Appendix B

Standard Project Requirements and Applicable Forest Practice Rule Requirements

B-1 STANDARD PROJECT REQUIREMENTS

The SPRs listed below in Table B-1 will be incorporated into all proposed treatment activities under the Tahoe PTEIR as a standard part of treatment design and implementation. SPRs are intended to avoid and minimize environmental impacts and comply with applicable laws and regulations. In the absence of the implementation of any SPR, there would be a greater potential for significant impacts. Additionally, there may be residual impacts after implementation of SPRs. Refer to the impact analysis in Sections 3.2 through 3.15 of the Tahoe PTEIR for more detail.

In the description of SPRs, the "project proponent" refers to CAL FIRE, California Tahoe Conservancy (Conservancy), fire districts, or other public agencies or landowners with land ownership/stewardship responsibilities seeking to implement individual treatment activities using this PTEIR for CEQA compliance. SPRs may apply to a "project implementer," which refers to the entities that would be carrying out the treatment activities and could include Licensed Timber Operators, forestry contractors, or public agency field crews, such as the California Conservation Corps, Conservancy Forestry Crews, or Fire District Crews.

The SPRs apply to all treatment activities included within the PTEIR unless otherwise noted within the text of the SPR.

Table B-1 Standard Project Requirements

Category	Standard Project Requirements
All Treatment Activities	
Administrative	SPR AD-1 Delineate Protected Resources: The project proponent will clearly define the boundaries of the treatment area and protected resources on maps for the treatment area and with highly visible flagging or clear, existing landscape demarcations (e.g., edge of a roadway) prior to beginning any treatment to avoid disturbing the resource. "Protected Resources" refers to environmentally sensitive places within or adjacent to the treatment areas that would be avoided or protected to the extent feasible during planned treatment activities to sustain their natural qualities and processes. This work will be performed by a qualified person, as defined for the specific resource (e.g., qualified Registered Professional Forester [RPF] or biologist).
	SPR AD-2 Public Notifications for Prescribed Burning: One to three days prior to the commencement of prescribed burning operations, the project proponent or project implementer will: 1) post signs along the closest public roadway to the area describing the activity, and provide contact information for questions or concerns regarding smoke; 2) publish a public interest notification using methods such as: press release, social media or other methods as deemed appropriate to the project proponent describing the activity, timing, and contact information; 3) send the local county supervisor a notification letter describing the activity, its necessity, timing, and measures being taken to protect the environment and prevent prescribed burn escape. This SPR applies only to prescribed burn treatment activities.
	SPR AD-3 Maintain Site Cleanliness: If trash receptacles are used on-site, the project implementer will use fully covered trash receptacles with secure lids (wildlife proof) to contain all food, food scraps, food wrappers, beverages, and other worker generated miscellaneous trash. All temporary non-biodegradable flagging, trash, debris, and barriers will be removed from the treatment site upon completion of treatment activities.
Aesthetic and Visual Resources	SPR AES-2 Avoid Staging within Viewsheds: The project implementer will store all treatment-related materials, including vehicles, treatment activity debris, and equipment, outside of the viewshed of public trails, parks, recreation areas, and roadways to the extent feasible. The project implementer will also locate materials staging and storage areas where they will minimize or avoid visual impacts.
	SPR AES-3 Maintain Vegetation Screening: The project implementer will evaluate existing vegetative screening prior to project implementation, consider the potential effects of vegetation removal both positive (e.g., new lake views) and negative (e.g., new views of development). Select vegetation for removal to enhance desirable views of natural features and preserve sufficient strategically located vegetation within, at the edge of, or adjacent to treatment areas to screen undesirable views from public trails, parks, recreation areas, and roadways as reasonable or appropriate for vegetation conditions while still meeting project objectives.
Air Quality	SPR AQ-1 Comply with Air Quality Regulations: The project implementer will comply with the applicable air quality requirements of air districts within whose jurisdiction the treatment activity is located. Requirements specific to PCAPCD and EDCAQMD are detailed above in Section 3.5.1, "Regulatory Setting."

Category	Standard Project Requirements
	SPR AQ-4 Minimize Dust: To minimize dust that has the potential to transport fine sediment to waterbodies during treatment activities, the project implementer will implement the following measures: ▶ Limit the speed of vehicles and equipment traveling on unpaved areas to 15 miles per hour to reduce fugitive dust emissions, in accordance with the California Air Resources Board (CARB) Fugitive Dust protocol.
	If road use creates excessive dust, the project implementer will wet appurtenant, unpaved, dirt roads using water trucks or treat roads with a non-toxic chemical dust suppressant (e.g., emulsion polymers, organic material) during dry, dusty conditions. Any dust suppressant product used will be environmentally benign (i.e., non-toxic to plants and will not negatively impact water quality) and its use will not be prohibited by CARB, U.S. Environmental Protection Agency (EPA), or the State Water Resources Control Board (SWRCB). The project implementer will not over-water exposed areas such that the water results in runoff. The type of dust suppression method will be selected by the project implementer based on soil, traffic, site-specific conditions, and air quality regulations.
	Remove visible dust, silt, or mud tracked-out on to public paved roadways where sufficient water supplies and access to water is available. The project implementer will remove dust, silt, and mud from vehicles at the conclusion of each workday, or at a minimum of every 24 hours for continuous treatment activities, in accordance with Vehicle Code Section 23113.
	Suspend ground-disturbing treatment activities, including land clearing and bulldozer lines, when there is visible dust transport (particulate pollution) outside the treatment boundary, if the particulate emissions may "cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property," per Health and Safety Code Section 41700.
Archaeological, Historical, and Tribal Cultural Resources	Cultural resource SPRs and mitigation measures require that qualified individuals implement components of the measures. The requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including supervised designees) as long as they are qualified. Qualified Archaeologist: To be qualified, an archaeologist would hold a Prehistoric Archeology, Historic Archeology, Conservation, Cultural Anthropology, or Curation degree from an accredited university and meet the Secretary of Interior's Qualifications Standards (36 CFR Part 61). The project proponent will review the resume and approve the qualifications of the archaeologists. Archaeologically Trained Resource Professional: To be qualified, an archaeologically trained resource professional would hold a valid Archaeological Training Certificate issued by CAL FIRE and the Board of Forestry and Fire Protection or equivalent state or local agency training or certification.
	SPR CUL-1 Conduct Record Search: For treatments led by CAL FIRE, an archaeological and historical resource record search will be conducted per the "Archaeological Review Procedures for CAL FIRE Projects" (current edition dated 2010). For treatments led by a project proponent other than CAL FIRE, an archaeological and historical resource record search will be conducted per the "Archaeological Review Procedures for CAL FIRE Projects" or equivalent state or local agency procedures. Instead of conducting a new search, the project proponent may use recent record searches (not more than 5 years old) containing the treatment area, including records searches completed in the preparation of this PTEIR, in accordance with the Archaeological Review Procedures for CAL FIRE Projects or equivalent agency guidance.
	SPR CUL-2 Contact Geographically Affiliated Native American Tribes: The project proponent will obtain the Native Americans Contact List, which may be obtained from the CAL FIRE website, as appropriate. Using the appropriate Native Americans Contact List, the project proponent will notify the California Native American Tribes in the counties where the treatment activity is located. The notification will contain the following: A written description of the treatment location and boundaries.
	 Brief narrative of the treatment objectives. A description of the activities used (e.g., prescribed burning, mastication) and associated acreages.
	 A map of the treatment area at a sufficient scale to indicate the spatial extent of activities. A request for information regarding potential impacts to cultural resources from the proposed treatment. A detailed description of the depth of excavation, if ground disturbance is expected.
	A request for a response within 30 days. In addition, the project proponent will contact the NAHC for a review of their Sacred Lands File.

Category Standard Project Requirements SPR CUL-3 Pre-field Research: The project proponent will conduct research prior to implementing treatments as part of the cultural resource investigation. The purpose of this research is to properly inform survey design, based on the types of resources likely to be encountered within the treatment area, and to be prepared to interpret, record, and evaluate these findings within the context of local history and prehistory. The qualified archaeologist, meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards, will review records, study maps, read pertinent ethnographic, archaeological, and historical literature specific to the area being studied, and conduct other tasks to maximize the effectiveness of the survey. SPR CUL-4 Archaeological Surveys: The project proponent will coordinate with a qualified archaeologist to conduct a site-specific survey of the treatment area. The survey methodology (e.g., pedestrian survey, subsurface investigation) depends on whether the area has a low, moderate, or high sensitivity for resources, which is based on whether the records search, pre-field research, and/or Native American consultation identifies archaeological, historical, or tribal cultural resources near or within the treatment area. The archaeological and built-environment resources sensitivity maps included with the Project Consistency Checklist would also inform the survey methodology needed for an individual project and help guide project proponents in project planning based on the sensitivity at individual later treatment activity sites. A survey report will be completed for every cultural resource survey completed. The specific requirements will comply with the current edition of "Archaeological Review Procedures for CAL FIRE Projects" or equivalent state or local agency procedures, as applicable. SPR CUL-5 Treatment of Archaeological Resources: If cultural resources are identified within a treatment, including tribal cultural resources, and cannot be avoided, a qualified archaeologist will notify the culturally affiliated tribe(s) based on information provided by NAHC and assess, whether an archaeological find qualifies as a unique archaeological resource, an historical resource, or in coordination with said tribe(s), as a tribal cultural resource. The project proponent, in consultation with culturally affiliated tribe(s) when applicable, will develop effective protection measures for unique archaeological resources, historical resources, or tribal cultural resources located within treatment areas. These measures may include changing treatment activities so that damaging effects to cultural resources will not occur. These protection measures will be written in clear, actionable language, and will be included in the survey report in accordance with the "Archaeological Review Procedures for CAL FIRE Projects" or equivalent state or local agency procedures. If the resource is a tribal cultural resource, the project proponent will provide the tribe(s) the opportunity to submit comments and participate in consultation to resolve issues of concern. SPR CUL-6 Avoid Built Historical Resources: If the records search identifies built historical resources, as defined in Section 15064.5 of the State CEQA Guidelines, the project proponent will avoid these resources. Within a buffer of 100 feet of the built historical resource, there will be no prescribed burning or mechanical treatment activities. Buffers less than 100 feet for built historical resources will only be used after consultation with and receipt of written approval from a historian or architectural historian meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards. If the records search does not identify known historical resources in the treatment area, but structures (i.e., buildings, bridges, roadways) over 50 years old that have not been evaluated for historic significance are present in the treatment area, they will similarly be avoided. SPR CUL-7 Cultural Resource Training: The project proponent will train all crew members and contractors implementing treatment activities on the protection of sensitive archaeological, historical, or tribal cultural resources. Workers will be trained to halt work if archaeological resources are encountered on a treatment site and the treatment method consists of physical disturbance of land surfaces (e.g., soil disturbance). The training will also include instructing crew members and contractors on the confidential nature of cultural resources, consistent with CCR Section 1427 and penalties for removing or intentionally disturbing cultural resources, such as those identified in the Archeological Resources Protection Act. **Biological Resources** Biological resource SPRs and mitigation measures require that qualified individuals implement components of the measures. The requirements listed below will be met to be considered qualified and may be performed by individuals of various titles (including biologist, botanist, ecologist, RPF, biological technician, or supervised designees working at the direction of a qualified professional) as long as they are qualified for the task at hand. Qualified RPF or Biologist: To be qualified, an RPF or biologist would hold a wildlife biology, botany, ecology, forestry, or other relevant degree from an accredited university and: 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting

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field surveys of relevant species or resources, 4) be knowledgeable about survey protocols, 5) be knowledgeable

about state and federal laws regarding the protection of special-status species, and 6) have experience with California Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS). The project proponent will review the resume and approve the qualifications of RPFs or biologists. If species-specific protocol surveys are performed, surveys would be conducted by qualified RPFs or biologists with the minimum qualifications required by the appropriate protocols, including having CDFW or U.S. Fish and Wildlife Service (USFWS) approval to conduct such surveys, if required by certain protocols.

Qualified RPF or Botanist: To be qualified, an RPF or botanist would 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the region, including special-status plants, 3) have experience conducting floristic botanical field surveys as described in CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018), or experience conducting such botanical field surveys under the direction of an experienced botanical field surveyor, 4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version), and 5) be familiar with federal, state, and local statutes and regulations related to plants and plant collecting. The project proponent will review the resume and approve the qualifications of RPFs or botanists.

Qualified RPF or Biological Technician: To be qualified, an RPF or biological technician would 1) be knowledgeable in relevant species life histories and ecology, 2) be able to correctly identify relevant species and habitats, 3) have experience conducting biological monitoring of relevant species or resources, and 4) be knowledgeable about state and federal laws regarding the protection of special-status species. The project proponent will review the resume and approve the qualifications of RPFs or biological technicians.

SPR BIO-1 Review and Survey Project-Specific Biological Resources: The project proponent will require a qualified RPF or biologist to conduct a data review and reconnaissance-level survey prior to treatment. The data reviewed will include the biological resources setting, species and sensitive natural communities tables, and habitat information in this PTEIR for the ecoregion(s) where the treatment will occur. It will also include review of the best available, current data for the area, including vegetation mapping data, species distribution/range information, CNDDB, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California, relevant BIOS queries, and relevant general and regional plans. Reconnaissance-level biological surveys will be general surveys that include visual and auditory inspection for biological resources to help determine the setting present on a treatment site. The qualified surveyor will 1) identify and document sensitive resources, such as riparian or other sensitive habitats, sensitive natural community, wetlands, or wildlife nursery site or habitat (including bird nests); and 2) assess the suitability of habitat for special-status plant and animal species. The surveyor will also record any incidental wildlife observations. Habitat assessments will be completed at a time of year that is appropriate for identifying habitat and no more than one year prior to the submittal of the Project Consistency Checklist for each treatment activity, unless it can be demonstrated that habitat assessments older than one year remain valid. The Project Consistency Checklist includes habitat suitability maps that would guide project proponents in project planning based on the habitat suitability at individual later treatment activity sites. Based on the results of the data review and reconnaissance-level survey, the project proponent, in consultation with a qualified RPF or biologist, will determine which one of the following best characterizes the treatment:

- Suitable Habitat Is Present but Adverse Effects Can Be Clearly Avoided. If, based on the data review and
 reconnaissance-level survey, the qualified RPF or biologist determines that suitable habitat for sensitive
 biological resources is present but adverse effects on the suitable habitat can clearly be avoided through one
 of the following methods, the avoidance mechanism will be implemented prior to initiating treatment and will
 remain in effect throughout the treatment:
 - a. by physically avoiding the suitable habitat, or
 - b. by conducting treatment outside of the season when a sensitive resource could be present within the suitable habitat or outside the season of sensitivity (e.g., outside of special-status bird nesting season, during dormant season of sensitive annual or geophytic plant species, or outside of maternity and rearing season at wildlife nursery sites).
 - Physical avoidance will include flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway) to delineate the boundary of the avoidance area around the suitable habitat. For physical avoidance, a buffer may be implemented as determined necessary by the qualified RPF or biologist.

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2. Suitable Habitat is Present and Adverse Effects Cannot Be Clearly Avoided. Further review and surveys will be conducted to determine presence/absence of sensitive biological resources that may be affected, as described in the SPRs below. Further review may include contacting USFWS, NOAA Fisheries, CDFW, CNPS, or local resource agencies as necessary to determine the potential for special-status species or other sensitive biological resources to be affected by the treatment activity. Focused or protocol-level surveys will be conducted as necessary to determine presence/absence. If protocol surveys are conducted, survey procedures will adhere to methodologies approved by resource agencies and the scientific community, such as those that are available on the CDFW webpage at: https://www.wildlife.ca.gov/Conservation/Survey-Protocols. Specific survey requirements are addressed for each resource type in relevant SPRs (e.g., additional survey

requirements are presented for special-status plants in SPR BIO-7).

