California Environmental Quality Act (CEQA)

INITIAL STUDY

Supporting the Preparation of a Mitigated Negative Declaration

for

Revision of Conditional Waiver of Waste Discharge Requirements for Timber Harvest and Vegetation Management Activities in the Lahontan Region

April 2009

(revised from the January 2009 Initial Study)

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PROJECT DESCRIPTION

This project involves revising the *Conditional Waiver of Waste Discharge Requirements for Timber Harvest Activities in the Lahontan Region* (R6T-2007-0008 [2007 Timber Waiver]), by adopting and implementing the proposed Timber Waiver (proposed Timber Waiver). The 2007 Timber Waiver will remain in effect for activities previously enrolled under the 2007 Timber Waiver.

The California Regional Water Quality Control Board, Lahontan Region (Water Board) is proposing to waive the need to submit Reports of Waste Discharge and obtain Waste Discharge Requirements for discharges, or threatened discharges, of wastes including but not limited to earthen materials (i.e., soil, silt, sand, clay, and rock), organic materials (i.e., slash, sawdust, and bark), and silvicultural herbicides, resulting from timber harvest and vegetation management activities in the Lahontan Region which meet the eligibility criteria and comply with the conditions and general provisions set forth in the proposed Timber Waiver. The proposed Timber Waiver identifies six categories of activities described by eligibility criteria for each category. To be eligible for the proposed Timber Waiver, persons must comply with specific criteria and conditions set forth to ensure that impacts to water quality remain at less than significant levels.

In January 2009, the Water Board released a tentative revised Timber Waiver and Initial Study for a thirty day public review. Twelve comment letters were received. The Water Board staff met with persons submitting comments and made a number of revisions to the Timber Waiver, mostly clarifications. This Initial Study updates the January 2009 Initial Study to address the substantive changes.

The definition of **timber harvest and vegetation management activities ("activities")** for the purpose of this project is:

> all activities related to the management of vegetation for the purposes of fuel reduction; forest thinning; establishment of shaded fuel break; and/or environmental improvement (such as forest enhancement, riparian enhancement, and aspen stand enhancement); prescribed burning; cutting or removal of trees and vegetation, together with all the work incidental thereto, including, but not limited to, construction, reconstruction, maintenance, and decommissioning of roads, fuel breaks, stream crossings, landings, skid trails, or beds for the falling of trees; burned area rehabilitation; hazard tree removal; site preparation that involves disturbance of soil, burning of vegetation, or herbicide/pesticide application. Vegetation management activities do not include aquatic vegetation management, preparatory tree marking, surveying, or road flagging.

The proposed Timber Waiver will apply to these activities throughout the Lahontan region. For activities located in the area of mutual jurisdiction of the Water Board and the Tahoe Regional Planning Agency (TRPA) in the Lake Tahoe Region, the TRPA is the lead agency for permitting and review of timber harvest and vegetation

management activities under the terms of a 2008 Memorandum of Understanding (MOU). Project proponents are not required to apply to the Water Board for coverage under the Timber Waiver if their project is regulated by the TRPA and in accordance with the agreements of the MOU and the Waiver of Report of Waste Discharge adopted by the Water Board (Resolution R6T-2008-0038).

SPECIFICS OF THE PROPOSED PROJECT

Proposed revisions to the 2007 Timber Waiver include minor changes (i.e., grammar and document organization) and substantial changes (i.e., revising the categorization scheme, eligibility criteria, conditions, and application and monitoring requirements). Changes made between the January 2009 tentative Timber Waiver and the proposed Timber Waiver include, but are not limited to (1) addition of projects under CALFIRE approved Dead, Dying, Diseased Exemptions with restrictions to Category 1, (2) addition of projects to Category 1 undertaken to remove hazard trees in response to an imminent threat to life or property, (3) allowing limited prescribed fire to Categories 2 and 4, (4) findings and conditions recognizing specific pollutants of concern and waste discharge prohibitions for Lake Tahoe and Truckee River Hydrologic Units. The scope of the environmental analysis within this Initial Study is limited to the proposed changes between the 2007 Timber Waiver and the proposed Timber Waiver.

The proposed Timber Waiver is attached to this Initial Study.

PURPOSE OF AND NEED FOR PROJECT

The purpose of the project is to protect water quality, further expedite fuels reduction efforts in the Lahontan Region, clarify Timber Waiver requirements, and facilitate compliance with waiver conditions. These proposed revisions are being made in response to requests made by the Lahontan Water Board, the regulated public and agencies, and the California-Nevada Tahoe Basin Fire Commission.

The need for the project was identified in the *California-Nevada Tahoe Basin Fire Commission Report* (May 2008). This document was developed following the June - July 2007 Angora fire in South Lake Tahoe, which damaged or destroyed hundreds of structures and utilities and burned over 3,000 acres of forested land within the Lake Tahoe Basin.

In May 2008, following review of the *California-Nevada Tahoe Basin Fire Commission Report* (Fire Commission report), Governor Arnold Schwarzenegger issued a Proclamation regarding current forest fuels and regulatory conditions in the Lake Tahoe Region following the Angora fire. The Proclamation found that a state of emergency exists within the Tahoe Basin counties of Placer and El Dorado relative to wildfire risk, and certain actions should be implemented to improve fire suppression, fuels management, planning, and regulatory streamlining. The Governor's Proclamation found the current regulatory environment within the Tahoe Basin for fuels treatment activities:

" . . . confusing, overly complex and often incompatible with the immediate need to mitigate the threat of catastrophic wildfire, and that such regulation and procedures require the immediate attention of agencies and authorities having jurisdiction over the health and conditions of the forests in the Basin, including but not limited to the TRPA, in order to eliminate or otherwise reduce the adverse effects of confusing, overlapping, or unnecessarily restrictive regulations and regulatory procedures . . . ."

Although the Governor's Proclamation was specific to the Lake Tahoe Basin, the Water Board recognizes the need to clarify and revise the 2007 Timber Waiver to facilitate fuels treatments for public health and safety, and increase understanding of the Timber Waiver's conditions and requirements region-wide. Therefore, Water Board staff is proposing these revisions to the 2007 Timber Waiver to fulfill the purpose and need for the project, as outlined above.

The scope of this proposed action is limited to revisions that can be made without requiring an amendment to the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). Amending the Basin Plan would require additional environmental and scientific peer review. Because of the length of time involved in completing Basin Plan amendments, the Water Board may consider changes to the Basin Plan in a separate action at a later date.

CONSISTENCY WITH PLANS AND POLICIES FOR WATER QUALITY PROTECTION

Between 1988 and 2003, the Lahontan Water Board waived waste discharge requirements for timber harvest activities operating under approved California Department of Forestry and Fire Protection (CAL FIRE) Timber Harvesting Plans or federal timber sales, according to Resolution No. 6-88-18, *Waiver for Waste Discharge Requirements for Specific Types of Discharges*. In January 2003, after legislative imposed expiration of Resolution No. 6-88-18, the Lahontan Water Board adopted Resolution No. R6T-2003-0001, *Conditional Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities in the Lahontan Region* (2003 Timber Waiver). The 2003 Timber Waiver conditionally waived waste requirements for timber harvest activities on lands throughout the Lahontan Region, including both nonfederal lands (i.e., lands owned and managed by private landowners, local governments, public utility districts, etc.) and federal lands managed by the U.S. Forest Service. Environmental impacts of the 2003 Timber Waiver were analyzed under a Negative Declaration, certified by the Water Board on January 8, 2003.

In February 2007, the 2003 Timber Waiver was rescinded with the adoption of a renewed Timber Waiver, Resolution No. R6T-2007-0008 (2007 Timber Waiver). The 2007 Timber Waiver covered the same types of activities as the 2003 Timber Waiver; however, unlike the previous waivers, the 2007 Timber Waiver included monitoring and reporting requirements for timber harvest and vegetation management activities determined by the Lahontan Water Board to pose a threat to water quality, pursuant to California Water Code (Water Code) section 13269 (as amended January 1, 2005). Environmental impacts of the 2007 Timber Waiver were determined to remain within

the project scope of the Initial Study and Negative Declaration certified for the 2003 Timber Waiver, and no additional analysis was conducted pursuant to the California Environmental Quality Act.

Under this proposed Timber Waiver, the Water Board will continue to waive waste discharge requirements for specified discharges associated with timber harvest and vegetation activities within the Lahontan Region. Similar to the 2007 Timber Waiver, the revised Timber Waiver will be conditional and may be terminated at any time by the Lahontan Water Board pursuant to Water Code section 13269, subdivision (a)(2). To ensure that the proposed Timber Waiver is in the public interest and consistent with the Basin Plan, conditions of eligibility are proposed, consistent with the Water Code section 13269, subdivision (a)(1).

These conditions are proposed for each Timber Waiver category to ensure that activities carried out under the Timber Waiver will not adversely impact water quality. Notification and application requirements provide a mechanism for Water Board staff to provide feedback on vegetation management proposals to avoid water quality problems, and ensure eligibility and compliance with Timber Waiver conditions and ensure management measures are implemented and effective. Monitoring requirements are intended to further ensure compliance with waiver conditions and eligibility criteria, and to verify the adequacy and effectiveness of the Timber Waiver's conditions.

The proposed Timber Waiver does not limit or change the existing authorities or responsibilities of other agencies. For example, on private timberlands, CAL FIRE is the lead agency for conducting CEQA analysis and issuing permits to timberland owners and operators performing timber harvest and vegetation management activities within the project area. On lands managed by the U.S. Forest Service or the U.S. Bureau of Land Management, approval to conduct timber harvest and vegetation management activities is only granted after the federal agency has prepared environmental documents to comply with the National Environmental Policy Act (NEPA). On lands owned and/or managed by the State of California (i.e., California Department of Parks and Recreation, California Tahoe Conservancy, and the California Department of Transportation), approval to conduct timber harvest and vegetation management activities is granted only after environmental analysis in compliance with CEQA is completed.

Within the Lake Tahoe region, the TRPA regulates vegetation management activities through a tree removal permitting system and memoranda of understanding with land management agencies and fire districts. The Water Board and the TRPA are currently implementing a cooperative approach to regulating vegetation management activities in the Lake Tahoe Region, through an MOU for vegetation management activities. Under the Vegetation Management MOU, the TRPA is responsible for reviewing proposed activities, issuing permits, conducting inspections and taking enforcement action as necessary to ensure compliance with permits and applicable regulations, including its Code of Ordinances and Water Quality Management Plan for the Lake Tahoe Region ("208 Plan") for activities in the Lake Tahoe Region. The provisions and prohibitions of

the Water Quality Control Plan of the Lahontan Region (Basin Plan) are similar to those contained in the TRPA ordinances and plans. The Water Board found it to be in the public interest and in compliance with the Basin Plan to waive the requirement for persons to file a report of waste discharge with the Water Board for these activities in the Lake Tahoe Region when TRPA is regulating the activity.

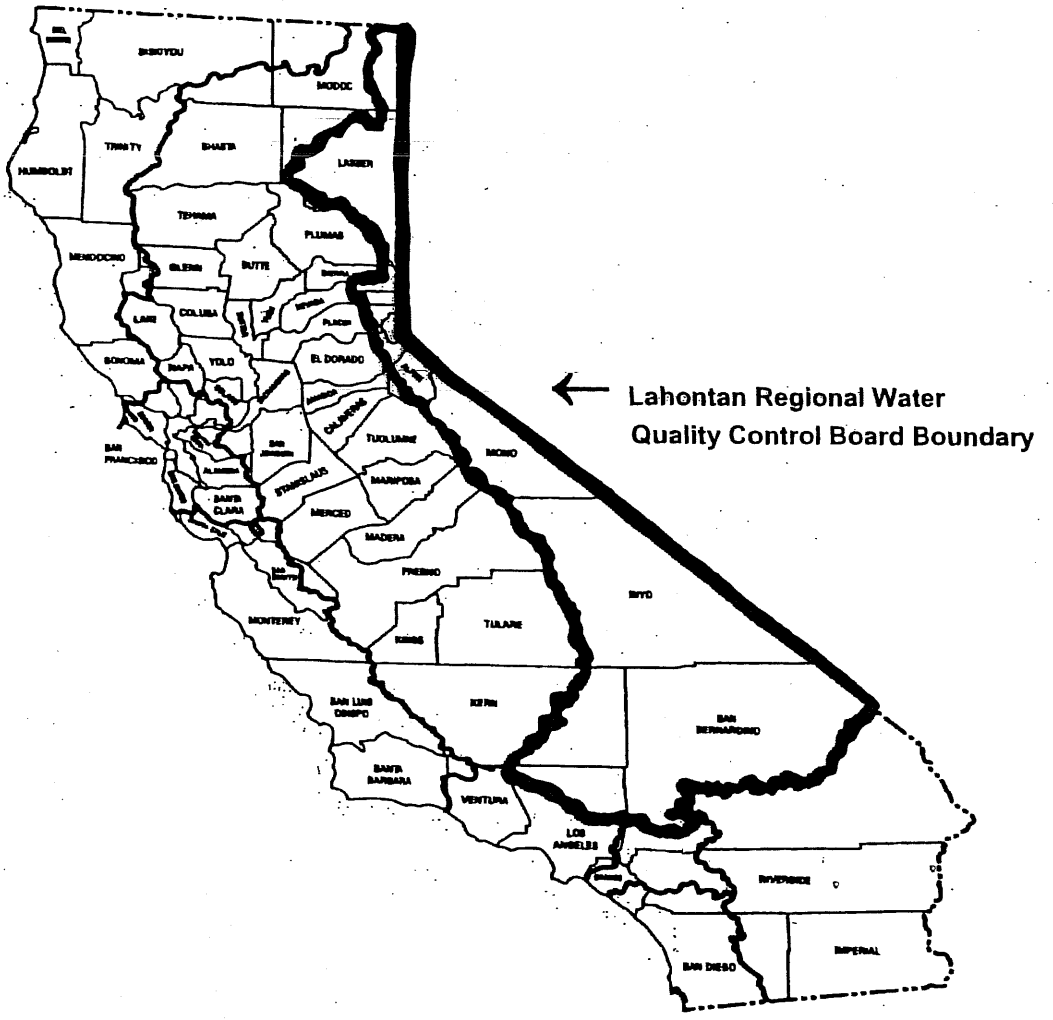
As described above, the proposed project is consistent with applicable plans and policies regarding water quality protection in the Lahontan Region. The Lahontan Water Board proposes to make a determination that the timber harvest and vegetation management activities conducted in compliance with the conditions described within the proposed Timber Waiver are consistent with the Water Quality Control Plan for the Lahontan Region (Basin Plan) and is in the public interest pursuant to Water Code section 13269, subdivision (a)(1).

ENVIRONMENTAL SETTING

The Lahontan Region (Figure 1) is comprised of about 33,131 square miles of land, a significant portion of which is forestland. The Region includes over 700 lakes, and over 3,000 miles of streams in eastern California, including the California portion of the Lake Tahoe Basin. The Lahontan Region includes the highest (Mount Whitney) and lowest (Death Valley) points in the contiguous United States, and the topography of the remainder of the Region is diverse. The Region includes the eastern slopes of the Warner, Sierra Nevada, San Bernardino, Tehachapi and San Gabriel Mountains, and all or part of other ranges including the White, Providence, and Granite Mountains. Topographic depressions include the Madeline Plains, Surprise, Honey Lake, Bridgeport, Owens, Antelope, and Victor Valleys.

Much of the Lahontan Region is in public ownership, with lands managed by agencies such as the U.S. Forest Service, National Park Service, and Bureau of Land Management, various branches of the military, the California State Department of Parks and Recreation, and the City of Los Angeles Department of Water and Power. Land uses include rangeland grazing, recreation, timber harvest, mining, irrigated agriculture, energy production, water supply transport and storage, and urban uses.

Figure 1: Project Area (Lahontan Region)



DISCUSSION OF POTENTIAL EFFECTS OF PROPOSED PROJECT

CEQA requires a Lead Agency to prepare an Initial Study to determine whether a project may have a significant effect on the environment (Cal. Code Regs., tit. 14, section 15063(a)). A "significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (Cal. Code Regs., tit. 14, section 15382). If the Initial Study does not show that there is substantial evidence, in light of the whole record before the agency, that a project may have a significant effect on the environment, a Negative Declaration may be prepared. If the Initial Study identifies potentially significant effects, but identifies revisions or conditions to mitigate the effects

to a point where clearly no significant effects would occur, a Mitigated Negative Declaration may be prepared (Cal. Code Regs., tit. 14, section 15070).

The Lahontan Water Board has waived waste discharge requirements for timber harvest activities since 1988. However, this project (the revised Timber Waiver) does contain substantive changes over past Timber Waivers in several areas. These changes include:

- organizing Timber Waiver categories based on threat to water quality, and de-emphasizing land ownership as a basis for categorization
- expanding the types of activities that may proceed under the revised Timber Waiver without notification to Water Board staff
- expanding the types of activities that may proceed under the revised Timber Waiver without 30-day notification to Water Board staff (See Attachment 1- Comparison of the Notification, Monitoring, and Reporting Conditions between the 2007 Timber Waiver and the proposed Timber Waiver)
- revised Timber Waiver eligibility criteria, conditions, and definitions
- removing, reducing, and/or clarifying monitoring requirements for certain categories of activities
- providing expanded conditional opportunities for activities within sensitive lands[1]
- explicit interpretation of prohibitions contained in the Water Quality Control Plan for the Lahontan Region (Basin Plan) against waste discharges to lands within the 100-year floodplains in the Little Truckee River, Truckee River, and Lake Tahoe hydrologic units (HUs), and prohibitions against "permanent disturbance" in Stream Environment Zones (SEZs) in the Lake Tahoe HU
- allowance for conditional operation of low ground pressure equipment to within 25 feet of a watercourse
- allowance for the deposition of limited chipped material within Waterbody Buffer Zones
- explicit conditions for prescribed fire

These substantive changes are proposed by Water Board staff for several reasons:

- to streamline implementation of a broader range of vegetation management activities to mitigate the threat of catastrophic wildfire, while ensuring less than significant impacts to water quality
- to facilitate compliance with Timber Waiver conditions, and assist applicants in identifying eligibility criteria, conditions, and monitoring requirements that apply to their proposed activities

[1] The term 'sensitive lands' used within this Initial Study and the Timber Waiver includes: aquatic and wetland habitat, soils with high or extreme erosion hazard rating, slopes greater than 40%, known slides and unstable areas (including unstable and erodible watercourse banks, migrating channels, overflow channels, watercourse channels with inadequate flow capacity, flood prone areas, riparian areas, 100-year floodplains within the Truckee River, Little Truckee River, and Lake Tahoe Hydrologic Units (HUs), slopes over 30% in the Lake Tahoe HU, and Stream Environment Zones within the Lake Tahoe HU.

- to allow Water Board staff to focus limited staff resources on timber harvest and vegetation management activities that pose greater threats to water quality.

