2 PROGRAM DESCRIPTION

2.1 BACKGROUND AND PROGRAM OBJECTIVES

The Tahoe Fire and Fuels Team (TFFT) has worked for years to create fire-adapted communities, restore forest resilience, and achieve other objectives consistent with the Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy (Multi-Jurisdictional Strategy) (TFFT 2017) and the Lake Tahoe Community Wildfire Protection Plan (CWPP). The TFFT is comprised of 22 fire districts, land management agencies, universities and regulatory agencies with a role in managing wildfire fuel in the Lake Tahoe Basin. The TFFT has achieved significant results, treating thousands of acres to manage forest conditions in the Wildland-Urban Interface ([WUI], i.e., the forested areas within and adjacent to developed communities) surrounding Tahoe's communities. However, significant portions of the WUI and other forested areas still require fuel reduction treatments and long-term management to maintain forest resiliency near communities.

The TFFT proposes to increase the pace and scale of forest management activities that reduce wildfire risk to communities and improve forest health through vegetation management activities in and adjacent to the WUI on the California side of the Lake Tahoe Basin (the proposed program). The project-by-project approach that has typically been used to comply with California Environmental Quality Act (CEQA), California Forest Practice Act (FPA), California Forest Practice Rules (CFPR), and other regulatory requirements can lead to inefficiencies, delays, excess costs, and inconsistencies in project planning. In addition, a project-by-project approach to fuel reduction planning and environmental review provides limited opportunities to analyze and understand the long-term and cumulative effects of forest management programs. This Program Timberland Environmental Impact Report (PTEIR or Tahoe PTEIR) more efficiently and comprehensively evaluates the environmental effects of the proposed program to facilitate an increase in the pace and scale of fuel reduction treatments.

This PTEIR is being prepared under the direction of the California Department of Forestry and Fire Protection (CAL FIRE) as lead agency, because CAL FIRE must approve the proposed program in accordance with the CFPR and FPA. CAL FIRE is coordinating with other TFFT agencies to evaluate the potential significant environmental effects of the proposed activities in conformance with these regulations and CEQA.

This PTEIR functions as a program EIR in accordance with State CEQA Guidelines Section 15168 and evaluates at a program level treatment approaches and covered lands in order to provide a comprehensive cumulative analysis of forest management activities. The Tahoe PTEIR would allow project proponents to more efficiently complete environmental review of later activities consistent with the program, while maintaining flexibility for project implementers to determine the most appropriate treatment methods for individual later treatment activities. Environmental review of later activities within the scope of the Tahoe PTEIR would be streamlined through provisions in Section 15168 of the State CEQA Guidelines for program EIRs and features of the FPA and CFPR. Through a checklist-based approach for environmental review of later project activities, this PTEIR is designed to facilitate an increased pace and scale of forest management activities informed by rigorous analysis of site-specific and cumulative effects. As described in detail under Section 2.7, "Later Activity Review, Permits, and Approvals," below, the Project Consistency Checklist (Appendix A) would be used to determine if a proposed later activity is within the scope of the Tahoe PTEIR.

The objectives of the program are to:

- reduce the risk of catastrophic wildfires that could damage Lake Tahoe Basin forests, watersheds, habitats, and communities;
- increase Lake Tahoe Basin forest resilience to effects of climate change, including prolonged drought, pest and disease outbreaks and increased tree mortality;
- protect and restore meadow and riparian ecosystems, and forest habitat quality in the Lake Tahoe Basin;
- develop and implement all-lands fuel reduction, forest health improvement, and restoration projects that deliver multiple community and ecosystem service benefits; and
- ▶ increase the pace and scale of fuel reduction projects to assist in achieving the goals of Executive Order B-52-18.

2.2 PROGRAM AREA LOCATION

Forest management and fuel reduction activities analyzed in this PTEIR would occur within a program area located on private, local jurisdiction, federal, and California Tahoe Conservancy (Conservancy) lands both in the WUI and select contiguous areas of general forest outside of the WUI throughout the California side of the Tahoe Basin (see Figure 2-1). The program area covers approximately 17,490 acres in the City of South Lake Tahoe and in unincorporated areas of El Dorado and Placer Counties, including, but not limited to: Meyers, Cascade properties near Cascade Lake, Tahoma, Homewood, Alpine Peaks, Tahoe City, Dollar Point, Carnelian Bay, Tahoe Vista, and Kings Beach.

The majority of the proposed program would be located within the WUI, with areas targeted for vegetation treatments consisting of the WUI defense zone and WUI threat zone (see Figure 2-1). The WUI defense zone is the land between developed communities and wildlands, where more intensive vegetation management is needed to protect abutting and nearby communities. The WUI threat zone is those wildland areas outside of the WUI defense zone where it may be desirable to reduce the vertical and horizontal continuity of vegetation to modify wildland fire behavior to protect adjacent communities.

The program area includes 11,640 acres of land identified as "Planned CWPP Projects." Planned CWPP Projects consist primarily of larger-acreage parcels of public land. These include undeveloped open space within and near developed communities. Treatments in these areas could include any of the silvicultural prescriptions described in Section 2.3.1, and any of the proposed vegetation treatment methods described in Section 2.4.

The remaining 5,850 acres of the program area are identified as "Community Fuel Reduction Areas." Community Fuel Reduction Areas include smaller-acreage parcels that are publicly or privately owned. These areas include developed parcels and undeveloped urban lots within and surrounding developed neighborhoods. Silvicultural prescriptions within Community Fuel Reduction Areas would predominately consist of shaded fuel break/defensible space prescriptions as described in Section 2.3.1. Treatment methods in these areas would predominantly consist of manual treatments as described in Section 2.4.2, although other treatment methods described in Section 2.4, "Proposed Treatment Methods," could occur depending on site-specific characteristics. Figures 2-2 through 2-7, show additional detail on locations that could be subject to forest fuel treatments within the program area.

A portion of the program area includes U.S. Forest Service urban lots that are interspersed between private and state-owned lots and are within the Community Fuel Reduction Areas. Fuels treatments on these lands would be permissible under the Tahoe PTEIR through a Good Neighbor Authority agreement (i.e., a cooperative agreement or contracts between the U.S. Forest Service and the state) or a possible future transfer of this federal land to the state. The PTEIR does not include environmental analysis required under the National Environmental Policy Act (NEPA) to support federal approval or treatment of federal lands.

Treatments in the program area would be in addition to defensible space treatments required under Public Resources Code (PRC) Section 4291. This PTEIR does not cover portions of private parcels within 100 feet of developed structures that are required to meet the defensible space requirements of PRC Section 4291; however, project proponents could conduct forest management and fuel reduction activities on private lands whose property lines may fall within 100 feet of neighboring and separately owned structures.

2.3 PROPOSED FOREST MANAGEMENT TREATMENTS

The proposed program consists of a long-term, vegetation management program to reduce forest fuels that can contribute to large, high-severity wildfires. The long-term program includes initial treatments and retreatments of project areas shown in Figures 2-1 through 2-7. The program includes numerous forest treatment activities to reduce the risk of wildfire including mechanical thinning, manual/hand thinning, prescribed understory burning, pile burning, sale and transport of merchantable timber, and the transport and use of biomass for energy generation and wood pulp products. To provide revenue to support the wildfire risk reduction and forest habitat related treatments, forest products with commercial value (e.g., timber, biomass, etc.) may be removed and sold or bartered as an accessory activity. Herbicide treatment is not proposed.

