, Washoe, and Carson City Counties (see attached maps). The acreage of proposed underburning in these areas are found in Table 2 below. The total project acreage is approximately 3500 acres with the majority of underburning proposed in Placer and El Dorado Counties.

Table 2. General area locations and acreage of stands proposed for underburning

Area and County	Acres
Area 1 – El Dorado County	1651
Area 2 – Placer County	904
Area 3 – Carson City County	250
Area 4 – Douglas County	252
Area 5 – Washoe County	470
Total	3,527

PROJECT DESIGN FEATURES:

Project design features are elements of the proposed action and project design that are applied in treatment areas. These features were developed to reduce or avoid negative environmental effects of the proposed action on forest resources.

Air Quality

- A burn plan will be prepared and reviewed by the Lake Tahoe Basin Management Unit Forest Fire Management Officer and the Forest Supervisor prior to implementation. This burn plan includes a Smoke Management Plan which is the basis for obtaining a burn permit from the Nevada Division of Environmental Protection (NDEP) and the California Air Resources Board (CARB). In order to minimize the effects of prescribed burning on air quality; monitoring, mitigation and contingency measures will be identified in the Smoke Management Plan. Desirable meteorological conditions such as favorable mixing layer and transport wind speeds are required in the Smoke Management Plan to facilitate venting and dispersion of smoke from populated areas.

- Smoke management mitigation measures will begin immediately if smoke is adversely affecting a neighborhood or other smoke sensitive areas. Mitigation measures will include: cease all ignition, monitor and mop up.
- The public will be notified prior to ignitions taking place. This will be accomplished through press releases, radio broadcasts, local television stations and the Lake Tahoe Basin Management Unit web page.

Fire/Fuels

- Prescribed Burning will take place when meteorological conditions identified in the burn plan are met and when surface fuel conditions will allow for consumption of surface fuels.

Heritage Resources

- Flag and avoid identified cultural resource areas within the Area of Potential Effect.

Botany

- Flag and avoid project burning within known *Meesia triquetra* (meesia moss) areas. The area would be monitored by botanist or botany crews during implementation to prohibit prescribed underburning from encroaching into the area.
- Flag and avoid underburning within known *Lepidium latifolium* (whitetop) infestations.
- Prior to implementation, survey for sensitive plants, communities and noxious weeds. If any new occurrences are identified, additional design features and mitigations will be created.
- Clean all vehicles coming from known weed infested areas before moving to other NFS lands. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material, or other such debris.
- Staging areas for equipment, materials, or crews would not be sited in weed infested areas as identified by botanist.
- LTBMU Noxious Weed Coordinator would be notified prior to project implementation so known weed infestations that are within the project area or along travel routes near the project area will be hand treated by pulling or “flagged and avoided” according to the species present and project constraints.

- After the project is completed the LTBMU Noxious Weed Coordinator must be notified so that project areas can be monitored subsequent to project implementation to ensure additional weed species do not become established in the areas affected by the project and to ensure that known weeds do not spread.

Terrestrial Wildlife

- Group 1 – General wildlife design features
 - Implement Limited Operating Periods (LOPs) based on the most current wildlife survey data. In order to determine activity, field surveys would be conducted prior to burning. An LOP may be waived at the discretion of the Forest Biologist.
 - A wildlife biologist will be notified prior to project implementation so threatened, endangered, sensitive, management indicator, or special interest species, or of nests or dens of these species would be identified and protected in accordance with management direction for the Lake Tahoe Basin Management Unit.
- Group 2 – Within a California spotted owl PAC, northern goshawk PAC or California spotted owl HRCA
 - All features from Group 1 plus the following:
 - Maintain a mosaic of coarse woody debris (at least 10 dbh on the larger end) on average of 10 tons per acre within a HRCA and 15 tons per acre within a PAC, where possible, with emphasis on the larger size classes and decay classes 1, 2, and 3, within the constraints of acceptable fuel loads for WUI defense and threat zones (S&G 10).
 - In stands with overstory trees 11 inches dbh or greater, flame lengths should average 4 feet or less (S&G 76).
- Group 3 – Aspen Stands
 - Avoid prescribed fire ignition within aspen stands.
 - Fire may be allowed to creep into an aspen stand as long as average flame lengths are less than 2 feet and intensity is less than 20 btu/ft/s. If these conditions cannot be maintained within a stand then the stand would be flagged and avoided.
 - Where feasible, units containing aspen stands should be burned in the spring or late fall when ambient temperatures are lower and aspen are more likely to be dormant.