Some of the proposed changes could have an effect on the environment in the project area over current conditions (i.e., regulation of timber harvest and vegetation management activities under the 2007 Timber Waiver). For each CEQA factor, Water Board staff evaluated potential environmental effects from proposed changes in regulation in the proposed Timber Waiver from the 2007 Timber Waiver. For example, providing expanded opportunities for fuels reduction activities on sensitive lands, or expanding the types of activities that may proceed without notification to Water Board staff may result in impacts to water quality, soils or biological resources. In developing the proposed Timber Waiver, Water Board staff included criteria, conditions, and monitoring requirements to ensure that the activities that proceed under the proposed Timber Waiver will not result in significant impacts. Criteria and conditions limit the scope, extent or nature of activities that are eligible for the proposed Timber Waiver, and monitoring requirements determine the efficacy of these stipulations in protecting water quality. For each CEQA factor in the following checklist, the criteria and conditions included in the proposed Timber Waiver to reduce potential impacts to less than significant levels are described.

Further, as noted above, the proposed Timber Waiver would not limit or change the existing requirements, authorities or responsibilities of the Water Board and other agencies, nor does it allow discharges which would result in Basin Plan violations, or the creation of a pollution or nuisance. Where applicable, the requirements and authorities of other agencies are described in the following checklist.

Therefore, activities that are designed and implemented to comply with the conditions and criteria of the revised Timber Waiver will have less than significant impacts on the environment. Activities that are not designed (or revised) to meet the conditions and criteria for this revised Timber Waiver must file a Report of Waste Discharge with the Water Board, containing specific information as required. The Water Board would then consider issuing individual Waste Discharge Requirements for that activity.

INITIAL STUDY/ENVIRONMENTAL CHECKLIST

1. **Project title:**
   Conditional Waiver of Waste Discharge Requirements for Discharges Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region.

2. **Lead agency name and address:**
   California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board)
   2501 Lake Tahoe Blvd.
   South Lake Tahoe, CA 96150

3. **Preparer and phone number:**
   Andrea Stanley, (530) 542-5406

4. **Project location:** The Lahontan Water Board's jurisdiction, which encompasses all or parts of Modoc, Lassen, Plumas, Sierra, Nevada, Placer, El Dorado, Alpine, Mono, Inyo, San Bernardino, Kern, and Los Angeles counties.

5. **Project sponsor's name and address:**
   Lahontan Water Board
   2501 Lake Tahoe Blvd.
   South Lake Tahoe, CA 96150
   Attn: Andrea Stanley

8. **Brief Description of project:**
   This project involves the revision of the existing Timber Waiver (Resolution No. R6T-2007-0008) by the adoption and implementation of a Board Order that will continue to conditionally waive waste discharge requirements for specified discharges associated with timber harvest activities within the Lahontan Region.

9. **Surrounding land uses and setting:**
   Rangeland grazing, recreation, mining, timber harvest, irrigated agriculture, open space, and urban uses.

10. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.)
    Approval by another public agency is not required. This project may be superseded by the adoption by the State Water Board of specific waste discharge requirements or general waste discharge requirements for types of discharges covered by this project.

    This project does not preclude the need for persons conducting timber harvest and vegetation management activities to obtain permits which may be required by other local and governmental agencies.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors marked below would be potentially affected by this project, as indicated by the checklist on the following pages.

	Aesthetics		Agriculture Resources		Air Quality
X	Biological Resources		Cultural Resources	X	Geology Soils
	Hazards & Hazardous Materials	X	Hydrology/Water Quality		Land Use / Planning
	Mineral Resources		Noise		Population/Housing
	Public Services		Recreation		Transportation/Traffic
	Utilities/Service Systems	X	Mandatory Findings of Significance		

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The

lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. (California Code of Regulations, title 14 Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.
b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X

a-c) Timber harvesting activities could have aesthetic impacts; however, the revised Timber Waiver would not alter or weaken the need to comply with existing regulations regarding aesthetic values that currently apply to activities regulated under the 2007 Timber Waiver. Therefore, it is not anticipated that the adoption and implementation of the proposed Timber Waiver would affect the nature or extent of any aesthetic impact over current conditions (i.e., regulation of timber harvest and vegetation management activities under the 2007 Timber Waiver).

Therefore, because the proposed Timber Waiver would not alter or weaken the need to comply with existing regulations regarding aesthetic values that currently apply under the 2007 Timber Waiver the appropriate finding is **no impact.**

d) The proposed project would not create a new source of substantial light or glare, which would adversely affect day or nighttime views; therefore, the appropriate finding is **no impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X

a-c) The proposed project would not involve converting or re-zoning agricultural land to non-agricultural use. There will be no change to agricultural resources in the project area over existing conditions due to the proposed Timber Waiver; therefore, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X

a-e) Timber harvesting activities may generate dust emissions as the result of road and trail construction and use, and the construction of landings and pads. Nitrogen and sulfur oxides may be emitted during timber harvesting activities, including from use of heavy equipment engines. Smoke will be emitted during use of prescribed fire. However, it is not anticipated that the proposed Timber Waiver will result in an increase in these emissions over current conditions (i.e., regulation of timber harvest and vegetation management activities under the 2007 Timber Waiver).

The proposed Timber Waiver does clarify allowable activities regarding prescribed fire. Revised waiver categories 4 and 6 clarify that prescribed fire, including both pile burning and broadcast burning, can *conditionally* occur in Waterbody Buffer Zones. The 2007 Timber Waiver did not prohibit this activity for similar waiver categories, but did not specify conditions to protect water and soils resources. As such, the change between the 2007 waiver and the proposed waiver represents a clarification only, which will not

result in an increase in smoke emissions over current conditions. Further, the proposed Timber Waiver would not alter or weaken the need to comply with existing regulations regarding air quality that currently apply. The adoption and implementation of this project does not change the regulatory requirements, statutory authorities, or enforcement abilities of any other agency which may have jurisdiction over air quality issues related to vegetation management (e.g., requirements for smoke management or dust abatement by state, local or federal agencies, or county air districts). Therefore, the adoption and implementation of the proposed Timber Waiver would not affect the nature or extent of any impact to air quality over current conditions.

Therefore, because the proposed Timber Waiver would not alter or weaken the need to comply with existing regulations regarding air quality that currently applies under the 2007 Timber Waiver and the proposed Timber Waiver provides clarification regarding the conditions under which prescribed fire may occur in certain locations, the appropriate finding is **no impact.**

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or		X		

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

a-d) The proposed Timber Waiver contains both general and category-specific conditions and criteria to ensure that activities that proceed under the proposed Timber Waiver will have less than significant impacts to biological resources, including candidate, sensitive or special status species or their habitat (including wetlands, riparian areas and/or nursery sites).

General Conditions 1 and 6 require compliance with the Basin Plan, and prohibit the creation of a pollution, contamination, or nuisance, as defined by the California Water Code section 13050. Compliance with the Basin Plan requires that water quality standards and waste discharge prohibitions must not be violated by activities that proceed under the proposed Timber Waiver. The Basin Plan specifies region-wide and location-specific water quality objectives for waste discharges subject to the proposed Timber Waiver. These objectives set narrative or numeric limits for constituents that may be associated with timber harvest and vegetation management activities such as biostimulatory substances, dissolved oxygen, floating materials, pH, sediment, settable and suspended materials, temperature, toxicity, nondegradation of aquatic communities and populations, and pesticides.

These water quality objectives are established to protect beneficial uses of the region's waters. The water quality objectives in conjunction with the identification of water body-specific beneficial uses constitute the water quality standards. Beneficial use designations in the Lahontan Region incorporate protection of biological habitats and sensitive species, including 8 separate designations for biological resources (Warm Freshwater Habitat; Cold Freshwater Habitat; Inland Saline Water Habitat; Wildlife Habitat; Preservation of Areas of Special Biological Significance; Rare, Threatened, or Endangered Species; Migration of Aquatic Organisms; Spawning, Reproduction, and Development). Since the proposed Timber Waiver requires compliance with the Basin Plan, all of these beneficial uses are protected from adverse impacts of timber harvest

activities. Additionally, the Timber Waiver contains specific conditions related to preventing sediment transport to water bodies, protection or enhancement of fish passage and protection of riparian vegetation. Therefore, activities that proceed in compliance with the Timber Waiver must be designed and implemented to ensure biological resources are protected, and any impacts will be reduced to less than significant levels.

The categorical treatment of timber harvest activities further ensures that biological impacts will be less than significant. Activities eligible for the proposed categories vary in scope from those conducted around existing structures to comply with defensible space mandates (Category 1, very low or no threat to water quality, including biological resources dependent on water quality), to commercial timber harvest activities on sensitive lands (Category 5, potentially significant threat to water quality, including biological resources dependent on water quality). Category-specific criteria and conditions, including mitigation and monitoring requirements, are scaled to the potential threat to water quality posed by the eligible activities.

Revised Timber Waiver Category 1 covers only activities:

- conducted near structures, or areas zoned as residential, commercial, or industrial.
- involving removal of trees posing an imminent threat to life or property.
- conducted under a Forest Fire Prevention Exemption or Dead, Dying, Diseased Exemption issued by the California Department of Forestry and Fire Protection (CAL FIRE) pursuant to California Code of Regulations (CCR), title 14, section 1038, subdivisions (b) and (i) with no exceptions to condition nos. 6 and 9, prohibiting equipment operations within waterbody buffer zones except on existing roads.

Activities conducted under a Forest Fire Prevention Exemption are subject to:

- CCR, title 14, section 1038, subdivision (i)(6), which requires the Registered Professional Forester submitting the Notice of Exemption to CAL FIRE to "provide the selection criteria for the trees to be removed or the trees to be retained. In the development of these criteria, and the fuel reduction prescriptions, the RPF should consider retaining habitat elements, where feasible, including, but not limited to, ground level cover necessary for long-term management of local wildlife populations."
- CCR, title 14, section 1038, subdivision (i)(14), which requires CAL FIRE staff to conduct at least one inspection at the completion of operations.

Activities conducted under a Forest Fire Prevention Exemption or the Dead, Dying, Diseased Exemption are subject to:

- CCR, title 14, section 1038, subdivision (b)(3), which limits activities within key habitat areas of federal or state designated threatened, rare, or endangered species.

- CCR, title 14, section 1038, subdivision (b)(6), which prohibits heavy equipment operations near waterbodies (except for the maintenance of roads and drainage facilities or structures).
- CCR, title 14, section 1038, subdivision (b)(7), which prohibits the disturbance, threat, or damage or known sites of rare, threatened, or endangered plants or animals.
- CCR, title 14, section 1038, subdivision (b)(8), which prohibits activities within the buffer zone of sensitive species.

Category 1 contains additional conditions to ensure water quality and biological resources are protected, including conditions requiring the stabilization and minimization of areas disturbed by vegetation management activities, and conditions prohibiting crossing waterbodies (including dry ephemeral streams) with equipment. The criteria and conditions of Category 1 limit eligible activities such that their impacts will be less than significant.

Revised Timber Waiver Category 2 covers only those activities that are conducted by hand crews and low impact (ground pressure less than 10 pounds per square inch) equipment to assist hand crews in processing materials cut by hand crews such as chippers and brush mowers. Category 2 contains criteria and conditions to ensure that hand crew work does not impact water quality or biological resources, including conditions which prohibit activities that erode soil, destabilize streambanks, increase surface water temperatures, disturb non-target vegetation, or concentrate surface runoff. Additional conditions to mitigate impacts to biological resources stipulate that prescribed burning is not permitted within Waterbody Buffer Zones. Category 2 criteria specify that equipment may not be used on saturated soils, and must be limited to existing roads (except for low-ground-pressure chippers and brush mowers), and that no new landings may be constructed. These criteria and conditions ensure that hand crew work will result in less than significant impacts to water quality and biological resources, including habitat.

Revised Timber Waiver Category 3 applies only to those activities conducted for post-fire rehabilitation, and covers activities to minimize threats to life, property, water quality, and natural and cultural resources. These activities are in direct response to a wildfire and wildfire suppression activities. Activities associated with erosion control and natural resource rehabilitation will decrease impacts to water quality and biological resources. General conditions of the waiver require that activities are conducted in compliance with the Basin Plan (its water quality standards and waste discharge prohibitions) to ensure impacts to aquatic biological resources are less than significant.

Revised Timber Waiver Category 4 applies only to activities relying on existing roads with limited winter-period operations and limited operations within waterbody buffer zones. Category 4 contains criteria and monitoring requirements to ensure impacts to biological resources are less than significant.

Criteria and conditions prohibit: (1) road or water crossing construction or repair beyond the existing prism except for over-snow skid trail watercourse crossings; (2) use of equipment with ground pressure exceeding 13 pounds per square inch (psi) within Waterbody Buffer Zones except on existing roads or over snow; (3) equipment operation on saturated soils; and (4) mechanical site preparation. The criteria also contain limits for equipment use on steep slopes, slides, unstable areas, or erodible soils, and limits on skid trail and landing construction, to avoid potential impacts to biological resources due to sediment delivery from these areas. Conditions to protect biological resources include those prohibiting activities that prevent fish passage, erode soil, destabilize streambanks, increase surface water temperatures, disturb non-target vegetation, or concentrate surface runoff, as well as conditions to ensure that any prescribed fire results in less than significant impacts to biological resources. All activities conducted under Category 4 must comply with applicable plans, including environmental documents, timber harvest plans, and the Basin Plan.

Criteria and conditions to protect biological resources during winter operations include those prohibiting: (1) the diversion or obstruction of water flow due to over-snow water crossings; (2) exposure of soils, damage to road surfaces, concentrated flows of runoff or storm water. All waterbodies, stream crossings, and culverts must be clearly marked for equipment operators to ensure sensitive areas are protected.

These criteria and conditions ensure that activities conducted under Category 4 will result in less than significant impacts to water quality and biological resources, including habitat.

Monitoring requirements will verify the implementation and adequacy of these conditions and eligibility criteria to ensure that impacts to biological resources are less than significant.

Revised Timber Waiver Category 5 applies only to CAL FIRE-approved timber harvest plans (THPs, NTMP, PTHP, and amendments). CAL FIRE reviews and approves Plans in accordance with the Forest Practice Act of 1973 (FPA) and the California Environmental Quality Act of 1970 (CEQA). CAL FIRE's Plan review process (described below) substitutes for the EIR process under CEQA because the timber harvesting regulatory program has been certified pursuant to Public Resources Code Section 21080.5.

The timber harvest review team is composed of representatives of CAL FIRE, the California Department of Fish and Game (DFG), California Geological Survey (CGS) and the Water Board. Other agencies may participate in the review team, including the California Department of Parks and Recreation, Tahoe Regional Planning Agency, USDI National Park Service, and county planning departments. CAL FIRE chairs the review team and makes the final decisions on the logging procedures included in the Plans. As set forth in the FPRs, California Code of Regulations, title 14, section 1037.5 et seq, the function of the review team is "to assist the [CDF]

Director in determining if plans [Plans] are in conformance with [BOF] rules and to evaluate the potential environmental impacts of timber operations."

In reviewing individual Plans, CAL FIRE complies with the FPA, the FPRs, and CEQA through its certified functional equivalent program. Under the FPA, a Plan must be prepared and signed by a Registered Professional Forester (RPF) and submitted to CAL FIRE for review and approval for each timber harvest. CAL FIRE foresters examine each Plan and determine whether the plan may have a significant impact on the environment and whether it is in compliance with the FPA, CEQA, and other state and federal laws. Taken together, CEQA and the FPRs require that CAL FIRE not approve a plan as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen or avoid the significant environmental impacts of the plan, including those impacts to biological resources, pursuant to California Code of Regulations, title 14, section 896.

Water Board staff, as part of the review process, review individual plans for potential impacts to water quality and beneficial uses of waters of the State (including biological resources). Water Board staff prioritize plan review and inspection based on the proximity of proposed activities to waters of the State. When potential impacts are identified, Water Board staff makes recommendations to reduce those impacts to less than significant. For a plan to be eligible for coverage under the Timber Waiver Category 5, all such recommendations must be incorporated into the Plan or the Timber Waiver application.

Timber harvest and vegetation management activities that proceed under Category 5 must install and maintain all watercourse crossings to allow for unrestricted passage of fish during all life stages.

Revised Timber Waiver Category 6 applies to activities that do not meet one or more eligibility criteria or conditions of Categories 1 – 5.

Persons seeking coverage under Category 6 of the revised Timber Waiver must submit a complete Category 6 Application Form to Water Board staff. Within this form or in project plans or environmental documents, persons must disclose and discuss potential impacts and identify appropriate mitigation/protection measures for the following:

(1) the location of:
    a. proposed operations,
    b. all roads, landings, and crossings to be used during the activities,
    c. all waterbodies within the area, including wetlands, spring or wet areas,
    d. all steep slopes, slides, unstable areas, or erodible soils
(2) the purpose of the proposed activities and/or silvicultural prescription
(3) the type of yarding systems and equipment proposed for use
(4) any proposed landing or skid trail construction or reconstruction within Waterbody Buffer Zones
(5) if any of the existing roads proposed for use exhibit signs of erosion and delivery to a waterbody

(6) if there are any other signs of sediment erosion and delivery to waterbodies within or adjacent to the area of the proposed activity

Timber harvest and vegetation management activities that proceed under Category 6 must install and maintain all watercourse crossings to allow for unrestricted passage of fish during all life stages.

Upon receipt of the waiver application, Water Board staff has 30 days to review the proposal to determine application completeness. Application review will include an assessment (which may include an inspection of the area of the proposed activity) of the application to ensure all potential impacts are disclosed and that mitigation measures, design features or other measures are proposed to ensure impacts are avoided or mitigated to a level of less than significant. Water Board staff may request additional information including additional mitigation measures. The Waiver requires that approved plans, including all mitigation measures and design features be implemented. If impacts are not fully disclosed or mitigated to less than significant, Water Board staff will inform the applicant of ineligibility for coverage under the Timber Waiver, and will request a Report of Waste Discharge pursuant to Water Code section 13260. As stated in General Provision 3, the Water Board does not waive the filing of a report of waste discharge or waive waste discharge requirements for persons proposing or conducting timber harvest and vegetation management activities with impacts that are not mitigated to less than significant levels.

The proposed Timber Waiver does not alter or weaken requirements for project proponents to comply with existing regulations regarding any species identified as a candidate, sensitive, or special status species that currently apply under the 2007 Timber Waiver. Specifically, General Condition 8 states that the revised Timber Waiver "does not permit any illegal activity, and does not preclude the need for permits which may be required by other local or governmental agencies." Timber harvest activities are subject to environmental impact evaluation and mitigation by the established processes used in planning those activities by the State of California and the Federal government. The California Endangered Species Act also requires measures to minimize and fully mitigate the impacts on endangered species, as do other requirements of the California Department of Fish and Game (CDFG). For example, CDFG Code section 1603 generally prohibits persons from substantially diverting or obstructing the natural flow or substantially changing the bed, channel, or bank of any river, stream, or lake designated by CDFG, or from using any material from the streambeds, unless they have first notified CDFG of the activity. All rivers, streams, and lakes in California have been designated by CDFG, pursuant to California Code of Regulations, title 14, section 720. In addition, Section 1603 generally prohibits persons from commencing any activity affected by Section 1603 until CDFG has found that the activity will not substantially adversely affect an existing fish or wildlife resource, or until CDFG proposals, or the decisions of a panel of arbitrators assembled pursuant to procedures set forth in Section 1603, have been incorporated into the activity. CDFG enters into lake or streambed alteration agreements ("1603 Agreements") with those persons who notify CDFG of their proposed activities pursuant to Section 1603 in cases

where CDFG determines the activities may substantially adversely affect an existing fish or wildlife resource.