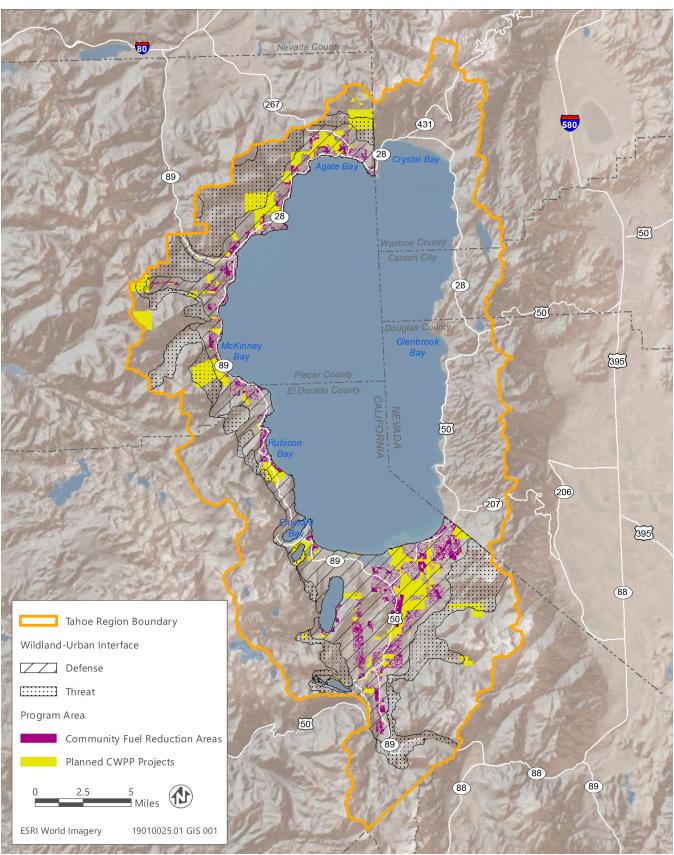


Figure 2-1 Program Area

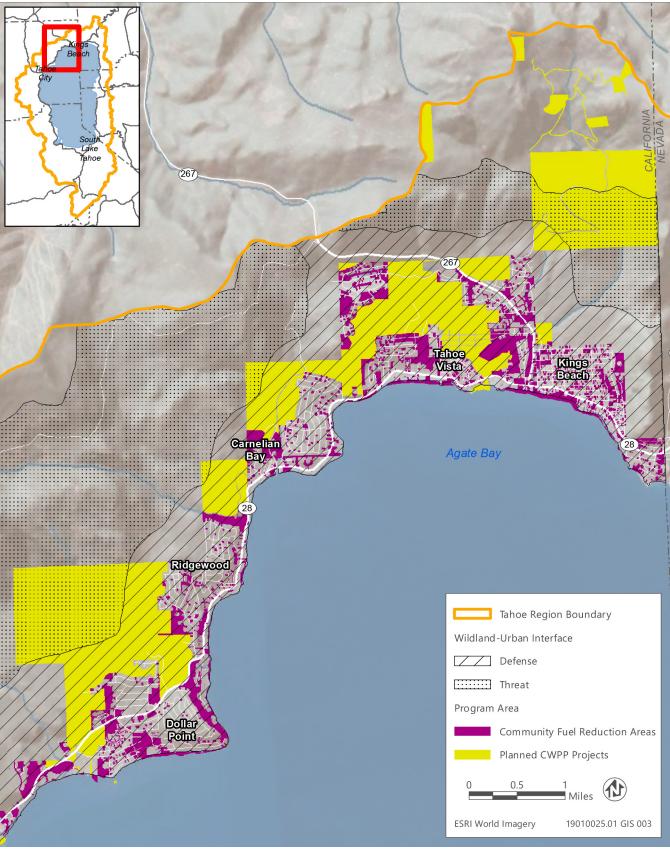


Figure 2-2 Program Area: Kings Beach to Dollar Point

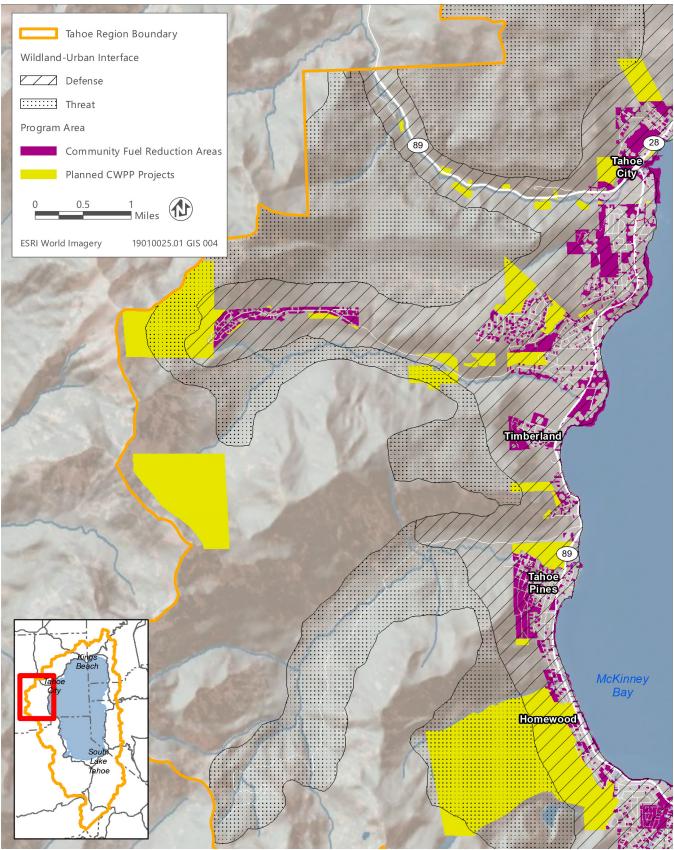


Figure 2-3 Program Area: Tahoe City to Homewood

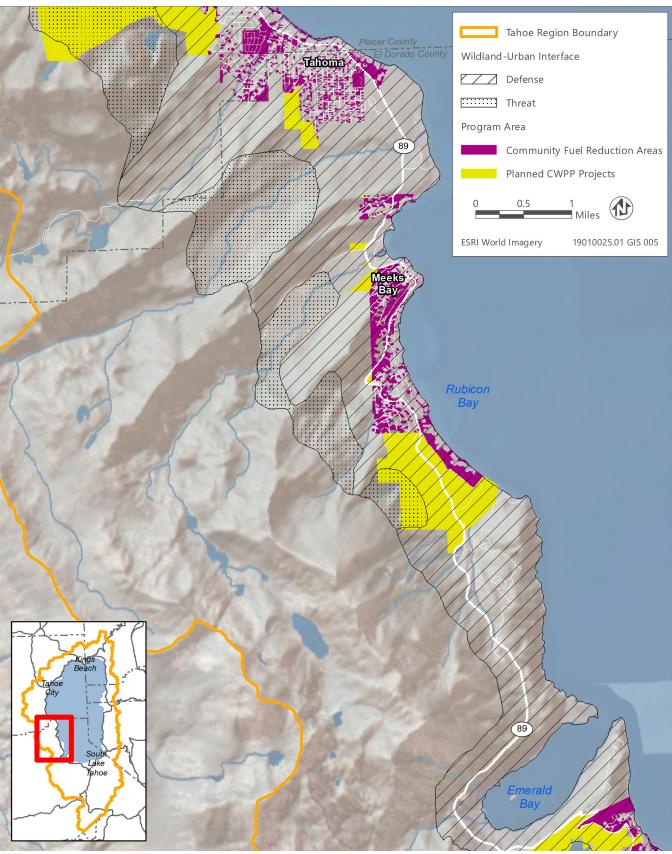


Figure 2-4 Program Area: Tahoma to Emerald Bay

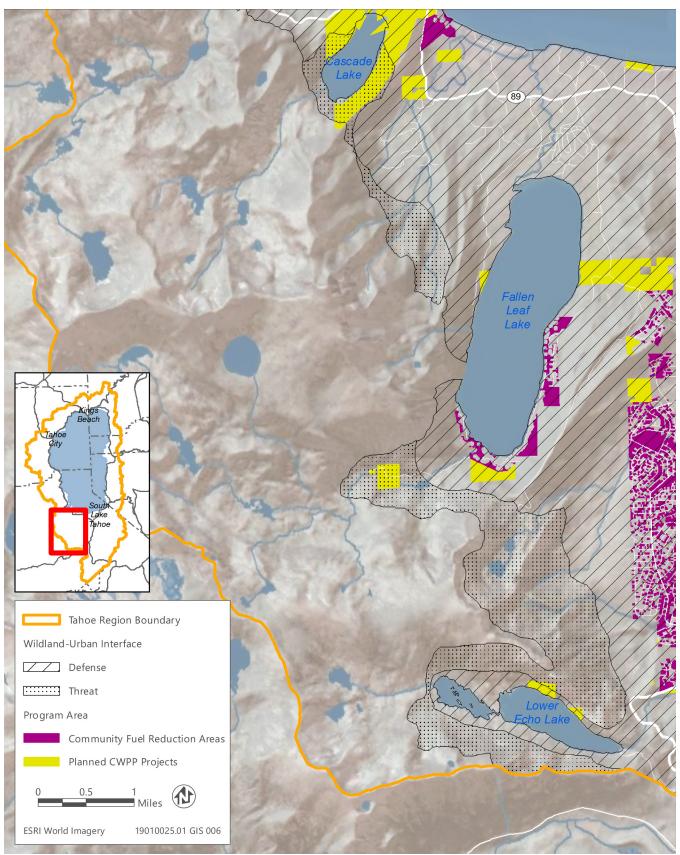


Figure 2-5 Program Area: Cascade Lake to North Upper Truckee

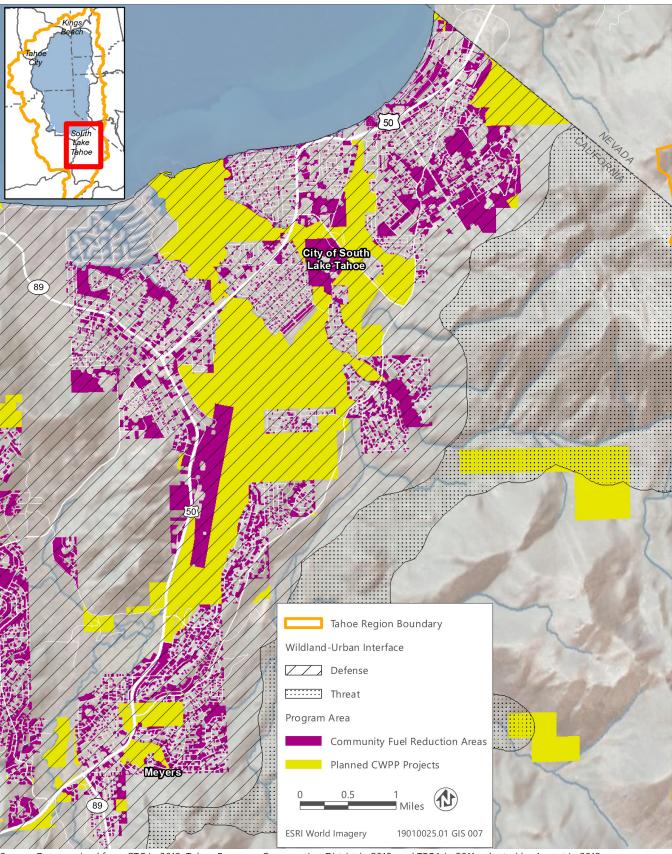


Figure 2-6 Program Area: South Lake Tahoe

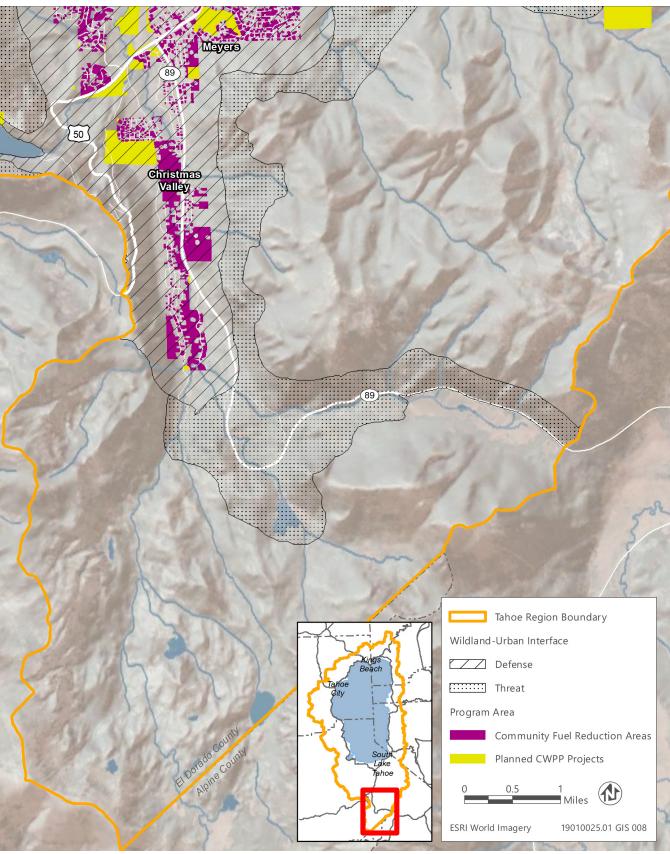


Figure 2-7 Program Area: Christmas Valley

2.3.1 Silvicultural Prescriptions

Silviculture is the practice of managing forest composition, structure, and growth. Silvicultural prescriptions can depend on the goals of a forest management project, which in this case is for forest fuel and wildfire risk reduction. In general, silvicultural prescriptions would be intended to achieve and maintain residual basal areas (i.e., the surface area covered by the trunks of living trees) of 70 to 120 square feet (sq. ft.) per acre, with some treatments potentially resulting in minimum residual basal area of 50 sq. ft. per acre, where warranted by site conditions. The proposed program would include a combination of the following silvicultural prescriptions, with the specific prescription for each later activity selected based on site-specific characteristics and goals:

- ▶ Shaded fuel break/defensible space: Shaded fuel breaks and defensible space prescriptions alter vegetation to reduce the potential for high-severity wildfire and to improve the create conditions that increase the ability of firefighters to suppress wildfire. This treatment is intended to reduce the rate of wildfire spread, duration, intensity, fuel ignitability, and to provide safe access for wildfire suppression efforts. This method involves removal of surface (i.e., ground), ladder (i.e., branches and small trees that can allow a ground fire to burn higher into the forest canopy), and crown (i.e., forest canopy) fuels such that the treated stand exhibits reduced vertical and horizontal fuel continuity. Generally, this approach is similar to thinning from below, where the smaller diameter trees and surface fuels are targeted for removal or rearrangement, leaving a stand of the largest, most fire resilient trees available in a discontinuous array.