Soil and Hydrology

Soil and hydrology design features were developed to minimize or avoid direct and indirect negative effects of proposed treatments on forest resources and to meet the Riparian Conservation Objectives of the LTBMU Forest Plan (1988), as amended by the Sierra Nevada Forest Plan Amendment (SNFPA, 2004).

- Fire from prescribed underburns will be allowed to enter SEZs; however, direct fire ignition would not occur within stream environment zones (SEZs).
- Retardant foam would not be applied within SEZs.
- Flame height will not exceed 2 feet within 50 ft of stream courses or in wetlands unless higher intensities are required to achieve specific objectives to ensure that water temperatures necessary for local aquatic and riparian dependent species assemblages are not adversely affected by management activities and that disturbance of ground cover and riparian vegetation in Riparian Conservation Areas (RCAs) is minimized (SNFPA, 2004).
- If drafting water from nearby water courses, use screening devices for water drafting pumps. Use pumps with low entry velocity to minimize removal of aquatic species, including juvenile fish, amphibian egg masses and tadpoles, from aquatic habitats. Locate water drafting sites to avoid adverse effects to in stream flows and depletion of pool habitat (SNFPA, 2004).
- Locate hand constructed control lines outside of SEZs.
- Rehabilitate control lines using hand crews and hand tools.
- Install water bars as needed based on slope and connected length of control line. Water bar spacing would be determined on a site specific basis.

Recreation and Special Uses

- Provide advanced notice to public to ensure that the public is aware of proposed burning. Post signs in project areas near public access points to highlight the proposed action, ecological and stewardship benefits, and impacts to public access.
- Initiate temporary forest closure only during management activity period to ensure public safety. Closure should be as limited as possible to reduce restrictions to public access.
- Mitigate any hazard trees near recreation areas that result from underburning management activities.

Visual Quality

- Protect trees desired for retention from scorching within 100 feet on either side of travel routes (100% protection is not feasible. 5-15% of trees within project area may receive scorch). Travel routes include residential roads.
- Design underburn to result in a mosaic of burn effects, with an average of 5% per acre of understory vegetation to remain unburned.

MONITORING:

The project would utilize implementation monitoring to ensure that all pertinent and prescribed design features and Best Management Practices (BMP's) are met.

Monitoring will occur prior to project implementation by a hydrologist and/or soil scientist and fuels management specialist to identify locations where fire lines would be installed, and to ensure that sensitive soil and water resource areas are avoided with these lines. Additionally, Best Management Practice Evaluation Program (BMPEP) evaluations using the protocol for prescribed fires (F25) and the standard BMPEP form associated with that protocol will be completed in each prescribed fire stand (Exhibit B1).

In the event that the prescribed underburn activities result in greater than the prescribed fire intensity, an assessment will be conducted after implementation to determine the extent of the treated area that experienced moderate to high burn severity. A soil scientist or hydrologist will determine if the area and location of identified moderate to high burn severity is significant enough to warrant concerns about soil hydrophobicity impacts and resulting runoff and erosion. If such a determination is made, soil hydrophobicity monitoring (along with visual observations of rilling and erosion) will be conducted to evaluate the degree and duration of soil hydrophobicity impacts, and whether mitigation is warranted.

PERMITTING:

- California Air Resources Board and Nevada Division of Environmental Protection regulate prescribed burning in their respective states in accordance with the State Implementation Plan (SIP). Prescribed burning in this project will coordinate with the respective State and follow the SIP to protect air resources; including obtaining and following air quality permits.
- An application with an inspection plan for coverage under Lahontan Water Quality Control Board Timber Waiver category 5 will be submitted with this project prior to project implementation.
- Forest Service staff coordinated with the Tahoe Regional Planning Agency (TRPA) staff and TRPA concurs with the project as proposed.

REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION:

This project is planned under Forest Service Handbook (FSH 1909.15) Chapter 31.2 - Categories of Actions Excluded in an EA or EIS for which a Project File and Decision Memo are required. The category used is Category 6 - Timber Stand and Wildlife Habitat Improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction (Service level D, FSH 7709.56). The project is consistent with this category as underburning is intended to improve forest tree and plant vigor, and is designed to improve wildlife habitat through the restoration of fire and associated plant composition/structure into this ecosystem (See Purpose and Need pp. 2-4). In addition, the project does not propose to use herbicides nor construct roads as part of its actions.