The Timber Waiver does not alter or weaken the requirements of Clean Water Act (CWA) section 404. Unless exempted, anyone, proposing to conduct activities which may result in a discharge to surface waters and require a federal permit (e.g., activities involving any discharge of dredged or fill material to waters of the United States, subject to U.S. Army Corps of Engineers permitting requirements under Clean Water Act section 404), must obtain from the Water Board a Clean Water Act section 401 Water Quality Certification.

A Clean Water Act section 401 Water Quality Certification is an order issued by the Water Quality Control Board determining that the proposed activity will not violate water quality standards and will protect the water for beneficial uses. At a minimum, any loss of wetlands must be replaced by a wetland of at least equal function, value and area. General Condition8 of the proposed Timber Waiver stipulates that any activity authorized to proceed under the Timber Waiver must obtain such certification from the Water Board if required. These requirements ensure that impacts to wetlands will remain at less than significant levels if an activity is subject to regulation under a Clean Water Act section 404 permit.

For activities on federal lands, the USFS Pacific Southwest Region (USFS-PSR) has been designated as a Water Quality Management Agency (WQMA) by the State Water Board for Forest System lands in California. This designation, pursuant to Section 208 of the Clean Water Act, was executed through a formal Management Agency Agreement (MAA) between the State Water Board and the USFS-PSR in 1981. To meet its obligations as a WQMA, the USFS has developed a BMP guidance document to describe each BMP used for water quality management and watershed protection on National Forest System lands in California.

This guidance document, *Water Quality Management for Forest System Lands in California* (USFS-PSR, 2000) represents a portion of the State of California's Nonpoint Source Management Plan, and complies with the provisions and requirements of Sections 208 and 319 of the CWA. The goals of the BMP guidance document are to establish a uniform process of BMP implementation that will meet Federal and State water quality laws and will incorporate water quality protection and improvement into site-specific project plans. Twenty-five different BMPs are described for Timber Management, including BMPs to avoid, reduce or mitigate impacts to soils, vegetation, biological and hydrological resources. Examples of specific BMPs to avoid or minimize impacts to biological resources include, but are not limited to: designating Streamside Management Zones (Practice 1-8); Meadow Protection during Timber Harvest (Practice 1-18); and Streamcourse and Aquatic Protection (Practice 1-19). The USFS uses an Interdisciplinary Team approach to select those BMPs necessary to protect or improve water quality and biological resources for specific sites, and incorporates them into the environmental document for the project.

Therefore, any impacts to biological resources in the project area are mitigated by the criteria and conditions contained in the Timber Waiver, and by existing laws and regulations regarding protection of biological resources (equivalent to those that currently exist under the 2007 Timber Waiver). The appropriate finding is **less than significant with mitigation incorporation.**

e-f) The proposed Timber Waiver does not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. As stated in General Condition 8, the revised Timber Waiver does not preclude the need for permits which may be required by other local or governmental agencies, nor does it allow any illegal activity. The requirements of any habitat conservation plan are not superseded by the Timber Waiver. Therefore, the appropriate finding is **no impact.**

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporation**	**Less Than Significant Impact**	**No Impact**
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X

a-d) The proposed Timber Waiver will not alter the need to comply with CEQA, NEPA, and other State and federal laws that require analysis, disclosure, and mitigation of potential impacts to cultural resources to less than significant levels.

The adoption and implementation of this project does not change the regulatory requirements, statutory authorities, or enforcement abilities of any other agency which may have jurisdiction over cultural resources related to vegetation management. Therefore, any impacts to the cultural resources of the project area will not be changed over existing conditions by the adoption and implementation of the proposed Timber Waiver, and the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

a i-iii) The Timber Waiver does not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known

earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction. Because the project does not involve these factors, the appropriate finding is **no impact**.

a iv) The Timber Waiver does not change the exposure of people or structures to potential substantial adverse effects involving landslides due to timber harvest and vegetation management activities over current conditions. The proposed Timber Waiver contains criteria and conditions related to activities on steep slopes, slides, and unstable areas similar to those specified in the 2007 Timber Waiver. Because no change in the risk of landslide due to timber harvest and vegetation management activities is foreseeable, the appropriate finding is **no impact**.

b-c) The proposed Timber Waiver contains both general conditions and category-specific conditions and criteria to ensure that activities that proceed under the waiver will have less than significant impacts to soil and geological resources, including mitigation measures to prevent substantial soil erosion, loss of topsoil or risks due to unstable soils.

General Conditions 1, 2, 3 and 6 require compliance with the Basin Plan, and prohibit the creation of a pollution, contamination, or nuisance, as defined by the California Water Code section 13050. Compliance with the Basin Plan means that water quality objectives and waste discharge prohibitions must not be violated by activities that proceed under the revised Timber Waiver. Region-wide waste discharge prohibitions relevant to soil erosion include those that prohibit discharges of waste (including but not limited to waste earthen material such as soil, silt, sand, clay, rock, or other organic material) which violate any numeric or narrative water quality objective, including the Nondegradation Objective. Region-wide water quality objectives (either narrative or numeric) establish standards for constituents that may result from erosion due to timber harvest and vegetation management activities such as sediment, settleable and suspended materials, nondegradation of aquatic communities and populations, and pesticides. Because the proposed Timber Waiver prohibits violations of these objectives, any impacts from soil erosion due to activities that proceed under the waiver will be less than significant.

The categorical treatment of timber harvest activities further ensures that impacts from soil erosion will be less than significant. Activities eligible for the proposed categories vary in scope from those conducted around existing structures to comply with defensible space mandates (Category 1, very low or no threat to water quality, including degradation due to soil erosion), to commercial timber harvest activities on sensitive lands (Category 5, potentially significant threat to water quality, including degradation due to soil erosion). Category-specific criteria and conditions, including mitigation and monitoring requirements, are scaled to the potential threat to water quality posed by the eligible activities.

Revised Timber Waiver Category 1 covers only activities:

- conducted near structures, or areas zoned as residential, commercial, or industrial
- removal of trees posing an imminent threat to life or property
- conducted under a Forest Fire Prevention Exemption or Dead, Dying, Diseased Exemption issued by the California Department of Forestry and Fire Protection (CAL FIRE) pursuant to California Code of Regulations (CCR), title 14, section 1038, subdivisions (b) and (i) with no exceptions to condition nos. 6 and 9, prohibiting equipment operations within waterbody buffer zones except on existing roads.

Activities conducted under a Forest Fire Prevention Exemption or the Dead, Dying, Diseased Exemption are subject (but not limited) to:

- CCR, title 14, section 1038, subdivision (b)(1), which prohibits tractor or heavy equipment operations on slopes greater than 50%.
- CCR, title 14, section 1038, subdivision (b)(2), which prohibits the construction of new skid trails on slopes greater than 40%.
- CCR, title 14, section 1038, subdivision (b)(4), which prohibits tractor or heavy equipment operations on known slides or unstable areas.

Category 1 contains additional conditions to ensure soils resources and unstable areas are protected, including conditions requiring the stabilization and minimization of areas disturbed by timber harvest and vegetation management activities. The criteria and conditions of Category 1 limit eligible activities such that their impacts will be less than significant.

Revised Timber Waiver Category 2 covers only those activities that are conducted by hand crews and low impact (ground pressure less than 10 pounds per square inch) equipment to assist hand crews in processing materials cut by hand crews such as chippers and brush mowers. Category 2 contains criteria and conditions to ensure that hand crew work does not impact soil resources, including conditions prohibiting activities that would erode soil, destabilize streambanks, disturb non-target vegetation, or concentrate surface runoff. Additional conditions related to prescribed fire are included to protect soil resources. These conditions specify that prescribed fire may occur under conditions limiting the impact based on area impacted by fire, size of piles, and proximity to watercourses. Criteria and conditions to avoid impacts to soils (such as compaction) specify that equipment may not be used on saturated soils, and must be limited to existing roads (except for low-ground-pressure chippers and mowers on dry soils), and that no new landings may be constructed. If chippers are used off-road, they must be low impact (ground pressure of less than 10 pounds per square inch) equipment to protect soil resources. These criteria and conditions ensure that hand crew work will be self-limiting and will result in less than significant impacts to soil resources, including from erosion, instability, or loss of topsoil (Lake Valley Fire District, 2008).

Revised Timber Waiver Category 3 applies only to those activities conducted for post-fire rehabilitation, and covers activities to minimize threats to life, property, water

quality, and natural and cultural resources. These activities are in direct response to a wildfire and wildfire suppression activities. Activities associated with erosion control and natural resource rehabilitation will decrease impacts to soil resources and unstable areas, resulting in less than significant impacts.

Revised Timber Waiver Category 4 applies only to activities that use existing roads, restrictions on off road equipment operations and limited winter-period operations. Category 4 contains criteria to ensure impacts to soil resources are less than significant, including those prohibiting: (1) road or water crossing construction or repair beyond the existing road prism except for over-snow watercourse crossings; (2) equipment operation on saturated soils; and (3) mechanical site preparation. Use of low ground pressure equipment (less than 13 pounds per square inch) is only allowed within Waterbody Buffer Zones on dry soils, hard frozen ground or over snow to ensure impacts are less than significant to soils and water resources (USFS-LTBMU 2008a, 2008b;USFS Tahoe NF, 2009). The criteria also contain the following restrictions to limit impacts to soil resources:

- No timber harvest or vegetation management activities on slopes greater than 60%.
- No tractor, vehicle, or equipment operations on slopes greater than 50%.
- No construction of new skid trails on slopes greater than 40%.
- No construction of landings on slopes greater than 20%.
- No tractor, vehicle, or equipment operations on known slides or unstable areas.
- No tractor, vehicle, or equipment operations on soils with high or extreme erosion hazard rating.

Conditions to protect soil resources during winter operations include those prohibiting: (1) the diversion or obstruction of water flow due to over-snow water crossings; (2) soil compaction, erosion, destabilization of streambanks, temperature increases, disturbance to non-target riparian vegetation, or creation of concentrated surface runoff; (3) exposure of soils, damage to road surfaces, concentrated flows of runoff or storm water. All waterbodies, stream crossings, and culverts must be clearly marked for equipment operators to ensure these sensitive areas are avoided.

Category-specific conditions to protect soils resources include those prohibiting activities which would erode soil , destabilize streambanks, increase surface water temperatures, disturb non-target riparian vegetation, or concentrate surface runoff, as well as conditions to ensure that any prescribed burning results in less than significant impacts to soils resources. All activities conducted under Category 4 must comply with applicable plans, including environmental documents, timber harvest plans, and the Basin Plan. For activities on federal lands, please refer to the Category 6 discussion in this section regarding the USFS's role as a Water Quality Management Agency. These criteria and conditions ensure that activities conducted under Category 4 will result in less than significant impacts to soil resources.

Monitoring requirements will verify the implementation and adequacy of these conditions and eligibility criteria to ensure that impacts to soils resources are less than significant.

Revised Timber Waiver Category 5 applies only to CAL FIRE-approved timber harvest plans (THPs, NTMP, PTHP, and amendments). CAL FIRE reviews and approves Plans in accordance with the Forest Practice Act of 1973 (FPA) and the California Environmental Quality Act of 1970 (CEQA). CAL FIRE's Plan review process (described below) substitutes for the EIR process under CEQA because the timber harvesting regulatory program has been certified pursuant to PRC Section 21080.5.

The timber harvest review team is composed of representatives of CAL FIRE, the California Department of Fish and Game (DFG), California Geological Survey (CGS) and the Water Board. Other agencies may participate in the review team, including the California Department of Parks and Recreation, Tahoe Regional Planning Agency, USDI National Park Service, and county planning departments. CAL FIRE chairs the review team and makes the final decisions on the logging procedures included in the Plans. As set forth in the FPRs (CCR, title 14, section 1037.5), the function of the review team is "to assist the [CDF] Director in determining if plans [Plans] are in conformance with [BOF] rules and to evaluate the potential environmental impacts of timber operations."

In reviewing individual Plans, CAL FIRE complies with the FPA, the FPRs, and CEQA through its certified functional equivalent program. Under the FPA, a Plan must be prepared and signed by a Registered Professional Forester (RPF) and submitted to CAL FIRE for review and approval for each timber harvest. CAL FIRE foresters examine each Plan and determine whether the plan may have a significant impact on the environment and whether it is in compliance with the FPA, CEQA, and other state and federal laws. Taken together, CEQA and the FPRs require that CAL FIRE not approve a plan as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen or avoid the significant environmental impacts of the plan, including those impacts to soil and geological resources, pursuant to CCR, title 14, section 896.

Water Board staff, as part of the review process, review individual plans for potential impacts to water quality that may result from soil erosion or destabilization. When potential impacts are identified, Water Board staff makes recommendations to reduce those impacts to less than significant. For a plan to be eligible for coverage under the revised Timber Waiver all such recommendations must be incorporated into the Plan or the Timber Waiver application.

Revised Timber Waiver Category 6 applies to timber harvest and vegetation management activities that do not meet one or more eligibility criteria or conditions of Categories 1 – 5.

Persons seeking coverage under Category 6 of the revised Timber Waiver must submit a complete Category 6 Application Form to Water Board staff. Within this

form or in project plans or environmental documents, persons must disclose and discuss potential impacts and identify appropriate mitigation measures for the following:

(1) the location of:
   a. proposed operations,
   b. all roads, landings, and crossings to be used during the proposed activities,
   c. all waterbodies within the area,
   d. all steep slopes, slides, unstable areas, or erodible soils

(2) the purpose of the proposed activities and/or silvicultural prescription

(3) the type of yarding systems and equipment proposed for use

(4) any proposed landing or skid trail construction or reconstruction on slopes over 40%, or within Waterbody Buffer Zones,

(5) if any of the existing roads proposed for use exhibit signs of erosion and delivery to a waterbody

(6) if there are any other signs of sediment erosion and delivery to waterbodies within or adjacent to the area of the proposed activity

Attachment N of the proposed Timber Waiver identifies activities which may proceed under the Basin Plan and do not violate Basin Plan prohibitions for Lake Tahoe, Truckee River or Little Truckee River HUs. Cut-to-length equipment (with less than 13 psi ground pressure) operated on dry soils over slash mats have less than significant impacts on soil resources (USFS-LTBMU, 2008a, 2008b; Han, 2006). For equipment operations (other than 13 psi cut-to-length equipment on dry granitic soils) within 100 year floodplains of the Truckee River, Little Truckee River or Lake Tahoe HUs, or Lake Tahoe HU SEZs, the Water Board Executive Officer will consider granting Basin Plan prohibition exemptions where Basin Plan criteria can be met to either mitigate impacts to less than significant or prevent impacts from occurring by setting project thresholds or triggers to discontinue operations if impacts do not remain at less than significant levels. Poff (2006) recognizes short term impacts including soil compaction from equipment use in SEZs and recommends a number of mitigation measures to avoid the impacts. Each activity is unique and will employ different equipment and techniques. As part of considering a prohibition exemption, the Water Board Executive Officer will evaluate individual project proposals on ability to limit these impacts to a level of less than significant.

Applicants proposing prescribed fire within Waterbody Buffer Zones are required to protect soil resources and water quality by preventing erosion and transport of material to waterbodies. Specific conditions of Category 6 pertaining to the prevention of erosion and transport include the requirement that effective waterbreaks must be constructed along firebreaks, pile size be limited, areas to be burned be limited, and incorporation of other design features that consider slope, proximity to waterbodies, and remaining vegetative cover.

Applicants proposing to place or burn slash piles within Waterbody Buffer Zones must submit the following information regarding areas proposed for burn pile placement:

(1) soil types
(2) vegetative cover
(3) minimum distances from waterbodies
(4) topography
(5) percent of area to be burned within the Waterbody Buffer Zone
(6) explanation why burning piles within the Waterbody Buffer Zone is proposed
(7) mitigation measures or project features to be implemented to ensure no significant environmental effects will occur (Attachment Q provide example design features to be incorporated into specific burn plans)

Upon receipt of the waiver application, Water Board staff has 30 days to review the proposal to determine application completeness. Application review will include an assessment (which may include an inspection of the area of the proposed activity) of the application to ensure all potential impacts are disclosed and that measures are included to avoid or mitigate potential impacts to less than significant, such as use of mulch or chips, tilling, buffer zones. Water Board staff may request additional information including additional mitigation measures. If impacts are not fully disclosed or mitigated to less than significant, Water Board staff will inform the applicant of ineligibility for coverage under the Timber Waiver, and will request a Report of Waste Discharge pursuant to Water Code section 13260. As stated in General Provision 3, the Water Board does not waive the filing of a report of waste discharge or waive waste discharge requirements for persons proposing or conducting timber harvest and vegetation management activities with impacts that are not mitigated to less than significant levels.

The revised Timber Waiver does not alter or weaken the requirement for project proponents to comply with existing regulations regarding soils resources. Specifically, General Condition 6 states that the revised Timber Waiver "does not permit any illegal activity, and does not preclude the need for permits which may be required by other local or governmental agencies."

The adoption and implementation of this project does not change the regulatory requirements, statutory authorities, or enforcement abilities of any other agency which may have jurisdiction over soils resources related to vegetation management (e.g., requirements for erosion control or grading ordinances by state, local or federal agencies, or county air districts).

For activities on federal lands, the USFS Pacific Southwest Region (USFS-PSR) has been designated as a Water Quality Management Agency (WQMA) by the State Water Board for Forest System lands in California. This designation, pursuant to Section 208 of the Clean Water Act, was executed through a formal Management Agency Agreement (MAA) between the State Water Board and the USFS-PSR in 1981. To meet its obligations as a WQMA, the USFS has developed a BMP guidance document

to describe each BMP used for water quality management and watershed protection on National Forest System lands in California.

This guidance document, *Water Quality Management for Forest System Lands in California* (USFS-PSR, 2000) represents a portion of the State of California's Nonpoint Source Management Plan, and complies with the provisions and requirements of Sections 208 and 319 of the CWA. The goals of the BMP guidance document are to establish a uniform process of BMP implementation that will meet Federal and State water quality laws and will incorporate water quality protection and improvement into site-specific project plans. Twenty-five different BMPs are described for Timber Management, including BMPs to avoid, reduce or mitigate impacts to soils, vegetation, biological and hydrological resources. Examples of specific BMPs to avoid or minimize impacts to soils resources include, but are not limited to: Determination of Surface Erosion Hazard (Practice 1-3); Protection of Unstable Lands (Practice 1-6); Determining Tractor Loggable Ground and Tractor Skidding Design (Practices 1-9 and 1-10); and Erosion Prevention and Control Measures during Timber Sale Operations (Practice 1-13). The USFS uses an Interdisciplinary Team (IDT) approach to select those BMPs necessary to protect or improve water quality and soils resources for specific sites, and incorporates them into the environmental document for the project.

Therefore, any impacts to geology and soils in the project area are mitigated by the criteria and conditions contained in the revised Timber Waiver, and by regulations and policies governing soil erosion that currently exist under the 2007 Timber Waiver. The appropriate finding is **less than significant with mitigation incorporation.**

d) The proposed project does not involve activities such as building construction that are subject to the Uniform Building Code. Because the project does not involve this element, the appropriate finding is **no impact**.

e) The proposed project does not involve septic tanks or alternative wastewater disposal systems. Because the project does not involve these elements, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

a-b) Activities under the Timber Waiver can involve the transport and use of materials that would qualify as hazardous pursuant to the Health and Safety Code section 25501 subdivision (o). These materials include gasoline and diesel to fuel equipment,

hydraulic fluid associated with equipment operations and machinery, and silvicultural herbicides.