- Single-tree and group selection: Single-tree selection and group selection are uneven-age methods that support and enhance uneven stand structure (i.e., a variety of tree sizes and ages). Utilizing these methods, trees are removed singly or in small groups ranging from 0.25 to 2.5 acres in size, although only 20 percent of the total treatment area may be covered by the group clearings. Implementation of these silvicultural methods is intended to hasten the growth of remaining trees; reduce competition for water, sunlight, and soil nutrients; support stand health and vigor; and support site conditions required for natural regeneration of the stand. Minimum standards apply to use of this prescription to ensure the retention of an uneven-age stand, and also require that the remaining trees have full crowns that are capable of seed production and represent the best species characteristics available in the stand.
- ▶ Tree thinning: Individual trees can be removed to promote forest growth and vigor. This silvicultural prescription is similar to the shaded fuel break/defensible space prescription above, but is focused on forest health as well as fire behavior. It is intended to maintain or increase the average tree diameter in the stand through reduction of tree density, which ultimately hastens tree growth. Minimum standards apply to use of this prescription to ensure that the average stand diameter of the post-treatment stand is equal to or greater than that of the pre-treatment stand. Tree thinning would reduce fuels and would also promote forest growth, improve forest resiliency, and reduce the potential for insect infestation. Tree thinning could be included in non-commercial, pre-commercial, and commercial projects.
- ▶ Sanitation-salvage: Sanitation-salvage is used to protect, support, and enhance the overall forest health of the stand. Sanitation cutting refers to the removal of insect-attacked or diseased trees to maintain or improve the overall health of the stand. Salvage cutting is the removal of only those trees that are dead, dying, or deteriorating because of damage from fire, wind, insects, disease, flood, or other reasons. Salvage cutting includes dead or dying trees that still retain some commercial value. It is intended to economically recover trees before a total loss of their wood value. The sanitation and salvage methods may be combined to provide flexibility in addressing varying levels and types of damage within a stand.
- Aspen, meadow, and wet-area restoration: Aspen, meadow, riparian, and wet-area restoration is a special prescription intended to restore, retain, or enhance such areas for their ecological value by removing encroaching conifers. The degraded conditions of the aspen, meadow, riparian, and/or wet area are identified, which often includes encroachment by other vegetation and excessive shading by conifers. Treatment measures are based on the site-specific conditions, but typically involve the removal of conifers to reduce shading and competition with aspen, meadow, or other wet-area communities.