EXTRAORDINARY CIRCUMSTANCES:

1. Federally listed threatened and endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species

The potential effects of this decision on listed wildlife, fish, and plant species have been analyzed and documented in a Biological Assessment (BA) and Biological Evaluation (BE). No effects to threatened or endangered species will occur as these species and their suitable habitats do not occur in or adjacent to the project area. Forest Service sensitive wildlife species (e.g., bald eagle, California spotted owl, northern goshawk and American marten.) occur, or may occur, in the project area as described in the project record. Project design features, described in this memo, are intended to minimize potential effects to sensitive species. The proposed action, including these design features, may allow for minimal impact to some individuals, but is not likely to result in a trend toward federal listing or loss of viability for any sensitive species. Effects to wildlife and fisheries are discussed in the Wildlife and Aquatic Species BE/BA found in the project record (Exhibit B2).

According to the project's Biological Evaluation for plant species (Exhibit B3) there is no critical habitat to threatened or endangered species. In addition, no sensitive plant species with potential habitat were found within the project area. Therefore there would be no affect to threatened and endangered plant species or designated critical habitat, and LTBMU sensitive plant species with the project.

2. Floodplains, Wetlands, or Municipal Watersheds

Floodplains: Executive Order 11988 is to avoid adverse impacts associated with the occupancy and modification of floodplains. Floodplains are defined by this order as, “. . . the lowland and relatively flat areas adjoining inland and coastal waters include flood prone areas of offshore islands, including at a minimum, that area subject to a one percent [100-year recurrence] or greater chance of flooding in any one year.”

The project area contains floodplains. This has been validated by map and site-review. To ensure that floodplain-related impacts are minimized, Best Management Practices (BMPs) will be incorporated. These include those BMPs identified in Appendix A (PSW BMP 1-4, 1-18, 6-2, 6-3, and 6-5). The potential effects from the proposed action have been evaluated and will not result in extraordinary circumstances.

Wetlands: Executive Order 11990 is to avoid adverse impacts associated with destruction or modification of wetlands. Wetlands are defined by this order as, “areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or will support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas

such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.”

There are no swamps, marshes, bogs, fens, sloughs, potholes, mud flats or natural ponds proposed for underburn treatments. This has been validated by map and site-review. The project area does support some wetland habitat with a seasonally high water table on approximately 92 acres (i.e. majority hydric rated soils) that are spread across the units. These 92 acres are located in riparian and floodplain areas (i.e. meadows and river overflows) influenced by perennial channels. All of the 92 acres of hydric soil types fall within proposed treatments stands in the southern portion of the project area (i.e. south shore) (refer to Appendix B). To ensure that wetland-related impacts are minimized, BMPs will be incorporated as identified in Appendix A (PSW BMP 1-4, 1-18, 6-2, 6-3, and 6-5) along with project design features. According to the soils and hydrology specialist report (Exhibit B1), floodplains and wetlands are not expected to be significantly impacted by project activities. In addition, project design features will reduce the intensity of the underburn when near stream courses or in wetlands. Finally, riparian areas are adapted to frequent disturbance, and are expected to recover more rapidly than the corresponding upland areas to a low-intensity underburn and the resulting loss of vegetation and ground cover.

Municipal Watersheds: There are no municipal watersheds located within the project area.

3. Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation sites.

There are no congressionally designated areas such as wilderness, wilderness study areas or national recreation areas.

4. Inventoried roadless areas

There are no inventoried roadless areas (IRA) within the project treatment area. An IRA does border the east portion of the project area, however, vegetation and fuels treatments and associated activities will not occur in the IRA through this project.

5. Research Natural Areas

There are no research natural areas within the project area.

6. Native American and Alaskan Native Religious or Cultural Sites

Surveys were conducted for Native American religious or cultural sites, archaeological sites, and historic properties. Theses sites will not be affected as they are to be flagged and avoided as a project design feature. Alaskan sites do not apply to the California region.

7. Archaeological Sites, or Historic Properties or Areas

Surveys were conducted for archaeological sites, and historic properties. These sites will not be affected as they are to be flagged and avoided as a project design feature.