The proposed Timber Waiver will not alter or weaken the need to comply with existing regulations regarding hazardous. The proposed Timber Waiver contains General Condition 7 which requires that all equipment used "be monitored for leaks, and removed from service if necessary to protect water quality." General Condition 7 also requires an emergency spill kit be kept on site at all times of equipment use.

Silvicultural herbicides permitted under this revised Timber Waiver include the dry application of borax and sporax directly to tree stumps. The amounts needed to treat tree stumps are nominal, have limited mobility in the environment, and will not cause a significant hazard to the public or the environment.

As required under the 2007 Timber Waiver other applications of herbicides will not be permitted under the proposed Timber Waiver unless the type(s) of herbicide, method and area of application, and measures to assure compliance with the Basin Plan water quality objective (requires non-detectable levels in surface waters) are submitted to Water Board staff at least 30 days prior to the proposed date of application.

The proposed Timber Waiver does not alter or weaken the need to comply with existing regulations regarding hazardous materials. Additionally, General Condition 6 states that activities covered under the waiver "must not create a pollution, contamination, or nuisance, as defined by Water Code section 13050, subdivisions (k), (l), and (m)."Therefore, the appropriate finding is **no impact**.

c) The proposed project would not result in the emission or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, the appropriate finding is **no impact**.

d) The proposed project does not alter or weaken any requirements to identify risks due to hazardous materials sites pursuant to Government Code Section 65962.5. Therefore, the appropriate finding is **no impact**.

e-f) The proposed project would not result in a change over current conditions related to activities near an airport or airstrip that would result in a safety hazard. Therefore, the appropriate finding is **no impact**.

g) The proposed project would not interfere with an emergency evacuation or response plan; therefore, the appropriate finding is **no impact**.

h) The intent of the proposed Timber Waiver is to facilitate fuels reduction activities, and these activities should result in a decreased risk of exposure to wildland fires. The appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?		X		
j) Inundation by seiche, tsunami, or mudflow?		X		

a, c, d, e, f, i, j) The proposed Timber Waiver contains both general conditions and category-specific conditions and criteria to ensure activities that proceed under the waiver will have less than significant impacts to hydrology and water quality, including to drainage patterns, excessive and/or polluted runoff, on- or off-site erosion or flooding. The Timber Waiver also prohibits the violation of any Basin Plan water quality standards.

General Conditions 1, 2 and 6 require compliance with the Basin Plan, and prohibit the creation of a pollution, contamination, or nuisance, as defined by the California Water Code section 13050. Compliance with Basin Plan means that water quality objectives and waste discharge prohibitions must not be violated by activities that proceed under the Timber Waiver. Region-wide waste discharge prohibitions to protect water quality include those that prohibit discharges of waste (including, but not limited to, waste earthen material such as soil, silt, sand, clay, rock, or other organic material) which violate any numeric or narrative water quality objective, including the Nondegradation Objective. Region-wide water quality objectives (either narrative or numeric) establish standards for constituents that may result from timber harvest and vegetation management activities such as sediment, settleable and suspended materials, nondegradation of aquatic communities and populations, and pesticides.

The categorical treatment of timber harvest activities further ensures that water quality and hydrology will not be significantly impacted. Activities eligible for the proposed categories vary in scope from those conducted around existing structures to comply with defensible space mandates (Category 1, very low or no threat to water quality), to commercial timber harvest activities on sensitive lands (Category 5, potentially significant threat to water quality requiring mitigation and monitoring). Category-specific criteria and conditions, including mitigation and monitoring, are scaled to the potential threat to water quality posed by the eligible activities.

Revised Timber Waiver Category 1 covers only activities:

- conducted near structures, or areas zoned as residential, commercial, or industrial
- removal of trees posing an imminent threat to life or property
- conducted under a Forest Fire Prevention Exemption or Dead, Dying, Diseased Exemption issued by the California Department of Forestry and Fire Protection (CAL FIRE) pursuant to California Code of Regulations (CCR), title 14, section 1038, subdivisions (b) and (i) with no exceptions to condition nos. 6 and 9, prohibiting equipment operations within waterbody buffer zones except on existing roads.

Activities conducted under a Forest Fire Prevention or Dead, Dying, Diseased Exemptions are subject to:

- CCR, title 14, section 1038, subdivision (b)(5), which prohibits new road construction or reconstruction.
- CCR, title 14, section 1038, subdivision (b)(6), which prohibits heavy equipment operations near waterbodies, except for the maintenance of roads and drainage facilities or structures.
- CCR, title 14, section 1038, subdivision (b)(9), which prohibits timber harvesting near waterbodies (except for limited sanitation-salvage harvesting), and requires that all trees to be harvested near waterbodies be marked by, or under the supervision of, a Registered Professional Forester prior to operations.

Category 1 contains additional conditions to ensure water quality is protected, including a condition that prohibits crossing waterbodies (including ephemeral streams) with equipment. To prevent the delivery of sediment to waters of the State, other conditions of Category 1 require the stabilization and minimization of areas disturbed by timber harvest and vegetation management activities. The criteria and conditions of Category 1 limit eligible activities such that their impacts will be less than significant.

Revised Timber Waiver Category 2 covers only those activities that are conducted by hand crews and low-ground-pressure chippers and brush mowers. Category 2 contains criteria and conditions to ensure that hand crew work does not impact water quality and hydrology, including conditions prohibiting activities that would erode soil, destabilize streambanks, increase surface water temperatures, disturb non-target riparian vegetation, or concentrate surface runoff. Any trees planned for removal within a Waterbody Buffer Zone must be marked or supervised by a Registered Professional Forester or federal forestry professional or be described in a written prescription. Additional conditions related to prescribed fire are included to protect water quality. These conditions limit prescribed fire within Waterbody Buffer Zones (e.g. pile size, proximity to watercourses, areal extent of piles). No pile burning within Lake Tahoe HU SEZs or within 100 year floodplains of the Truckee River or Little Truckee River HUs is allowed under this category (USFS-LTBMU 2008c).

Criteria to avoid impacts to water quality specify that equipment may not be used on saturated soils, and must be limited to existing roads (except for low-ground-pressure chippers and mowers), and that no new landings may be constructed. If chippers are used off-road, they must be "low-ground-pressure" equipment, with less than 10 pounds per square inch of ground pressure to protect soil resources, and any impacts to water quality due to soil compaction and excessive erosion (Lake Valley Fire Protection District, 2006). These criteria and conditions ensure that hand crew work will result in less than significant impacts to water quality and hydrology.

Revised Timber Waiver Category 3 applies only to those activities conducted for post-fire rehabilitation, and covers activities to minimize threats to life, property, water quality, and natural and cultural resources. These activities are in direct response to a wildfire and wildfire suppression activities. Activities associated with erosion control and natural resource rehabilitation will decrease impacts to water quality and hydrology, resulting in less than significant impacts. General conditions of the waiver require that activities are conducted in compliance with the Basin Plan (its water quality standards and waste discharge prohibitions) to ensure impacts to water quality are less than significant.

Revised Timber Waiver Category 4 applies only to activities that are limited to existing roads, limited operations within waterbody buffer zones and limited winter-period operations.

Category 4 contains criteria to ensure impacts to water quality and hydrology are less than significant, including those prohibiting: (1) road or water crossing construction or repair beyond the existing road prism except for over-snow watercourse crossings, (2) equipment operation on saturated soils, and (3) mechanical site preparation. Use of low ground pressure equipment (less than 13 pounds per square inch) is only allowed within Waterbody Buffer Zones on dry soils, hard frozen ground, or over snow to ensure impacts are less than significant to soils and water resources. In Lake Tahoe SEZs and 100 year floodplains in Truckee River or Little Truckee River HUs, only cut-to-length equipment on slash mats on dry granitic soils can be used under this category (USFS-LTBMU, 2008a, 2008b). Since the USFS Heavenly Valley Creek SEZ Demonstration Project found that less than significant impacts occurred to soils in the project (granitic soils, and one type of equipment tested), similar projects may proceed under Category 4 with implementation monitoring and verification of dry soil conditions. For other types of equipment or soil types, additional monitoring is needed and the Executive Officer will consider a Basin Plan prohibition exemption to allow other activities to occur in Truckee/Tahoe floodplains and Tahoe SEZs (See Category 6 discussion). Category 4 eligibility criteria also contain the following restrictions to reduce erosion and sediment transport to water bodies:

- No timber harvest or vegetation management activities on slopes greater than 60%.
- No tractor, vehicle, or equipment operations on slopes greater than 50%.

- No construction of new skid trails on slopes greater than 40%.
- No construction of landings on slopes greater than 20%.
- No tractor, vehicle, or equipment operations on known slides or unstable areas.
- No tractor, vehicle, or equipment operations on soils with high or extreme erosion hazard rating.

Conditions to protect water quality during winter operations include those prohibiting: (1) the diversion or obstruction of water flow due to over-snow water crossings; (2) exposure of soils, damage to road surfaces, concentrated flows of runoff or storm water. All waterbodies, stream crossings, and culverts must be clearly marked for equipment operators to ensure these sensitive areas are avoided.

Monitoring requirements will verify the implementation and adequacy of these conditions and eligibility criteria to ensure that impacts to water quality and hydrology are less than significant.

Category-specific conditions to protect water quality include those prohibiting activities which erode soil, destabilize streambanks, increase surface water temperatures, disturb non-target riparian vegetation, or concentrate surface runoff, as well as conditions to ensure that any prescribed burning results in less than significant impacts to soils resources. All activities conducted under Category 4 must comply with applicable plans, including environmental documents, timber harvest plans, and the Basin Plan. For activities on federal lands, please refer to the Category 6 discussion in this section regarding the USFS's role as a Water Quality Management Agency. Taken together, these criteria and conditions ensure that activities conducted under Category 4 will result in less than significant impacts to water quality and hydrology.

Revised Timber Waiver Category 5 applies only to CAL FIRE-approved timber harvest plans (THPs, NTMP, PTHP, and amendments). CAL FIRE reviews and approves Plans in accordance with the Forest Practice Act of 1973 (FPA) and the California Environmental Quality Act of 1970 (CEQA). CAL FIRE's Plan review process (described below) substitutes for the EIR process under CEQA because the timber harvesting regulatory program has been certified pursuant to PRC Section 21080.5.

The timber harvest review team is composed of representatives of CAL FIRE, the California Department of Fish and Game (DFG), California Geological Survey (CGS) and the Water Board. Other agencies may participate in the review team, including the California Department of Parks and Recreation, Tahoe Regional Planning Agency, USDI National Park Service, and county planning departments. CAL FIRE chairs the review team and makes the final decisions on the logging procedures included in the Plans. As set forth in the FPRs (CCR title 14, section 1037.5), the function of the review team is "to assist the [CDF] Director in determining if plans [Plans] are in conformance with [BOF] rules and to evaluate the potential environmental impacts of timber operations."

In reviewing individual Plans, CAL FIRE complies with the FPA, the FPRs, and CEQA through its certified functional equivalent program. Under the FPA, a Plan must be prepared and signed by a Registered Professional Forester (RPF) and submitted to CAL FIRE for review and approval for each timber harvest. CAL FIRE foresters examine each Plan and determine whether the plan may have a significant impact on the environment and whether it is in compliance with the FPA, CEQA, and other state and federal laws. Taken together, CEQA and the FPRs require that CAL FIRE not approve a plan as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen or avoid the significant environmental impacts of the plan, including those impacts to water quality and hydrology, pursuant to California Code of Regulations, title 14, section 896.

Water Board staff, as part of the review process, review individual plans for potential impacts to water quality and hydrology. When potential impacts are identified, Water Board staff makes recommendations to reduce those impacts to less than significant. For a plan to be eligible for coverage under the revised Timber Waiver all such recommendations must be incorporated into the Plan or the Timber Waiver application.

Revised Timber Waiver Category 6 applies to timber harvest and vegetation management activities that do not meet one or more eligibility criteria or conditions of Categories 1 – 5.

Persons seeking coverage under Category 6 of the revised Timber Waiver must submit a complete Category 6 Application Form to Water Board staff. Within this form persons must disclose and discuss potential impacts and appropriate mitigation/protection measures for the following:

(1) the location of:
   a. proposed operations,
   b. all roads, landings, and crossings to be used during the proposed activities,
   c. all waterbodies within the area,
   d. all marshes, meadows, spring, and other wet areas within the area, and
   e. all steep slopes, slides, unstable areas, or erodible soils
(2) the purpose of the proposed activities and/or silvicultural prescription
(3) the type of yarding systems and equipment proposed for use
(4) any proposed landing or skid trail construction or reconstruction within Waterbody Buffer Zones
(5) if any of the existing roads proposed for use exhibit signs of erosion and delivery to a waterbody
(6) if there are any other signs of sediment erosion and delivery to waterbodies within or adjacent to the area of the proposed activity

Attachment N of the proposed Timber Waiver identifies activities which may proceed under the Basin Plan and do not violate Basin Plan prohibitions for Lake Tahoe, Truckee River or Little Truckee River HUs. Cut-to-length equipment (with less than 13

psi ground pressure) operated on dry soils over slash mats have less than significant impacts on soil resources (USFS-LTBMU, 2008a, 2008b; Han, 2006). For equipment operations (other than 13 psi cut-to-length equipment on dry granitic soils) within 100 year floodplains of the Truckee River, Little Truckee River or Lake Tahoe HUs, or Lake Tahoe HU SEZs, the Water Board Executive Officer will consider granting Basin Plan prohibition exemptions where Basin Plan criteria can be met to either mitigate impacts to less than significant or prevent impacts from occurring by setting project thresholds or triggers to discontinue operations if impacts do not remain at less than significant levels. Poff (2006) recommends pilot studies, monitoring and evaluation until impacts are better understood from equipment operations within SEZs and Waterbody Buffer Zones.

Applicants proposing to prescribe burn within Waterbody Buffer Zones are required to (1) construct effective waterbreaks along firebreaks, and (2) leave the area in a condition such that ash, soils, and/or debris will not discharge to a waterbody. These conditions and additional restrictions will prevent significant impact to water quality and the drainage patterns of areas disturbed by the burning activities. In the Tahoe and Truckee HUs, the Water Board Executive Officer will consider granting exemptions to Basin Plan prohibitions against discharge of waste and/or permanent disturbance (See Attachment N).

Applicants proposing to place or burn slash piles within Waterbody Buffer Zones must submit the following information regarding areas proposed for burn pile placement:

(1) soil types
(2) vegetative cover
(3) minimum distances from waterbodies
(4) topography
(5) percent of area to be burned within the Waterbody Buffer Zone
(6) explanation why burning piles within the Waterbody Buffer Zone is proposed
(7) mitigation measures or project features to be implemented to ensure no significant environmental effects will occur (Attachment Q provide example design features to be incorporated into specific burn plans)

Upon receipt of the waiver application, Water Board staff has 30 days to review the proposal to determine application completeness. Application review will include an assessment (which may include an inspection of the area of the proposed activity) of the application to ensure all potential impacts are disclosed and that measures are included to avoid or mitigate potential impacts to less than significant, such as use of mulch or chips, tilling, buffer zones. Water Board staff may request additional information including additional mitigation measures. If impacts are not fully disclosed and mitigated to less than significant levels, Water Board staff will inform the applicant of ineligibility for coverage under the Timber Waiver, and will request a Report of Waste Discharge pursuant to Water Code section 13260. As stated in General Provision 3, the Water Board does not waive the filing of report of waste discharge or waive waste discharge requirements for persons proposing or conducting timber harvest and vegetation management activities with impacts that are not mitigated to less than significant levels.

The Timber Waiver does not alter or weaken the requirement for project proponents to comply with existing regulations regarding water quality that currently apply under the 2007 Timber Waiver. Specifically, General Condition 8 states that the revised Timber Waiver "does not permit any illegal activity, and does not preclude the need for permits which may be required by other local or governmental agencies."

For activities on federal lands, the USFS Pacific Southwest Region (USFS-PSR) has been designated as a Water Quality Management Agency (WQMA) by the State Water Board for Forest System lands in California. This designation, pursuant to Section 208 of the Clean Water Act, was executed through a formal Management Agency Agreement (MAA) between the State Water Board and the USFS-PSR in 1981. To meet its obligations as a WQMA, the USFS has developed a BMP guidance document to describe each BMP used for water quality management and watershed protection on National Forest System lands in California.

This guidance document, *Water Quality Management for Forest System Lands in California* (USFS-PSR, 2000) represents a portion of the State of California's Nonpoint Source Management Plan, and complies with the provisions and requirements of Sections 208 and 319 of the CWA. The goals of the BMP guidance document are to establish a uniform process of BMP implementation that will meet Federal and State water quality laws and will incorporate water quality protection and improvement into site-specific project plans. Twenty-five different BMPs are described for Timber Management, including BMPs to avoid, reduce or mitigate impacts to hydrological resources and water quality. The USFS uses an Interdisciplinary Team approach to select those BMPs necessary to protect or improve water quality for specific sites, and incorporates them into the environmental document for the project.

Conditions that apply to all revised Timber Waiver categories prohibit adverse impacts to water quality resulting from discharges associated with timber harvest activities. The Timber Waiver will only apply to timber harvest activities that meet all applicable eligibility criteria and that follow the waiver conditions. The Water Board or its Executive Officer may terminate eligibility for coverage under the Timber Waiver at any time for a particular activity if the eligibility criteria are not met or the conditions not followed. The Water Board or its Executive Officer may also take enforcement actions in accordance with the California Water Code to ensure actions are taken to prevent or correct water quality impacts. Therefore, the appropriate finding is **less than significant with mitigation incorporation.**

b) The Timber Waiver does not involve activities that could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The appropriate finding is **less than significant impact.**

g, h) The Timber Waiver does not involve placing housing or structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Because the project does not involve this element, the appropriate finding is **no impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

a-b) The proposed Timber Waiver does not divide an established community or involve land use planning or policy. Because the project does not involve these elements, the appropriate finding is **no impact**.

c) The proposed Timber Waiver does not change the regulatory requirements, statutory authorities, or enforcement abilities of the Water Board, nor the does it alter or weaken the requirements of any applicable conservation plan that may apply to vegetation management activities. Therefore, existing conditions related to habitat or natural community conservation plans will not be changed by the proposed Timber Waiver, and the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

a-b) The proposed Timber Waiver does not involve mineral resources; therefore, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X
e) For a project located within an airport				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

a-f) The proposed Timber Waiver does not change the exposure of people to potential adverse effects involving noise due to vegetation management activities over current conditions. Noise levels due to vegetation removal activities in the project area will remain the same whether or not the Timber Waiver is adopted and implemented. Changes proposed in the Timber Waiver do not impact noise levels from timber harvest and vegetation management activities. Because no change is foreseeable, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

a-c) The proposed Timber Waiver does not involve construction of new homes, businesses, or infrastructure. The project would also not displace people or existing housing. Because the proposed project does not involve these elements, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

a) The proposed Timber Waiver does not involve new or physically altered government facilities. Because the proposed project does not involve these elements, the appropriate finding is **no impact.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

a-b) The proposed Timber Waiver does not involve increasing the use of recreational facilities, or require construction or expansion of recreational facilities. Because the proposed project does not involve these elements, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

a-b) The proposed Timber Waiver would not cause an increase in traffic or exceed a level of service due to vegetation management activities over current conditions. Traffic levels related to vegetation management activities in the project area will remain the same whether or not the proposed Timber Waiver is adopted and implemented. Because no change is foreseeable, the appropriate finding is **no impact**.

c) The proposed Timber Waiver does not involve air traffic. Because the proposed project does not involve this element, the appropriate finding is **no impact.**

d) The proposed Timber Waiver does not involve installation of hazardous design features. Because the proposed project does not involve this element, the appropriate finding is **no impact**.

e-f) The proposed Timber Waiver does not affect emergency access or parking capacity; therefore, the appropriate finding is **no impact**.

g) The proposed Timber Waiver does not involve alternative transportation. Because the proposed project does not involve this element, the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

a-c) The proposed Timber Waiver does not involve the expansion or construction of wastewater or storm water treatment facilities. Because the proposed project does not involve these elements, the appropriate finding is **no impact**.

d) The proposed Timber Waiver does not change the need for water supplies due to vegetation management activities over current conditions. The need for water supplies

to serve vegetation removal activities (e.g., for dust abatement) in the project area will remain the same whether or not the revised Timber Waiver is adopted and implemented. Because no change is foreseeable, the appropriate finding is **no impact**.

e) The proposed Timber Waiver does not require service by wastewater treatment facilities. Because the proposed project does not involve this element, the appropriate finding is **no impact.**

f) The proposed Timber Waiver does not affect solid waste generation or landfill capacities over current conditions. Because no change is foreseeable, the appropriate finding is **no impact**.

g) The proposed Timber Waiver will not involve solid waste and is not subject to federal, state, and local statutes and regulations related to solid waste, therefore the appropriate finding is **no impact**.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a) Timber harvest and vegetation management activities have the potential to degrade the quality of the environment; however, conditions and criteria that apply to all Timber Waiver categories mitigate significant adverse impacts from discharges of wastes associated with timber harvest activities to less than significant levels (see Biological Resources, Geology and Soils, and Hydrology and Water Quality sections). The revised Timber Waiver will only apply to timber harvest activities that meet all applicable eligibility criteria and that follow the waiver conditions.