2.4 PROPOSED TREATMENT METHODS

2.4.1 Pace and Scale of Treatments

Since 2007, project proponents have treated an average of 503 acres each year within the program area, with an average of 199 acres treated by hand thinning, 200 acres treated by mechanical thinning, and 104 acres of pile burning. The proposed program would increase the pace of treatment activities and treat an estimated 1,250 acres per year, including an estimated 850 acres per year within Planned CWPP Project areas plus and additional estimated 400 acres per year within Community Fuel Reduction Areas through a combination of manual activities, mechanical activities, and prescribed burning. These estimated acreages are a reasonable estimate of the typical number of acres that would be treated each year with implementation of the Tahoe PTEIR. The actual acres treated per year would vary and could be influenced by a variety of factors, such as funding availability, market conditions, staffing resources, and complexity of project planning. It is anticipated that completion of initial-entry treatments across all of the Planned CWPP Projects would be prioritized initially, followed by ongoing retreatments. It is estimated that initial treatments would be completed within 15 years. Table 2-1 shows the average number of acres treated each year under existing conditions, the total acres expected to be treated in a typical year under the proposed program, and the incremental annual increase in the scale of treatments that is expected to result from implementation of the proposed program.

Table 2-1 Estimated Increase in Annual Acres Treated by Treatment Type Under the Proposed Program

	Manual Treatments	Mechanical Treatments	Pile Burning	Prescribed Understory Burning	Total Acres Treated per Year
Total Acres Treated Under the Proposed Program	500	300	250	200	1,250
Total Acres Treated Under Existing Conditions ¹	199	200	104	0	503
Net Increase in Acres Treated as a Result of the Proposed Program	301	100	146	200	747

¹Acres treated under existing conditions are based on the annual average acres treated within the program area between 2007 and 2018.

Source: Compiled by Ascent Environmental in 2019

The number of treatments that could occur at one time would vary based on time of year, availability of funding and crews, and size and complexity of individual treatments. The maximum number of treatments that could reasonably occur at one time would be 10 separate treatments. Activities associated with these treatments include: tree felling; prescribed burning; skid trail, fire containment line, and landing construction; forest road maintenance and restoration; removal of forest products; management of biomass through lopping, mastication, chipping, burning; transportation and hauling of forest products; and other activities incidental to treatment operations. Each method would also involve access and may include removal of forest materials from the treatment site. Equipment use would only occur during daylight hours.

All treatments would be consistent with applicable CFPR, Tahoe Regional Planning Agency (TRPA), Lahontan Regional Water Quality Control Board (Lahontan RWQCB), and other applicable laws and regulations. The analysis in this PTEIR includes evaluation of a scenario where TRPA Code Sections 61.1.6.D.1 and 61.1.6.F.1 change to allow mechanical thinning on slopes greater than 30 percent and skidding on frozen ground (instead of only over snow). If TRPA revises those Code sections in the future, later treatment activities under the PTEIR can incorporate the revised provisions. Until such time that the Code sections are revised, all treatment activities would comply with the existing TRPA Code.

2.4.2 Manual Treatments

In manual treatment operations, a crew would fell trees using chainsaws and limb the log directly at the stump (Figure 2-8). Through this process, the logs, tree limbs, and slash are either immediately piled into burn piles, chipped (with the chip either spread on site or removed) or scattered throughout the treatment area creating a "slash mat," which protects the forest floor from disturbance. Individual or small groups of logs could be pulled to landing by hand or with a cable skidder or grapple skidder. At the landing, logs could be cut to length and loaded onto trucks by an excavator or backhoe, or left for private individuals to pick up and use for firewood. Typically, one hand crew (i.e., 10 crew members) and four to eight chainsaws are used for manual treatments. Masticators and chippers are used occasionally to assist with manual treatments. Crews can typically treat 1 acre per day, although the rate of treatment varies depending on existing vegetation, terrain, silvicultural prescription, crew size, and other factors.



Source: LA Times

Figure 2-8 Tree-Felling Hand Crew

2.4.3 Mechanical Treatments

With mechanical treatments, a forestry contractor or Licensed Timber Operator (LTO) would implement silvicultural prescriptions with ground-based mechanical equipment. Mechanical treatments within the program area typically employ cut-to-length methods, although they may also include whole-tree-yarding methods, or a combination of methods.

Typically, one crew of up to 10 workers is used for mechanical treatments. Equipment that could be used for mechanical treatments include chain saws, harvesters, forwarders, skid steers, excavators, dozers and dozer transport, loaders, tow chippers, track chippers, masticators, feller/bunchers, and rubber-tired skidder. The duration and rate of these treatments vary depending on the size of the treatment area, terrain, and the vegetation being treated. Mechanical treatment of forested lands by a single treatment crew progresses at an average rate of approximately 5 acres per day (Conservancy 2018). The harvesting or cutting machines can move through 5-10 acres per day depending on setting (i.e., slope, tree density, tree size, etc.). After the initial disturbance of cutting, log forwarding and biomass removal could continue to occur in the area. Duration and intensity depend on forwarding method from choices below. Mechanical treatments are generally limited to the grading season (May 1 – October 15) in the Tahoe Basin; however, TRPA Code currently allows mechanical treatments over snow. If TRPA revises the TRPA Code Section

61.1.6.F.1, then mechanical treatments could also occur on frozen ground (rather than over snow). Water supplies for dust suppression during mechanical treatments would generally be provided via water truck or water trailer from municipal sources in or near the program area. Some limited use of water drafting from streams within the program area for dust suppression may occur if necessary.

CUT-TO-LENGTH METHODS

In cut-to-length operations, a harvester would limb and buck the tree into manageable logs directly at the stump. Through this process, the tree limbs and slash are scattered throughout the treatment area creating a "slash mat," which protects the forest floor and reduces erosion and soil compaction. A forwarder would then collect the logs and bring them to the landing area. The harvester and forwarder used in cut-to-length systems are low ground pressure machines with larger rubber tires or tracks (see Figures 2-9, 2-10, and 2-11).



Source: Wikipedia Commons

Figure 2-9 Cut-to-Length Harvester



Source: Wikimedia Commons

Figure 2-10 Tracked Harvester



Source: Wikipedia Commons

Figure 2-11 Forwarder

WHOLE-TREE YARDING

Where whole-tree yarding is used, the entire tree would be cut and removed to the landing for processing. The feller/buncher (Figure 2-12) cuts and bunches a group of trees and leaves them on a skid trail where they are retrieved by a skidder (Figure 2-13). The skidder pulls the group of trees back to the landing where they are processed and cut to market length.

Whole-tree yarding can also involve cable yarding to move material to a landing area. Cable yarding is a yarding method used to retrieve cut material from the treatment site either partially or fully suspended in the air. This system requires a yarder that uses a system of cables to pull or fly logs from the stump to the landing. Aerial yarding, which entails lifting cut vegetation from the treatment site with a helicopter or balloon, would not typically occur, although it could be used in limited circumstances in inaccessible locations.