SPR BIO-2 Require Biological Resource Training for Workers: The project proponent will require crew members and contractors to receive training from a qualified RPF or biologist prior to beginning a treatment activity. The training will describe the appropriate work practices necessary to effectively implement the biological SPRs and mitigation measures and to comply with the applicable environmental laws and regulations. The training will include the identification, relevant life history information, and avoidance of pertinent special-status species; identification and avoidance of sensitive natural communities and habitats with the potential to occur in the treatment area; impact minimization procedures; and reporting requirements. The training will instruct workers when it is appropriate to stop work and allow wildlife encountered during treatment activities to leave the area unharmed and when it is necessary to report encounters to a qualified RPF, biologist, or biological technician. The qualified RPF, biologist, or biological technician will immediately contact CDFW or USFWS, as appropriate, if any wildlife protected by the California Endangered Species Act (CESA) or Federal Endangered Species Act (ESA) is encountered and cannot leave the site on its own (without being handled).

Sensitive Natural Communities and Other Sensitive Habitats

SPR BIO-3 Survey Sensitive Natural Communities and Other Sensitive Habitats: If SPR BIO-1 determines that sensitive natural communities or sensitive habitats may be present and adverse effects cannot be avoided, the project proponent will:

- require a qualified RPF or biologist to perform a protocol-level survey following the CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018) of the treatment area prior to the start of treatment activities for sensitive natural communities and sensitive habitats. Sensitive natural communities will be identified using the best means possible, including keying them out using the most current edition of A Manual of California Vegetation, or referring to relevant reports (e.g., reports found on the VegCAMP website).
- ▶ map and digitally record, using a Global Positioning System (GPS), the limits of any potential sensitive habitat and sensitive natural community identified in the treatment area.

SPR BIO-4 Design Treatment to Avoid Loss or Degradation of Riparian Habitat Function: The project proponent, in consultation with a qualified RPF or qualified biologist, will design treatments in riparian habitats to retain or improve habitat functions by implementing the following within riparian habitats:

- ▶ Retain at least 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation within the limits of riparian habitat identified and mapped during surveys conducted pursuant to SPR BIO-3. Native riparian vegetation will be retained in a well distributed multi-storied stand composed of a diversity of species similar to that found before the start of treatment activities.
- ► Treatments will be limited to removal of uncharacteristic fuel loads (e.g., removing dead or dying vegetation), trimming/limbing of woody species as necessary to reduce ladder fuels, and select thinning of vegetation to restore densities that are characteristic of healthy stands of the riparian vegetation types characteristic of the region. This includes hand removal (or mechanized removal where topography allows) of dead or dying riparian trees and shrubs, invasive plant removal, selective thinning, and removal of encroaching upland species.
- Removal of large, native riparian hardwood trees (e.g., willow, ash, maple, oak, alder, sycamore, cottonwood) will be minimized to the extent feasible and 75 percent of the pretreatment native riparian hardwood tree canopy will be retained. Because tree size varies depending on vegetation type present and site conditions, the tree size retention parameter will be determined on a site-specific basis depending on vegetation type present and setting; however, live, healthy, native trees that are considered large for that type of tree and large relative to other trees in that location will be retained.

Appendix B Ascent Environmental Category Standard Project Requirements Removed trees will be felled away from adjacent streams or waterbodies and piled outside of the riparian vegetation zone (unless there is an ecological reason to do otherwise that is approved by applicable regulatory agencies, such as adding large woody material to a stream to enhance fish habitat, e.g., see Accelerated Wood Recruitment and Timber Operations: Process Guidance from the California Timber Harvest Review Team Agencies and National Marine Fisheries Service). Vegetation removal that could reduce stream shading and increase stream temperatures will be avoided. Ground disturbance within riparian habitats will be limited to the minimum necessary to implement effective treatments. The project proponent will notify CDFW pursuant to California Fish and Game Code Section 1602 prior to implementing any treatment activities in riparian habitats. Notification will identify the treatment activities, map the vegetation to be removed, identify the impact avoidance identification methods to be used (e.g., flagging), and appropriate protections for the retention of shaded riverine habitat, including buffers and other applicable measures to prevent erosion into the waterway. In consideration of spatial variability of riparian vegetation types and condition and consistent with California Forest Practice Rules (CFPR) (14 CCR Section 956.9[v]), a different set of vegetation retention standards and protection measures from those specified in the above bullets may be implemented on a site-specific basis if the qualified RPF and the project proponent demonstrate through substantial evidence that alternative design measures provide a more effective means of achieving the treatment goals and would result in effects to the Beneficial Functions of Riparian Zones equal or more favorable than those expected to result from application of the above measures. Deviation from the above design specifications, different protection measures and design standards will only be approved when the treatment plan incorporates an evaluation of beneficial functions of the riparian habitat and with written concurrence from CDFW. SPR BIO-5 Water Drafting: Water drafting involves drawing water from sources such as a lake, pond, or stream into a pump and could serve to provide a supply of water for dust abatement or fire suppression in treatment areas that are inaccessible to water trucks or are not in close proximity to fire hydrants. The project proponent and project implementer, as applicable, will comply with the following requirements and best management practices: Water drafting operations shall follow CFPR requirements in 14 CCR Section 963.7(I), which are intended to apply to water drafting operations in watersheds with listed anadromous salmonids but for this PTEIR are proposed to apply throughout the program area. Vehicles used for water drafting shall only access drafting sites through existing watercourse crossings and will not enter WLPZs/SEZs where they would otherwise be prohibited. Water drafting shall be subject to all applicable requirements of Fish and Game Code Section 1600, as determined in consultation with CDFW. Water drafting will not impact beneficial uses listed in the Water Quality Control Plan for the Lahontan Region (Basin Plan) (Lahontan Regional Water Quality Control Board [Lahontan RWQCB] 2016). In addition to the above (if not required for Section 1600 compliance), the following requirements shall be met for all water drafting operations in the program area: a. The project proponent shall consult with CDFW prior to any water drafting operation to convey and receive any information relevant to the drafting operation. b. Water shall not be drafted by more than one truck simultaneously at the same site. c. In Class I watercourses, streambed or bank material shall not be excavated for intakes or any other purposes related to drafting. d. All water drafting vehicles shall be checked each day used, and shall be repaired as necessary to prevent leaks of deleterious materials from entering the watercourse, the Watercourse and Lake Protection Zone (WLPZ), or the stream environment zone (SEZ). e. Pumps used for drafting shall be capable of being adjusted to comply with specified withdrawal rates. f. Operators shall follow all applicable requirements and guidelines to prevent the introduction and spread of aquatic invasive species (AIS). This shall include: (i) inspecting truck tires, hoses, screens, and any equipment entering the water before and after each drafting operation and removing and properly disposing of any aquatic plants or other aquatic organisms; (ii) decontaminating prior to initiation of drafting any truck or

equipment that has come into contact with any waterbody outside the Tahoe Basin; and (iii) applying water only within the same watershed in which it originated. Inspection and decontamination shall follow the latest

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	protocols endorsed by the Lake Tahoe Aquatic Invasive Species Coordination Committee, and may be accomplished at existing boat decontamination stations located throughout the Tahoe Basin. g. Intake screens shall be kept in good repair and shall be used wherever water is drafted. Intakes shall be inspected periodically and kept clean and free of accumulated algae, leaves, or other debris that could block portions of the screen surface and increase approach velocities at any point on the screen. h. Intakes shall be at least 6 inches above the bottom of the channel and away from submerged vegetation where practicable. Where not practicable, intakes shall maximize these clearances. i. At the end of drafting operations, intakes shall be completely removed from the watercourse and disturbed ground, including exposed soil, shall be treated according to CFPR requirements or Fish and Game Code Section 1600 requirements to minimize erosion.

Special-Status Plants

SPR BIO-6 Survey for Special-Status Plants: If SPR BIO-1 determines that suitable habitat for special-status plant species is present and cannot be avoided, the project proponent will require a qualified RPF or botanist to conduct protocol-level surveys for special-status plant species with the potential to be affected by a treatment prior to initiation of the treatment. The survey will follow the methods in the current version of CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." Surveys to determine the presence or absence of special-status plant species will be conducted in suitable habitat that could be affected by the treatment and timed to coincide with the blooming or other appropriate phenological period of the target species (as determined by a qualified RPF or botanist), or all species in the same genus as the target species will be assumed to be special-status.

If potentially occurring special-status plants are listed under CESA or ESA, protocol-level surveys to determine presence/absence of the listed species will be conducted in all circumstances, unless determined otherwise by CDFW or USFWS.

For other special-status plants not listed under CESA or ESA, as defined in Section 3.6.2 of the Tahoe PTEIR, surveys will not be required under the following circumstances:

- ▶ If protocol-level surveys, consisting of at least two survey visits (e.g., early blooming season and later blooming season) during a normal weather year, have been completed in the last 5 years and no special-status plants were found, and no treatment activity has occurred following the protocol-level survey, treatment may proceed without additional plant surveys.
- ▶ If the target special-status plant species is an herbaceous annual, stump-sprouting, or geophyte species, the treatment may be carried out during the dormant season for that species or when the species has completed its annual lifecycle without conducting presence/absence surveys provided the treatment will not alter habitat or destroy seeds, stumps, or roots, rhizomes, bulbs and other underground parts in a way that would make it unsuitable for the target species to reestablish following treatment.

Invasive Plants

SPR BIO-7 Prevent Spread of Invasive Plants and Noxious Weeds: The project implementer will take the following actions to prevent the spread of invasive plants and noxious weeds:

- clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter or other
 debris or seed-bearing material before entering the treatment area or when leaving an area with infestations
 of invasive plants and noxious weeds;
- for all heavy equipment and vehicles traveling off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the treatment area from an area with infestations of invasive plants and noxious weeds. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species;
- inspect all heavy equipment, vehicles, tools, or other treatment-related materials for mud or other signs that weed seeds or propagules could be present prior to use in the treatment area. If the equipment is not clean, the qualified RPF or biological technician will deny entry to the work areas;
- stage equipment in areas free of invasive plant infestations unless there are no uninfested areas present within a reasonable proximity to the treatment area;
- ▶ identify significant infestations of invasive plant species (i.e., those rated as invasive by Cal-IPC or designated as noxious weeds by California Department of Food and Agriculture) during reconnaissance-level surveys and

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	target them for removal during treatment activities. Treatment methods will be selected based on the invasive species present and may include herbicide application, manual or mechanical treatments, and/or prescribed burning, and will be designed to maximize success in killing or removing the invasive plants and preventing reestablishment based on the life history characteristics of the invasive plant species present. Treatments will be focused on removing invasive plant species that cause ecological harm to native vegetation types, especially those that can alter fire cycles;
	treat invasive plant biomass onsite to eliminate seeds and propagules and prevent reestablishment or dispose of invasive plant biomass offsite at an appropriate waste collection facility (if not kept on site); transport invasive plant materials in a closed container or bag to prevent the spread of propagules during transport; and
	▶ implement Fire and Fuel Management BMPs outlined in the "Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers" (California Invasive Plant Council [Cal-IPC] 2012, or current version).
	Wildlife
	SPR BIO-8 Survey for Special-Status Wildlife and Nursery Sites: If SPR BIO-1 determines that suitable habitat for special-status wildlife species or nurseries of any wildlife species is present and cannot be avoided, the project proponent will require a qualified RPF or biologist to conduct focused or protocol-level surveys for special-status wildlife species or nursery sites (e.g., bat maternity roosts, deer fawning areas, heron or egret rookeries) with potential to be directly or indirectly affected by a treatment activity. The survey area will be determined by a qualified RPF or biologist based on the species and habitats and any recommended buffer distances in agency protocols. The qualified RPF or biologist will determine if following an established protocol is required, and the project proponent may consult with CDFW and/or USFWS for technical information regarding appropriate survey protocols. Unless otherwise specified in a protocol, the survey will be conducted no more than 21 days (3 weeks) prior to the beginning of treatment activities. Focused or protocol surveys for a special-status species with potential to occur in the treatment area may not be required if presence of the species is assumed.
	SPR BIO-9 Protect Common Nesting Birds, Including Raptors: The project proponent will schedule treatment activities to avoid the active nesting season of common native bird species, including raptors, that could be present within or adjacent to the treatment site, if feasible. Common native birds are species not otherwise treated as special status in this PTEIR. The active nesting season will be defined by the qualified RPF or biologist. If active nesting season avoidance is not feasible, a qualified RPF or biologist will conduct a survey for common nesting birds, including raptors. Existing records (e.g., CNDDB, eBird database, State Wildlife Action Plan) should be reviewed in advance of the survey to identity the common nesting birds, including raptors, that are known to occur in the vicinity of the treatment site. The survey area will encompass reasonably accessible areas of the treatment site and the immediately surrounding vicinity viewable from the treatment site. The survey area will be determined by a qualified RPF or biologist, based on the potential species in the area, location of suitable nesting habitat, and type of treatment. For vegetation removal or project activities that would occur during the nesting season, the survey will be conducted at a time that balances the effectiveness of detecting nests and the reasonable consideration of potential avoidance strategies. Typically, this timeframe would be up to 3 weeks before treatment. The survey will occur in a single survey period of sufficient duration to reasonably detect nesting birds, including raptors, typically one day for most treatment projects (depending on the size, configuration, and vegetation density in the treatment site), and conducted during the active time of day for target species, typically close to dawn and/or dusk. The survey may be conducted concurrently with other biological surveys, if they are required by other SPRs. Survey methods will be tailored by the qualified RPF or biologist to site and habitat conditions, typical
	If an active nest is observed (i.e., presence of eggs and/or chicks) or determined to likely be present based on nesting bird behavior, the project proponent in consultation with CDFW and/or TRPA (depending on species) will implement a feasible strategy to avoid disturbance of active nests, which may include, but is not limited to, one or more of the following:
	Establish Buffer. The project proponent will establish a temporary, species-appropriate buffer around the nest sufficient to reasonably expect that breeding would not be disrupted. Treatment activities will be implemented outside of the buffer. The buffer location will be determined by a qualified RPF or

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	biologist. Factors to be considered for determining buffer location will include: presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and expected treatment activities. Nests of common birds within the buffer need not be monitored during treatment. However, buffers will be maintained until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.
	Modify Treatment. The project proponent will modify the treatment in the vicinity of an active nest to avoid disturbance of active nests (e.g., by implementing manual treatment methods, rather than mechanical treatment methods). Treatment modifications will be determined by the project proponent in coordination with the qualified RPF or biologist.
	Defer Treatment. The project proponent will defer the timing of treatment in the portion(s) of the treatment site that could disturb the active nest. If this avoidance strategy is implemented, treatment activity will not commence until young fledge or the nest becomes inactive, as determined by the qualified RPF, biologist, or biological technician.
	Feasible actions will be taken by the project proponent to avoid loss of common native bird nests. The feasibility of implementing the avoidance strategies will be determined by the project proponent based on whether implementation of this SPR will preclude completing the treatment project within the reasonable period of time necessary to meet program objectives, including, but not limited to, protection of vulnerable communities. Considerations may include limitations on the presence of environmental and atmospheric conditions necessary to execute treatment prescriptions (e.g., the limited seasonal windows during which prescribed burning can occur when vegetation moisture, weather, wind, and other physical conditions are suitable). If it is infeasible to avoid loss of common bird nests (not including raptor nests), the project proponent will document the reasons implementation of the avoidance strategies is infeasible in the Project Consistency Checklist. After completion of the Project Consistency Checklist and prior to or during treatment implementation, if there is any change in the feasibility of avoidance strategies from those explained in the checklist, this will be documented in the post-project implementation report.
	► The following avoidance strategies may also be considered together with or in lieu of other actions for implementation by a project proponent to avoid disturbance to raptor nests:
	Monitor Active Raptor Nest During Treatment. A qualified RPF, biologist, or biological technician will monitor an active raptor nest during treatment activities to identify signs of agitation, nest defense, or other behaviors that signal disturbance of the active nest is likely (e.g., standing up from a brooding position, flying off the nest). If breeding raptors are showing signs of nest disturbance, one of the other avoidance strategies (establish buffer, modify treatment or defer treatment) will be implemented or a pause in the treatment activity will occur until the disturbance behavior ceases.
	Retention of Raptor Nest Trees. Trees with visible raptor nests, whether occupied or not, will be retained.
Geology and Soils	SPR GEO-5 Drain Stormwater via Water Breaks: The project proponent will drain compacted and/or bare linear treatment areas capable of generating storm runoff (i.e., roads and skid trails) via water breaks using the spacing and erosion control guidelines contained in Section 954.6(c) of the CFPR. Where waterbreaks cannot effectively disperse surface runoff, including where waterbreaks cause surface runoff to be concentrated on downslopes, other erosion controls will be installed as needed to comply with 14 CCR Sections 954 et seq.].
	SPR GEO-6 Minimize Burn Pile Size: The project proponent will not create burn piles that exceed 20 feet in length, width, or diameter, except when on landings, road surfaces, or on contour to minimize the spatial extent of soil damage. In addition, burn piles will not occupy more than 15 percent of the total treatment area. The project proponent will not locate burn piles in a WLPZ as defined in 14 CCR Section 956.5 of the CFPR, in a SEZ as defined in TRPA Code of Ordinances Section 61.1.6.C, or in another area where existing regulations limit ground disturbance to reduce erosion and protect beneficial uses of water.
	SPR GEO-7 Minimize Erosion on Steep Slopes: To minimize erosion, the project proponent will limit mechanical treatments on steep slopes. If TRPA regulations are not changed, mechanical treatments as described will not occur in slopes exceeding 30 percent. If TRPA regulations are changed, mechanical treatments will not occur in slopes exceeding the new threshold, or the CFPR for the Southern District, whichever is lower.