General Provision 3 of the Timber Waiver states that the waiver of filing of a report of waste discharge and waiver of waste discharge requirements for persons proposing or conducting timber harvest and vegetation management activities with impacts that are not mitigated to less than significant levels is not granted. Therefore activities that involve potentially significant impacts that are not mitigated to less than significant levels are ineligible for coverage under the revised Timber Waiver and are not to be considered part of this project.

The Water Board determines that timber harvest activities conducted in compliance with the six categories of the Timber Waiver will not adversely affect the quality or the beneficial uses of the waters of the State, and will be in the public interest pursuant to California Water Code (Water Code) section 13269. In addition to the environmental protection afforded by the adoption of the proposed Timber Waiver, the Water Board will continue to rely on the environmental safeguards provided through the existing State and federal timber harvest activity review processes described in this Initial Study. Therefore, the appropriate finding is **less than significant with mitigation incorporation.**

b) Timber harvest activities could have impacts that are individually limited, but cumulatively considerable; however, conditions and criteria that apply to all revised Timber Waiver categories mitigate significant cumulative adverse impacts from discharges associated with timber harvest activities to less than significant levels (see discussion under Soils and Geology, and Hydrology and Water Quality). The revised Timber Waiver will only apply to timber harvest activities that meet all applicable eligibility criteria and that follow the waiver conditions. Therefore, activities conducted in compliance with the Timber Waiver conditions will not contribute to cumulative impacts.

The Water Board determines that timber harvest activities conducted in compliance with the six categories of the Timber Waiver will not adversely affect the quality or the beneficial uses of the waters of the State, and will be in the public interest pursuant to Water Code section 13269. In addition to the environmental protection afforded by the adoption of the proposed Timber Waiver, the Water Board will continue to rely on the environmental safeguards provided through the existing State and federal timber harvest activity review processes described in this Initial Study. Therefore, the appropriate finding is **less than significant with mitigation incorporation.**

c) It is unlikely that timber harvest activities could have environmental effects which may cause substantial adverse effects on human beings, either directly or indirectly.

However, conditions and criteria that apply to all Timber Waiver categories mitigate significant cumulative adverse impacts from discharges associated with timber harvest activities to less than significant levels. The Timber Waiver will only apply to timber harvest activities that meet all applicable eligibility criteria and that follow the waiver conditions.

The Water Board determines that timber harvest activities conducted in compliance with the six categories of the Timber Waiver will not adversely affect the quality or the beneficial uses of the waters of the State and is in the public interest pursuant to Water Code section 13269. Therefore, the appropriate finding is **less than significant.**

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

X I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

REFERENCES

Dargen, K., and S. Rogich et al., 2008. *The Emergency California-Nevada Tahoe Basin Fire Commission Report.*

Han, Sang-Kyun, 2006. *Impacts on Soils from Cut-To-Length and Whole Tree Harvesting.* Thesis, Master of Science Degree, College of Natural Resources, University of Idaho.

Hatchett, B., Hogan, M. and Grismer, M. 2006. *Mechanical mastication thins Lake Tahoe forest with few adverse impacts.* California Agriculture, Vol. 60, Num. 2

Homyak, P.M., Yanai, R.D., Burns, D.A., Briggs, R.D., and Germain, R.H., Nitrogen immobilization by wood-chip application: Protecting water quality in a northern hardwood forest. Forest Ecol. Manage. (2008), doi: 10.2016/j.foreco.2008.01.018

Lahontan Regional Water Quality Control Board, 1995. *Water Quality Control Plan for the Lahontan Region*, as amended.

------, 2007. Resolution R6T-2007-0008, *Waiver of Waste Discharge Requirements for Discharges related to Timber Harvest and Vegetation Management Activities.*

------, 2008. *Memorandum Of Understanding Between The California Regional Water Quality Control Board, Lahontan Region, And The Tahoe Regional Planning Agency For Vegetation Management.* Available at: http://www.waterboards.ca.gov/lahontan/water_issues/programs/waste_discharge_requirements/timber_harvest/mou_trpa.shtml

Lake Valley Fire Protection District, 2006. *Christmas Valley 3 Defense Zone Project.*

Poff, Roger, 2006. *The Use of Mechanized Equipment to Restore Stream Environment Zones in the Lake Tahoe Basin.*

U.S. Forest Service, Lake Tahoe Basin Management Unit, 2008a. *Heavenly Creek SEZ Demonstration Project Monitoring Report.*

------, 2008b. *Heavenly Creek SEZ Demonstration Project 2008 BMPEP Monitoring Report.*

------, 2008c. *Monitoring of Slash Piles Burned in Stream Environment Zones: 2003-2008*

U.S. Forest Service, Pacific Southwest Region, 2000. *Water Quality Management for Forest System Lands in California, Best Management Practices.*

U.S. Forest Service, Tahoe National Forest, 2009. *Alder Creek Project Monitoring Report.*

Tahoe Regional Planning Agency, 1999. *Regional Plan for the Lake Tahoe Basin*, as amended. Code of Ordinances and Rules of Procedures.

Wolk, B., Rocca, M.E., Thinning and chipping small-diameter ponderosa pine changes understory plant communities on the Colorado Front Range. Forest Ecol. Manage. (2008), doi: 10.1016/j.foreco.2008.08.014

Homyak, P.M., Yanai, R.D., Burns, D.A., Briggs, R.D., and Germain, R.H., Nitrogen immobilization by wood-chip application: Protecting water quality in a northern hardwood forest. Forest Ecol. Manage. (2008), doi: 10.2016/j.foreco.2008.01.018

Mitigated Negative Declaration

This statement and attachments constitute the Mitigated Negative Declaration as proposed for adoption by the California Regional Water Quality Control Board, Lahontan Region (Water Board) for the project described below.

Posting Date:	April 8, 2009
To State Clearinghouse:	April 8, 2009
Comment Period:	April 8, 2009 – May 8, 2009
Proposed Adoption Date:	May 13 – 14, 2009
Project Name:	Conditional Waiver of Waste Discharge Requirements for Discharges Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region.
Staff Contact:	Andrea Stanley, (530) 542-5406 astanley@waterboards.ca.gov
Project Description:	This project involves revisions of the *Conditional Waiver of Waste Discharge Requirements for Timber Harvest Activities in the Lahontan Region* (R6T-2007-0008 [2007 Timber Waiver]), and the adoption and implementation of a proposed revised Timber Waiver (2009 Timber Waiver).
Project Location:	The Lahontan Water Board's jurisdiction, which encompasses all or parts of Modoc, Lassen, Plumas, Sierra, Nevada, Placer, El Dorado, Alpine, Mono, Inyo, San Bernardino, Kern, and Los Angeles counties.
Environmental Finding:	The Project incorporates mitigation measures such that it will not have a significant effect on the environment.
Lead Agency:	Lahontan Regional Water Quality Control Board 2501 Lake Tahoe Boulevard South Lake Tahoe, California 96150 phone: (530) 542-5400 fax: (530) 544-2271
Other Agencies Whose Approval May be Required:	None
Public Hearing:	May 13 – 14, 2009 A meeting agenda with location and time information will be available at least ten days prior to the public hearing.

Attachments:

1) Initial Study
2) Order No. R6T-2009-(PROPOSED)

How to Submit Comments:

The Lead Agency invites comments on the proposal from all interested persons and parties. **Written comments must be received by 5:00 p.m. on May 8, 2009.** Written comments should be addressed to the Lahontan Regional Water Quality Control Board at the address/fax provided above. Oral testimony will also be accepted at the public hearing. For more information contact: Andrea Stanley, (530) 542-5406, astanley@waterboards.ca.gov.

AKS/adw/T: Agenda Items/May/Proposed Timber Waiver/April TW Mitigated Neg Dec.doc
File Under: 2009 Timber Waiver

Attachment 1 of Initial Study:

Comparison of the Notification, Monitoring, and Reporting Conditions between the 2007 Timber Waiver and the proposed Timber Waiver (proposed Waiver)

Category 1a activities of the 2007 Waiver: No notification, monitoring, or reporting required. No inspections or enforcement actions by Water Board staff have occurred for these activities since February 2007. No change to the notification, monitoring, and reporting conditions for these activities is proposed in the proposed Waiver.

Category 1b, 1c, and 1d activities of the 2007 Waiver: Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion.

Since February 2007 the Water Board has received 199 Waiver applications for Categories 1b, 1c, and 1d. These activities include "minor timber harvest or non-USFS fuels hazard reduction activities" that met 16 conditions (e.g., no activities in the winter period, on slopes greater than 60%, or within the standard width of a Watercourse and Lake Protection Zone). No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver eliminates the notification conditions for activities that meet the conditions of Category 1 of the proposed Waiver and are for the purpose of defensible space, fire prevention, dead-dying-diseased tree removal (with restrictions), and construction activities; or those that are conducted by hand crews.

The proposed Waiver retains notification conditions, and increased monitoring and reporting conditions, for "minor timber harvest" activities that are not for the purposes described above or where conditions and eligibility criteria of Category 2 of the proposed Waiver cannot be met. These projects are now required to complete:

- fall implementation monitoring, and
- winter monitoring and reporting for winter operations.

Category 2 activities of the 2007 Waiver that are conducted under a Dead, Dying, Diseased Exemption issued by the California Department of Forestry and Fire Protection (CAL FIRE) pursuant to California Code of Regulations (CCR), title 14, section 1038, subdivision (b): Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also

comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 14 Waiver applications. The Executive Officer waived monitoring and reporting conditions for nine of the 14 projects because the projects did not pose a significant threat to water quality. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver eliminates the notification conditions for activities that comply with CCR, title 14, section 1038 (b) without any exceptions to Section 1038(b) condition nos. 6 and 9 (i.e., no heavy equipment within the standard width of a watercourse or lake protection zone).

The proposed Waiver (Category 4 or 6) retains notification conditions and increased monitoring and reporting conditions for activities that comply with CCR, title 14, section 1038 (b) and do proceed with activities that are allowed under the exceptions to Section 1038(b) condition nos. 6 and 9.

Category 2 activities of the 2007 Waiver that are conducted under a Forest Fire Prevention Exemption issued by CAL FIRE pursuant to CCR, title 14, section 1038, subdivision (i): Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 1 Waiver application. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver eliminates the notification conditions for activities that comply with CCR, title 14, section 1038 (i), to facilitate fire prevention activities because the conditions of section 1038(i) ensure no adverse effects will occur.

Category 2 activities of the 2007 Waiver that are conducted under a Less than 3 Acre Conversion Exemption issued CAL FIRE pursuant to CCR, title 14, section 1104.1, subdivision (a): Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 3 Waiver applications. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver eliminates the notification conditions for timber activities on undeveloped lots up to three acres in size for the purpose of construction activities. These projects allow for single family residence construction and potential water quality impacts are limited.

Category 2 activities of the 2007 Waiver that are conducted under an Emergency Exemption issued by CAL FIRE: Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 4 Waiver applications. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver retains implementation monitoring and removed forensic and effectiveness monitoring requirements for activities that meet the eligibility criteria and conditions of Category 4 of the proposed Waiver. If winter operations are included in the activities, dischargers are required to complete daily winter monitoring. Emergency Exemption activities must be completed within 120 days, thereby limiting the area of disturbance and length of operations.

The proposed Waiver retains notification requirements and implementation, forensic, and effectiveness monitoring and reporting conditions for activities that do not meet the eligibility criteria and conditions of Category 4 of the proposed Waiver but meet the eligibility criteria and conditions of Category 6 of the proposed Waiver. If winter operations are included in the activities, dischargers are required to conduct daily winter monitoring.

Category 2 activities of the 2007 Waiver that are not within the jurisdiction of CAL FIRE that do not qualify for the 2007 Waiver under Category 1: Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 8 Waiver applications. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver eliminates forensic and effectiveness monitoring requirements for activities that meet the eligibility criteria and conditions of Category 4 of the proposed Waiver. If winter operations are included in the activities, dischargers are required to conduct daily winter monitoring.

The proposed Waiver retains notification requirements, implementation, forensic, and effectiveness monitoring and reporting conditions for activities that do not meet the eligibility criteria and conditions of Category 4 of the proposed Waiver but meet the eligibility criteria and conditions of Category 6 of the proposed Waiver. If winter operations are included in the activities, dischargers are required to conduct daily winter monitoring.

Category 3 timber harvest activities of the 2007 Waiver on non-federal lands that receive discretionary approval from CAL FIRE and for which Water Board staff has fully participated in the interdisciplinary review team process: Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 17 Waiver applications. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver retains notification requirements, and implementation, forensic, and effectiveness monitoring and reporting conditions.

Category 4 timber harvest activities on non-federal lands that receive discretionary approval from CAL FIRE for which Water Board staff has not fully participated in the interdisciplinary review team process and which are not eligible for a waiver under Category 1, and non-commercial fuel hazard reduction and forest enhancement projects conducted under by California entities that have met all requirements of the California Environmental Quality Act and which are not eligible for a waiver under Category 1 or 2 of the 2007 Waiver: Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 15 Waiver applications. No violations of waiver conditions were reported.

Proposed under proposed Waiver:
The proposed Waiver retains notification requirements, and implementation, forensic, and effectiveness monitoring and reporting conditions.

Category 5 timber harvest activities on federal lands managed by the U.S. Forest Service of the 2007 Waiver: Dischargers proposing such activities are required to submit a Waiver Application and a Notice of Termination Form upon project completion. Dischargers must also comply with the monitoring and reporting program of the 2007 Waiver unless an alternate monitoring plan is approved.

Since February 2007 the Water Board has received 28 Waiver applications. Water Board staff have initiated three enforcement actions since the 2007 Waiver was adopted. All were related to violations of 2007 Waiver conditions pertaining to winter operations. A minor discharge to a Class III watercourse and threatened discharges of waste to watercourses were reported or observed. None of these violations were within 300 feet of a subdivision boundary, parcel line, or structure (Category 1 activity in proposed Waiver).

Proposed under proposed Waiver:
The proposed Waiver eliminates the notification conditions for activities that meet the conditions of Category 1 of the proposed Waiver and are for the purpose of defensible space, fire prevention, dead-dying-diseased tree removal (with restrictions), or those that are conducted by hand crews.

The proposed Waiver retains notification, monitoring, and reporting conditions for all other U.S. Forest Service Projects. The proposed Waiver now articulates more specifically the monitoring and reporting requirements that are required of the U.S. Forest Service in Attachment O.

Category 6 post fire emergency rehabilitation activities of the 2007 Waiver: Dischargers are required to notify Water Board staff within 7 days of initiating these activities and are exempt from monitoring or reporting unless the Executive Officer imposes individual monitoring requirements. No monitoring or reporting has been required for these activities since the 2007 Waiver was adopted in February 2007. No violations of waiver conditions were reported. No change to the notification, monitoring, and reporting conditions for these activities is proposed in the proposed Waiver.

Response to Comments

Proposed Conditional Waiver of Waste Discharge Requirements for Waste Discharges Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region

Prepared by Lahontan Water Board Staff
April 6, 2009

Section 1. INTRODUCTION

The California Regional Water Quality Control Board, Lahontan Region (Water Board) is considering the adoption of a board order to adopt a Conditional Waiver of Waste Discharge Requirements for Waste Discharges Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region, "Timber Waiver."

This document summarizes public and agency comments received on this proposed project. The proposed revised Timber Waiver and associated environmental documents were circulated for a 30-day public review and comment period from January 9 through February 9, 2009, pursuant to California Code of Regulations, title 14, section 15072.

Twelve comment letters were received. Water Board staff reviewed each letter, and assigned a number to each substantive comment. Copies of each comment letter, with associated comment numbers are provided.

Section 2. COMMENT LETTERS AND AUTHORS

1. Andrew Breibart, Hydrologist, USFS-Lassen National Forest
2. Randy Moore, Regional Forester, USFS-Region 5
3. Crawford Tuttle, CAL FIRE-Chief Deputy Director
4. Brad Lutts, Unit Chief, CAL FIRE-Lassen Modoc Plumas Unit
5. Bill Holmes, Unit Chief, CAL FIRE-Amador El Dorado Unit
6. Tamara Sasaki, Senior Environmental Scientist, CA State Parks
7. Mark Shaffer, President and Registered Professional Forester (RPF), Evergreen Resource Management
8. Thomas Esgate, Managing Director, Lassen County Fire Safe Council, Inc.
9. Brad Henderson, Habitat Conservation Supervisor, California Department of Fish and Game
10. Jennifer Quashnick, Tahoe Area Sierra Club; Carl Young, League to Save Lake Tahoe; Michael Graf, Sierra Forest Legacy
11. Doug Praetzel, Forester & RPF, Sierra Pacific Industries
12. Brett Emery, Bridgeport, CA
13. Philip Nemir, RPF, Forestry & Appraisal Services

Letter Code: LASSEN NF

From: Andrew Breibart <abreibart@fs.fed.us>
To: <astanley@waterboards.ca.gov>
CC: Andrew Breibart <abreibart@fs.fed.us>
Date: 1/20/2009 2:41 PM
Subject: re: timber waiver

Andrea,

I have 2 comments regarding the waiver:

Page 12 under Category 2 bullet 2 under eligibility criteria:

1

It says chippers and brush mowers with a psi <10 lbs can be used, while ATV's or snow mobiles can used off designated roads. I consulted the engineers on the Forest and they said an ATV can have a psi of 36 lbs. The wording is inconsistent and doesn't make sense.