MASTICATION

Mechanical treatments can also involve grinding and mulching forest material instead of, or in addition to, cut-to-length or whole tree yarding methods. Mechanical mastication is a method of rearranging fuels to reduce vertical and horizontal fuel continuity. With this method, vegetation targeted for treatment would not be removed from the site, but instead masticated into smaller pieces that would be spread throughout the site. Masticators are often excavator chassis machines with a specialized grinding head attached (Figure 2-14). These machines move through the unit to masticate brush, shrubs, down woody debris concentrations, and suppressed and intermediate trees. The targeted vegetation is masticated in place, with resulting material broadcast upon the site to an average depth of 2 to 4 inches, depending on the height and density of material treated.



Source: Wikipedia commons

Figure 2-12 Feller/Buncher



Source: Wikipedia commons

Figure 2-13 Skidder



Source: Sierra Sun

Figure 2-14 Masticator

2.4.4 Prescribed Burning

Prescribed burning uses controlled fire to achieve management objectives. The proposed program involves pile burning and understory burning techniques. With implementation of the Tahoe PTEIR, prescribed burning would primarily be applied within Planned CWPP Projects (i.e., larger-acreage public lands), and would not be a typical treatment method in the Community Fuel Reduction Areas. Within the program area, pile burning is typically limited to the fall through spring months (October through May), while understory burning typically occurs in the summer through fall (July through October), depending on weather conditions. If necessary, water supplies for fire containment or suppression during prescribed burning operations would generally be provided via water truck or water trailer from municipal sources in or near the program area. Some limited use of water drafting from streams within the program area for fire containment/suppression may occur, if necessary.

PILE BURNING

Pile burning is a method used to dispose of forest fuels that have removed during a manual or mechanical treatment. Pile burning is often a component of manual treatments, where hand crews cut hazardous fuels and pile them for burning. Piles are required to dry or "cure" before ignition, with pile burning restricted to permissive burn days as dictated by the El Dorado County Air Quality Management District (EDCAQMD) or Placer County Air Pollution Control District (PCAPCD). Iron/phosphorous-based hydrocarbon gelling agents are used in addition to the traditional "burn mix"—a combination of gasoline and diesel fuels. All accelerants used are assumed to fully combust during the ignition phase of prescribed burning. Pile burning would be conducted in accordance with a smoke management plan approved by the applicable air district. Ignition operations for pile burning typically treats 10 acres per day. Burndown of the piles can continue to produce smoke for 5-7 days after ignition operations are completed. Pile burns typically last 1 day and may occur for up to 1 week within a single treatment area. A typical pile burning operation would require a crew of up to 10 employees.

UNDERSTORY BURNING

Understory burning is used to reduce fuels over a larger area or restore fire resiliency in target fire-adapted plant communities. In this method of treatment, the understory of the forest would be burned using fire with a control line along the perimeter of a treatment site to prevent the unintentional spread of fire beyond the treatment site. Understory burning would be conducted under specific conditions related to fuels, weather, topography, and other variables. All understory burning included in the proposed program would adhere to procedures described in the Interagency Prescribed Fire Planning and Implementation Procedures Guide (NWCG 2017). These procedures address minimum requirements for prescribed fire planning and implementation that address risk management and prioritize public safety. Prescribed understory burning would generally be limited to the Planned CWPP Projects.

"Understory burn" prescriptions, using patterned lighting techniques and timing the fires during periods of high humidity and high fuel moisture content, typically result in partial removal of understory or groundcover vegetation. The goal of understory burns is to conduct a low intensity burn that only burns the targeted fuel types (i.e., ground, ladder, and litter fuels). The existing groundcover vegetation would be partially retained in a mosaic pattern in forest and shrub communities. While the amount of vegetation remaining following a prescribed burn varies, up to 70 percent of the vegetation typically remains. Fire behavior and burn severity would also depend on criteria humidity, fuel moisture content, the properties of various fuel layers and the horizontal and vertical continuity of those layers (Graham et al. 2010).

Prescribed burns under the Tahoe PTEIR would first require preparation of a burn plan that includes a smoke management plan, as mandated by EDCAQMD or PCAPCD. Prescribed burns typically last 1 day and may occur for up to 1 week. The average number of workers onsite for a prescribed burn would be 10 workers, which would include one burn boss, one hand crew, and one engine company. Support crews and equipment used for an understory burn could include between 2 and 10 engines, two to four crews, onsite water truck for fire suppression, and hand torches. One crew could treat an average of 25 acres per day during prescribed burns. Iron/phosphorous-based hydrocarbon gelling

agents are used in addition to the traditional "burn mix"—a combination of gasoline and diesel fuels. All accelerants used are assumed to fully combust during the ignition phase of prescribed burning. No fire retardants or suppression chemicals would be used under the Tahoe PTEIR. Containment lines would be used to control the burn perimeter and "scratch lines" would be used for protection of resources (e.g., large trees, quality snags, etc.)

BURN PLANS AND SMOKE MANAGEMENT PLANS

Prescribed burning would be conducted in accordance with burn planning and smoke management planning requirements established by the applicable air districts and TRPA, where applicable. After the air district approves all the burn planning requirements, including the permit and smoke management plan, the burner may begin making final preparations to carry out the burn. This includes putting into place the resources needed to conduct the burn, notifying the public about the planned timing and specifics of the burn, and obtaining a final air district authorization to burn. The burner may contact the air district up to 96 hours before the desired burn time to obtain a forecast of the meteorology and air quality needed to safely conduct the burn. The burner will continue to work with the air district and California Air Resources Board until the day of the burn to update the forecast information. Air district authorization to conduct a prescribed burn is provided to the burner no more than 24 hours before the burn.

The smoke management plan prepared for inclusion in the burn plan identifies the affected air district(s), sensitive receptors, wind direction, venting elevation, and visibility factors related to smoke dispersal. Smoke management plans are designed to minimize public exposure to air pollutants generated by prescribed burns.

The individual who is granted the authority to burn (burn manager) is responsible for assuring that all conditions in the approved smoke management plan and burn permit are met throughout the burn. Once the fire has been ignited, burners must make all reasonable efforts to assure the burn stays within its smoke plan prescription. If a burn goes out of its prescription, or adverse smoke impacts are observed, the burn manager will implement smoke mitigation measures as described in the smoke management plan. Air quality requirements are further discussed in Section 3.4, "Air Quality," of this PTEIR.

The Tahoe PTEIR includes several Standard Project Requirements (SPRs) that outline the procedures later treatment activities involving prescribed burning would follow. The SPR procedures include preparation of burn plans, smoke management plans, and burn safety procedures, which would involve preparation and implementation of safety procedures included in an approved Incident Action Plan (see SPRs AQ-2, AQ-3, and AQ-5 in Appendix B).

2.4.5 Retreatments

Retreatments would be an ongoing component of the proposed program and would include follow-up treatments to address re-growth of vegetation and maintain the wildfire risk reduction benefits in the treatment sites. It is estimated that retreatments would typically occur approximately 10-15 years after the initial treatment to maintain lower fuel hazards in consideration of the natural fire return interval of the vegetation community and other environmental factors as well as treatment objectives. Retreatments would typically involve manual treatments and/or understory burning, although any treatment method described above could be used for retreatment.

2.4.6 Biomass Disposal

Forest biomass (i.e., logs, limbs, tops, and understory vegetation) removed during treatments would be disposed in the following ways:

- ▶ Sawlogs: An LTO would conduct a forest treatment on public or private land and remove merchantable timber as sawlogs. Sawlogs would be hauled to a sawmill to be processed into lumber.
- ▶ **Burning**: Biomass would be piled onsite and burned, or understory vegetation would be burned as described in Section 2.4.4, "Prescribed Burning."

▶ Biomass Energy Generation: Biomass would be chipped at a landing onsite. Chips would be loaded into chip vans or trucks, which would haul material to an off-site biomass energy generation facility.