Category	Standard Project Requirements
	SPR GEO-8 Unstable Soils and Active and Dormant Landslide Exclusion: The project proponent will require a Registered Professional Forester (RPF) or licensed geologist to evaluate treatment areas for unstable areas and unstable soils including active or dormant landslides. If unstable areas or soils are identified within the treatment area, are unavoidable, and will be potentially directly or indirectly affected by the treatment, a licensed geologist (P.G. or C.E.G.) will determine the potential for landslide, erosion, of other issue related to unstable soils and identity measures that will be implemented by the project proponent such that substantial erosion or loss of topsoil would not occur.
	SPR GEO-11 Minimize New Land Coverage During Road Improvements: To avoid new land coverage, improvements to existing roads necessary for access to or hauling will be limited to within the existing footprint of the road, where feasible. If it is not feasible to remain within the existing footprint of the road, the portion of the road that is widened or otherwise extends beyond the existing footprint will be limited to the minimum amount necessary to provide safe access or hauling. If any portion of an improved road will extend beyond the footprint of the existing road, the proponent will coordinate with TRPA and acquire a permit or other approval necessary for the creation of new land coverage, if applicable.
Greenhouse Gas Emissions	SPR GHG-1 Contribute to the AB 1504 Carbon Inventory Process: The project proponent of treatment activities subject to the AB 1504 process will provide all necessary data about the treatment that is needed by the U.S. Forest Service and CAL FIRE's Fire and Resource Assessment Program (FRAP) to fulfill requirements of the AB 1504 carbon inventory, and to aid in the ongoing research about the long-term net change in carbon sequestration resulting from treatment activity.
Hazardous Material and Public Health and Safety	SPR HAZ-1 Maintain All Equipment: The project implementer will maintain all diesel- and gasoline-powered equipment per manufacturer's specifications, and in compliance with all state and federal emissions requirements. Maintenance records will be available for verification. Prior to the start of treatment activities, the project implementer will inspect all equipment for leaks and inspect everyday thereafter until equipment is removed from the site. Any equipment found leaking will be promptly removed.
	SPR HAZ-4 Prohibit Smoking in Vegetated Areas: The project implementer will require that smoking is only permitted in designated smoking areas barren or cleared to mineral soil at least 3 feet in diameter (PRC Section 4423.4).
	SPR HAZ-5 Emergency Fire Hazard Precautions: The project implementer will adjust daily treatment activities related to mechanical equipment use as necessary to respond to current climate and fuel conditions in order to reduce the risk of wildfire ignition. Daily treatment activities will adhere to the Project Activity Level developed and communicated by the U.S. Forest Service. This danger-rating climatology-based system considers the effects of weather conditions for the last 30-45 days and overall seasonality. The following PALs may vary by day and provide guidance about precautions to follow when planning to conduct treatments using any kind of mechanical equipment: • A = Woodcutting allowed. Approved spark arrestor required on chainsaws. Shovel and/or working fire
	extinguisher required, patrol area after cutting. B = Woodcutting allowed. Approved spark arrestor required on chainsaws. Shovel and/or working fire extinguisher required, patrol area after cutting.
	 C = Woodcutting allowed. Approved spark arrestor required on chainsaws. Shovel and/or working fire extinguisher required, patrol area after cutting.
	► D = Woodcutting allowed until 1 p.m. Approved Spark arrestor required on chainsaws. Shovel and/or working fire extinguisher required, patrol area after cutting.
	► EV or E = No woodcutting allowed.
Hydrology and Water Quality	SPR HYD-1 Comply with Water Quality Regulations: The project implementer will comply with all applicable water quality requirements adopted by Lahontan RWQCB and approved by the SWRCB (i.e., Basin Plan). If applicable, this includes compliance with the conditions of general waste discharge requirements (GWDR) and waste discharge requirement waivers for timber or silviculture activities where these waivers are designed to apply to non-commercial fuel reduction and forest health projects. In general, GWDR and Conditional Waiver of Waste Discharge Requirements for Waste Discharges Resulting From Timber Harvest and Vegetation Management Activities in the Lahontan Region (Timber Waiver; Lahontan RWQCB 2019) for fuel reduction and forest health activities require that wastes, including petroleum products, soil, silt, sand, clay, rock, felled trees, slash, sawdust,

Category Standard Project Requirements bark, ash, and pesticides must not be discharged to surface waters or placed where it may be carried into surface waters; and that Lahontan RWQCB staff must be allowed reasonable access to the property in order to determine compliance with the waiver conditions. SPR HYD-2 Avoid Construction of New Roads: The project implementer will not construct or reconstruct (i.e., cutting

SPR HYD-3 Identify and Protect Watercourse and Lake Protection Zones: The project proponent will establish WLPZs as defined in 14 CCR Section 956.5 of the CFPR and Waterbody Buffer Zones as defined in Attachment B of the Timber Waiver (Lahontan RWQCB 2019). WLPZs and Waterbody Buffer Zones are classified based on the uses of the stream and the presence of aquatic life. Wider zones are required for steep slopes. Waterbody Buffer Zone widths for Class I and II watercourses are equivalent to WLPZs. Whereas WLPZ widths or other watercourse protections for Class III and IV watercourses are determined on a site-specific basis (see 14 CCR Section 956.4), Waterbody Buffer Zone widths for Class III and IV watercourses are fixed and correspond with the steepness of adjacent slopes, as defined in Attachment B of the Timber Waiver (Lahontan RWQCB 2019). The following WLPZ protections will be applied for all treatments:

or filling involving less than 50 cubic yards/0.25 linear road miles) any new roads (including temporary roads).

- ► Treatment activities within Waterbody Buffer Zones and WLPZs will meet the overstory and understory vegetation retention guidelines and ground disturbance limitations described in the Timber Waiver (Lahontan RWQCB 2019) and in 14 CCR Section 956.4 Subsection (b) and Section 956.5, including retention of at least 75 percent surface cover and undisturbed area.
- ► Equipment, including tractors and vehicles, must not be driven in wet areas, Waterbody Buffer Zones, or WLPZs, except over existing roads or watercourse crossings where vehicle tires or tracks remain dry.
- Equipment used in vegetation removal operations will not be serviced in Waterbody Buffer Zones or WLPZs, within wet meadows or other wet areas, or in locations that would allow grease, oil, or fuel to pass into lakes, watercourses, or wet areas.
- Watercourses will be kept free of slash, debris, and other material that harm the beneficial uses of water.
 Accidental deposits will be removed immediately.
- ▶ Burn piles will be located outside of WLPZs or other applicable watercourse protection zones unless all applicable Timber Waiver and/or Basin Plan exemption requirements are met.
- No fire ignition will occur within WLPZs or other applicable watercourse protection zones unless all applicable Timber Waiver and/or Basin Plan exemption requirements are met; however, low intensity backing fires may be allowed to enter or spread into watercourse protection zones.
- ▶ Within the WLPZs, mulch treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge, as described in 14 CCR Section 956.9(n)(1), will be as follows:
 - Soil stabilization is required for areas where timber operations have exposed bare soil exceeding 100 contiguous square feet.
 - Where straw or slash mulch is used, the minimum straw coverage shall be 90 percent, and any treated area that has been reused or has less than 90 percent surface cover shall be treated again by the end of timber operations.
 - Where slash mulch is packed into the ground surface through the use of a tractor or equivalent piece of heavy equipment the minimum slash coverage shall be 75 percent.
- ▶ Equipment limitation zones (ELZs) will be designated adjacent to Class III and Class IV watercourses with minimum widths of 25 feet where side-slope is less than 30 percent and 50 feet where side-slope is 30 percent or greater. An RPF will describe the limitations of heavy equipment within the ELZ and, where appropriate, will include additional measures to protect the beneficial uses of water.

SPR HYD-4 Identify and Protect Stream Environment Zones: Prior to conducting treatment activities, an RPF or qualified biologist or botanist will flag SEZ areas within the treatment site. Project implementers will comply with TRPA requirements for tree cutting within SEZ areas. These requirements are described in detail under TRPA Code of Ordinances Section 61.1.6.C and Attachment N of the Timber Waiver (Lahontan RWQCB 2019), include:

Vehicle use is restricted in SEZs with exceptions for use of vehicles in over-snow tree removal operations and use of "innovative technology" vehicles or "innovative techniques," provided that no significant soil disturbance or significant vegetation damage will result from the use of equipment;

Category	Standard Project Requirements
	Work within SEZs shall be limited to times of the year when soil conditions are dry and stable, when conditions are adequate for over-snow tree removal operations, or when conditions are consistent with TRPA and Lahontan RWQCB standards for tree removal operations on frozen ground;
	Felled trees and harvest debris are kept out of all watercourses classified as Class I through IV including perennial streams, intermittent streams, man-made waterbodies, and ephemeral (unclassified) streams;
	 Crossings of perennial streams or other wet areas, shall be limited to improved crossings meeting Best Management Practices or to temporary bridge spans that can be removed upon project completion or at the end of the work season, whichever is sooner; and
	▶ New waterholes will not be constructed within the 100-year floodplain or SEZ;
	▶ Permanent disturbance or fill within SEZs will be avoided;
	Activities conducted within 100-year floodplains or in SEZs that would require a Timber Waiver exemption granted by the Lahontan RWQCB include: enlargement of existing permanent watercourse crossings and/or roads, construction of temporary roads, construction of temporary watercourse crossings and associated approaches in place longer than one season, construction of skid trails, slash piling and burning not conducted in accordance with Timber Waiver, and conventional equipment operated off-road in SEZs or floodplains; and
	Discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials including soil, silt, clay, sand, and other organic or earthen materials to lands within the highwater rim of Lake Tahoe or 100-year floodplains of any tributary (including the Truckee River and Little Truckee River and tributaries) to Lake Tahoe and to SEZs in the Lake Tahoe Basin is prohibited.
	SPR HYD-5 Protect Existing Drainage Systems: If a treatment activity is adjacent to a roadway with stormwater drainage infrastructure, the existing stormwater drainage infrastructure will be marked prior to ground disturbing activities. If a drainage structure or infiltration system is inadvertently disturbed or modified during treatment activities, the project proponent will coordinate with owner of the system or feature to repair any damage and ensure that pre-project drainage conditions are restored.
Noise	SPR NOI-1 Limit Heavy Equipment Use, Truck Hauling, and Helicopter to Daytime Hours: The project proponent will require that operation of heavy equipment associated with treatment activities (heavy off-road equipment, tools, and delivery of equipment and materials) and hauling of equipment, merchantable timber, and biomass will occur during daytime hours if such noise would be audible to noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship). Placer County, El Dorado County, and the City of South Lake Tahoe exempt construction-noise (which would apply to noise generated by treatment activity) from locally established noise standards during particular daytime hours. The project proponent shall comply with the most stringent applicable local limits as listed in greater detail below: In Placer County: 6:00 a.m. to 8:00 p.m., Monday through Friday, and 8:00 a.m. to 8:00 p.m. Saturday and Sunday;
	In unincorporated areas of El Dorado County: all daylight hours; and
	▶ the City of South Lake Tahoe: 8:00 a.m. to 6:30 p.m. on all days of the week.
	SPR NOI-2 Equipment Maintenance: The project implementer will require that all powered treatment equipment and power tools will be used and maintained according to manufacturer specifications. All diesel- and gasoline-powered treatment equipment will be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.
	SPR NOI-3 Engine Shroud Closure: The project proponent will require that engine shrouds be closed during equipment operation.
	SPR NOI-5 Restrict Equipment Idle Time: The project proponent will require that all motorized equipment be shut down when not in use. Idling of equipment and haul trucks will be limited to 5 minutes.
	SPR NOI-6 Notify Nearby Off-Site Noise-Sensitive Receptors: For treatment activities utilizing heavy equipment, the project proponent will notify noise-sensitive receptors (e.g., residential land uses, schools, hospitals, places of worship) located within 1,500 feet of the treatment activity. Notification will include anticipated dates and hours during which treatment activities are anticipated to occur and contact information, including a daytime telephone number, of the project representative. Recommendations to assist noise-sensitive land uses in reducing interior noise levels (e.g., closing windows and doors) will also be included in the notification. This SPR applies only to mechanical treatment activities.