Page 13:

2

Category 3, Does this pertain to BAER (Burn Area Emergency Response) like what occurred on the Angora Fire, i.e. hydromulching the burn area or upgrading road/stream crossings for post-fire run-off? Does this pertain to the rehabilitation of fire lines from wildfires? Does it pertain to both?

Thanks,

Andrew Breibart

PS. Please say hi to Taylor.

USDA United States Department of Agriculture | Forest Service | Pacific Southwest Region

Regional Office, R5
1323 Club Drive
Vallejo, CA 94592
(707) 562-8737 Voice
(707) 562-9240 Text (TDD)

File Code: 2530-3/5150
Date: February 6, 2009

Letter Code: USFS Region 5

Andrea Stanley
Engineering Geologist
California Regional Water Quality Control Board,
Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Dear Ms. Stanley:

The revised Lahontan Regional Water Quality Control Board (Regional Board) timber waiver, as proposed on January 7, 2009, will improve the ability of the USDA Forest Service to effectively manage timber and fuels, reduce the risks of wildfires, and protect water quality on National Forest System (NFS) lands. I encourage the Regional Board to adopt the proposed waiver at its March meeting. 1

Fuels management projects in the Lake Tahoe, Little Truckee, and Truckee River hydrologic units will continue to face stringent regulatory requirements resulting from basin plan prohibitions. However, the recent Regional Board delegation of authority to the executive officer for approval of exemptions to basin plan prohibitions is encouraging, and should allow for expeditious approval of projects that include adequate monitoring and mitigation. The exemption process will be critical to the success of fuels management projects on NFS lands in the Lake Tahoe and Truckee watersheds, owing to the need for pile burning in riparian areas. Forest Service regional and national forest staff will continue to work with Regional Board staff to ensure that projects that require basin plan prohibition exemptions can be implemented effectively while maintaining protection for water quality. 2

Thank you for the opportunity to provide comments on the revised waiver. If you have any questions, please contact Barry Hill of my staff at (707) 562-8968.

Sincerely,

/s/ Richard J. Cook (for)
RANDY MOORE
Regional Forester

cc: Terri Marceron
Tom Quinn

Jim Irvin
Erin Lutrick
Robert G Taylor
Joanne B Roubique
Quentin Youngblood
Sue Norman
Andrew Breibart
Peter L Adams
Mike LeFevre
Kathy Murphy

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
Post Office Box 944246
Sacramento, CA 94244-2460
(916) 653-7772
Website: www.fire.ca.gov

Letter Code: CALFIRE (Sacramento)

February 9, 2009

Lahontan Regional Water Quality Control Board
Attn: Harold Singer
2501 Lake Tahoe Blvd
South Lake Tahoe, CA 96150

RE: CAL FIRE Comments regarding: 1) the (Tentative) Conditional Waiver of Waste Discharge Requirements Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region (waiver) and the Initial Study Supporting the Preparation of a Mitigated Negative Declaration for the revision of the Timber Waiver (negative declaration).

Dear Mr. Singer:

Thank you for the opportunity to provide comments on the draft documents being considered by the Lahontan Regional Water Quality Control Board (Lahontan Board) referenced above. The Department of Forestry and Fire Protection (CAL FIRE) appreciates the time and attention of the Lahontan Board staff to these issues and believes the changes to the language to date are in the interest of the natural resources, their management, and protection. 1

CAL FIRE believes that additional improvements to the proposed waiver language are warranted and respectfully requests the proposed language be incorporated as indicated in underlined text in the case of additions, and delete text in the case of such deletions.

1. Page 12, Table 1, Category 2, first column, add underlined language as follows: 2
   "Timber harvest and vegetation management activities conducted by hand crews, including thinning operations and prescribed **fire**".
2. Page 4, A, Findings Item 6b and also Page 12, Eligibility Criteria Item 2(a): Change language as follows (underlined): Delete "Chipper and brush mowers" and replace with and low ground pressure apparatus and equipment with ground pressures less than 10 pounds per square inch". This language change is more generic, allowing the use of different types of low pressure apparatus and equipment, as opposed to being too specific, and thereby excluding or limiting the use of other appropriate apparatus and equipment types. 3
3. Page 5, A, Findings, Item 9: Delete "hazard tree removal". Hazard tree removal is a public safety issue under various sections of the Public Resource Code (defensible space, utility line clearance, etc.) and therefore should not be considered a general forest or vegetation management activity. 4

4. Page 10, Category 2, Eligibility Criteria (2) and Condition (2): Change as follows: Utilizing the same reasoning as in Recommendation #2 above, "Low ground pressure apparatus and equipment may be used off-road, except within 25 feet of a water body." 5
5. Page 10, Category 2, Conditions, Item 2: Delete this section because it is not within Lahontan Board jurisdiction. Rather this is a CAL FIRE and California Board of Forestry and Fire Protection licensing jurisdiction under the Professional Foresters Law. Also, as written, this section violates landowner's rights under the Professional Forester's Law to act on their own behalf regarding marking and removal of trees. See additional comment below on this topic regarding the CEQA document. We agree with and support the response to this item from California State Parks, Sierra District, and CAL FIRE Units. 6

   Further, requiring a landowner to hire an Registered Professional Forester (RFP) to mark trees down to 3" in diameter breast height will increase landowner costs and result in fewer acres being treated. Individually marking such small trees is impractical, excessively time consuming, and costly, and will result in significant delays and increased costs in fuel hazard reduction projects in the Lahontan Region. The result is fewer acres treated at high risk of catastrophic wildfire, leading to increasingly larger and more intense wildfires, which can adversely affect public safety, human life and property, habitat, air and water quality. 7

   The potential for indirect impacts of such excessive requirements, such as the requirement to individually mark such small trees, on air quality and fire protection, should be analyzed as part of the CEQA process. Currently, the negative declaration makes a finding of "No Impact" on air quality and fire protection. Given the indirect affects of such excessive requirements, this finding is incorrect.

   Therefore, we recommend that the requirement to individually mark such small trees be removed from the waiver. If the requirement is retained in the waiver, we recommend its indirect impacts on air quality and fire protection be analyzed as part of the CEQA process.

6. Page 13, Category 2, Conditions, Item 7(b): Within the Lake Tahoe and Truckee hydrologic units A, add underlined language that allows for the placement or burning of burn piles within Water body Buffer Zones, Stream Environment Zones in the areas defined unless where topography, access, and/or human hand-thinning limitations allow and pile numbers and size are allowed based upon the latest science or upon mutual agreement by the RPF and Water Board representative upon site visit. *This recommendation applies to all categories containing this condition.* 8
7. Page 14, Category 2, Conditions, Item 7(c) Delete this section as it is too restrictive and unachievable under prescribed fire conditions, and in some cases may increase the risk to a waterbody by not allowing controlled, light underburning which is a natural historical condition promoting healthy water bodies. 9
8. Page 15, Category 4, Conditions, Item (8): Delete this section because it is not within Lahontan Water Board jurisdiction, but rather is a CAL FIRE and California Board of Forestry and Fire Protection Licensing jurisdiction as per Professional Foresters Law. See comment 5 above. *This comment applies to all waiver categories containing this condition.* 10

9. Page 16, Category 4, Conditions, Item14 (d): Within the Lake Tahoe and Truckee hydrologic units, add underlined language that allows for the placement or burning of burn piles within Water body Buffer Zones, Stream Environment Zones in the areas defined. Unless where topography, access, and/or human hand-thinning limitations allow and pile numbers and size are allowed based upon the latest science or upon mutual agreement by the RPF and Water Board representative upon site visit. *This recommendation applies to all categories containing this condition.* 11
10. Page 17, Category 5, Conditions, Item 4(a): Does this condition apply to new skid trails, existing skid trails, or both? Please clarify. This condition as currently written exceeds the current California Forest Practice Act rules and regulations. We recommend this condition match the California Forest Practice Act rules and regulations. 12

Comments regarding Definitions (Attachment A)

1. Replace from "Broadcast Burning" to "Prescribed Burning". 13
2. Replace word "controlled" within Burn Pile definition with "prescribed" 14
3. Change Winter Period to "October 15 through May 1" so as to remain consistent with the California Forest Practice Act. 15

In closing, CAL FIRE looks forward to continuing to work with the Lahontan Board and staff throughout the timber waiver review process, as well as through the Tahoe Forest and Fuels Team and all other forestry projects within the Lake Tahoe Basin and eastern Alpine County. We are in a historic time of change and progress and we believe the above changes will enhance the ability of us all to protect our natural resources in the Lahontan Region from risk of catastrophic fire.

Sincerely,

CRAWFORD TUTTLE
Chief Deputy Director
CAL FIRE

Electronic cc: Todd Ferrara, Natural Resources Agency
Ruben Grijalva, Director, CAL FIRE
Kate Dargan, State Fire Marshal
Del Walters, Executive Officer, CAL FIRE
Bill Hoehman, Northern Region Chief, CAL FIRE
Duane Shintaku, Assistant Deputy Director, CAL FIRE
Clay Brandow, Hydrologist, CAL FIRE
George Gentry, Executive Officer, Board of Forestry and Fire Protection
Bill Holmes, Unit Chief, AEU, CAL FIRE
Brad Harris, Unit Chief, NEU, CAL FIRE
Mary Huggins, Tahoe Basin Division Chief, CAL FIRE

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
Lassen Modoc Plumas Unit
697-345 Hwy 36
Susanville, CA 96130
(530) 257-4171
(530) 257-8599 (FAX)

Letter Code: CALFIRE (Lassen, Modoc, Plumas)

February 5, 2009

Lahontan Regional Water Quality Control Board
Attn. Harold Singer
2501 Lake Tahoe Blvd
South Lake Tahoe, CA 96150

Dear Mr. Singer,

Thank you for the opportunity to comment on the (Tentative) Conditional Waiver of Waste Discharge Requirements Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region (waiver) and the Initial Study Supporting the Preparation of a Mitigated Negative Declaration for the revision of the Timber Waiver (negative declaration).

The following are CAL FIRE Lassen Modoc Plumas Unit comments. Requested edits are indicated in underlined text in the case of additions, and delete text in the case of such deletions.

1. Page 12, Table 1, Category 2, first column, add underlined language as follows: "Timber harvest and vegetation management activities conducted by hand crews, including thinning operations and prescribed **fire**". 1

2. Page 12, Category 2, Conditions, Item 3: Delete this section as it is not within Lahontan Water Board jurisdiction, but rather is a CAL FIRE and California Board of Forestry and Fire Protection Licensing jurisdiction as per Professional Foresters Law. Also, this violates landowner's rights as a private landowner may mark and/or cut their own trees without an RPF. See additional comment below on this topic regarding the CEQA document. We agree with and support as our own and other CAL FIRE Units and Headquarters. 2

Individually marking such small trees is impractical, excessively tedious and time consuming, and costly, and will result in significant delays and increased costs in fuel hazard reduction projects in the Lahontan Region. The result is the, fewer acres treated at high risk of catastrophic wildfire, leading to increasingly larger and more intense wildfires, which can adversely affect public safety, human life and property, habitat, and air and water quality. 3

The potential for indirect impacts of such excessive requirements, such as the requirement to individually mark such small trees, on air quality and fire protection, should be analyzed as part of the CEQA process. Currently, the negative declaration makes a finding of "No Impact" on air quality and fire protection. Given the indirect affects of such excessive requirements, this finding is incorrect. Therefore, we recommend that the requirement to

individually mark such small trees be removed from the waiver. If the requirement is retained in the waiver, we recommend its indirect impacts on air quality and fire protection be analyzed as part of the CEQA process. 3

3. Page 13, Category 3, Eligibility Criteria, last sentence: "Non-emergency activities are not eligible for Category 3". Delete the entire sentence or please define for further consideration what is perceived as a "non-emergency" within the post fire emergency. 4

4. Page 14 Category 4, Eligibility Criteria, Item 5 should allow for aerial or cable harvest operations on slopes over 60%. Items 6, through 8 should be consistent with the California Forest Practice Act, rules and regulations and be specific to potential for overland flow reaching a watercourse or waterbody if that is the intent. 5 6

5. Page 15, Category 4, Conditions, Item (8): Delete this section as it is not within Lahontan Water Board jurisdiction, but rather is a CAL FIRE and California Board of Forestry and Fire Protection Licensing jurisdiction as per Professional Foresters Law. See comment 2 above. *This comment applies to all waiver categories containing this condition.* 7

6. Page 16, Category 4, Conditions, Item 14(a) and Page 21, Category 6, Conditions Item 18 (b): Delete this section as it is too restrictive and unachievable under prescribed fire conditions, and in some cases may increase the risk to a waterbody by not allowing controlled, light underburning which is a natural historical condition promoting healthy waterbodies 8

7. Page 16, Category 4, Conditions, Item14(d): Add underlined language to the end of the sentence that allows for the placement or burning of burn piles within Waterbody Buffer Zones and Stream Environment Zones: **unless where topography, access, and/or human hand-thinning limitations allow and pile numbers and size are allowed based upon the latest science or upon mutual agreement by the RPF and Water Board representative upon site visit**. *This recommendation applies to all categories containing this condition.* 9

Comments regarding Definitions (Attachment A)

1. Replace from "Broadcast Burning" to "**Prescribed Burning**". 10
2. Change Winter Period to "**October 15 through May 1"** so as to remain consistent with the California Forest Practice Act. 11

We believe the above changes will enhance the ability of all participants to protect our natural resources in the Lahontan Region from risk of catastrophic fire.

Again, thank you for the opportunity to comment. The Lassen Modoc Plumas Unit wishes to continue the professional working relationship currently held with the Lahontan Water Board Staff.

Ivan Houser for

Brad Lutts
Unit Chief
Lassen Modoc Plumas Unit

Cc: Brad Lutts, Unit Chief CAL FIRE
Bill Schultz, Deputy Chief CAL FIRE
Ivan Houser, Unit Forester (Acting) CAL FIRE

DEPARTMENT OF FORESTRY AND FIRE PROTECTION
2841 Mt. Danaher Road
Camino, CA 95709
(530) 644-2345
Website: www.fire.ca.gov

Letter Code: CALFIRE (Amador, El Dorado)

February 3, 2009

Lahontan Regional Water Quality Control Board
Attn: Harold Singer
2501 Lake Tahoe Blvd
South Lake Tahoe, CA 96150

RE: Comments regarding: 1) the (Tentative) Conditional Waiver of Waste Discharge Requirements Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region (waiver) and the Initial Study Supporting the Preparation of a Mitigated Negative Declaration for the revision of the Timber Waiver (negative declaration).

Dear Mr. Singer,

Thank you and your staff very much for the changes made from the last draft! We very much appreciate the time and attention to these issues and believe the changes are in the interest of the natural resources, their management, and protection. However, we still have some concerns. The following are CAL FIRE's Amador El Dorado Unit comments. Requested edits are indicated in underlined text in the case of additions, and delete text in the case of such deletions.

1. Page 12, Table 1, Category 2, first column, add underlined language as follows:
   "Timber harvest and vegetation management activities conducted by hand crews, including thinning operations and prescribed **fire**". 1
2. Page 4, A, Findings Item 6b and also Page 12, Eligibility Criteria Item 2(a): Change language as follows (underlined): Delete "Chipper and brush mowers" to and low ground pressure apparatus and equipment with ground pressures less than 10 pounds per square inch". This language change is more generic, allowing the use of different types of low pressure apparatus and equipment, as opposed to being too specific, and thereby excluding or limiting the use of other appropriate apparatus and equipments types. 2
3. Page 5, A, Findings, Item 9: Delete "hazard tree removal". Hazard tree removal is very often a public safety issue and many times a requirement for removal under various sections of the Public Resource Code (defensible space, utility line clearance, etc) and therefore not considered a general forest or vegetation management activity. 3
4. Page 10, Category 2, Eligibility Criteria (2) and Condition (2): Change as follows: Utilizing the same reasoning as in Recommendation #2 above, "Low ground pressure apparatus and equipment may be used off-road, except within 25 feet of a waterbody." 4

5. Page 10, Category 2, Conditions, Item 2: Delete this section as it is not within Lahontan Water Board jurisdiction, but rather is a CAL FIRE and California Board of Forestry and Fire Protection Licensing jurisdiction as per Professional Foresters Law. Also, this violates landowner's rights as a private landowner may mark and/or cut their own trees without an RPF. See additional comment below on this topic regarding the CEQA document. We agree with and support as our own the response to this item from California State Parks, Sierra District and other CAL FIRE Units and Headquarters. 5

Individually marking such small trees is impractical, excessively tedious and time consuming, and costly, and will result in significant delays and increased costs in fuel hazard reduction projects in the Lahontan Region. The result is fewer acres treated at high risk of catastrophic wildfire, leading to increasingly larger and more intense wildfires, which can adversely affect public safety, human life and property, habitat, and air and water quality. 6

The potential for indirect impacts of such excessive requirements, such as the requirement to individually mark such small trees, on air quality and fire protection, should be analyzed as part of the CEQA process. Currently, the negative declaration makes a finding of "No Impact" on air quality and fire protection. Given the indirect affects of such excessive requirements, this finding is incorrect.

Therefore, we recommend that the requirement to individually mark such small trees be removed from the waiver. If the requirement is retained in waiver, we recommend its indirect impacts on air quality and fire protection be analyzed as part of the CEQA process.

6. Page 13, Category 2, Conditions, Item 7(b): Add underlined language that allows for the placement or burning of burn piles within Waterbody Buffer Zones, Stream Environment Zones in the areas defined (Lake Tahoe and Truckee hydrologic units) <u>unless where topography, access, and/or human hand-thinning limitations allow and pile numbers and size are allowed based upon the latest science or upon mutual agreement by the RPF and Water Board representative upon site visit</u>. *This recommendation applies to all categories containing this condition.* 7
7. Page 14, Category 2, Conditions, Item 7(c) Delete this section as it is too restrictive and unachievable under prescribed fire conditions, and in some cases may increase the risk to a waterbody by not allowing controlled, light underburning which is a natural historical condition promoting healthy waterbodies. 8
8. Page 15, Category 4, Conditions, Item (8): Delete this section as it is not within Lahontan Water Board jurisdiction, but rather is a CAL FIRE and California Board of Forestry and Fire Protection Licensing jurisdiction as per Professional Foresters Law. See comment 5 above. *This comment applies to all waiver categories containing this condition.* 9
9. Page 16, Category 4, Conditions, Item14(d): Add underlined language that allows for the placement or burning of burn piles within Waterbody Buffer Zones, Stream Environment Zones in the areas defined (Lake Tahoe and Truckee hydrologic units) <u>unless where topography, access, and/or human hand-thinning limitations allow and pile numbers and size are allowed based upon the latest science or upon mutual agreement by the RPF and Water Board representative upon site visit</u>. *This recommendation applies to all categories containing this condition.* 10
10. Page 17, Category 5, Conditions, Item 4(a): Does this condition apply to new skid trails, existing skid trails, or both? Please clarify. This condition as currently written exceeds the current California Forest Practice Act rules and regulations. We recommend this condition match the California Forest Practice Act rules and regulations. 11

Comments regarding Definitions (Attachment A)

1. Replace from "Broadcast Burning" to "Prescribed Burning". 12
2. Replace word "controlled" within Burn Pile definition with "prescribed" 13
3. Change Winter Period to "October 15 through May 1" so as to remain consistent with the California Forest Practice Act. 14

In closing, we in the Amador El Dorado Unit look forward to continuing to work with the Lahontan Board and staff throughout the timber waiver review process, as well as through the Tahoe Forest and Fuels Team (TFFT) and all other forestry projects within the Lake Tahoe Basin, as well as eastern Alpine County. We are in a historical time of change and progress and we believe the above changes will enhance the ability of us all to protect our natural resources in the Lahontan Region from risk of catastrophic fire.