- Firewood: Logs and branches would be cut to manageable lengths and left near roads or access points. Land owners could then sell or donate the material to members of the public who would haul it off site for use as firewood.
- ▶ Onsite Decomposition: Biomass would be left onsite as ground cover to eventually decompose. Onsite decomposition could occur through mastication, lop and scatter (where limbs are left on the forest floor), and on-site chipping (where chipped material is spread on the forest floor).
- ▶ Other Forest Products: Biomass could be sold or used for other purposes, such as chipping and the use of chipped material for mulch or soil amendments. Also, state programs are defining and evaluating other feasible uses of forest biomass, such as mass timber for buildings.

An estimated average of 10,000 to 15,000 green tons of biomass would be removed each year. The biomass disposal approach or approaches for each later treatment activity would depend on the project goals, location, size, existing vegetation conditions, market conditions, and other factors. It is estimated that biomass generated by the proposed program would be disposed of using the methods above in the following proportions:

Sawlogs: 60 percentBurning: 20 percent

▶ Biomass Energy Generation: 5 percent

► Firewood: 5 percent

Onsite Decomposition: 5 percentOther Forest Products: 5 percent

2.4.7 Access and Hauling

Vehicle and equipment access for all treatments would be provided by local streets and highways, which could include access through residential areas. Project employees would park along roadways at access points to the treatment sites, or at landings within treatment sites. Access within a treatment site would use temporary skidder trails or existing forest roads. Some reconstruction or grading of existing forest roads would be needed, but no new temporary or permanent road construction would occur. Where possible, skid trails would use existing roads and trails. As few skid trails as possible would be used or created, to get materials to landings. Skid trails would be located to protect residual stands by using natural openings and topographic characteristics. Skid trails would be closed to vehicle use and treated for revegetation (including mulch) no later than 15 days following completion of treatment operations within the unit or at the time of seasonal shutdown, whichever is sooner. All access routes would be consistent with multiple California Forest Practice Rules (CFPRs) described in Appendix B.

Hauling of forest products could occur concurrently with treatment activities, or following completion of treatments. Biomass for energy generation would be loaded into chip vans at landings located within the treatment site and hauled to a biomass energy generation facility in the region. Merchantable sawlogs would be loaded onto logging trucks at landings within treatment sites. Chip vans would include medium-heavy duty diesel-powered vehicles with a Gross Vehicle Weight Rating (GVWR) of greater than 26,000 pounds. Log trucks would include a heavy-duty diesel-powered vehicle with a manufacturer's GVWR greater than 33,000 pounds. Chip vans and log trucks would exit the vicinity of the treatment site on the local streets and travel along state or federal highways to regional sawmills or biomass facilities. Potential biomass facilities and sawmills and their approximate distance from Tahoma, California (near the center of the program area) could include:

- ► Cabin Creek biomass energy facility in Truckee, California (27 miles), if it is opened;
- ► American Renewable Power biomass facility in Loyalton, California (62 miles);
- Sierra Pacific Industries biomass and sawmill facility in Quincy, California (100 miles);

- ▶ Sierra Pacific Industries biomass and sawmill facility in Lincoln, California (110 miles); or
- ▶ Greenleaf Honey Lake biomass energy facility in Wendel, CA (155 miles).

For the purpose of environmental analysis in this document, it is assumed that sawlogs would be hauled to the Sierra Pacific Industries facility in Lincoln, CA and biomass would be hauled to the Greenleaf Honey Lake facility in Wendel, CA, which reflect the greatest hauling distances. This is a conservative approach to the environmental analysis, which seeks to avoid the risk of understating potential environmental effects of hauling operations. As a practical matter, because of the cost of hauling, it is reasonable to expect that sawlogs and biomass would be taken to the closest available facility for the intended timber or biomass use. Based on the maximum number of haul trips that have occurred at other similar projects in the Tahoe Basin, the analysis in this PTEIR assumes up to twenty haul trips could occur at a single treatment site per day.

2.5 STANDARD PROJECT REQUIREMENTS AND FOREST PRACTICE RULES

Standard Project Requirements (SPRs) would be incorporated into all proposed treatment activities under the Tahoe PTEIR as a standard part of treatment design and implementation. The SPRs would be incorporated into the project design, in contract specifications, and/or in instructions to all personnel involved in implementing treatments. These measures are intended to avoid or minimize environmental impacts during and after treatment activities. The SPRs include applicable CFPR requirements (14 CCR Chapter 4), as well as additional measures that apply to all projects. The SPRs do not include alternate standards that would apply instead of operational standards identified in the CFPR. Compliance with CFPRs is enforced through preparation and approval of a Program Timber Harvest Plan (PTHP) or Timber Harvest Plan (THP) for commercial timber activities. The SPRs and applicable CFPRs are included as Appendix B of this PTEIR.

2.6 IMPLEMENTATION

Later treatment activities consistent with this PTEIR would be planned and implemented by the Conservancy, Lake Valley Fire Protection District, North Tahoe Fire Protection District, Fallen Leaf Fire Department, South Lake Tahoe Fire Department, Meeks Bay Fire Protection District, CAL FIRE, or other landowners, special districts, or wildfire organizations within the program area. Treatment activities would be implemented by LTOs, other forestry contractors, or public agency field crews, such as California Conservation Corps, Tahoe Conservancy Forestry Crews, or Fire District Crews.

An estimated average of 900 – 1,300 acres of treatments would be implemented each year within the program area but for the purposes of this analysis, the typical maximum number of acres to be treated would be 1,250 acres. This is not an annual limit but a reasonably foreseeable average response to the adoption of the program. The size of individual projects would vary from small lots that are less than 1 acre to larger parcels of over 500 acres. The exact characteristics of individual later treatments will depend on treatment site characteristics and goals. The total number of acres treated each year would vary from year to year and the acres treated by each treatment method would vary each year. Factors that would influence which treatment activities are implemented each year include site-specific project priorities, goals, locations, market conditions, and other characteristics. The following provides a reasonably foreseeable estimate for purposes of environmental analysis of the typical proportion of acres treated for each treatment method:

- ▶ 24 percent of the acres treated per year by mechanical treatment
- ▶ 40 percent of the acres treated per year by manual treatment
- ▶ 16 percent of the acres treated per year by prescribed understory burning
- ▶ 20 percent of the acres treated per year by pile burning

2.7 PURPOSE AND INTENDED USES OF THIS PTEIR

According to CEQA, preparation of an EIR is required whenever, based on substantial evidence, a proposed project may result in a significant effect on the physical environmental. An EIR is an informational document used to inform public-agency decision makers and the general public of the significant environmental impacts of a project, identify feasible ways to mitigate the significant impacts, and describe a reasonable range of alternatives to the project that could feasibly attain most of the basic objectives of the project, while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project. This PTEIR has been prepared to meet the requirements of a program EIR as defined by Section 15168 of the State CEQA Guidelines and the requirements of a PTEIR in the CFPR (California Code of Regulations [CCR] Title 14 Section 1092.01). It has also been prepared consistent with the adopted guidance on the preparation of PTEIRs from CAL FIRE and the California Board of Forestry and Fire Protection (Board) (Board and CAL FIRE 2014).

A PTEIR, like other types of EIRs, focuses on the changes in the physical environment that would result from the implementation of a project, including its construction and operation. The Tahoe PTEIR is intended to efficiently and comprehensively evaluate the environmental effects of forest management activities, and facilitate an increase in the pace and scale of forest management and wildfire reduction treatments recognizing the severity of wildfire risk in the region. This PTEIR provides a checklist-based approach to future CEQA and FPA compliance (State CEQA Guidelines Section 15168[c][4]). Later treatment activities would be evaluated, using the Project Consistency Checklist (checklist) included as Appendix A that would be used to document the evaluation of the site and the activity to determine whether the environmental effects of the later activity are within the scope of the analysis in this PTEIR. After determining that a proposed treatment activity is within the scope of the analysis in this PTEIR, a project proponent could prepare a PTHP or "within the scope" findings pursuant to 14 CCR Section 1092.01 or State CEQA Guidelines Section 15168(c), respectively. This process is further explained under Section 2.7, "Later Activity Review, Permits, and Approvals," in Chapter 2, "Program Description."