Category	Standard Project Requirements
Recreation	SPR REC-1 Notify Recreational Users of Temporary Closures: If a treatment activity would require temporary closure of a public recreation area or facility, the project proponent will coordinate with the owner/manager of that recreation area or facility (e.g., Tahoe Rim Trail Association, Tahoe Cross-Country Ski Area, Homewood Mountain Resort, Alpine Meadows Ski Resort, TCPUD, NTPUD). If temporary closure of a recreation area or facility is required, the project proponent will work with the owner/manager to post notifications of the closure at least 2 weeks prior to the commencement of the treatment activities. Additionally, prior to implementation of an individual fuel treatment in an area 10 acres or larger or would occur for longer than three days, the project implementer would be required to post a notice in a public location near the treatment area, such as at the nearest trailhead or parking area.
	SPR REC-2 Coordination with Special Event Organizers: The project proponent shall coordinate implementation of treatment activities with special event organizers, such as Big Blue Adventure, North Tahoe High School, Youphoria Productions, Homewood Mountain Resort, and Tahoe Rim Trail Association and any other organizers that seek license agreements or special use permits for the use of public lands in the program area. If a treatment activity could interfere with a special event (e.g., trail or mountain bike race, volunteer event, etc.), the project proponent shall notify special event organizers at the earliest possible date once the treatment implementation date and road and trail closure dates have been identified. The project proponent will coordinate with event organizers to identify the trails and timing associated with planned special events and determine whether events could proceed on the site (e.g., if they would occur outside periods of operations) or help identify other locations for events on other nearby public land.
	SPR REC-4 Post-Treatment Restoration of Existing Trails and Roads Affected by Treatment Activities: The project implementer shall conduct minor trail rehabilitation activities, as needed, to maintain public use of any existing trails for recreation users such as cross-country skiers, hikers, mountain bicyclists, and runners. Additional trail rehabilitation could include removing slash and re-contouring the trail, if needed, to restore it to pre-treatment conditions. The project implementer shall repair and rehabilitate any incidental damage caused by this project to any existing trails and roads, such as if they are used as a skid trail or are within an active treatment area, to ensure that existing roads and trails are open and free of masticated material or other debris after the treatment area is reopened for public use.
	SPR REC-5 Maintain Access to Existing Trailheads: During non-operational periods, the project implementer shall ensure that trailhead access points shall be open to public use and not blocked with equipment.
Transportation	SPR TRAN-1 Implement Traffic Control during Treatments: Prior to initiating treatment activities, the project proponent will work with the agency(ies) that have jurisdiction over affected roadways to determine if a Traffic Management Plan (TMP) is needed. A TMP will be needed if traffic generated by the treatment activity would result in obstructions, hazards, or delays exceeding applicable jurisdictional standards along access routes for individual treatment activities. If needed, a TMP will be prepared by either the project proponent or project implementer to provide measures to reduce potential traffic obstructions, hazards, and service level degradation along affected roadway facilities. The project implementer will carry out the measures identified in the TMP. The scope of the TMP will depend on the type, intensity, and duration of the specific treatment activities under the Tahoe PTEIR. Measures included in the TMP could include construction signage to provide motorists with notification and information when approaching or traveling along the affected roadway facilities, flaggers for lane closures to provide temporary traffic control along affected roadway facilities, treatment schedule restrictions to avoid time periods of peak vehicle traffic, haul-trip, delivery, and/or commute time restrictions that would be implemented to avoid peak traffic days and times along affected roadway facilities. If the TMP identifies impacts on transportation facilities outside of the jurisdiction of the project proponent, the TMP will be submitted to the agency with jurisdiction over the affected roadways prior to commencement of treatment activities.
	SPR TRAN-3 Reconstruction or Grading of Existing Forest Roads: During the reconstruction or grading of existing forest roads, the project proponent shall strive to maintain the existing roadway alignment. If the existing roadway alignment is diverged from, the new roadway alignment shall be constructed in accordance with all applicable geometric and safety design standards. The project proponent shall work with the agency(ies) with jurisdiction over these affected roadways to determine the standards to which any newly aligned roadway shall be constructed.

Category	Standard Project Requirements
Manual Treatment Activities	
Aesthetic and Visual Resources	SPR AES-1 Vegetation Thinning and Edge Feathering: The project implementer will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities.
Hazardous Material and Public Health and Safety	SPR HAZ-2 Require Spark Arrestors: The project implementer will be required to use mechanized hand tools that have federal- or state-approved spark arrestors. This SPR applies only to manual treatment activities.
	SPR HAZ-3 Require Fire Extinguishers: The project proponent will require tree cutting crews to carry one fire extinguisher per chainsaw. Each vehicle would be equipped with one long-handled shovel and one axe or Pulaski consistent with PRC Section 4428. This SPR applies only to manual treatment activities.
Noise	SPR NOI-7 Restrict Helicopter Flight Patterns: Helicopter flight patterns will be designed to avoid and minimize flights over residential areas, the Granite Chief Wilderness, and the Desolation Wilderness. This would apply only to manual and mechanical treatments.
Mechanical Activities	
Aesthetic and Visual Resources	SPR AES-1 Vegetation Thinning and Edge Feathering: The project implementer will thin and feather adjacent vegetation to break up or screen linear edges of the clearing and mimic forms of natural clearings as reasonable or appropriate for vegetation conditions. In general, thinning and feathering in irregular patches of varying densities, as well as a gradation of tall to short vegetation at the clearing edge, will achieve a natural transitional appearance. The contrast of a distinct clearing edge will be faded into this transitional band. This SPR only applies to mechanical and manual treatment activities.
Geology and Soils	SPR GEO-1 Suspend Disturbance during Heavy Precipitation: The project implementer will suspend mechanical treatments if the National Weather Service forecast is a "chance" (30 percent or more) of rain within the next 24 hours. Activities that cause mechanical soil disturbance may resume when precipitation stops and soils are no longer saturated (i.e., when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur). Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials. This SPR applies only to mechanical treatment methods.
	SPR GEO-2 Limit High Ground Pressure Vehicles: The project implementer will use heavy equipment only where the ground is dry, frozen, or covered in snow to limit soil disturbance or compaction. Machinery will be kept off moist soils to reduce compaction and/or damage to soil structure. Saturated soil means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. If use of heavy equipment is required in moist areas, other measures such as operating on organic debris, using low ground pressure vehicles, or operating on frozen soils/snow covered soils will be implemented to minimize soil compaction. Existing compacted road surfaces are exempt as they are already compacted from use. This SPR applies only to mechanical treatment activities.
	SPR GEO-3 Stabilize Disturbed Soil Areas: The project implementer will stabilize soil disturbed during mechanical treatments with mulch or equivalent immediately after treatment activities, to the maximum extent practicable, to minimize the potential for substantial sediment discharge. If mechanical treatment activities could result in substantial sediment discharge from soil disturbed by machinery or animal hooves, organic material from mastication or mulch will be incorporated onto at least 75 percent of the disturbed soil surface where the soil erosion hazard is moderate or high, and 50 percent of the disturbed soil surface where soil erosion hazard is low to help prevent erosion. Where slash mulch is used, it will be packed into the ground surface with heavy equipment so that it is sufficiently in contact with the soil surface. This SPR applies only to mechanical treatment activities to disrupt overland flow but does not compact the soil.
	SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. Additionally, the project proponent will inspect for evidence of erosion a sufficient number of times during the extended wet weather period, particularly after

Category	Standard Project Requirements
	large winter storm events (i.e., ≥ 1.5 inches in 24 hours) and at least once annually, to evaluate the function of drainage facilities and structures. Any area of erosion that will result in substantial sediment discharge will be remediated. This SPR applies only to mechanical and understory burning treatment methods.
	SPR GEO-9 Skidding Practices to Limit Erosion: Ground skidding will be limited to Land Capability Districts 3, 4, 5, 6, and 7 and logs will be skidded endwise. Where possible ground skidding will be conducted over snow rather than bare ground. If TRPA rules are changed, ground skidding may also occur over frozen ground. This SPR applies only to mechanical treatment activities.
Noise	SPR NOI-4 Locate Staging Areas and Landings Away from Noise-Sensitive Land Uses: The project proponent will locate landings, equipment, and equipment staging areas away from nearby noise-sensitive land uses (e.g., residential land uses, schools, hospitals, places of worship), to the extent feasible, to minimize noise exposure. This would apply only to mechanical treatments.
Recreation	SPR REC-3 Post-Treatment Removal of Skid Trails: Skid trails created as part of treatment activities shall be covered with mulch from mastication operations and, if requested by responsible agency staff, re-contoured to promote natural drainage, de-compacted, and/or reseeded. This SPR applies only to mechanical treatment activities.
Prescribed Burning	
Air Quality	SPR AQ-2 Submit Smoke Management Plan: The project proponent or project implementer will submit a smoke management plan for all prescribed burns greater than 10 acres or estimated to produce more than 1 ton of particulate matter, in accordance with 17 CCR Section 80160(b). Burning will only be conducted in compliance with the burn authorization program of the applicable air district(s) having jurisdiction over the treatment area. This SPR applies to pile and understory burning.
	SPR AQ-3 Create Burn Plan: The project proponent or project implementer will create a burn plan using the CAL FIRE burn plan template for all prescribed burns. The burn plan will include a fire behavior model output of First Order Fire Effects Model and BEHAVE or other fire behavior modeling simulation and that is performed by a qualified fire behavior technical specialist that predicts fire behavior, calculates consumption of fuels, tree mortality, predicted emissions, greenhouse gas emissions, and soil heating. The project implementer will minimize soil burn severity from understory burning to reduce the potential for runoff and soil erosion. The burn plan will be created with input from a qualified technician or certified State burn boss. This SPR applies to pile and understory burning.
	SPR AQ-5 Prescribed Burn Safety Procedures: Prescribed burns planned and managed by non-CAL FIRE crews will follow all safety procedures required of a CAL FIRE crew, including the implementation of an approved Incident Action Plan (IAP). The IAP will include the burn dates; burn hours; weather limitations; the specific burn prescription; a communications plan; a medical plan; a traffic plan; and special instructions such as minimizing smoke impacts to specific local roadways. The IAP will also assign responsibilities for coordination with the appropriate air district, such as conducting onsite briefings, posting notifications, weather monitoring during burning, and other burn related preparations. This SPR applies to pile and understory burning.
Geology and Soils	SPR GEO-4 Erosion Monitoring: The project proponent will inspect treatment areas for the proper implementation of erosion control SPRs and mitigations prior to the rainy season. Additionally, the project proponent will inspect for evidence of erosion a sufficient number of times during the extended wet weather period, particularly after large winter storm events (i.e., ≥ 1.5 inches in 24 hours) and at least once annually, to evaluate the function of drainage facilities and structures. Any area of erosion that will result in substantial sediment discharge will be remediated. This SPR applies only to mechanical and understory burning treatment methods.
	SPR GEO-10 Limit Intensity of Prescribed Burns: To limit erosion following prescribed burns by maintaining >50% litter and duff, prescribed burns will be limited to the fall through spring months when forest duff is sufficiently moist to maintain low severity fires. This SPR applies to pile and understory burning.
Transportation	SPR TRAN-2 Smoke Management and Effects on Traffic: Smoke generated during prescribed burn operations could potentially affect driver visibility and traffic operations along nearby roadways. Direct smoke impacts to roadway visibility and indirect impacts related to driver distraction will be considered by project proponents and project implementers during the planning phase of burning operations. Smoke impacts and smoke management practices specific to traffic operations during prescribed fire operations will be identified and addressed within the TMP. The TMP will include measures for the project implementer to monitor smoke dispersion onto public roadways, and traffic control operations will be initiated in the event burning operations could affect traffic safety along any roadways. This SPR applies to pile and understory burning.

B-2 CALIFORNIA FOREST PRACTICE RULES

If a later treatment activity under the Tahoe PTEIR meets the definition of timber operations for commercial purposes in Public Resources Code Section 4527(a) (i.e., projects that involve the sale, barter, exchange, or trade of forest materials), it would be required to comply with the requirements of the California Forest Practice Rules (CFPRs). Implementation of the CFPRs listed below are intended to avoid or minimize potential environmental effects of fuel treatment activities. Compliance with CFPRs is enforced through preparation and approval of a Program Timber Harvest Plan or Timber Harvest Plan for commercial timber activities.

The later activities 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). Because the program area is within the Southern District of the state as established by 14 CCR Sections 907 through 909. Thus, the sections of the CFPR applicable to this district are included in Table B-2.

Table B-2 California Forest Practice Requirements Applicable to the Tahoe PTEIR

Code Reference 14 CCR Section	California Forest Practice Rule Requirements
PUBLIC NOTIFICATION	
1092.07	Request for Information on Domestic Water Supplies The PTHP submitter shall provide notice by letter to all other landowners within 1,000 feet downstream of the PTHP boundary whose ownership adjoins or includes a Class I, II, or IV Watercourse(s) which receives surface drainage from the proposed Timber Operations.
1092.04	 (c) The RPF preparing the PTHP shall submit to the Director, with the PTHP, a copy of a Notice of Intent to Harvest: (1) if any proposed boundary lies within 300 feet of any property not owned by the Timberland Owner, or (2) any PTHP amendment that changes a PTHP so that the new boundary lies within 300 ft. of property not owned by the Timberland owner.
EROSION HAZARD RATING	
952.5	Procedure for Estimating Surface Soil Erosion Hazard Rating A proposed plan shall show the estimated erosion hazard ratings of the plan area, by areas, down to 20 acres (8.1 ha) if such a breakdown will change the estimated erosion hazard of individual areas. To estimate the erosion hazard rating of any plan or portion thereof, the RPF or supervised designee shall follow
	the procedures and requirements contained in Board Technical Rule Addendum #1, dated February 1st, 1990.
	A copy of the calculations from Form I shall be attached to the timber harvesting plan.
SILVICULTURE	
953.4	(c) Fuelbreak/Defensible Space. Where some trees and other vegetation and fuels are removed to create a shaded fuel break or defensible space in an area to reduce the potential for wildfires and the damage they might cause. Minimum stocking standards within the timber operating area shall be met immediately after harvest and shall be those found in 14 CCR 952.7. The RPF shall describe in the plan specific vegetation and fuels treatment, including timing, to reduce fuels to meet the objectives of the Community Fuelbreak area.
LOGGING ROADS, LANDING	S, ROAD WATERCOURSE CROSSINGS
963	Intent for Logging Roads, Landings, and Watercourse Crossings (a) All Logging Roads, Landings, and Logging Road Watercourse crossings in the logging area shall be planned constructed, Reconstructed, used, maintained, removed, abandoned, and deactivated in a manner that: (1) Is consistent with long-term enhancement and maintenance of the forest resource. (2) Accommodates appropriate Yarding systems. (3) Is economically feasible. (b) Such planning, construction, reconstruction, use, maintenance, removal, Abandonment, and deactivation shall occur in a manner that considers safety and avoids or substantially lessens significant adverse Impacts to, among other things: (1) Fish and wildlife habitat and listed species of fish and wildlife. (2) Water quality and the beneficial uses of water. (3) Soil resources. (4) Significant archeological and historical sites. (5) Air quality. (6) Visual resources. (7) Fire hazard.
963.1	Planning for Logging Roads and Landings Logging Roads and Landings shall be planned and located within the context of a systematic layout pattern that considers 14 CCR § 923(b), uses existing Logging Roads and Landings where feasible and appropriate, and provides access for fire and resource protection activities. (a) Logging Roads and Landings shall be planned and located to minimize the following: (1) Duplicative roads and total road mileage. (2) The number of Logging Road Watercourse crossings. (3) Construction and reconstruction near Watercourses, lakes, marshes, wet meadows, and other wet areas.

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14 CCR Section	(4) Construction and reconstruction across steep areas that lead without flattening to Class I, II, III, or IV
	Watercourses and lakes.
	(5) Construction and reconstruction on unstable areas or in connected headwall swales.
	(6) Construction and reconstruction near nesting sites of rare, threatened, or endangered bird species.
	(7) Construction and reconstruction near populations of rare, threatened, or endangered plants.
	(8) Ground disturbance and the size of cuts and fills.
	(9) The potential for affecting surface hydrology, including, but not limited to, concentrating or diverting runoff or draining the Logging Road or Landing surface directly into a Watercourse or lake.
	(10) Maintenance needs while being compatible with the Logging Road classification and long-term road
	usage.
	(b) No Logging Roads or Landings shall be planned for construction (i) within 150 feet of the Class I
	Watercourse transition line, (ii) within 100 feet of the Class II Watercourse Transition Line on slopes greater
	than 30%, (iii) within Class I, II, III, or IV Watercourses or lakes, (iv) within a WLPZ, or (v) in marshes, wet
	meadows, and other wet areas, except as follows:
	(1) At existing Logging Road Watercourse crossings.
	(2) At Logging Road Watercourse crossings to be constructed or Reconstructed that are approved as part
	of the Fish and Game Code process (F&GC § 1600 et seq.).
	(3) At Logging Road Watercourse crossings of Class III Watercourses that are dry at the time of use.
	(c) No Logging Roads or Landings shall be planned for reconstruction (i) within Class I, II, III, or IV Watercourses
	or lakes, (ii) within a WLPZ, or (iii) in marshes, wet meadows, and other wet areas, except as follows: (1) At existing Logging Road Watercourse crossings.
	(1) At existing Logging Road Watercourse crossings. (2) At Logging Road Watercourse crossings to be constructed or Reconstructed that are approved as
	part of the Fish and Game Code process (F&GC § 1600 et seq.).
	(3) At Logging Road Watercourse crossings of Class III Watercourses that are dry at the time of use.
	(d) Logging Roads and Landings shall be planned and located to avoid unstable areas and connected headwall swales.
	 (e) As part of the planning and use of Logging Roads, Landings, and Watercourse crossings in the logging area, the RPF or supervised designee shall: (i) locate and map significant existing and potential erosion sites and (ii) specify feasible treatments to mitigate significant adverse Impacts from the road or Landing. (1) The RPF shall evaluate all Logging Roads and Landings in the logging area, including appurtenant roads, for evidence of significant existing and potential erosion sites.
	(2) For significant existing and potential erosion sites identified pursuant to 14 CCR § 963.1, subsection (e)(1),
	the RPF shall consider the following key factors as part of developing necessary treatments:
	(A) Type of road (permanent, seasonal, or temporary road), road location, expected log truck haul routes, and traffic use (e.g., volume and season) of each road segment during the life of the plan.
	(B) Age of road and the history of sediment delivery from existing roads.
	(C) Beneficial uses of the Watercourse or lake and sensitive conditions potentially affected by the road
	including, but not limited to, Watercourse classification and presence of listed anadromous
	salmonids.
	(D) The hillslope grade, road grade of crossing approaches and the gradient of the Stream channel.
	(E) The erodibility of hillslope material exposed by the road.(F) The length of hydrologic connectivity of a road segment, the physical properties of the connected
	segment and the presence or absence of an effective sediment filter strip.
	(G) Site-specific information regarding the condition of and location of all existing or potential sediment
	sources including, but not limited to: Watercourse crossings, road approaches, ditch relief culverts, road surfaces, road cuts, road fills, inboard ditches, through-cuts, and Landings.
	(3) The RPF shall submit a list of the significant existing and potential erosion sites identified pursuant to 14
	CCR 963.1, subsection (e)(1), which have feasible treatments with the plan. This list shall include the
	following information:
	(A) A map showing the location(s) of significant existing and potential erosion site(s) with a unique
	identifier for each site.