Sincerely,

Mary Huggins
Amador El Dorado Division Chief
Tahoe Basin/Alpine County Division

for

Bill Holmes
Unit Chief
Amador El Dorado Unit

Electronic Cc: Todd Ferrara, Resources Agency
Ruben Grijalva, Director CAL FIRE
Kate Dargan, State Fire Marshal
Del Walter, Executive Officer CAL FIRE
Bill Hoehman, Northern Region Chief CAL FIRE
Duane Shintaku, Assistant Deputy Director CAL FIRE
Clay Brandow, Hydrologist, CAL FIRE
George Gentry, Board of Forestry and Fire Protection
Mary Huggins, Tahoe Basin Division Chief CAL FIRE

State of California • The Resources Agency
Arnold Schwarzenegger, *Governor*

DEPARTMENT OF PARKS AND RECREATION
Ruth Coleman, *Director*
Sierra District
P.O. Box 266
Tahoma, CA 96142
530.525.9535

Letter Code: CA State Parks

February 9, 2009

California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
Attention: Andrea Stanley

RE: Lahontan Region 2009 Tentative Revised Timber Waiver

Greetings Ms. Stanley,

Thank you for the opportunity to comment on the Tentative Revision of the Conditional Waiver of Waste Discharge Requirements for Waste Discharges Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region or "Timber Waiver". I am commenting on behalf of the California Department of Parks and Recreation (CA State Parks), Sierra District whose park units are within the Lahontan Region. We would like to share with you our comments and recommendations with the continued intent of improving and further refining the Timber Waiver. Our recommended changes to the Working Draft text are indicated by italic font.

General Comments

- We appreciate that many of our comments were incorporated in the tentative revision and this version of the waiver is clearer and less ambiguous. 1
- We appreciate that there is an invitation for monitoring program feedback with respect to one's project on the monitoring forms. 2

Comment 1

Page 4, A. Findings, 6., (b) For Category 2..., 2nd sentence. 3

Suggest changing to "Category 2 covers only those projects that are conducted by hand crews and *low ground pressure apparatus and equipment*." Request change to generic low ground pressure apparatus and equipment instead of specific identification of low ground pressure chippers and mowers since there is and may be in the future other low ground pressure apparatus and equipment that can/will be used by hand crews to assist with tree thinning and removal.

Comment 2

Page 5, A. Findings, 9. "Timber harvest and vegetation management activities"... 4

Please remove "hazard tree removal" from the list. Hazard tree removal is considered by CA State Parks as a facility maintenance activity related to facilities management and liability, (i.e., campgrounds, parking lots, public use areas, etc.). Hazard tree removal is not a general forest and vegetation management activity. 4

Comment 3

Page 12, D. Timber Waiver Categories, Category 2: Timber harvest and vegetation management activities conducted by hand crews, Conditions, (3) "Prior to the commencement of timber harvest and vegetation management activities within Waterbody Buffer Zones (WBZs), trees with a DBH greater than 3 inches planned for removal or trees designated for retention must be marked (including a base marked below the cut line)..." 5

The riparian areas in our park unit forests are densely stocked with trees. It is very time consuming and costly to mark every tree for removal, including a base mark, especially if marking numerous 3 inch DBH white firs. This requirement discourages inclusion of riparian areas for forest health thinning and fuels reduction projects which can lead to untreated corridors of high fuel loading and to the increased risk of spread of catastrophic wildfire which ultimately affects our natural resources, including air and water quality, and public safety. Aesthetically it is not acceptable to mark trees for retention by CA State Park standards. Many times to facilitate efficiency in time and labor, a "designation by description" thinning treatment prescription is written by our Registered Professional Forester (RPF) that is followed by the hand crew. It is the responsibility of the RPF to check that the hand crew is following the treatment prescription.

An alternative to the 3 inch DBH requirement is to increase the DBH of the marked trees in WBZs to 14" DBH to be consistent with the Tahoe Regional Planning Agency, Code of Ordinance Chapter 71.3.

If the 3 inch DBH requirement is to remain in the proposed timber waiver, we recommend that the proposed timber waiver CEQA Initial Study includes the analysis of the indirect impacts on air quality and fire protection.

Comment 4

Page 12, D. Timber Waiver Categories, Category 2: Timber harvest and vegetation management activities conducted by hand crews, Conditions, (5), "All Areas disturbed by timber harvest and vegetation management activities must be stabilized (as defined in Attachment A)..." 6

Please define the work "stabilized" in Attachment A

Comment 5

Page 12, D. Timber Waiver Categories, Category 2: Timber harvest and vegetation management activities conducted by hand crews, Conditions, (7), (a) If fuel breaks are constructed, effective waterbreaks... 7

What is the rationale for determining 30% or more "chance" of rain within 24 hours chosen as the threshold for triggering waterbreak construction?

Comment 6

Page 14, D. Timber Waiver Categories, Category 4: Timber harvest and vegetation management activities which rely on existing roads..., Eligibility Criteria, (10) No timber harvest or vegetation management activities that include the application of herbicides...

Please clarify if this section pertains to native plant vegetation management activities that affect forest regeneration or non-native invasive weed species eradication or both? Is a timber waiver necessary if conducting non-native invasive weed species eradication or control activities under the Lahontan Regional Water Quality Control Board and Lake Tahoe Weed Coordinating Group Memorandum of Understanding regarding herbicide use in the Lake Tahoe Basin? 8

Comment 7

Page 14, D. Timber Waiver Categories, Category 4: Timber harvest and vegetation management activities which rely on existing roads..., Conditions, (8) Prior to the commencement of timber harvest and vegetation management activities within Waterbody Buffer Zones... 9

Please see Comment 3 regarding marking trees in Waterbody Buffer Zones.

Comment 8

Page 16, D. Timber Waiver Categories, Category 4: Timber harvest and vegetation management activities which rely on existing roads..., Conditions, (14), a. Prescribed broadcast burns... 10

a) Recommend removing "broadcast".
b) Recommend increasing the size of the definition of large woody debris to DBH of *30" or greater and greater than 12 feet long.* Smaller woody debris is difficult to preserve from fire. 11
c) See Comment 5 regarding chance of rain. 12

Comment 9

Page 21, D. Timber Waiver Categories, Category 6: Timber harvest and vegetation management activities that do not qualify for categories 1-5..., Conditions, (12) All areas disturbed by timber harvest and vegetation management activities must be stabilized... 13

See Comment 4 requesting definition of "stabilized".

Comment 10

Page 21, D. Timber Waiver Categories, Category 6: Timber harvest and vegetation management activities that do not qualify for categories 1-5..., Conditions, (16) Prior to the commencement of timber harvest and vegetation management... 14

See Comment 3 regarding tree marking DBH.

Comment 12

Page 21, D. Timber Waiver Categories, Category 6: Timber harvest and vegetation management activities that do not qualify for categories 1-5..., Conditions, (18), b. Prescribed broadcast burning... 15

a) Recommend removing "broadcast" and "the loss of large woody debris (as defined in Attachment A) which..." so the sentence reads as follows:

Prescribed burning (as defined in Attachment A) is allowed as long as the prescription does not result in destabilized soils adjacent to a waterbody. 15

b) Please see Comment 8, b) regarding large woody debris. 16

Comment 13

Page 22, D. Timber Waiver Categories, Category 6: Timber harvest and vegetation management activities that do not qualify for categories 1-5..., Conditions, (18), d. if fuel breaks are constructed... 17

See Comment 5 regarding chance of rain.

Comment 14

Page 22, D. Timber Waiver Categories, Category 6: Timber harvest and vegetation management activities that do not qualify for categories 1-5..., Conditions, (19) Pursuant to Water Code section 13267... 18

See Comment 6 regarding non-native invasive plants.

Comment 15

Attachment A, page 3, Large Woody Debris. 19

See Comment 8.

Comment 16

Attachment A, page 3, Prescribed Burning 20

Recommend definition of prescribed burning to include "*under specific environmental conditions*".

Comment 17

Attachment A, page 3, Stabilized 21

Need a definition for "stabilized".

Comment 18

Attachment B, Waterbody Buffer Zones 22

Recommend changing sentence to:

Water Board Staff will accept documents and timber waiver applications that use terminology other than "Waterbody buffer Zones" as long as such zones or areas will not be smaller than the Water Buffer Zones *defined in Table B1. Water Buffer Zone Widths.*

Comment 19

Attachment J, Effectiveness Monitoring Form, bottom 8th of page, beginning with "Inspect all the following areas and infrastructure..." 23

Please increase the amount of space after each of the areas listed for comments per the directions or make the directions clearer where you want the comments to be placed.

Comment 20

Attachment K, Monitoring and Reporting Program, page 8 24

Recommend including a chart with monitoring type, monitoring form required, monitoring periods, and monitoring due dates for reference. 24

If you have any questions or would like clarification to any of our comments, please do not hesitate to contact me.

Sincerely,

Tamara Sasaki

Tamara Sasaki
Senior Environmental Scientist

cc: Todd Ferrara, Resources Agency
Pam Armas, District Superintendent
Rich Adams, District Forester

Letter Code: EVERGREEN

EVERGREEN RESOURCE MANAGEMENT

A Natural Resource Management Company

472-120 Richmond Road
Susanville, CA 96130

Office: 530-257-8387
Cell: 530-260-3705

February 4, 2009

Mr. Douglas Cushman
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Re: Comments on Lahontan Region-Wide Timber Waiver Proposed Changes

Dear Doug:

The following letter and scientific study were sent to you during the informal comment period for this proposed change. I acknowledge several minor changes, including the allowance for the 1038(i) Forest Fire Prevention Exemption under Category 1. I am not sure how you can allow that exemption and not accept 1038(b), as well. 1

Please accept the following (letter dated December 4, 2008 to Mr. Douglas Cushman and the study titled "Impact of Slash Pile Size and Burning on Ponderosa Pine Forest Soil Physical Characteristics". Please reconsider how you re-structure this waiver. 2

Sincerely,

Mark A. Shaffer
President / California RPF # 2485
California LTO # A7052
Consulting Forester – Lassen County Fire Safe Council

EVERGREEN RESOURCE MANAGEMENT
A Natural Resource Management Company

472-120 Richmond Road
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Office: 530-257-8387
Cell: 530-260-3705

December 4, 2008

Mr. Douglas Cushman
LAHONTAN REGIONAL
WATER QUALITY CONTROL BOARD
2501 Lake Tahoe Blvd
South Lake Tahoe, CA 96150

Re: Lahontan Region-Wide Timber Waiver Working Draft

Dear Doug:

As you know, the Lassen County Fire Safe Council currently utilizes the Less than 10% Dead, Dying and Diseased trees of any size, fuelwood or split products...Exemption that is available to us through Cal-Fire. We are operating under 10 conditions specified in 1038(b) which allows for this work. Currently, we can go to work immediately upon sending a 1038(b) Exemption form into Cal-Fire. However, according to Lahontan Water Quality regulations (both existing and proposed), we are required to wait until we receive the Exemption back from Cal-Fire before sending in a Waiver Application to Water Quality. We can then be notified via phone that we can go to work, or, in the proposed regulations, we can go to work upon verified receipt by Lahontan. 3

The biggest problem with this is that CDF has to process up to 30 or more exemptions at a time from our organization alone, and get them approved and returned to us before we can submit Waiver Applications to Water Quality. Some time delays on the part of Cal-Fire have been up to 2 months.

Other problems include:

1. A 5 1/2 month working season imposed by Lahontan regulations that otherwise requires a Category 2 waiver (proposed has language addressing this, but includes increased monitoring requirements); 4
2. Various timeframes in which the grant funding for these projects is available. Some of these timeframes allow for no more than one working season, and if the money is not spent, it must be returned; 5
3. Due to the nature of our project, many landowners sign up when the equipment is one or two days away. Adhering to the regulations (existing and proposed) will leave many landowners out of the project, breaking up the continuity of the project and increasing costs dramatically. 6

Doug, you are aware that the Central Valley Water Quality Board utilizes the following language as it pertains to 1038(b) exemptions... 7

a. Timber harvest activities (Notices of Exemption or Emergency) within 150 feet of existing structures (i.e., "FireSafe" treatments), harvest of Christmas trees, dead, dying or diseased fuelwood or split products, public agency, public and private utility right of way, fuel hazard reduction, substantially damaged timberland unmerchantable as sawlog and woody debris and slash removal, that are conducted pursuant to a Notice of Exemption accepted by CDF under 14 California Code of Regulations (CCR) Section 1038, will automatically be enrolled in the Waiver. 7

This language allows the Cal-Fire Exemption to be the document that places us under the Waiver. We're subject to the same enforceable conditions, but the paperwork, process and time lags are taken away.

Additional Comments:

The current water quality Waiver limits the working season to May 1 through October 15 (5 ½ months). The normal working season for CDF is April 1 through November 15 (7 ½ months), with erosion control and weather-related operating restrictions between October 15 and November 15 and between April 1 and May 1. 8

Current Water Quality regulations are requiring that these operations from October 15 to April 30 be classified under a separate Waiver category, requiring extra paperwork and time. Proposed language requires additional monitoring on a daily basis that serves little purpose in protecting water quality. Adopting the language for operations during this time frame that is currently found in the Forest Practice Rules and allowing the Waiver to continue to be automatic would be beneficial. This language is as follows:

(1) Tractor yarding or the use of tractors for constructing layouts, firebreaks or other tractor roads shall be done only during dry, rainless periods where soils are not saturated.

(2) Erosion control structures shall be installed on all constructed skid trails and tractor roads prior to the end of the day if the U.S. Weather Service forecast is a "chance" (30% or more) of rain before the next day, and prior to weekend or other shutdown periods.

Any Operations between November 15 and April 1 could require a Category 4 waiver with monitoring.

Language pertaining to "Harvest or leave tree marking w/in Waterbody Buffer Zones by a Registered Professional Forester" needs to be reviewed by legal counsel to see if enforcement of this provision by Water Quality is possible without any RPF's on staff. Language may require tree cutting under the supervision of an RPF (also check with legal counsel) to help protect shade retention standards. 9

Language pertaining to chipped material being no more than 2 inches in depth is operationally infeasible. Often, material left as a result of chipping and/or mastication is larger than 2 inches. Alternative language should address an average overall depth with a maximum depth restriction. 10

These depths should be subject to discussion and review by RPF's prior to implementation by Lahontan. Again, an average depth with a maximum depth is much more realistic and enforceable. 10

14 CCR 937.3(c) reads as follows: *Use of the broadcast burning prescription of the Stream 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;...* 11

While broadcast burning within the WLPZ is prohibited, there is no restriction for piling and burning of hand piles within the standard width of a WLPZ. 14 CCR 937.5 (Burning of Piles and Concentrations of Slash) states this rather clearly. Not restricting hand pile burning within the WLPZ is purposeful due to its benign nature. A study of the effects of pile burning on the physical properties of soil is included for your review.

Finally, not to re-invent the wheel, I am in agreement with the comments made in the letter from W.M. Beaty & Associates, Inc., signed by Staff Forester Ryan Hilburn, in regard to this matter. I urge you to take these comments seriously and incorporate these changes into your proposed Waiver Application Process. If necessary, extra time should be provided for additional comments. 12 13

Sincerely,

Mark A. Shaffer

Mark A. Shaffer
President
California Registered Professional Forester # 2485
Licensed Timber Operator # A7052

SEYMOUR, G., AND A. TECLE. 2004. IMPACT OF SLASH PILE SIZE AND BURNING ON PONDEROSA PINE FOREST SOIL PHYSICAL CHARACTERISTICS. *JOURNAL OF THE ARIZONA-NEVADA ACADEMY OF SCIENCE* 37(2):74-82.©2004GEOFF SEYMOUR AND AREGAI TECLE.

IMPACT OF SLASH PILE SIZE AND BURNING ON PONDEROSA PINE FOREST SOIL PHYSICAL CHARACTERISTICS

GEOFF SEYMOUR and AREGAI TECLE, School of Forestry, Northern Arizona University, Flagstaff, AZ 86001

ABSTRACT

Slash-pile burns associated with restoration thinning treatments may change soil characteristics resulting in broad implications for ecosystem functions, processes, and management. This study explores the impacts of size and burning of slash piles on various soil physical characteristics. At the Arboretum in Flagstaff, Arizona, the experiment consisted of burned, unburned, and control plots crossed with large and small sizes of slash piles. Slash from the unburned plots was removed and chipped for disposal elsewhere. The specific soil physical characteristics measured include water infiltration rate, soil moisture content, bulk density, and porosity. The results show no differences in water infiltration rates in the soils under the different treatments, leading us to conclude that burning slash piles did not form a hydrophobic layer in the soil. Soil bulk densities are lower, albeit insignificantly, in unburned pile plots than in burned pile and control plots. Hence, management decisions should recognize that the effects of burning piled slash during drought periods may be slight on these soil physical properties.

INTRODUCTION

Forest restoration has recently generated great interest among researchers and managers as a means of reducing the hazards of wildfire and forest health risks through thinning and prescribed burning (Brown et al. 1977, Snell and Brown 1980, Freeman et al. 1982, DeBano et al. 1998). Slash, unmarketable woody debris resulting from thinning, is often piled and then removed through either chipping or burning (Smith et al. 1997, DeBano et al. 1998). In most cases, prescribed burns remove the slash as well as most of the accumulated forest floor fuel load (Sackett et al. 1996, Covington et al. 1997, US Forest Service [USFS] 1998). Burning slash piles associated with forest thinning prescriptions may result in unintended effects on site characteristics in the treated areas. Severe soil damage can occur under these burn piles due to intense soil heating, however, the damage is limited to the local area under the piles (DeBano et al. 1998). Changes in soil physical characteristics created by either piling slash or burning the slash piles may contribute to floral community change, if not drive the change, by affecting water and nutrient pathways and light and water interception (Martin et al. 1979, DeBano et al. 1998, Neary et al. 1999). Therefore, physical changes in soils would likely result in habitat reduction for native fauna, and have broad implications for ecological functions, processes, and management. In spite of this, fire is considered an appropriate method to remove slash since wild fire historically consumed the dead fallen branches that comprise the majority of the slash piles (DeBano et al. 1998, USFS 1998). Land managers generally prefer to burn slash piles not only to reduce harvesting-related residual fuels that become fire hazards, but also because piles burn more efficiently with less smoke and are prudently burned under a broader range of weather conditions than broadcast burning of slash (Hardy 1966). In this study, we evaluate soil physical characteristics that can affect floral species establishment following slash pile burns associated with forest thinning treatments.