2.7.1 Relationship to Other Forest Management Projects or Programs

LAKE TAHOE WEST RESTORATION PROJECT

The Lake Tahoe West Restoration Project (LTW) is a landscape-level, lake-to-crest, collaborative forest and watershed restoration and fuels reduction project encompassing 59,000 acres from Dollar Point to Emerald Bay in the Basin. The LTW project area consists of multiple land ownerships, including National Forest System lands managed by the LTBMU, state-owned and managed lands, and private or local government lands. The LTW project area overlaps with the Tahoe PTEIR program area. However, the LTW is focused on federal lands in the general forest and state lands. LTW proposes forest thinning, a TRPA Basin-wide Code amendment, biomass utilization and removal, prescribed burning, forest habitat restoration, project-specific Forest Plan Amendment (Protected Activity Centers, Roads in Backcountry), reforestation, meadow and aspen restoration, aquatic habitat restoration, stream restoration, road and stream crossing actions, and temporary forest closures and access considerations. A separate environmental document is anticipated for the LTW. The LTW is considered a cumulative project evaluated in Chapter 5, "Cumulative Impacts" of this PTEIR.

CALIFORNIA VEGETATION TREATMENT PROGRAM

The California Board of Forestry and Fire Protection has developed the California Vegetation Treatment Program (CalVTP), which is a statewide vegetation treatment program. The CalVTP defines vegetation treatment activities and associated environmental protections that would occur for projects within the State Responsibility Area (SRA) to reduce wildfire risks as one component of the range of actions being implemented by the state to respond to

California's wildfire crisis. The CalVTP in an important part of the state's approach to addressing the wildfire crisis with an increase in the pace and scale of vegetation treatment to reduce wildfire risk.

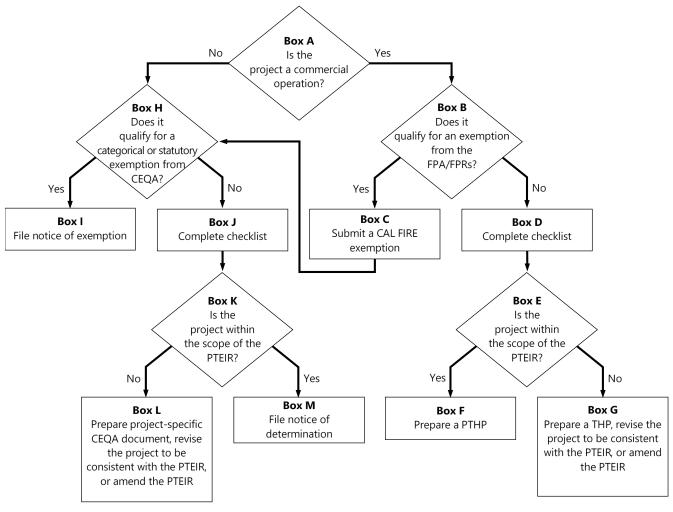
Only a small portion of the program area for the Tahoe PTEIR, generally lands owned by the Conservancy, is within the SRA. Those components of the Tahoe PTEIR could rely on the CalVTP Program Environmental Impact Report (PEIR) to cover the environmental review requirements for later treatment activities identified in the Tahoe PTEIR that are located within the SRA. However, the CalVTP does not cover activities within Local Responsibility Areas (LRA) or the sale of timber from fuel reduction projects, which are elements of this PTEIR. This PTEIR incorporates similar SPRs to protect the environment as the CalVTP, but modifies those requirements to address the Tahoe Basin environment and regional regulatory requirements.

2.8 LATER ACTIVITY REVIEW PROCESS, PERMITS, AND APPROVALS

Future proposed fuels treatment project would be evaluated using a checklist to document the evaluation of the site and the activity to determine whether or not it is a later activity within the scope of the analysis in this PTEIR (Appendix A; State CEQA Guidelines Section 15168[c]). If the activities are determined to be within the scope of the Tahoe PTEIR, the project proponent agency may approve the activities using the Tahoe PTEIR without an additional environmental document (in accordance with Section 15168 of the State CEQA Guidelines for program EIRs); if there is a commercial purpose, the agency may also adopt a PTHP, which is a streamlined THP that incorporates analysis from the Tahoe PTEIR, or Forest Practice Act exemption, as appropriate. Preparation of a PTHP or Forest Practice Act exemption would be prepared under the direction of a Registered Professional Forester. If a later treatment activity would have effects that were not examined in this PTEIR, a new initial study to determine whether the new impact would require preparation of an EIR, negative declaration, or a mitigated negative declaration. That later analysis may tier from the program EIR as provided in State CEQA Guidelines Section 15152.

The flowchart in Figure 2-15, depicts the review process for later fuel reduction activities within the area covered by the Tahoe PTEIR. The review process will vary depending on whether the project includes a timber operation for commercial purposes as defined in PRC Section 4527(a) (i.e., it involves the sale, barter, exchange, or trade of forest materials) (see Figure 2-15, Box A).

Later treatment activities could require permits or approvals from other state, regional, or local agencies (e.g., Lahontan Regional Water Quality Control Board, Conservancy, City of South Lake Tahoe, Placer County, El Dorado County, local fire districts), which are described in Section 2.9.3, "Required Permits and Approvals." It is expected that most of the later treatment activities would be exempt from TRPA review and approval under existing memoranda of understanding between TRPA and project implementers. If a later treatment activity is not exempt from TRPA approval, it would require environmental review and permitting consistent with TRPA requirements.



Source: Compiled by Ascent in 2019

Figure 2-15 Later Treatment Activity Review Process under the Tahoe PTEIR

2.8.1 Timber Operations for Commercial Purposes

If the later activity meets the definition of timber operations for commercial purposes in PRC Section 4527(a) (i.e., projects that involve the sale, barter, exchange, or trade of forest materials), it may require the preparation of a THP. Some timber operations for commercial purposes under the Tahoe PTEIR will likely qualify for an exemption from the requirement to prepare a THP, consistent with the CFPR (14 CCR Section 1038). To determine if a timber operation for commercial purposes is exempt from the preparation of a THP, the project implementer would compare the proposed project to the exemption criteria in 14 CCR Sections 1038 or 1052 (Figure 2-15, Box B). If the project is exempt from the preparation of a THP, the project proponent would prepare an exemption notice and confidential archaeological letter and submit them to CAL FIRE for review in compliance with 14 CCR Section 1038.1 or 1052, as applicable (Figure 2-15, Box C). If the project qualifies for an exemption, no additional actions are required for compliance with the FPA. However, timber operations that qualify for an exemption under the FPA may still require review under CEQA (see Figure 2-15, Box H, described below).

If a timber operation for commercial purposes does not qualify for an exemption from the preparation of a THP, the project proponent should complete the checklist in Appendix A to determine if the project is within the scope of the Tahoe PTEIR (Figure 2-15, Box D). The CFPR require that all PTHPs prepared pursuant to a PTEIR "shall be accompanied

by a checklist which will demonstrate that the proposed operations are within the scope of the PTEIR." (14 CCR Section 1092.01.b). The checklist will confirm that the later activity is within the scope of the Tahoe PTEIR (Figure 2-15, Box E) if:

- practices and/or treatments are consistent with the Tahoe PTEIR's Project Description and were analyzed in the Tahoe PTEIR;
- ▶ site-specific characteristics (e.g., vegetation, soil, slopes, adjoining lands uses) area are within the program area covered by the Tahoe PTEIR and encompassed in the environmental setting described in the Tahoe PTEIR;
- ▶ all deviations to the CFPR (alternate standards) were analyzed in the Tahoe PTEIR and found to provide equal or better protection than the standard rule;
- ▶ all activities resulting in the potential for significant effects are identified;
- no new significant effects would occur, and no significant effects previously identified in the Tahoe PTEIR would become substantially more severe;
- ▶ the mitigations found in the Tahoe PTEIR are implemented in the PTHP where applicable; and
- ▶ programmatic studies, surveys, and/or adaptive management provisions identified in the Tahoe PTEIR are conducted as required (CCR Sections 1092.01[b], 1092.01[c], 1092.09[n], and 15168[c][4]; Board and CAL FIRE 2014).