Code Reference 14 CCR Section	California Forest Practice Rule Requirements
	 (B) Brief description of present condition of the mapped significant existing or potential erosion site. (C) Brief description of proposed treatments for the mapped significant existing or potential erosion sit (D) Items (B) and (C) above can be provided in tabular form as part of the plan.
	(4) The RPF shall disclose and map the significant existing and potential erosion sites identified pursuant to 14 CCR § 963.1, subsection (e)(1), for which no feasible treatment measures exist.
	(5) Where feasible treatments for significant existing or potential erosion sites are proposed, the RPF shall describe in the plan a logical order of treatment.
963.2	Design and Location of Logging Roads and Landings Constructed and Reconstructed Logging Roads and Landings shall be designed and located in accordance wit their proposed use, maintenance requirements, and the approved plan. (a) All Logging Roads and Landings shall: (1) Avoid or mitigate potential Impacts to public safety.
	(2) Avoid unstable areas and connected headwall swales to the extent feasible and minimize activities that adversely affect them.
	(3) Minimize the size of cuts and fills to the extent feasible.
	(4) Be outsloped where feasible and drained with waterbreaks and/or rolling dips in conformance with other applicable Forest Practice Rules.
	(5) Be hydrologically disconnected from Watercourses and lakes to the extent feasible to minimize sediment delivery from road runoff to a Watercourse, and reduce the potential for hydrologic changes that alter the magnitude and frequency of runoff delivery to a Watercourse. Guidance on methods for hydrologic disconnection may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings" (1st Edition, revised 04/21/15), hereby incorporated by reference.
	(6) Include adequate drainage structures and facilities necessary to avoid concentrating and diverting runoff, to minimize erosion of roadbeds, Landing surfaces, drainage ditches, sidecast and fills, to minimize the potential for soil erosion and sediment transport, and to prevent significant sediment discharge. Guidance on methods for conformance with this rule section may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings" (1st Edition, revised 04/21/15), hereby incorporated by reference.
	(7) Avoid crossing, or locations on, 100 feet or more of lineal distance over any slopes greater than 65 percent or within 100 feet of the boundary of a WLPZ on slopes greater than 50 percent that drain toward the zoned Watercourse or lake. Where Logging Road or Landing construction or reconstruction is proposed in these areas, specific measures to minimize movement of soil and the discharge of concentrated surface runoff shall be incorporated in the plan. The Director may waive inclusion of such measures where the RPF can show that slope depressions, drainage ways, and other natural retention and detention features are sufficient to control overland transport of eroded material.
	(c) Excess material excavated during Logging Road and Landing construction shall not be transported to locations where it may result in significant sediment discharge.
	 (d) In addition to the requirements of subsection (a) above, all Logging Roads to be constructed or to be Reconstructed shall: (1) Be no wider than a single lane compatible with the largest type of equipment specified for use on the Logging Road, with adequate turnouts provided as required for safety, except where wider road dimensions are required by existing contracts with a federal agency.
	(2) Avoid grades greater than 20% or grades greater than 15% that extend greater than 500 continuous feet. Exceptions may be approved where there is no other feasible access for harvesting of timber or where use of a gradient greater than 20% will serve to reduce soil disturbance.

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	 (e) In addition to the requirements of subsection (a) above, all Landings to be constructed or to be Reconstructed shall: (1) Be consistent with the Yarding and loading system to be used. (2) Be no larger than one-half acre. (3) Avoid construction on slopes greater than 40 percent where the Landing will exceed one-quarter acre in size.
963.3	Mapping and Identification of Logging Roads and Landings The following mapping and identification standards shall apply to Logging Roads and Landings:
	(a) For Logging Road- and Landing-related mapping requirements refer to 14 CCR §§ 1034(x)(4)(A)-(E) and (5)(A)-(G), 1090.5(w)(4)(A)-(E) and (5)-(6), 1090.5(gg), 1090.7(n)(4)-(6), and 1092.09(l)(5)(A)(15.) and (6)(A)-(G 1094.6(e)(4)-(5), (11) and (15) - (16) and 1094.8(u)(4)-(7) and (13)-(14).
	 (b) The RPF shall identify in the field, for use by the LTO, all Logging Roads and Landings to be constructed or to be Reconstructed: (1) Across slopes greater than 65 percent for 100 lineal feet or more. (2) Across slopes greater than 50 percent for 100 lineal feet or more within 100 feet of the boundary of a WLPZ that drains toward the zoned Watercourse or lake.
	(c) The location of all Logging Roads to be constructed or to be Reconstructed shall be flagged or otherwise identified on the ground prior to the pre-harvest inspection. Exceptions may be explained and justified in the plan and agreed to by the Director if flagging is unnecessary as a substantial aid to examining: (1) compatibility between Logging Road location and Yarding and silvicultural systems, or (2) possible significant adverse effects of Logging Road location on the factors listed under 14 CCR § 963(b).
963.4	Construction and Reconstruction of Logging Roads and Landings (a) Logging Roads and Landings shall be hydrologically disconnected from Watercourses and lakes to the extent feasible to minimize sediment delivery from road runoff to a Watercourse, and reduce the potential for hydrologic changes that alter the magnitude and frequency of runoff delivery to a Watercourse. Guidance on methods for hydrologic disconnection may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings" (1st Edition, revised 04/21/15), hereby incorporated by reference.
	 (b) No Logging Roads or Landings shall be constructed (i) within 150 feet of the Class I Watercourse transition line, (ii) within 100 feet of the Class II Watercourse Transition Line on slopes greater than 30%, (iii) within Class I, II, III, or IV Watercourses or lakes, (iv) within a WLPZ, or (v) in marshes, wet meadows, and other wet areas, except as follows: (1) At existing Logging Road Watercourse crossings. (2) At Logging Road Watercourse crossings to be constructed or Reconstructed that are approved as part of the Fish and Game Code process (F&GC § 1600 et seq.) (3) At Logging Road Watercourse crossings of Class III Watercourses that are dry at the time of use.
	 (c) No Logging Roads or Landings shall be Reconstructed (i) within Class I, II, III, or IV Watercourses or lakes, (ii) within a WLPZ, or (iii) in marshes, wet meadows, and other wet areas, except as follows: (1) At existing Logging Road Watercourse crossings. (2) At Logging Road Watercourse crossings to be constructed or Reconstructed that are approved as part of the Fish and Game Code process (F&GC § 1600 et seq.) (3) At Logging Road Watercourse crossings of Class III Watercourses that are dry at the time of use.
	 (d) Logging Roads and Landings shall not be constructed or Reconstructed across unstable areas or connected headwall swales except as specified in the Plan. (i) Slash and other debris from road construction shall not be bunched against residual trees, which are required for silvicultural or wildlife purposes, nor shall it be placed in locations where it could be discharged into Class I or II Watercourses or lakes.
	(e) Logging Roads and Landings shall not be constructed with overhanging banks.
	(f) Any tree over 12 inches dbh with more than 25 percent of the root surface exposed by Logging Road or Landing construction shall be felled concurrently with the Timber Operations.

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	(g) On slopes greater than 40 percent, the organic layer of the soil shall be removed prior to fill placement.
	(h) Waste organic material, such as uprooted stumps, cull logs, accumulations of limbs and branches, and unmerchantable trees, shall not be buried in Logging Road or Landing fills. Wood debris or cull logs and chunks may be placed and stabilized at the toe of fill to restrain excavated soil from moving downslope.
	(j) Where constructed fills will exceed three feet in vertical thickness, fill slopes shall be inclined no greater than 65 percent.
	(k) Logging Roads or Landings shall not be constructed or Reconstructed under saturated soil conditions that may produce significant sediment discharge, except that construction may occur on isolated wet spots arising from localized ground water such as springs, provided measures are taken to prevent significant sediment discharge.
	(I) Construction or reconstruction of Logging Roads or Landings shall not take place during the winter period unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 954.7 that specifically addresses such Logging Road or Landing construction or reconstruction.
	 (m) On slopes greater than 50 percent for greater than 100 lineal feet, fills greater than four feet in vertical height at the outside shoulder of the Logging Road or Landing shall be: (1) Constructed on a bench that is excavated at the proposed toe of the fill and is wide enough to compact the first lift. (2) Compacted in approximately one-foot lifts from the toe to the finished grade or retained by an engineered structure.
	(n) Logging Roads and Landings approved for construction or reconstruction across 100 feet or more of lineal distance on any slope greater than 65 percent or within 100 feet of the boundary of a WLPZ on slopes greater than 50 percent that drain toward the zoned Watercourse or lake shall be constructed to the specific construction techniques or measures as described in the plan.
	(o) Fills shall not be constructed on slopes greater than 65 percent.
	(p) On slopes greater than 65 percent, sidecast from Logging Road and Landing construction shall be minimized to the degree feasible.
	(q) Excess material transported from Logging Road or Landing construction or reconstruction shall be deposited and stabilized in a manner and in areas that avoid potential adverse Impacts to locations that could deliver significant sediment discharge.
	(r) In watersheds with listed anadromous salmonids, no Logging Roads or Landings shall be constructed or Reconstructed within the CMZ or Core Zone of a Class I Watercourse except for those listed in 14 CCR § 956.9, subsections (e)(1)(A)-(F), or pursuant to 14 CCR § 956.9, subsection (v).
	 (s) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the following shall apply: (1) On slopes greater than 50 percent that have access to a Watercourse or lake: (A) Specific provisions for the protection of salmonid habitat shall be identified and described for all Logging Road construction. (B) Where cutbank stability is not an issue, Logging Roads may be constructed as a full-benched cut (no fill). Spoils not utilized in Logging Road construction shall be disposed of in stable areas with less than 30 percent slope outside of any WLPZ, EEZ, or ELZ designated for Watercourse or lake protection. The Director, with concurrence from other responsible agencies, may waive inclusion of these measures where the RPF can show that slope depressions and other natural retention and detention features are sufficient to control overland transport of eroded material. (C) Logging Roads may be constructed with balanced cuts and fills:
	 If properly engineered, or, If fills are removed and the slopes recontoured prior to the winter period. During the extended wet weather period, no Timber Operations shall take place unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 954.7(b). The winter

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	period operating plan shall specifically address, where applicable, proposed Logging Road and Landing construction, and reconstruction.
963.5	Erosion Control for Logging Roads and Landings (g) Where outsloping and rolling dips are used to control surface runoff, the dip in the logging road grade shall be sufficient to capture runoff from the logging road surface. The steepness of cross-slope gradient in conjunction with the logging road or landing gradient and the estimated soil erosion hazard rating shall be used to determine the rolling dip spacing in order to minimize soil erosion and sediment transport and to prevent significant sediment discharge.
	(h) Drainage facilities and structures shall discharge into vegetation, woody debris, or rock wherever possible. Where erosion-resistant material is not present, slash rocks, or the energy dissipating material shall be installed below the drainage facility or drainage structure outlet as necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge.
	(i) Where logging road and landing surfaces, road approaches, inside ditches, and drainage structures cannot be hydrologically disconnected, and where there is existing or the potential for significant sediment discharge, necessary and feasible treatments to prevent the discharge shall be described in the Plan.
	(j) All logging roads and landings used for timber operations shall have adequate drainage upon completion of use for the year or by October 15th, whichever is earlier. An exception is that drainage facilities and drainage structures do not need to be constructed on logging roads and landings in use during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow.
	(k) Where logging road or landing construction or reconstruction takes place during the extended wet weather period, drainage facilities and drainage structures shall be installed concurrent with construction or reconstruction operations.
	 (I) Bare soil on logging road or landing cuts, fills, transported spoils, or sidecast that is created or exposed by timber operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Sites to be stabilized include, but are not limited to: (1) Sidecast or fill exceeding 20 feet in slope distance from the outside edge of a logging road or a landing that has access to a watercourse or lake. (2) Cut and fills associated with approaches to logging road watercourse crossings of Class I or Class II waters or Class III waters where an ELZ, EEZ, or WLPZ is required. (3) Bare areas exceeding 800 continuous square feet within a WLPZ.
	(m) Soil stabilization measures shall be described in the plan pursuant to 14 CCR 943.5(l), and may include, but are not limited to, removal, armoring, with rip rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers.
	(n) Where the natural ability of ground cover within an WLPZ is inadequate to protect the beneficial uses of water by minimizing soil erosion or by filtering sediments, the Plan shall specific protection measures to retain and improve the natural ability of the ground cover to filter sediment and minimize soil erosion.
	(o) Soil stabilization treatments shall be in place upon completion of operations for the year of use prior to the extended wet weather period, whichever comes first. An exception is that bare areas created during the extended wet weather period shall be treated prior to the start of rain that generates overland flow, or within 10 days of the creation of the bare area(s), whichever is sooner. Definition of "Extended Wet Weather Period": The time period from October 15th to May 1st.
	(p) Overhanging or unstable concentrations of slash, woody debris, or soil along the downslope edge or face of landings shall be removed or stabilized when it is located on slopes greater than 65%, within 100 feet of the boundary of a WLPZ on slopes greater than 50% that drain toward a zoned watercourse or lake, or when it may result in significant sediment discharge. Removed materials shall not be placed at disposal sites that could result in a significant sediment discharge.
	(I) and (m) Areas within a WLPZ where bare mineral soil has been exposed exceeding 800 ft ² shall be treated for the reduction of soil loss. Further, mineral soil that has been exposed by timber operations on approaches to