FINDINGS REQUIRED BY OTHER LAWS:

Forest Plan Consistency (National Forest Management Act) - This Act requires the development of long-range land and resource management plans (Plans). The Lake Tahoe Basin Management Unit Land and Resource Management Plan was approved in 1988 as required by this Act. It has been amended several times, including the Sierra Nevada Forest Plan Amendment, (2004). The amended plan provides for guidance for all natural resource management activities. The Act requires all projects and activities be consistent with the Plan. Therefore, a forest plan consistency analysis of standards and guidelines and management areas was completed for the project and is found in exhibit C1 of the project record. The project is consistent with management direction in the following management areas: East Shore Beaches, Fallen Leaf, Freel, Marlette, Martis, Mt. Rose, Tahoe Valley, Ward, and Watson.

Clean Air Act - Under this Act areas of the country were designated as Class I, II, or III airsheds for Prevention of Significant Deterioration purposes. Impacts to air quality have been considered for this decision. Class I areas generally include national parks and wilderness areas. Class I provides the most protection to pristine lands by severely limiting the amount of additional human-caused air pollution that can be added to these areas. The Desolation Wilderness is a Class I airshed. The remainder of the Forest is classified as Class II airsheds. A greater amount of additional human-caused air pollution may be added to these areas. No areas on the Forest have been designated as Class III at this time. California Air Resources Board and Nevada Division of Environmental Protection regulate prescribed burning in their respective states in accordance with the State Implementation Plan (SIP). Prescribed burning in this decision will coordinate with the State and follow the SIP to protect air resources; including obtaining and following air quality permits.

Endangered Species Act - In accordance with Section 7(c) of the Endangered Species Act, a list of the listed and proposed, threatened or endangered species that may be present in the project area was requested from the U.S Fish and Wildlife Service (Exhibit B2).

Sensitive Species (Forest Service Manual 2670) - This Manual direction requires analysis of potential impacts to sensitive species, those species for which the Regional Forester has identified population viability is a concern; the project biological review contains the sensitive species list. Potential effects have been analyzed and documented in a Biological Evaluation (BE) (Exhibit B3 and B4). According to the BE potential impacts of the proposed action to sensitive species will not result in a trend toward federal listing or loss of viability.

Clean Water Act - This Act is to restore and maintain the integrity of waters. The Forest Service complies with this Act through the use of BMPs (see appendix A). This decision incorporates BMPs to ensure protection of soil and water resources. Project specific BMPs include PSW 1-4, 1-13, 1-18, 6-2, 6-3, 6-4, 6-5, 7-4, 7-7, and 7-8. In addition, a cumulative watershed effects analysis (CWE) was completed for the project (Exhibit B1). According to the project watershed analysis the proposed treatments, with the proper implementation of design features and applicable BMPs as described in the Pre-decisional Memo, are expected to result in little to no increase in erosion or negative impacts to soil and water resources in the area (Exhibit B1).

Floodplains (Executive Order 11988) - See Relationship to Extraordinary Circumstances, p. 9.

Wetlands (Executive Order 11990) - See Relationship to Extraordinary Circumstances, p. 10.

National Historic Preservation Act - Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. Section 106 of the National Historic Preservation Act (P.L. 89.665, as amended) also requires federal agencies to afford the State Historic Preservation Officer a reasonable opportunity to comment. Surveys were conducted for Native American religious or cultural sites, archaeological sites, and historic properties or areas that may be affected by this decision (refer to project record Exhibit B4).

National Environmental Policy Act - This Act requires public involvement and consideration of potential environmental effects. Public comment periods are a part of the public scoping process in using categorical exclusion authority during the project's environmental analysis.

Prescribed underburning treatments are consistent with the Forest Plan as amended. The project design features have been developed to avoid permanent impairment of site productivity and ensure conservation of soil and water resources. This project has been developed to be practical in terms of planning; preparation and administration costs while meeting the defined purpose and need for action.

PUBLIC INVOLVEMENT:

The LTBMU listed the proposed action on the Internet web page's Schedule of Proposed Actions (SOPA) beginning on January 1, 2007 and every quarter since. A scoping letter and project area map was mailed to 30 individuals and organizations on January 28, 2008. A news release was published in the Tahoe Daily Tribune on February 13, 2008. There were a total of ten emails, letters and phone calls that were received in response to this mailing.

The overall scoping response from the public was supportive of the project. There was one individual who was concerned about the destruction of the ecosystem. Their concerns about the projects impact are addressed through Interdisciplinary Team analysis specific to this project. According to analysis there are no extraordinary circumstances that could result in a significant environmental effect (see purpose and need page 1 and relationship to extraordinary circumstances page 9).