If the checklist determines that the activity is within the scope of the Tahoe PTEIR, the project proponent would prepare a PTHP and submit it to CAL FIRE for review, along with a completed checklist (Figure 2-15, Box F). CAL FIRE would approve the project relying on the Tahoe PTEIR, PTHP, and checklist for the environmental review.

If the checklist determines that the project is not within the scope of the Tahoe PTEIR, the project proponent can consider several options (Figure 2-15, Box G). The project proponent could prepare a project-specific CEQA document or prepare and submit to CAL FIRE a full THP, which would be lengthier and more detailed than a PTHP. In both scenarios, the project-specific CEQA document or full THP could use relevant information from the PTEIR, so even in these circumstances, the PTEIR can reduce the effort and cost needed for the additional documentation. The project proponent could also revise the project by removing or modifying project elements to make the project fit within the scope of the Tahoe PTEIR, after which the project proponent would prepare and submit a PTHP and revised checklist. A final option would be to revise this Tahoe PTEIR to expand the scope of analysis to include those elements of the project that are not within the existing scope of the Tahoe PTEIR. This could be accomplished by preparing a supplemental PTEIR or an addendum to this Tahoe PTEIR.

A PTHP should be limited to that area on which timber operations would normally be completed in one 12-month period, but in no case shall it extend beyond 5 years after the PTHP is determined to be in conformance or otherwise becomes effective under PRC Section 4582.7, unless an amendment to extend the effective period is submitted and accepted by CAL FIRE per PRC Section 4590(a)(1).

2.8.2 Projects Not Qualifying as Commercial

Later activities implemented under the Tahoe PTEIR that do not meet the definition of timber operations for commercial purposes in PRC Section 4527(a) (i.e., projects that do not involve the sale, barter, exchange, or trade of forest materials) would not require preparation of a THP or FPA exemption, but would require review under CEQA. Some later activities under the Tahoe PTEIR may qualify for a statutory and categorical exemption from CEQA. To determine if a project would be exempt from CEQA, the project proponent would compare the proposed project to the list of CEQA exemptions in the State CEQA Guidelines Sections 15260-15285 and 15300-15333 (Figure 2-15, Box H). The project proponent would also verify that none of the exceptions to the categorical CEQA exemptions listed in the State CEQA Guidelines Section 15300.2 apply to the project. If the project is exempt from CEQA, the project proponent should prepare a Notice of Exemption and file it with the State Clearinghouse (for state agencies) or the applicable county clerk (for local agencies) (Figure 2-15, Box I; State CEQA Guidelines Section 15062(c)).

If the later activity would not be exempt from CEQA, the project proponent would prepare a checklist (see Appendix A) to document evaluation of the site and the activity to determine whether the environmental effects are within the scope of the Tahoe PTEIR (CEQA Guidelines Section 15168[c][4]; Figure 2-15, Box J). For a later activity that is within the scope of the Tahoe PTEIR, the checklist would demonstrate that the project site and activities were evaluated in the Tahoe PTEIR, no new or substantially more severe significant impacts would occur, and all applicable mitigation measures identified in the Tahoe PTEIR have been incorporated into the project. Under these circumstances where a later project activity is consistent with the program and covered by the Tahoe PTEIR, the approving agency would make a finding that the later activity is "within the scope" of the Tahoe PTEIR. If a later activity is found to be within the scope of the Tahoe PTEIR, CEQA does not require public review of the checklist or preparation of another environmental document. In this case, the project proponent would approve the project relying on this PTEIR and the checklist documenting that it is within the scope, and prepare a Notice of Determination to file with the State Clearinghouse (for state agencies) or the applicable county clerk (for local agencies) (Figure 2-15, Box M; State CEQA Guidelines Sections 15075, 15094).

If during the preparation of the checklist, a later activity is determined to have new significant effects that were not examined in the Tahoe PTEIR or a previously identified impact is substantially more severe, the project proponent agency can consider several options (Figure 2-15, Box L). The project proponent could prepare an initial study leading to either a negative declaration or an EIR (State CEQA Guidelines Section 15168[c][1]). The analysis in the negative declaration or EIR could be limited to only those project elements or environmental impacts that were not evaluated in the Tahoe PTEIR (CEQA Guidelines Section 15168(d)(3) and 15152(d)). The project proponent could also revise the project by removing or modifying project elements to make the project fit within the scope of the Tahoe PTEIR, after which the project proponent would prepare and file a Notice of Determination.

A final option would be to revise this PTEIR to expand the scope of the PTEIR to include those elements of the later activity that are not within the scope of the Tahoe PTEIR. This could be accomplished by preparing a supplemental PTEIR or an addendum to this PTEIR (State CEQA Guidelines Sections 15162-15164).

2.9 AGENCY ROLES AND RESPONSIBILITIES

2.9.1 Lead Agency

CAL FIRE is the lead agency that will consider certification that the Tahoe PTEIR has met the requirements of CEQA, FPA, and CFPR and, after certification, potential approval of the proposed program. After the Tahoe PTEIR public-review process is complete and a Final PTEIR has been prepared, the Director of CAL FIRE will determine whether to certify the PTEIR (see State CEQA Guidelines Section 15090 and FPA Section 1092.02) and approve the proposed program. CAL FIRE would review and consider approval of PTHPs that are prepared under the Tahoe PTEIR for authorizing later forest management projects.

2.9.2 Responsible and Trustee Agencies

Responsible agencies are public agencies, other than the lead agency, that have discretionary approval authority for funding, permitting, or carrying out later forest management projects that are a part of the proposed program (State CEQA Guidelines Section 15381). Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making a decision on project elements.

State, regional, and local agencies with land ownership or land management or wildfire prevention responsibilities in the program area would carry out treatment activities under the Tahoe PTEIR. In this PTEIR, a responsible agency is also referred to as a "project proponent," which, for the purposes of the PTEIR, is a public agency with land ownership, land management, or wildfire prevention responsibilities in the program area and is seeking to implement fuels treatments consistent with this PTEIR. The Tahoe PTEIR will be available for the responsible agencies to use for

CEQA and FPA compliance when they are seeking to approve treatment projects that are consistent with the proposed program. Responsible agencies and potential project proponents include the following:

- California Tahoe Conservancy
- City of South Lake Tahoe
- South Tahoe Public Utility District
- ▶ El Dorado County
- ► Fallen Leaf Fire Department
- ▶ Lake Valley Fire Protection District
- ▶ Meeks Bay Fire Protection District
- North Tahoe Fire Protection District
- North Tahoe Public Utility District
- Placer County
- ► Tahoe City Public Utility District

Agencies that may approve or issue permits for implementation of treatment activities under the Tahoe PTEIR and would be responsible agencies pursuant to CEQA include the following:

- ► California Department of Fish and Wildlife (CDFW)
- ▶ Lahontan RWQCB
- California Geologic Survey
- ▶ TRPA
- ▶ EDCAQMD
- ▶ PCAPCD

A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California (State CEQA Guidelines Section 15386). CDFW is the trustee agency with jurisdiction over fish and wildlife resources potentially affected by the proposed program covered by the Tahoe PTEIR.

2.9.3 Required Permits and Approvals

Later treatment activities may require permits from other state, regional, or local agencies. These agencies may rely wholly or in part on the analysis herein to satisfy information needed to support their permitting requirements, though consistency with the PTEIR does not replace applicable agency-specific permitting requirements. The required permits and approvals for individual treatments would vary depending on the location, treatment methods, affected resources, and other characteristics of individual projects. Potential permits include:

- ► Lake and Streambed Alteration Agreement (CDFW)
- ► Conditional Waiver of Waste Discharge Requirements (Lahontan RWQCB)
- Engineering Geologic Review of Operations on landslides or unstable slopes (California Geologic Survey)
- ► Burn Permit (EDCAQMD or PCAPCD)
- ▶ Tree Removal Permit and appropriate environmental documentation, if applicable (TRPA)