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	watercourse crossings of Class I or II waters, or Class III waters within an ELZ shall be stabilized. Soil stabilization within the WLPZ and/or ELZ shall be done to prevent the discharge of soil in amounts that would be deleteriou to the quality and beneficial uses of water.
963.6	Use of Logging Roads and Landings The following use standards shall apply to Logging Roads and Landings: (a) Logging Roads and Landings shall be used in a manner that is consistent with their design and construction specifications.
	(b) Logging Roads and Landings shall not be used during any time of the year when operations may result in significant sediment discharge to Watercourse or lakes, except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs.
	(c) During the extended wet weather period, log hauling or other heavy equipment uses shall be limited to Logging Roads and Landings that exhibit a stable operating surface in conformance with (b) above. Routing use of Logging Roads and Landings shall not occur when equipment cannot operate under its own power.
	(d) When burning permits are required pursuant to PRC § 4423, Logging Roads and Landings that are in use shall be kept in passable condition for fire trucks.
	(e) Roadside berms that impede Logging Road drainage, concentrate Logging Road surface flow, or lead to hydrologic connection shall be removed or breached before the beginning of the winter period, with the exception of berms needed for erosion control.
	(f) Temporary roads shall be blocked or otherwise closed to standard production four-wheel drive highway vehicles prior to the winter period, or upon completion of use as specified in an approved winter period operating plan pursuant to 14 CCR § 954.7(b).
	(g) Logging Roads and Landings used for log hauling or other heavy equipment uses during the winter period shall occur on a stable operating surface and, where necessary, be surfaced with rock to a depth and quantity sufficient to maintain such a surface. Use is prohibited on roads that are not hydrologically disconnected and exhibit saturated soil conditions. Exceptions may be proposed by the RPF when locations are disclosed and justified in the THP, consistent with 14 CCR § 923(c). Exceptions must be approved by the Director.
	 (h) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, the following shall apply: (1) Existing Logging Roads or Landings shall not be used within the CMZ of a Class I Watercourse except a listed in 14 CCR § 956.9 subsection (e)(1)(A)-(F) or pursuant to 14 CCR § 956.9(v). (2) When feasible, minimize use of existing Logging Roads and Landings located within Inner Zones A and of flood prone areas. Exceptions include the use of roads and Landings to accomplish actions to improve salmonid habitat conditions stated in 14 CCR § 956.9(f)(3)(E)1. (3) Log hauling on Logging Roads and Landings shall be limited to those which are hydrologically disconnected from Watercourses to the extent feasible, and exhibit a stable operating surface in conformance with (b) above. Exceptions may be proposed by the RPF when locations are disclosed and justified in the THP, consistent with 14 CCR § 923(c). Exceptions must be approved by the Director. (4) Concurrent with use for log hauling, all road approaches to Logging Road Watercourse crossings shall be treated for erosion control as needed to minimize soil erosion and sediment transport and to preve significant sediment discharge to Watercourses or lakes. (5) Concurrent with use for log hauling, all traveled surfaces of Logging Roads in a WLPZ, and ELZ or EEZ designated for Watercourse or lake protection, shall be treated for erosion control as needed to minimize soil erosion and sediment transport and to prevent significant sediment discharge to Watercourses or lakes. (6) No Timber Operations shall take place during the extended wet weather period unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 954.7(b) that
	specifically addresses, where applicable, proposed Logging Road or Landing use.

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	(a) Logging road and landing surfaces shall be monitored and maintained during timber operations and throughout the prescribed maintenance period to ensure hydrologic disconnection from watercourses and lakes to the extent feasible, minimize soil erosion and sediment transport, and to prevent significant sediment discharge.
	(b) Logging roads that are used in connection with stocking activities shall be maintained throughout such use, even if this extends beyond the prescribed maintenance period.
	(c) During timber operations, road running surfaces in the logging area shall be treated as necessary to prevent excessive loss of road surface materials by methods including, but not limited to, rocking, watering, paving, chemically treating, or installing commercial grade erosion control devices to the manufacturer's specifications.
	(d) Grading of logging roads or landings to obtain a drier running surface more than one time before reincorporation of any resulting berms back into the road surface is prohibited.
	(e) Drainage facilities and drainage structures, including associated necessary protective structures, shall be maintained to allow free flow of water, and minimize soil erosion and slope instability. Drainage facilities and structures shall be repaired, replaced, or installed as needed to protect the quality and beneficial uses of water.
	(f) Soil stabilization treatments on logging roads or landing cuts, fills, and sidecast shall be maintained as needed to reduce the potential for slope instability, minimize soil erosion and sediment transport, and to prevent significant sediment discharge.
	(g) Heavy equipment shall not be used in a WLPZ for maintenance during wet weather, except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs.
	(h) Where there is evidence of significant sediment discharge along a logging road or landing used for timber operations, additional measures shall be implemented to minimize soil erosion and sediment transport, and to prevent significant sediment discharge.
	(i) The prescribed maintenance period for erosion controls on logging roads and associated landings and drainage structures, including appurtenant, abandoned, and deactivated logging roads and landings, shall be at least one year. The Director may prescribe a maintenance period extending up to three years in accordance with 14 CCR 1050.
	 (k) All logging roads, including abandoned, deactivated, and appurtenant roads, landings, and associated drainage structures used for timber operations shall be monitored as needed to comply with 14 CCR 1050. Monitoring inspections shall be conducted, when access is feasible during the prescribed maintenance period, a sufficient number of times during the extended wet weather period, particularly after large winter storm events and at least once annually, to evaluate the function of drainage facilities and structures. The Department shall also conduct monitoring inspections at least once during the prescribed maintenance period to assess logging road and landing conditions. (1) Inspections shall include checking drainage facilities and structures for evidence of downcutting, plugging, overtopping, loss of function, and sediment delivery to Class I, II, or III watercourses or lakes. If evidence of sediment delivery or potential for significant sediment delivery is present, and the implementation of feasible corrective measures could reduce the potential for significant sediment
963.8	discharge, such additional measures shall be implemented when feasible. All Logging Roads and Landings that are proposed to be removed from the Permanent Road Network shall be
	abandoned. All temporary Logging Roads and Landings that are to remain a part of the Permanent Road Network shall be deactivated annually prior to the winter period or upon completion of Timber Operations as specified in an approved winter period operating plan pursuant to 14 CCR § 914.7(b). Other Logging Roads and Landings proposed to be deactivated shall comply with the standards specified in this section.
	(a) All abandoned and deactivated Logging Roads and Landings shall be left in a condition that provides for long-term, maintenance-free function of drainage and erosion controls.
	(b) Soil exposed by Abandonment or deactivation operations shall be removed or stabilized as needed to minimize soil erosion and sediment transport.

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	(c) Logging Road Watercourse crossings, other drainage structures, and associated fills shall be removed and stabilized in accordance with 14 CCR § 963.9, subsections (p)(1)-(4).
	(d) Logging Roads to be abandoned or deactivated shall be blocked prior to the winter period, or upon completion of Timber Operations as specified in an approved winter period operating plan pursuant to 14 CCR § 954.7(b), so that standard production four wheel-drive highway vehicles cannot pass the point of closure at the time of Abandonment or deactivation. If the Logging Road is to be abandoned, then the blockage design shall be described in the plan.
963.9	Watercourse Crossings Watercourse crossing drainage structures on Logging Roads shall be planned, constructed, Reconstructed, and maintained or removed according to the standards provided in this rule section.
	(a) The planning for and use of Logging Road Watercourse crossings shall include the evaluation and documentation of significant existing and potential erosion sites consistent with 14 CCR § 963.1(e).
	(b) The number of crossings shall be kept to a feasible minimum. Existing Logging Road Watercourse crossing locations shall be utilized where feasible and appropriate.
	(c) All new drainage structures and facilities on Watercourses that support fish or listed aquatic species shall allow for unrestricted passage of all life stages that may be present, and allow for the natural movement of bedload to form a continuous bed through the crossing. Such structures and facilities shall be fully described in the plan in sufficient clarity and detail to allow evaluation by the review team and the public, provide direction to the LTO for implementation, and provide enforceable standards for the inspector.
	(d) In watersheds with listed anadromous salmonids, a description of all existing permanent Class I Watercours crossings shall be provided, where fish are always or seasonally present or where fish passage is restorable. Where it is determined that current crossing conditions may be adversely affecting fish passage at any life stage, the RPF shall disclose such conditions in the plan and propose measures, if feasible, to address these conditions subject to the Director's review and determination.
	 (e) The location of all new permanent constructed and Reconstructed, and temporary Logging Road Watercourse crossings, including those crossings to be abandoned or deactivated, shall be shown on a male of the structure is a culvert intended for permanent use, the minimum diameter of the culvert and the method(s) used to determine the culvert diameter shall be specified in the plan. (1) The location of all Logging Road Watercourse crossings to be constructed or Reconstructed shall be flagged or otherwise identified on the ground prior to the pre-harvest inspection, if necessary, or prior to Logging Road Watercourse crossing construction or reconstruction. Exceptions may be explained an justified in the plan and agreed to by the Director if flagging is unnecessary as a substantial aid to examining possible significant adverse effects of the crossing location on the factors listed under 14 CC § 963(b).
	(f) All permanent Watercourse crossings that are constructed or Reconstructed shall accommodate the estimated 100-year flood flow, including debris and sediment loads.
	(g) All culverts used for new and replacement Logging Road Watercourse crossings shall be installed at or as close as practical and feasible to the natural Watercourse grade. Culverts shall be installed in alignment wit the Watercourse channel to the extent feasible, and of the appropriate length to prevent fill erosion.
	(h) Logging Road Watercourse crossings shall not discharge water onto erodible fill or other erodible material without the installation of energy dissipaters and other necessary protective structures.
	(i) Fills for constructed and Reconstructed Logging Road Watercourse crossings shall be thoroughly compacted in approximately one-foot lifts during installation. The face of crossing fills shall be no greater than 65 percent (1.5:1, horizontal to vertical). Excavated material and cut banks resulting from construction or reconstruction which has access to a Watercourse shall be sloped back from the channel to prevent slumping, to minimize soil erosion, and to prevent significant sediment discharge.
	(j) Critical dips shall be incorporated into the construction or reconstruction of Logging Road Watercourse crossings utilizing culverts, except where diversion of overflow is addressed by other methods stated in the plan.

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	(k) Watercourse crossings and associated fills and approaches shall be constructed and maintained to prevent diversion of Stream overflow down the road, and to minimize fill erosion should the drainage structure become obstructed. Methods to mitigate or address diversion of Stream overflow at Logging Road Watercourse crossings shall be stated in the plan.
	(I) Any necessary protective structures associated with Logging Road Watercourse crossings such as wing walls, rock armored headwalls, and downspouts shall be adequately sized to transmit runoff, minimize erosion of crossing fills, and prevent significant sediment discharge. Rock used to stabilize the outlets of crossings shall be adequately sized to resist mobilization, with the range of required rock dimensions described in the plan.
	 (m) The following drainage standards shall apply to Logging Road Watercourse crossings: Adequate surface drainage at Logging Road Watercourse crossings shall be provided through the use of Logging Road surface shaping in combination with the installation of drainage facilities, ditch drains, or other necessary protective structures to hydrologically disconnect the road from the crossing to the extent feasible. Consistent with 14 CCR § 963.5(a)-(i), drainage facilities and ditch drains shall be installed adjacent to Logging Road Watercourse crossings, as needed, to hydrologically disconnect to the extent feasible the Logging Road approach from the crossing, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge during and upon completion of Timber Operations. Guidance on hydrologic disconnection may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings" (1st Edition, revised 04/21/15), hereby incorporated by reference. Drainage structures and facilities installed adjacent to Logging Road Watercourse crossings shall be located to avoid discharging concentrated runoff onto fills, erodible soils, unstable areas, and connected headwall swales to the extent feasible.
	(n) Where a significant volume of sediment is stored upstream from a Logging Road Watercourse crossing that is proposed to be Reconstructed or removed, the stored sediment shall be removed or stabilized, to the extent feasible, as described in the plan and in conformance with the conditions of required CDFW 1600 agreements, where applicable.
	(o) Where crossing fills over culverts are large, or where Logging Road Watercourse crossing drainage structures and erosion control features historically have a high failure rate, such drainage structures and erosion control features shall be oversized, designed for low maintenance, reinforced, or removed before the completion of Timber Operations or as specified in the Plan. Guidance on reducing the potential for failure at high risk Watercourse crossings may be found in "Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings" (1st Edition, revised 04/21/15), hereby incorporated by reference.
	 (p) All Logging Road Watercourse crossings that are proposed by the plan submitter to be removed, including temporary crossings and those along abandoned or deactivated roads, shall be removed as described in the plan and shall apply the following standards: (1) Fills shall be excavated to form a channel that is as close as feasible to the natural Watercourse grade and orientation, and that is wider than the natural channel as observed upstream and downstream of the Logging Road Watercourse crossing to be removed. (2) The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge. Exposed soil located between the Watercourse crossing and the nearest adjacent drainage facility or hydrologic divide, whichever is closer, including cut banks and excavated material, shall be stabilized by seeding, mulching, rock armoring, replanting, or other suitable treatment to prevent soil erosion and significant sediment discharge. (3) Where it is not feasible to remove a Logging Road Watercourse crossing or its associated fill to the above standards, the plan shall identify how soil erosion and significant sediment discharge will be prevented.

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	(4) All Logging Road Watercourse crossings proposed for removal shall be removed upon completion of use, prior to the winter period or as specified in the applicable CDFW 1600 agreement, whichever is earlier, or as otherwise specified in the plan.
	(q) Logging Road Watercourse crossings shall not be constructed or Reconstructed under saturated soil conditions or when such activities could result in significant sediment discharge.
	(r) Temporary Logging Road Watercourse crossings shall be removed and stabilized prior to the winter period or as specified in the plan.
	(s) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, where construction or reconstruction is proposed during the extended wet weather period, no Timber Operations shall take place unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR § 954.7(b) that specifically addresses such construction or reconstruction.
	 (t) The following stabilization standards shall apply to Logging Road Watercourse crossings: (1) Soil stabilization measures shall be described in the plan and may include, but are not limited to, removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers. (2) Bare soil on fills or sidecast associated with Logging Road Watercourse crossings that are created or exposed by Timber Operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Erosion control measures for the traveled surface of roads and Landing surfaces are specified in 14 CCR § 963.5 and 963.7. Sites to be stabilized include, but are not limited to, sidecast or fill exceeding 20 feet in slope distance from the outside edge of the road surface at the Logging Road Watercourse crossing. (3) Soil stabilization treatments shall be in place upon completion of operations for the year of use or prio to the extended wet weather period, whichever comes first. An exception is that bare areas created during the extended wet weather period shall be treated prior to the start of rain that generates overland flow, or within 10 days of the creation of the bare area(s), whichever is sooner, or as agreed to by the Director. (4) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of and contiguous to, any watershed with listed anadromous salmonids, treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge within the WLPZ and within any ELZ EEZ designated for Watercourse or lake protection shall be described in the plan as follows: (A) In addition to the requirements of 14 CCR § 963.9(p)(1)-(3), soil stabilization is required for the following: 1. Areas exceeding 100 continuous square feet where Timber Operations have exposed bare
	Service or within 10 days of disturbance, whichever is earlier. (t) The following stabilization standards shall apply to Logging Road Watercourse crossings: (1) Soil stabilization measures shall be described in the plan and may include, but are not limited to, removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers.