Another individual from the scoping period was concerned about not having adequate suppression resources such as fire trucks close by during implementation. As required in the project burn plan, adequate types and amounts of resources, contingency fire suppression resources, and contacted local fire units are identified prior to any burning taking place. In addition, the burn plan also identifies specific meteorological conditions and fuel moisture conditions that must be achieved before and during burning in order to safely implement the project.

The Federal government has trust responsibilities to Tribes under a government-to-government relationship to insure that the Tribes reserved rights are protected. Consultation with tribes helps insure that these trust responsibilities are met. The government-to-government consultation was initiated (Scoping Letter, January 28, 2008) and no response was received. The intent of this consultation has been to remain informed about Tribal concerns. No traditional cultural properties concerns were identified for this project.

The legal notice for the 30 day comment was published on March 21, 2008 in the Tahoe Daily Tribune and was mailed to scoping respondents, agencies, and interested public. A total of 2 letters were received providing comments to the project record (Exhibits E3-E7). These letters were supportive of the project, but concerns were raised and the comments required additional detail and clarification from the Forest Service. Addressing these comments and concerns, the Forest Service response to comments is found in Appendix C of this DM.

IMPLEMENTATION DATE:

Project implementation could begin in the fall of 2008. It is expected that treating all five project areas could last between 5-8 years, with approximately 400-640 acres burned per year. This is due to the number of burn days available and the amount of prescribed burning resources available. Implementation of project underburning would not influence the priority or rate of pile burning occurring in other projects.

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES:

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. Only those individuals or organizations that provided comments or otherwise expressed interest in the proposal by the close of the comment period are eligible to appeal the decision pursuant to 36 CFR part 215 regulations. The notice of appeal must meet the

appeal content requirements at 36 CFR 215.14. The appeal must be filed (regular mail, fax, email, hand-delivery, or express delivery) with the Appeal Deciding Officer at:

Randy Moore, Regional Forester
USDA Forest Service
Pacific Southwest Region
1323 Club Drive
Vallejo, CA 94592
Email: appeals-pacificsouthwest-regional-office@fs.fed.us
Phone: (707) 562-8737
Fax: (707) 562-9091

The office business hours for those submitting hand-delivered appeals are: 7:30 AM to 4:00 PM Monday through Friday, excluding holidays. Electronic appeals must be submitted in a format such as an email message, plain text (.txt), rich text format (.rtf), or Word (.doc) to the email address listed above. In cases where no identifiable name is attached to an electronic message, a verification of identity will be required. A scanned signature is one way to provide verification.

Appeals, including attachments, must be filed within 45 days from the publication date of this notice in the Tahoe Daily Tribune, the newspaper of record. Attachments received after the 45 day appeal period will not be considered. The publication date in the Tahoe Daily Tribune is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely upon dates or timeframe information provided by any other source.

CONTACT PERSON:

For additional information concerning this decision, contact John Washington or Duncan Leao, Lake Tahoe Basin Management Unit, 35 College Drive, South Lake Tahoe, CA 96150. Phone number (530) 543-2600.

SIGNATURE AND DATE:

APPROVED BY:

/s/ Terri Marceron
TERRI MARCERON
Forest Supervisor, Lake Tahoe Basin Management Unit