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	(2) Bare soil on fills or sidecast associated with Logging Road Watercourse crossings that are created or exposed by Timber Operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Erosion control measures for the traveled surface of roads and Landing surfaces are specified in 14 CCR § 963.5 and 963.7. Sites to be stabilized include, but are not limited to, sidecast or fill exceeding 20 feet in slope distance from the outside edge of the road surface at the Logging Road Watercourse crossing.
	(3) Soil stabilization treatments shall be in place upon completion of operations for the year of use or prior to the extended wet weather period, whichever comes first. An exception is that bare areas created during the extended wet weather period shall be treated prior to the start of rain that generates overland flow, or within 10 days of the creation of the bare area(s), whichever is sooner, or as agreed to by the Director.
	(u) Logging Road Watercourse crossings shall be monitored and maintained during Timber Operations and throughout the prescribed maintenance period as needed, to comply with 14 CCR § 1050. The prescribed maintenance period is specified in 14 CCR § 963.7(i)-(j). Monitoring inspections shall be conducted, when access is feasible during the prescribed maintenance period, a sufficient number of times during the extended wet weather period, particularly after large winter storm events and at least once annually, to evaluate Watercourse crossing function.
	(v) Logging Road Watercourse crossings shall be maintained as designed, constructed, and Reconstructed during Timber Operations and throughout the prescribed maintenance period. Crossings used in connection with stocking activities shall be maintained throughout such use, even if this extends beyond the prescribed maintenance period.
963.9.1	The licensed Timber Operator who is responsible for the implementation or execution of the plan shall not be responsible for the construction and maintenance of roads and Landings, unless the licensed Timber Operator is employed for that purpose.
WATERCOURSE AND LAKE PRO	DTECTION ZONE WIDTHS AND PROTECTIVE MEASURES
956.3	General Limitations Near Watercourses, Lakes, Marshes, Meadows and Other Wet Areas The quality and beneficial uses of water shall not be unreasonably degraded by Timber Operations. During Timber Operations, the Timber Operator shall not place, discharge, or dispose of or deposit in such a manner as to permit to pass into the water of this state, any substances or materials, including, but not limited to, soil, silt, bark, Slash, sawdust, or petroleum, in quantities deleterious to fish, wildlife, or the quality and beneficial uses of water. All provisions of this article shall be applied in a manner which complies with this standard.
	(a) When there is reasonable expectation that Slash, debris, soil, or other material resulting from Timber Operations, falling or associated activities, will be deposited in Class I and Class II waters below the Watercourse or Lake Transition Line or in Watercourses which contain or conduct Class IV water, those harvest activities shall be deferred until equipment is available for its removal, or another procedure and schedule for completion of corrective work is approved by the Director.
	(b) Accidental depositions of soil or other debris in lakes or below the Watercourse or Lake Transition Line in waters classed I, II, and IV shall be removed immediately after the deposition or as approved by the Director.
	 (c) The Timber Operator shall not construct or use tractor roads in Class I, II, III or IV Watercourses, in the WLPZ, marshes, wet meadows, and other wet areas unless explained and justified in the plan by the RPF, and approved by the Director, except as follows: (1) At prepared tractor road crossings as described in 14 CCR § 954.8(b). (2) Crossings of Class III Watercourses that are dry at the time of use. (3) At new and existing tractor road crossings approved as part of the Fish and Game Code process (F&GC § 1600 et seq.).
	(d) Vegetation, other than commercial species, bordering and covering meadows and wet areas shall be retained and protected during Timber Operations unless explained and justified in the THP and approved by the Director. Soil within the meadows and wet areas shall be protected to the maximum extent possible.

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	(e) Trees cut within the WLPZ shall be felled away from the Watercourse by pulling or other mechanical methods if necessary, in order to protect the residual vegetation in the WLPZ. Exceptions may be proposed in the THP and used when approved by the Director.
	(f) Where less than 50% canopy exists in the WLPZs of Class I and II waters before Timber Operations, only sanitation salvage which protects the values described in 14 CCR § 956.4(b) shall be allowed.
	(g) Recruitment of large woody debris for instream habitat shall be provided by retaining at least two living conifers per acre at least 16 inches diameter breast high and 50 ft. tall within 50 ft. of all Class I and II Watercourses.
956.4	 Watercourse and Lake Protection (a) The RPF or supervised designee shall conduct a field examination and map all lakes and Class I, II, III, and IV Watercourses. (1) As part of this field examination, the RPF or supervised designee shall evaluate areas near, and areas with the potential to directly Impact, Watercourses and lakes for sensitive conditions including, but not limited to, existing and proposed roads, skidtrails and Landings, unstable and erodible Watercourse banks, unstable upslope areas, debris jam potential, inadequate flow capacity, migrating channels, overflow channels, flood prone areas, and Riparian zones wherein the values set forth in 14 CCR § 956.4, subsection (b) are impaired. The RPF shall consider these conditions, and those measures needed to maintain, and restore to the extent feasible, the functions set forth in 14 CCR § 956.4(b) when proposing WLPZ widths and protection measures. The plan shall identify such conditions, including where they may interact with proposed Timber Operations, that individually or cumulatively significantly and adversely affect the beneficial uses of water, and shall describe measures to protect and restore to the extent feasible, the beneficial uses of water. In proposing, reviewing, and approving such measures, preference shall be given to measures that are on-site, or to offsite measures where sites are located to maximize the benefits to the Impacted portion of a Watercourse or lake. (b) The standard width of the WLPZ and/or the associated basic protection measures shall be determined from Table I (14 CCR § 956.5) or § 956.4(c), and shall be stated in the plan. A combination of the Rules, the plan, and mitigation measures shall provide protection for the following: a. Water temperature control. b. Streambed and flow modification by large woody debris. c. Filtration of organic and inorganic material. d. Upslope stability. e. Bank and channel stabilization. f. Spawning and rearing habitat for salmonids g. Vegetati
	 (1) Measures and the appropriate zone widths for the protection of the State's waters which have been taken from Table I (14 CCR 956.5) or developed under § 956.4(c) shall be stated in the THP. (2) All Timber Operations shall conform to the marking, flagging and other identification of protective measures specified in CCR § 956.4 and 956.5 and the THP. Conformance shall be determined based on the evaluation of no less than a 200 foot lineal segment of each Watercourse or lake.
	(3) The width of the WLPZ shall be measured along the surface of the ground from the Watercourse or Lake Transition Line or in the absence of Riparian vegetation from the top edge of the Watercourse bank.
956.5	All watercourses will be classified according to 14 CCR 936.5 Table 1.
956.7	Reduction of Soil Loss Within the Watercourse and lake protection zone adjacent to Class I and Class II waters, areas where mineral soil exceeding 800 continuous square feet in size, exposed by Timber Operations, shall be treated for reduction of soil loss. Treatment shall be done prior to October 15th except that such bare areas created after October

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	15th shall be so treated within 10 days, or as agreed to by the Director. Stabilization measures shall be included and explained in the THP or other required notices. Stabilization measures shall be selected that will prevent significant movement of soil into Class I and II waters and may include, but need not be limited to, mulching, rip-rapping, grass seeding, or chemical soil stabilizers. (a) This section does not apply to the traveled surface of roads.
	(b) Where mineral soil has been exposed by Timber Operations on approaches to Watercourse crossings of Class I or II waters, or Class III waters if an ELZ or WLPZ is required, the disturbed area shall be stabilized to the extent necessary to prevent the discharge of soil into Watercourses or lakes in amounts deleterious to the quality and beneficial uses of water.
	(c) Where necessary to protect beneficial uses of water from Timber Operations, protection measures, such as seeding, mulching, or replanting, shall be specified to retain and improve the natural ability of the ground cover within the standard width of the WLPZ to filter sediment, minimize soil erosion, and stabilize banks of Watercourses and lakes.
HAZARD REDUCTION	
957.2	Treatment of Slash to Reduce Fire Hazard(a) Slash to be treated by piling and burning shall be treated as follows: (1) Piles created prior to September 1 shall be treated not later than April 1 of the year following its creation,
	or within 30 days following climatic access after April 1 of the year following its creation. (2) Piles created on or after September 1 shall be treated not later than April 1 of the second year following its creation, or within 30 days following climatic access after April 1 of the second year following its creation.
	(b) Within 100 feet of the edge of the traveled surface of public roads, and within 50 feet of the edge of the traveled surface of permanent [Southern only: and seasonal] private roads open for public use where permission to pass is not required, Slash created and trees knocked down by road construction or Timber Operations shall be treated by lopping for fire hazard reduction, piling and burning, chipping, burying or removal from the zone.
	(c) All woody debris created by Timber Operations greater than one inch but less than eight inches in diameter within 100 feet of permanently located structures maintained for human habitation shall be removed or piled and burned; all Slash created between 100-200 feet of permanently located structures maintained for human habitation shall be lopped for fire hazard reduction, removed, chipped or piled and burned; lopping may be required between 200-500 feet where unusual fire risk or hazard exist as determined by the Director or the RPF.
	(d) An alternative to treating Slash along roads and within 200 feet of structures may be approved by the Director when the RPF explains and justifies in the plan how equal fire protection will be provided. The alternative shall include a description of the alternate treatment(s) and the portion(s) of the plan area in which they will be utilized. In proposing alternate Slash treatments, the RPF shall consider the estimated amount and distribution of Slash to be created by the operation, type of remaining vegetation, topography, climate, and degree of public exposure fire history.
PRESCRIBED BURNING OF SI	LASH
957.3	Prescribed Broadcast Burning of Slash Broadcast Burning may be prescribed for Slash treatment subject to the following conditions: (a) Such burning shall be done only after the first heavy fall rains and shall be completed before April 1; (b) It may occur within cleared firebreaks of not less than 10 ft. (3.05 m) in width; (c) Use of the Broadcast Burning prescription in the Watercourse and Lake Protection Zone for Class I, and Class II, is prohibited. Where necessary to protect downstream beneficial uses, the Director may prohibit burning prescriptions in Class III Watercourses; (d) Exceptions to requirements (a), (b) and (c) above may be granted provided a project-type burning permit is obtained prior to burning and the terms of the permit are adhered to while burning.

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957.5	Piling and Burning When the option of burning piles or concentrations of Slash is chosen to meet the Slash treatment requirements as specified in these Rules, such burning shall be done as follows:
	(a) Piles and concentrations shall be sufficiently free of soil and other noncombustible material for effective burning.
	(b) The piles and concentrations shall be burned at a safe time during the first wet fall or winter weather or other safe period following piling and according to laws and regulations. Piles and concentrations that fail to burn sufficiently to remove the fire hazard shall be further treated to eliminate that hazard. All necessary precautions shall be taken to confine such burning to the piled slash.
957.6	Notification of Burning The local representative of the Director shall be notified in advance of the time and place of any burning of logging slash. Any burning shall be done in the manner provided by law.
957.7	Protection of Residual Trees Slash burning operations and fire hazard abatement operations shall be conducted in a manner which will not damage residual trees and reproduction to the extent that they will not qualify to meet the silvicultural and stocking requirements of the Rules.
FIRE PROTECTION	
958	When burning permits are required pursuant to PRC § 4423, Timber Operators shall: (a) Observe the fire prevention and control Rules within this article.
	(b) Provide and maintain fire suppression related tools and devices as required by PRC §§ 4427, 4428, 4429, 4431, and 4442.
	(c) Submit each year, either before April 1st or before the start of Timber Operations, a fire suppression resources inventory to the Department as required by the Rules.
958.1	Fire Suppression Resource Inventory The Fire Suppression Resource Inventory shall include, as a minimum, the following information:
	(a) Name, address and 24-hour telephone number of an individual and an alternate who has authority to respond to Department requests for resources to suppress fires.
	(b) Number of individuals available for firefighting duty and their skills.
	(c) Equipment available for firefighting. The Fire Suppression Resource Inventory shall be submitted to the ranger unit headquarters office of the Department having jurisdiction for the timber operation.
958.4	Smoking and Matches Subject to any law or ordinance prohibiting or otherwise regulating smoking, smoking by persons engaged in Timber Operations shall be limited to occasions where they are not moving about and are confined to cleared Landings and areas of bare soil at least three feet (.914 m) in diameter. Burning material shall be extinguished in such areas of bare soil before discarding. The Timber Operator shall specify procedures to guide actions of his employees or other persons in his employment consistent with this subsection.
958.5	Lunch and Warming Fires Subject to any law or ordinance regulating or prohibiting fires, warming fires or other fires used for the comfort or convenience of employees or other persons engaged in Timber Operations shall be limited to the following conditions:
	1. There shall be a clearance of 10 feet (3.05 m) or more from the perimeter of such fires and flammable vegetation or other substances conducive to the spread of fire.
	2. Warming fire shall be built in a depression in the soil to hold the ash created by such fires.
	3. The Timber Operator shall establish procedures to guide actions of his employees or other persons in their employment regarding the setting, maintenance, or use of such fires that are consistent with (a) and (b) of this subsection.

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958.6	Posting Procedures Timber Operators shall post notices which set forth lists of procedures that they have established consistent with Sections 938.4 and 938.5. Such notices shall be posted in sufficient quantity and location throughout their logging areas so that all employees, or other persons employed by them to work, shall be informed of such procedures. Timber Operators shall provide for diligent supervision of such procedures throughout their operations.
958.7	Blasting and Welding Timber Operators shall provide for a diligent fire watch service at the scene of any blasting or welding operations conducted on their logging areas to prevent and extinguish fires resulting from such operations.
958.8	Inspection for Fire The Timber Operator or his/her agent shall conduct a diligent aerial or ground inspection within the first two hours after cessation of felling, Yarding, or loading operations each day during the dry period when fire is likely to spread. The person conducting the inspection shall have adequate communication available for prompt reporting of any fire that may be detected.
958.10	Cable Blocks During the period when burning permits are required, all tail and side blocks on a cable setting shall be located in the center of an area that is either cleared to mineral soil or covered with a fireproof blanket that is at least 15 ft. in diameter. A shovel and an operational full five-gallon back pump or a fire extinguisher bearing a label showing at least a 4A rating must be located within 25 feet of each such block before Yarding.
WILDLIFE PROTECTION PRAC	CTICES
959.1	 Snag Retention Within the logging area all snags shall be retained to provide wildlife habitat except as follows: (a) If required by the Director during the review of a THP, snags over 20 ft. in height and 16 in. dbh shall be felled in the following locations: (1) Within 100 feet of main ridge tops that are suitable for fire suppression and delineated on a THP map. (2) For hazard reduction within 100 feet of all public roads, permanent roads, seasonal roads, Landings, and railroads.
	(b) Where federal and state safety laws and regulations require the felling of snags.
	(c) Within 100 feet of structures maintained for human habitation.
	(d) Merchantable snags in any location as provided for in the plan, or
	(e) Snags whose falling is required for insect or disease control.
	(f) When proposed by the RPF; where it is explained and justified that there will not be a significant Impact to wildlife habitat needs or there is a threat to human health or safety, including fire where the Director determines a high hazard exists.
959.2	General Protection of Nest Sites The following general standards for protection of Sensitive species shall apply:
	(a) A pre-harvest inspection will normally be required when it is known or suspected that the minimum Buffer Zone surrounding an active nest of a Sensitive species is in or extends onto an area proposed for Timber Operations. When the CAL FIRE is already familiar with the site, the Director, after consultation with the CDFW, may waive this requirement.
	(b) During Timber Operations, Nest Tree(s), designated perch trees(s), screening tree(s), and replacement trees(s), shall be left standing and unharmed except as otherwise provided in these following Rules.
	(c) Timber Operations shall be planned and operated to commence as far as possible from occupied Nest Trees unless explained and justified by the RPF in the THP.
	(d) When an occupied Nest Site of a listed bird species is discovered during Timber Operations, the Timber Operator shall protect the Nest Tree, screening trees, perch trees, and replacement trees and shall apply the provisions of subsections (b) and (c) above and shall immediately notify the CDFW and CAL FIRE. An amendment that shall be considered a minor amendment to the timber harvesting plan shall be filed