July 17, 2008

Date

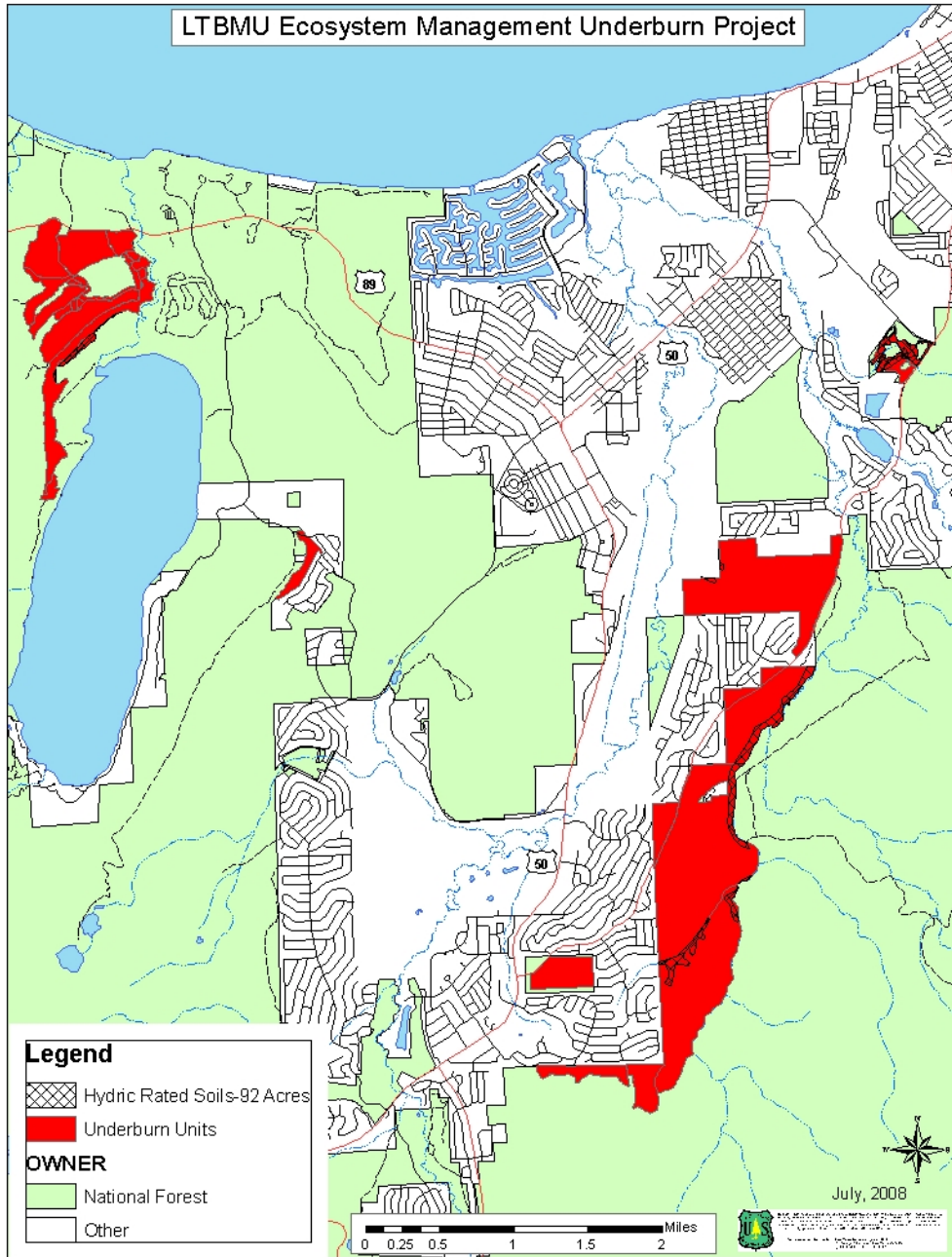
Appendix A.

Summary of Lake Tahoe Ecosystem Underburn Project Best Management Practices (BMPs). Adopted from the USFS Pacific Southwest Region (2000).

Best Management Practice	Description
PSW Region BMP 1-4: Use of Sale Area Maps (SAMs) for Designating Water Quality Protection Needs	The Interdisciplinary Team (IDT) will identify and delineate water quality protection features, such as the location of streamcourses and riparian zones to be protected, wetlands to be protected, and boundaries of units as part of the environmental documentation process.
PSW Region BMP 1-13: Erosion Prevention & Control Measures During Operations	Equipment will not be operated when ground conditions are such that excessive damage will result. Erosion control measures will be kept current, which means daily, if precipitation is likely, or at least weekly, when precipitation is predicted.
PSW Region BMP 1-18: Meadow Protection	Damage to designated meadows and/or their associated protection zones will be repaired in a timely manner. Damage to a streamcourse or streamside management zone (SMZ) caused by unauthorized operations will be repaired in a timely and agreed upon manner.
PSW Region BMP 6-1: Fire and Fuel Management Activities	To reduce public and private losses and environmental impacts that result from wildfires and/or subsequent flooding and erosion, measures including the use of prescribed fire will be used to achieve defensive fuel profile zones; fuel reduction units; and fire suppression activities.
PSW Region BMP 6-2: Consideration of Water Quality in Formulating Fire Prescriptions	To ensure water quality protection while achieving management objectives through the use prescribed fires, prescription elements will include, but not be limited to, factors such as fire weather, slope, aspect, soil moisture, and fuel moisture. The prescription will include at the watershed and subwatershed level the optimum and maximum burn block size, aggregated burned area, and acceptable disturbance for the riparian/SMZ.
PSW Region BMP 6-3: Protection of Water Quality from Prescribed Burning Effects	Implementation of techniques to prevent water quality degradation, maintain soil productivity, and minimize erosion from prescribed burning.
PSW Region BMP 6-4: Minimizing Watershed Damage from Fire Suppression Efforts	In the event that a prescribed fire gets out of control, a riparian specialist will identify where possible fragile soils and unstable areas to avoid with control lines and other ground disturbing activities so that watershed damage in excess of that already caused by the fire is avoided.
PSW Region BMP 6-5: Repair or Stabilization of Fire Suppression Related Watershed Damage	Install water bars or other drainage diversions in fire lines and other cleared areas in order to stabilize all areas that had their erosion potential significantly increased, or their drainage pattern altered by suppression related activities.

PSW Region BMP 7-4: Forest and Hazardous Substance Spill Prevention Control	Equipment operators shall have tools and materials necessary to clean up small and large spills on site at all times. Necessary tools and materials will vary depending on volume of hazardous materials on site. Mitigation of spills is described in the LTBMU spill plan.
PSW Region BMP 7-7: Management by Closure to Use	Underburn units may be closed to public use during implementation.
PSW Region BMP 7-8: Cumulative Off-Site Watershed Effects	A Cumulative Watershed Effects (CWE) analysis will be completed for each project as part of the environmental analysis. To protect identified beneficial uses of water from the combined effects of multiple management activities.

Appendix B.
Hydric rated soils (“wet soils”) found within Underburn Project area.



Appendix C.

Forest Service Response to comments from the 30 day comment period.

In response to the legal notice for the 30 day comment period, comments were received from the Sierra Forest Legacy and the League to Save Lake Tahoe (combined), and South Tahoe Public Utility District. The comments and the Forest Service responses are shown below.

Sierra Forest Legacy & League to Save Lake Tahoe

1. We suggest that to help protect the public, including those sensitive individuals that may be more impacted by the smoke, and accommodate the projects implementation, the USFS publicize a very clear and easy process for the public to be added to a pre-prescribed burn list.

Forest Service Response: The USFS has a web site that notifies interested publics of prescribed fire activities, in addition these publics can contact the USFS and request to be put on the burn notification list.

2. We suggest the USFS also ensure that personnel coming to the project area from other sites, both within and outside the Basin, be checked for materials (e.g. soil, seeds, plant material, or other such debris on shoes, clothing, etc.) just as the USFS will clean all vehicles and equipment.

Forest Service Response: The project includes design features that appropriately reduce the risk of noxious weed introduction and spread as described in the Decision Memo (DM) (p. 6). These were developed by the project botanist.

3. Will the USFS provide pre-project training to project implementers so they are better equipped to recognize these species?

Forest Service Response: The USFS project interdisciplinary team (IDT) has trained botanists and biologists who will survey burn units prior to implementation. (DM pp. 6-7).

4. Are you planning to burn outside the historic fall burning season? It is much more critical to wildlife if spring burns are planned.

Forest Service Response: These treatments will typically be implemented in the fall, however based on desired conditions and the available "burn window" some burns may be conducted in the spring and or summer.

5. The third bullet explains that hazard trees near recreation areas would be mitigated.
Please explain what is meant by "near" (e.g. within 150 feet of an area)

Also what guidelines will be used to assess whether a tree is a “hazard?” (We recommend the USFS use the guidelines being utilized in the Angora Hazard Tree Removal Project along USFS System Roads and Trails).

Forest Service Response: For the purpose of this project recreation areas refer to areas where the public recreates in managed areas (ie. trails, forest roads, campgrounds, etc.). Hazard trees that occur because of project underburning (e.g. a tree has burned with enough severity that the holding wood is compromised) will be identified by implementation and monitoring personnel. The implementation of this project is not expected to produce the same fire severity to trees as the Angora Fire did. Therefore, it is not expected that hazard trees would be mitigated to the same level with this project as the Angora Hazard Tree Project. Marking guidelines for that project will be taken into consideration as to what constitutes a hazard tree. Near is defined as 1 ½ times the height of the tree. Hazard trees will be cut down and left on site.

6. Please describe the various objectives of each area you plan to treat.

Forest Service Response: Overall, the objectives for this type of treatment are to produce heterogeneous stands that have varying fire and ecological effects to more closely reflect a functioning ecosystem. Ecological objectives will vary among all areas and will depend on meeting the project purpose and need and design features specified for all forest resources (DM, pp. 2-4, 5-8). The project burn plan will address the timing of year and the amount of surface fuel consumption that is expected to meet project objectives.