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	reflecting such additional protection as is agreed between the operator and the Director after consultation with the CDFW.
959.3	 Specific Requirements for Protection of Nest Sites The following requirements shall apply to Nest Sites containing active nests and not to Nest Sites containing only abandoned nests. (a) Buffer Zones shall be established around all Nest Trees containing active nests. The Buffer Zones shall be designed to best protect the Nest Site and nesting birds from the effects of Timber Operations. In consultation with the CDFW, and as approved by the Director, an RPF or supervised designee shall flag the location of the boundaries of the Buffer Zone, and the configuration of the Buffer Zone. Consultation with the CDFW shall be required pursuant to 14 CCR 898. Consideration shall be given to the specific habitat requirements of the bird species involved when configuration and boundaries of the Buffer Zone are established.
	 (b) The size of the Buffer Zone for each species shall be as follows: (1) For the Bald Eagle and Peregrine Falcon, the Buffer Zone shall be a minimum of ten acres in size. The Director may increase the Buffer Zone beyond 40 acres in size so that Timber Operations will not result in a "take" of either species. The Director shall develop the Buffer Zone in consultation with the CDFW and the RPF.
	(2) For the Golden Eagle, the Buffer Zone shall be a minimum of eight acres in size.(3) For the Great Blue Heron and Great Egret, the Buffer Zone shall consist of the area within a 300-foot radius of a tree or trees containing a group of five or more active nests in close proximity as determined by the CDFW.(4) For the Northern Goshawk, the Buffer Zone shall be a minimum of five acres in size. When explained
	and justified in writing, the Director may increase the size of the Buffer Zone to a maximum of 20 acres when necessary to protect nesting birds. (5) For the Osprey, the Buffer Zone shall be up to five acres in size. When explained and justified in writing, the Director may increase the size of the Buffer Zone to a maximum of 18 acres when necessary to protect nesting birds.
	 (c) The following year around restrictions shall apply within the Buffer Zone. (1) For the Bald Eagle, no clear cutting is allowed within the Buffer Zone. Selection, commercial thinning, sanitation-salvage, and the shelterwood regeneration method, except for the removal step, are permitted if all trees are marked prior to preharvest inspection. All Nest Trees containing active nests, and all designated perch trees, screening trees and replacement trees, shall be left standing and unharmed.
	(2) For the Golden Eagle, no clear cutting is allowed within the Buffer Zone. All Nest Trees containing active nests, and all designated perch trees, screening trees, and replacement tree, shall be left standing and unharmed.(3) For the Great Blue Heron and Great Egret, all Nest Trees containing active nests shall be left standing
	and unharmed. (4) For the Northern goshawk, designated Nest Trees, screening trees, perch trees, and replacement trees shall be left standing and unharmed. Only the commercial thinning, sanitation-salvage, and selection regeneration methods are permitted in the Buffer Zone.
	(5) For the Osprey, all designated Nest Trees, perch trees, screening trees, and replacement trees shall be left standing and unharmed. If the RPF believes that retention is not feasible, he/she may propose construction of an artificial nest structure as an alternative.(6) For the Peregrine Falcon, where timber provides part of the immediate nesting habitat, special cutting
	prescriptions may be required by the Director on an area up to ten acres in size immediately surrounding the nest. The cutting prescriptions shall protect the nesting habitat.
	(d) Critical periods are established for each species and requirements shall apply during these critical periods as follows:(1) For the Bald Eagle, the critical period is January 15 until either August 15 or four weeks after fledgling, as determined by the Director. During this critical period, no Timber Operations are permitted within the

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	Buffer Zone. Exceptions may be approved by the Director, after consultation with the CDFW to allow hauling on existing roads that normally receive use within the Buffer Zone during the critical period. (2) For the Golden Eagle, the critical period is January 15 until April 15 for active nests, and extended from April 15 until either September 1 or until the birds have fledged for occupied nests. During this critical period, hauling on existing roads that normally receive use during the critical period is permitted. Other operations are not permitted within the Buffer Zones. (3) For the Great Blue Heron and Great Egret, the critical period is February 15 until July 1 for coastal counties south of and including Marin County. For all other areas, the period is from March 15 through July 15. During this critical period, Timber Operations within the Buffer Zone shall be staged with a gradual approach to the nest. (4) For the Northern Goshawk, the critical period is from March 15 until August 15. During this critical period, no Timber Operations are permitted; however, new road construction is permitted if the Director determines that there is no feasible alternative. Exceptions may be approved by the Director after consultation with the CDFW to allow hauling on existing roads that normally receive use within the Buffer Zone during the critical period. (5) For the Osprey, the critical period is March 1 to April 15 for active nests in coastal counties including Mendocino County and those south of it. This period is extended from April 15 until August 1 for occupied nests. For all other areas, the critical period is March 15 until May 1 for active nests, and is extended from May 1 to August 15 for occupied nests. During the critical period, at Nest Sites where Osprey have shown historical tolerance to disturbance, Timber Operations are permitted using a gradual approach to the nest, except that no cutting is permitted. Where Osprey are determined by the Director to be intolerant to Timber Operations, no Timber Oper
	 (e) The following requirements shall apply to helicopter logging during the critical period. (1) For the Bald Eagle, helicopter Yarding within one-quarter mile radius of the Nest Tree is prohibited. Helicopter Yarding between one-quarter and one-half mile of the Nest Tree is permitted when Timber Operations are conducted so that helicopter Yarding gradually approaches the one-quarter mile radius limit. (2) For the Golden Eagle and Northern Goshawk, helicopter Yarding within one-quarter mile radius of the nest is prohibited. (3) For the Osprey, helicopter Yarding within one-quarter mile radius of the nest is prohibited between April 15 and June 15. (4) For the Peregrine Falcon, helicopter Yarding is prohibited within one-half mile of the nest.
959.9	Northern Spotted Owl Every proposed timber harvesting plan, NTMP, WFMP, Conversion Permit, Spotted Owl Resource Plan, or major amendment located in the Northern Spotted Owl Evaluation Area or within 1.3 miles of a known northern spotted owl Activity Center outside of the Northern Spotted Owl Evaluation Area shall follow one of the procedures required in subsections (a)-(g) for the area within the THP boundary as shown on the THP map and also for adjacent areas as specified within this section.
HARVESTING PRACTICES	
954.1	Felling Practices The following standards are applicable to felling practices: (a) To the fullest extent possible and with due consideration given to topography, lean of trees, Landings, utility lines, local obstructions, and safety factors, trees shall be felled to lead in a direction away from Watercourses and lakes.
	(b) Desirable residual trees and tree seedlings of commercial species, and these oak trees requiring protection pursuant to 14 CCR § 953.10 shall not be damaged or destroyed by felling operations, except where

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	unavoidable due to safety factors, lean of trees, location of obstructions or roads, or lack of sufficient openings to accommodate felled trees.
	(c) Trees shall be felled in conformance with Watercourse and lake protection measures incorporated in timber harvesting plans and consistent with Article 6 of these Rules.
	(d) Felling practices shall conform to requirements of 14 CCR §§ 919.2, 939.2, 959.2 to protect bird nesting sites
954.2	Tractor Operations The following standards are applicable to tractor operations: (a) Tractor operations shall be conducted in a manner which complies with 14 CCR § 954. (b) Tractor, or other heavy equipment which is equipped with a blade, shall not operate on skid roads or slope that are so steep as to require the use of the blade for braking. (c) Tractor roads shall be limited in number and width to the minimum necessary for removal of logs. When less damage to the resources specified in 14 CCR § 954 will result, existing tractor roads shall be used instead of constructing new tractor roads. (d) Heavy equipment shall not operate on unstable areas. If such areas are unavoidable, the RPF shall develop specific measures to minimize the effect of operations on slope instability. These measures shall be explained and justified in the plan and must meet the requirements of 14 CCR § 954. (e) Slash and debris from Timber Operations shall not be bunched adjacent to residual trees required for silvicultural or wildlife purposes, or placed in locations where they could be discharged into a Class I or II Watercourse, or lake.
	 (f) Tractor operations shall be subject to the following limitations: (1) Heavy equipment shall be prohibited where any of the following conditions are present: (i) Slopes steeper than 65%. (ii) Slopes steeper than 50% where the erosion hazard rating is high or extreme. (iii) Slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a Watercourse or lake. (g) Where tractor roads are constructed, Timber Operators shall use tractor roads only, both for Skidding logs to Landings and on return trips. (h) Timber Operators shall exercise due diligence so that desirable residual trees and seedlings will not be damaged or destroyed in tractor operations.
	(i) Where waterbreaks cannot effectively disperse surface runoff, other erosion controls shall be installed as needed.
954.3	 Cable Yarding The following standards are applicable to Cable Yarding: (a) Due diligence shall be exercised in the installing, and operating, of cable lines so that residual trees will not incur unreasonable damage by such installation or use. (b) Residual trees required to be left upon completion of Timber Operations shall not be used for rub trees, corner blocks, rigging or other cable ties unless effectively protected from damage. (c) The practice of tight-lining for the purpose of changing location of cable lines is prohibited unless such practice can be carried on without damaging residual trees. (d) Cable Yarding settings shall take maximum advantage of the natural topography and timber types so that Yarding operations will protect residual trees. (e) Tractors shall not be used in areas designated for Cable Yarding except to pull trees away from Streams, to yard logs in areas where deflection is low, or where swing Yarding is advantageous, to construct firebreaks and/or layouts, and to provide tail-holds. Such exception(s) shall be explained and justified in the THP, and require Director's approval.
954.5	Servicing of Logging Equipment, Disposal of Refuse, Litter, Trash and Debris The following standards shall be adhered to in servicing logging equipment and disposing of refuse, litter, tras and debris:
	(a) Equipment used in Timber Operations shall not be serviced in locations where servicing will allow grease, o or fuel to pass into lakes or Watercourses.

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	(b) Non-biodegradable refuse, litter, trash, and debris resulting from Timber Operations, and other activity in connection with the operations shall be disposed of concurrently with the conduct of Timber Operations.
954.6	Waterbreaks The following standards are applicable to the construction of waterbreaks: (a) except as otherwise provided for in the Rules: (1) All waterbreaks shall be installed no later than the beginning of the winter period of the current year of Timber Operations.
	(2) Installation of drainage facilities and structures is required from October 15 to November 15 and from April 1 to May 1 on all constructed skid trails and tractor roads prior to sunset if the National Weather Service forecast is a "chance" (30% or more) of rain within the next 24 hours.
	(b) Waterbreaks shall be constructed concurrently with the construction of firebreaks and immediately upon conclusion of use of tractor roads, roads, layouts, and Landings which do not have permanent and adequate drainage facilities, or drainage structures.
	(f) Distances between waterbreaks shall not exceed the following standards and consider erosion hazard rating and road gradient: Erosion Hazard Rating US Equivalent Measure – Road or Skid Trail Gradient <10% 11-25% 26-50% >50% Low 300 200 150 100 Moderate 200 150 100 75 High 150 100 75 50
ARCHAEOLOGY	Extreme 100 75 50 50
969.1	 (a) Plan Preparation Prior to submitting a plan, the RPF, or the RPF's supervised designee: (1) Shall conduct an archaeological records check at the appropriate Information Center. A previously-conducted archaeological records check for the property may be used to satisfy this requirement if it covers the entire area proposed for Timber Operations and if it meets the definition of "current archaeological records check" in 14 CCR § 895.1. (2) Shall provide written notification to Native Americans of the preparation of a plan. The primary purpose for this notification is to provide Native Americans an opportunity to disclose the existence of any Native American archaeological or cultural sites that are potentially within or adjacent to the Site Survey Area, and the opportunity to comment on the plan. The RPF shall allow a minimum of 10 days for response to
	this notice before submitting the plan to the Director. The remainder of the 10-day waiting period is waived when all Native Americans required to be informed respond in less than 10 days.
	(3) Shall provide a professional archaeologist or a person with archaeological training (in accordance with 14 CCR §§ 969.4) to conduct a field survey for archaeological and historical sites within the Site Survey Area. Previous archaeological surveys within the Site Survey Area may also be used to partially or entirely satisfy this requirement.
	(4) Shall ensure that research is conducted prior to the field survey, including review of appropriate literature and contacting knowledgeable individual, concerning potential archaeological or historical sites occurring on the property.
	(b) Provide Notification to Native Americans if a Native American Archaeological or Cultural Site is located within the plan.
	(c) RPF shall submit a Confidential Archaeological Addendum with the plan.
969.2	(a) (1) The RPF shall describe in the separate Confidential Archaeological Addendum or Letter, measures to be taken to mitigate or avoid substantial adverse change to any known significant archaeological or historical sites.

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969.3	Post Review Site Discovery If a person discovers a potentially significant archaeological or historical site after a plan, Emergency Notice, or Exemption is accepted by the Director, the following procedures apply: (a) The person who made the discovery shall immediately notify the Director, LTO, RPF, or Timberland Owner of record. (b) The person first notified in (a) shall immediately notify the remaining parties in (a). (c) No Timber Operations shall occur within 100 feet of the identified boundaries of the new site until the plan submitter proposes, and the Director agrees to, protection measures pursuant to 14 CCR § 969.2. (d) A minor deviation shall be filed to the plan. The minimum information provided shall include: (1) A statement that the information is confidential. (2) The mapped location of the site. (3) A description of the site. (4) Protection measures, and (5) Site records, if site records are required pursuant to 14 CCR §§ 969.1(g)(2)(b) and 969.5.
969.4	Archaeological Training Requirements To meet the requirement of 14 CCR § 969.1, archaeological surveys of a plan or Emergency Notice areas for archaeological or historical sites shall be conducted only by a professional archaeologist or a person who has attended a training program approved by the Director within five years prior to submission of the plan or Emergency Notice.
969.5	Site Recording The Director shall ensure that all archaeological or historical sites determined to be significant and located within the Site Survey Area on plans, or Emergency Notices are recorded by the RPF or supervised designee in a manner consistent with the recording standards identified in the State Office of Historic Preservation's "Instructions For Recording Historical Resources" March, 1995, which is incorporated by reference.
969.7	 Determination of Significance (a) A determination of significance shall be made for an identified archaeological or historical site within the Site Survey Area on a THP, or Emergency Notice by a person who satisfies the requirements specified in 14 CCR § 969.4 if damaging effects from Timber Operations cannot be avoided. (b) The determination of significance shall: (1) Be based upon criteria defined for significant archaeological or historical sites in 14 CCR § 895.1 (2) Utilize any information provided by Native Americans, archaeological, historical or ethnographic data pertinent to the region and to the cultural resource, and the physical characteristics of the archaeological or historical site. (c) If required by subsection (a), a preliminary determination of significance shall be made by the RPF or the RPF's supervised designee and provided in the Confidential Archaeological Addendum. (d) Where the Director determines that Timber Operations may cause a substantial adverse change to a significant archaeological or historical site and the RPF and the Director cannot agree upon protection measures, a professional archaeologist provided by the THP submitter shall make a survey and prepare a report on the potentially affected site or sites and the potential Impacts of the proposed Timber Operations. The part of the report that relates to archaeological sites is confidential. This report, if it discusses Impacts on Native American archaeological sites, shall be provided by the Director to Native Americans and the NAHC. This report shall contain recommendations for mitigation, the elimination of Impacts, or for the reduction of Impacts to avoid or prevent substantial adverse change to significant archaeological or historical resources. The report shall meet the standards of the Preservation Planning Bulletin, Number 4, December 1989 (Office of Historic Preservation), entitled Archaeological Resource Management Reports (ARMR): Recommended Contents and F
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1034	(x) On titled USGS (if available) or equivalent topographic maps of a scale not less than 2" to the mile, the information in subsections (1)-(3), (4)(A), (B) and (E) ((4)(B) and (E) for sites within the harvest area), (8), (9), and (11)-(13) shall be clearly shown. Additional maps, which may be topographic or planimetric, may be used

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	to provide the information required in the other subsections, to show specific details, and to improve map clarity. The appurtenant roads referenced in subsections (4)(B), (C), (D), and (E) ((4)(B) and (E) for sites not within the harvest area) may be shown on a map which may be planimetric with a scale as small as one-half inch equals one mile. Color coding shall not be used. A legend shall be included indicating the meaning of the symbols used.

REFERENCES

- California Department of Fish and Wildlife. 2018 (March). Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities.
- California Invasive Plant Council. 2012. Preventing the Spread of Invasive Plants: Best Management Practices for Land Mangers (3rd Edition). Cal-IPC Publication 2012-03. California Invasive Plant Council. Berkeley, CA.
- Lahontan Regional Water Quality Control Board. 2016. Water Quality Control Plan for the Lahontan Region. State of California Regional Water Quality Control Board. South Lake Tahoe, CA.
- ———. 2019. Conditional Waiver of Waste Discharge Requirements for Waste Discharge Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region "Timber Waiver." Board Order No. R6T-2019-0240 (Renewal of Board order No. R6T-2014-0030).
- Sawyer, J. O., T. Keeler-Wolf, J. M. Evens. 2009. A Manual of California Vegetation (Second Edition). California Native Plant Society and California Department of Fish and Game.