7. What are the vegetation, wildlife, rare plant and other objectives for these projects?

Forest Service Response: See response to number 6 above.

8. What are your benchmark reference condition and desired conditions for each of these areas you are planning to burn?

Forest Service Response: Refer to project purpose and need described in DM pp. 2-4. Historic fire return intervals within project area are 5-18 years. A lack of natural fire in these areas has led to a deviation from the fire return interval.

9. What is the planned duration of these treats? Rate of spread and heat transfer impact outcomes. How are you planning to burn these areas in terms of residence time, slope and in high fuel build up sections of the projects?

Forest Service Response: The planned duration for these treatments will vary with individual units. The smaller units will usually take 1 day to burn whereas the larger units may take multiple days. The units will be burned using established procedures and firing techniques (ie, igniting from the top of the unit down to the

bottom,) residence time will vary depending on the amount and size of fuel within the unit.

10. We recommend hoeing the bark build-up away from the bole to protect larger, rare trees.

Forest Service Response: The LTBMU generally does not “hoe” bark from the boles of trees, however if certain trees are identified for retention the Forest Service will attempt to protect them from cambial scorching.

11. Who will ensure the project is being conducted effectively (“effectiveness” monitoring)?

Forest Service Response: Forest Service personnel will conduct monitoring as described in the DM pp 8-9. Visual monitoring of the “range of acceptable results” is contained within the project burn plan.

12. What mechanisms are in place to ensure BMP’s are working as expected to mitigate project impacts?

Forest Service Response: See response to above comment #11. The BMP evaluation program will monitor the use of BMPs with this project.

13. How will the USFS ensure project rehabilitation and post- burn conditions work as expected over the long term? What is the schedule for ongoing “maintenance” treatments (to mimic the natural fire regime over time)?

Forest Service Response: USFS personnel will ensure project rehabilitation is complete when each unit is complete and monitor the effects. Maintenance will be conducted when each unit has enough fuel loading to warrant another treatment. Maintenance is expected in approximately 15-20 years.

13. Does the TRPA have any permitting involvement with this project? For example, is the project exempt, qualified exempt, or being done through the MOU between the two agencies?

Forest Service Response: TRPA has no permitting involvement with this project. TRPA had input into the design of the project and concurred with the project as described in the DM.

14. We request the USFS provide a map which identifies the project areas and which locations in those areas fall in either a floodplain or wetland.

Forest Service Response: The majority of the Lake Tahoe Basin lies within the 100-year floodplain. As described in the DM under Relationship to Extraordinary Circumstances (pp. 10-11), “the project area does support some wetland habitat with a seasonally high water table on approximately 92 acres (i.e. majority hydric

rated soils) that are spread across the units. These 92 acres are located in riparian and floodplain areas (i.e. meadows and river overflows) influenced by perennial channels. All of the 92 acres of hydric soil types fall within proposed treatments stands in the southern portion of the project area (i.e. south shore) (refer to Appendix B).” A map of wetland soils is found within the DM in Appendix B.

15. What about federally listed species impacts and plans to avoid significant impacts to fish and wildlife?

Forest Service Response: Forest Service IDT conducted analysis of effects to wildlife and fish species in the Biological Evaluation (BE) and Biological Assessments (BA). As described in the DM under Relationship to Extraordinary Circumstances (p. 10), “the potential effects of this decision on listed wildlife, fish, and plant species have been analyzed and documented in a BA and BE. No effects to threatened or endangered species will occur as these species and their suitable habitats do not occur in or adjacent to the project area.”

South Tahoe Public Utility District

16. The burn area located in the most southern area of South Lake Tahoe (Meyers) will affect the District’s main trunk line serving the Meyers Community.

Forest Service Response: This project will not affect the Districts main trunk line.

17. A majority of the manholes in this area are elevated above the ground surface. The sealing properties could be affected by intense heat.

Forest Service Response: The project will not generate “intense heat”. The manholes will be protected by firefighters to ensure that the sealant remains intact.

18. Each manhole is staked and has signage for identification. This signage could be burnt requiring replacement.

Forest Service Response: The firefighters will protect the signage at the manholes if the signage does get damaged the Forest Service will replace them.

19. Access would need to be maintained in case of any blockages or system problems requiring repair or maintenance activities.

Forest Service Response: Access will be denied for short periods of time. If STPUD need to access any areas within a unit the Forest Service will expedite their access.