OBJECTIVES

Burning slash piles associated with forest thinning prescriptions may result in varying soil physical characteristics. Our objective in this study is to determine the effect of burning slash piles on soil bulk density, porosity, water infiltration capacity, and soil moisture content. We expect slower water infiltration in burned soils due to increased amounts of fine particles (ash from burned slash) that fill macropores in the soil and the formation of a hydrophobic layer resulting from intense heat that bakes the organic material in the forest floor. The expected increase in soil fines would increase soil bulk density while decreasing soil porosity. Furthermore, organic material has a large water-holding capacity, and consuming most, if not all, of the organic matter in and above the soil is expected to lower soil moisture

conditions in burned plots.
Another factor that may affect soil physical characteristics is the size of slash piles. The US Forest Service has no specific guidelines for piling slash, therefore individual Ranger Districts pile slash as they see best fit for the area. Currently the Flagstaff area uses two sizes of hand-piled slash piles.

The Peaks Ranger District in the Coconino National Forest tends to build smaller piles, <1.5 m high and 3 m wide at the base, while the adjacent Mormon Lake Ranger District tends to build larger and wider piles, in excess of 3 m wide and at least 2 m high. Due to the increased amount of fuel wood and, subsequently,
more heat production in the larger burn piles compared to the smaller piles, we further hypothesized that the expected effects described above will be greater under the larger piles than the smaller piles.

Study Area

The experiment was conducted on the grounds of The Arboretum at Flagstaff, approximately 10 km west of Flagstaff, Arizona, within the ponderosa pine (*Pinus ponderosa*)/Arizona fescue (*Festuca arizonica*) forest type. The slash piles were constructed from ponderosa pine slash material that was left on the forested grounds of the Arboretum. The slash piles were remains of a forest restoration thinning that occurred in 1999, in which approximately one third of the forest density was removed. The slash pile burning occurred in conjunction with further thinning in August 2001 by the Flagstaff Fuels Management Team, in which an additional third of the original basal area was removed.
Soils in the study area are typic or mollic eutroboralfs derived from flow and cinder basalt. The soils are classified as a Brolliar very stony loamforested,
and contain approximately 40% sand, 40% silt and 20% clay (Arboretum site description compiled by the US Department of Agriculture's Natural Resources Conservation Service (NRCS), written communication). These soils tend to be moderately deep (50-100 cm) and have textures that range from a gravelly to a very cobbly loam (USFS 1995). Gravel is a rock fragment that ranges in size from 2 mm to 8 cm, while cobble ranges from 8 cm to 25 cm in size (Fisher and Binkley 2000). Rock fragments >2 mm make up more than 30% of the gravelly soils and half of the very cobbly soils. Generally,
the slopes associated with these soil types range from 0-15%.
Precipitation over the area during the study period was low compared to the average from the last century. The slash piles were burned and soil samples were collected in 2001 during which a total of 44.58 cm of precipitation fell (data from Pulliam Airport, Flagstaff). During the period between burning and sample collection, the study site received very little precipitation.

Soil Physical Characteristics

Soil Bulk Density and Porosity

Blake and Hartge (1986) define bulk density (grams/cm^3) as the ratio of the mass (g) of ovendried soil solids to the bulk volume (cm^3) of the solids plus the pore space, with the moisture content present during the sampling period. Bulk density can be used to calculate soil porosity (pore space in a soil), convert soil weight to volume, and estimate weight of soil at the landscape scale (Carter 1993). To calculate soil porosity, divide bulk density by the particle density of the soil. Particle density (g/cm^3) simply refers to the density of soil particles without any consideration for the volume of pore space in the soil. The particle density of mineral soil is generally
approximated at 2.65 g/cm^3, since that is the particle density of quartz—a dominant component of mineral soils. The ratio of dry bulk density to the soil particle density gives the fraction of the total space occupied by solid material. Subtracting this ratio from 1.0 gives the pore space in the soil. Hence the formula:

$S_t = [1 - (D_b/D_p)] * 100$

Where S_t is the Total Soil Porosity (%), D_b is Dry Bulk Density (g/cm^3), and D_p is Soil Particle Density (g/cm^3). Soil porosity in mineral soils may vary from 20 to 70%.

Infiltration Capacity

Infiltration is an interfacial process in which water enters the soil from the surface and moves downward (Hillel 1971). Infiltration capacity is the maximum rate of infiltration that can pass through the soil under standing water conditions. This rate is quite important since it often determines the amount of runoff that might occur after a rain event or snowmelt
(Hillel 1971). But perhaps more importantly,

infiltration capacity determines the quantity and rate at which surface water becomes available to plants. Knowledge of the infiltration rate can be used to identify soil properties such as relative bulk density, porosity, compaction and hydrophobicity below the soil surface. In this study, we use infiltration capacity to determine whether hydrophobic compounds in the soil created a water repellent layer that would, at least momentarily, seal off, or retard infiltration. If a water repellent layer exists, infiltration capacity can also help determine the relative depth of the hydrophobic layer associated with a given treatment.

When a hydrophobic layer is reached, the rate of the infiltrating water rapidly decreases and approaches zero. Once the wettable soil layer is saturated, pressure from the hydraulic head, at the boundary of the wetted and water-repellant layers would increase by the lack of downward or lateral movement of water (DeBano et al. 1998). Eventually this pressure would induce failure in the hydrophobic layer allowing infiltrating water to penetrate past the hydrophobic layer. The failure in the hydrophobic layer would be reflected by the infiltration rate increasing as water saturates the deeper soil, then decreasing to some long-term constant that represents the deep percolation rate.

Soil Hydrophobicity

One of the most significant physical alterations that may occur in burned soils is an increase in soil water repellency. Water repellency in soils was first observed in the mid-1800's (Bayliss 1911). Those early observations related soil-water repellency to soil fungi (specifically mycelium structures). A phenomenon that drew the attention of researchers during that time was a condition known as a "fairy ring," which describes an approximately circular spatial formation of plants where growth inside the circle appears stimulated. The formation could be so distinct that outside the circle, only bare ground or withered plants occur. In the late 1800's soil moisture was found to be the reason for the formation of such rings. The soil moisture inside the circle of healthy plants was higher than that of the surrounding soil (Lawes et al. 1883). Molliard (1910) reported that soils with mycelium fungi contained only 5-7% soil moisture, compared to 21% in similar areas without the mycelium fungi. Bayliss (1911) provided a case study in which rain water could not penetrate through mycelia-infested soils, while it penetrated through similar, mycelia-free, soils to a depth of 10 cm. Other mechanisms (such as volatilizing organic materials) may be responsible for the formation of any post-fire water repellency in the ponderosa pine forest type. Water repellent soil (hydrophobic soil) is often found on the surface or a few centimeters below and parallel to the surface (DeBano et al. 1998), characteristically under a layer of severely burned soil or ash (DeBano 1969). Intense heat pushes vaporized organic compounds downward into the soil until they reach cooler soil layers and condense. The organic compounds then coat soil particles, which in turn adhere to each other forming a hydrophobic barrier. Research into fire-induced hydrophobic soils began in the 1950's and accelerated in the 1960's (DeBano 2000a, 2000b). Shortly thereafter, DeBano and Krammes (1966) hypothesized that organic compounds coated soil particles more efficiently at lower temperatures lasting shorter time periods, than at higher temperatures lasting longer periods since high temperatures and long periods tend to destroy the organic compounds (DeBano et al. 1998). Subsequent investigations showed that (1) water repellency changes very little when soil temperatures are <175°C (DeBano 1981, Neary et al. 1999); (2) heating between 175 and 200°C creates intense water repellency (DeBano 1981, March et al. 1994, Neary et al. 1999); (3) destruction of water repellency occurs when soils are heated between 280 and 400°C (Savage 1974, DeBano et al. 1976, March et al. 1994, Giovannini and Lucchesi 1997); and (4) at temperatures of $450°C, virtually all organic material in the soil is consumed (Neary et al. 1999). An important caveat here is that hydrophobic layers produced during fire can vary greatly due to differences in fire intensity and soil characteristics.

STUDY METHODS

Field Measurements

This study investigated burning effects of handpiled slash on soil physical characteristics because much of the forest thinning and fuel reduction currently conducted in the Flagstaff, Arizona, Urban/Wildland Interface Program involves hand-piled slash burning by the Fuels Management Team of the

City of Flagstaff Fire Department. We constructed experimental plots to evaluate the effects of burning two different sizes of slash piles on soil physical characteristics from the perspective of bulk density, porosity, and infiltration capacity and soil moisture content.

Plot Selection and Pile Construction

Prior to constructing slash piles, plots were randomly assigned within each study block with the provision that piles on those sites would burn safely. We avoided sites directly below or immediately upwind of tree canopies, or those sites in close proximity to other slash piles. Two sizes of slash piles were constructed. Small piles were round at the base, 1.2 m high, and 2.4 m in diameter, while large piles stood 2 m high, 4 m wide and 5 m long forming an oval or oblong shape. Piles were constructed from various sizes of slash, including needle litter, branches, and poles that were too small (<15 cm in diameter) to be removed by the harvesting crew during the 1999 thinning. Slash was grouped into size classes (i.e., 1-3, 4-7, 8-11, 12-15 cm sizes) and the percentage of each experimental pile made up by each size class was determined by measuring the slash pile material at the Northern Arizona University's (NAU) Ecological Restoration Institute and the School of Forestry's research area in Fort Valley

Figure 1. *Soil bulk density versus treatment types. Similar letter indicates an absence of a significant difference (a = 0.05). While the burned plots did have a slightly higher bulk density compared to the other treatment plots, the differences were not significant.*

outside of Flagstaff. This process ensured that our experimental slash piles were similar to each other and to piles in other areas surrounding Flagstaff.

Soil Infiltration Capacity

Infiltration rates were measured using a doublering infiltrometer after sampling the soils in the burned, unburned, and control plots. Infiltration rate measurements took place near the center of the plots but not adjacent to the soil sampling spots. We analyzed the data to determine whether or not burning had any effect on soil infiltration capacity. If burning had created hydrophobic soils, then the rate of infiltration would have temporarily approached zero after the overlying soil became saturated.

Moisture Content

Discrete values of soil moisture content were measured using time domain reflectometry (TDR) (Soil Moisture Equipment Corp. 1996). We inserted probes of 15 cm in length vertically into the ground near the center of every plot as well as at points 60 cm outside the plots. Since data collection with TDR is simple and quick, it was practical to measure outside the treatment plots to help determine any variations in soil moisture content between treatment plots and untreated sites or controls. This measurement occurred at the same time soil samples were gathered for laboratory analysis.

Bulk Density

Bulk density is a measure of the amount of soil particles (matter) in a volume of soil. The core method was used to calculate bulk density (Carter 1993). Soil pits were dug to about 15 cm deep near the center of each plot. The soil was scraped away from one of the walls to access undisturbed soil. The corer was placed horizontally against this undisturbed wall of soil, centered at 5 cm of depth, and tapped into the undisturbed soil column. Soil cores were thereby extracted from a single layer of soil. The ends of the cores were then capped (to maintain the cylindrical volume of the soil sample) and transported to a laboratory at NAU for analysis.

Laboratory Analysis of Bulk Density and Soil Porosity

Soil cores were weighed and then oven dried in their tubes for 72 hours at 105°C. Bulk density (g/cm^3) was then calculated by dividing the weight (in grams) of the dried soil by the bulk volume (in cm^3) of the soil core (Carter 1993). Total soil porosity was calculated by dividing the dry bulk density by the soil particle density value of 2.65 g/cm^3, which is common for mineral soils like those in the study site (Carter 1993).

Statistical Analysis

The final infiltration rates of the treatment plots were compared to each other using SPSS (SPSS 11.5, SPSS Inc. 2003). Treatment effects were analyzed using one-way ANOVA comparisons of the infiltration rates in each treatment type (large, small, burned, unburned and control). We ran normality and homogeneity of variance tests and accounted for alpha inflation using Tukey's Honestly Significant Difference (HSD) (Zar 1999). In this study we selected a statistical significance level of "=0.05.

RESULTS

Soil Bulk Density

The bulk density values of the soils in the entire suite of treatment plots and the control ranged between 1.1 g/cm3 and 1.24 g/cm3 (Fig. 1). This range is very tight with little variation between treatments, and shows no significant differences in bulk density between any of the treatments at the 95% confidence level.

Soil Porosity

In this study, we determined porosity from soil bulk density and soil particle density values. Because there was no significant difference in the bulk density values, we do not expect the porosity values to differ significantly from each other. Table 1 displays the lack of significant difference in soil porosity values between any of the treatments at the 95% confidence coefficient.

Soil Infiltration Capacity

Table 2 displays distinct differences in infiltration capacity measurements between treatments (p=0.02). Large burned and unburned pile plots had significantly greater infiltration rates than that of small unburned plots (p=0.050 and 0.019, respectively).

However, the patterns of infiltration showed no distinct differences between treatments. All treatments had high initial infiltration rates that reduced to a constant rate within a short period of about 15 minutes (Fig. 2). Typically, the infiltration rate values become constant at about 2 liters (L)/hr. The resulting pattern indicates the absences of any significant formation of hydrophobic layers in the soils.

Soil Moisture Content

The test for soil moisture content shows no significant differences between individual pile sizes, treatment types, and soil moisture contents inside and those outside of the plots (Table 3). However, there are some significant differences in soil moisture content between interactions of size, treatment, and inside/outside conditions. One such difference is between the soil moisture contents of large, burned pile plots (L+B) and that of small, unburned (S+Unb) pile plots (p=0.049) (Fig. 3). Soil moisture conditions inside L+B plots also differed significantly from the conditions outside the S+Unb plots (p=0.047). However, there are no significant differences between the soil moisture contents of L+B and that of small, burned (S+B) pile plots or between L+B and large, unburned (L+Unb) pile plots. There are also no significant differences between the soil moisture contents of the control plots and either the L+B or S+Unb plots. Inconsistent variation in soil moisture conditions in these comparisons may be more due to microsite differences than due to differences between treatments.

Other noteworthy differences exist, but differences are at, or around the 0.10 confidence level. These differences are between the soil moisture contents of large, burned plots and those of large, unburned plots (p=0.06), as well as between moisture contents of small burned plots and large burned plots (p=0.11). Similar differences were observed between soil moisture conditions outside the treatment plots. These differences are between soil moisture contents outside small burned (S+B) plots and those outside L+B plots (p=0.11), between those outside S+B

Table 1. *ANOVA Test results showing no significant differences in soil porosity between treatment types.*

Source	df	Sum of squares	Mean square	F value	Pr>F
Model	13	346.165330	26.628102	1.37	0.2198
Error	36	698.278520	19.396626		
Corrected total	49	1044.443850			

R_2=0.331435
Coefficient of variance = 7.823637
Root MSE = 4.404160
Porosity mean = 56.29300

Table 2. *ANOVA Test results showing significance in water infiltration capacity differences between treatment types at final infiltration test period (after 111 minutes).*

	Sum of squares	df	Mean square	F	Significance
Between groups	7.160	4	1.790	3.264	0.020
Within groups	24.676	45	0.548		
Total	31.837	49			

plots and outside S+Unb plots (p=0.06), and between those outside S+B plots and outside the control plots (p=0.08).

ANALYSIS OF RESULTS

Soil Bulk Density/Porosity

The results of this study failed to support our

hypothesis that fine particles from wood ash would increase soil bulk density. The absence of significant differences in soil bulk density or porosity values across treatments is intriguing since the fires consumed over 95% (as estimated by the City of Flagstaff Fuels Manager) of the organic material in the burned slash piles. This almost complete burning of the slash piles resulted in copious accumulation of ash in the burned plots. The ash should have introduced
a large amount of fine particles into the soil macropores and thus affected the soil bulk density and porosity values of the plots regardless of compaction
or heat effects from fire. Further, fires that generate ground temperatures between 220-460°C can consume the organic matter in soils, deteriorating the soil structure (DeBano et al. 1998). Such deterioration in soil structure in turn would decrease the amount of soil macropores. Since macropores are largely responsible for the rate of water infiltration into soils, any soil structural deterioration that reduces the amount of macropores would lead to a reduction in infiltration rates (Neary et al. 2003). Nonetheless, no such effect appeared in this study. The lack of changes in infiltration rates between treatments is most likely due to (1) the very cobbly structure of the soils, which creates channels for water movement (Brady and Weil 1996), and (2) the absence of changes in soil bulk density and porosity.

Soil Infiltration Capacity

The results of this study also fail to support our hypothesis that increased fine materials from the burned slash would affect the soil infiltration capacity in two ways: (1) the fine materials would plug the porous space through which water moves and (2) form a hydrophobic layer below the surface that retards downward water movement. However, we did not see such effects in this study. While distinct differences exist in infiltration capacity between different treatments, the changes in infiltration rates remain the same across all treatments (Fig. 2); after the first 18 minutes the infiltration rate in each experimental treatment remained almost constant at 1.0-2.2 L/hr. The changes in infiltration rates in the control and unburned plots did not differ from those in the burned plots. This indicates the absence of any significant formation of a hydrophobic layer. Even large, unburned plots, which had considerably higher initial infiltration rates, showed rates similar to the other treatments after the initial three minutes. Possibly, fine particles of ash and organic material left on the soil surface did not enter into the soil to clog the macropores and produce hydrophobicity because of the lack of precipitation needed to trans-

Figures 2. *Infiltration rate (l/hr) versus time (in minutes) during a 30 minutes period. Extension of the period of infiltration test (not shown) indicated some significant differences in the final, constant rates of infiltration in the large burned and unburned plots compared to those in the small unburned plots (a = 0.05).*

port those fines down to some uniform layer. Also, rapid wind speeds sometimes prevalent in the study area might have blown most of the wood ash off the study plots before the ash could penetrate into the soil. However, a more probable explanation for the lack of hydrophobicity is that since slash pile fires often produce temperatures from 500-700°C at and slightly below the soil surface, any organic compounds on or near the surface would have been incinerated, thus prohibiting the formation of a hydrophobic layer (Rundel 1983, Neary et al. 1999). As heat from the burning slash penetrated downward through the soil column, soil at some depth would have experienced temperatures between 175-250°C. These temperatures would vaporize any hydrophobic compounds present into gases that can coat the soil particles (Savage 1974, DeBano et al. 1976, March et al. 1994, Giovannini and Lucches 1997). Roberts (1965) found that slash-pile burning can generate temperatures exceeding 250°C as deep as 10 cm in mineral soil. Consequently, while soil layers somewhere
below approximately 5 cm would have experienced temperatures between 175-250°C, these soil

layers were probably too deep to have enough organic matter to form an uninterrupted hydrophobic layer.

Soil Moisture Content

The results of this experiment also fail to support our hypothesis that soils in burned plots would have lower moisture contents than soils in unburned or control plots due to the consumption of organic matter, which has large water holding capacity. Soils in large, burned pile plots (L+B) had significantly less moisture content than those outside the small, unburned (S+Unb) pile plots. However, analysis of the main effects of burning and size show that neither result in significant differences. There were also no differences between the controls and either the L+B or S+Unb pile plots. Thus the difference appears to be due to an interaction of size and treatment, however soil moisture data from outside the plots suggest otherwise. Soil moisture content inside the S+Unb plots was similar to the moisture content outside the S+Unb plots (Fig. 3). Therefore site conditions probably affected the moisture conditions of small unburned plots more than any effect from treatment interactions.

Conclusions and Recommendations

In much of the southern Colorado Plateau, burning slash piles is generally conducted in association with forest restoration thinning. Although ground and belowground temperatures were not measured in this study, descriptions of high-severity fire effects (including reddish mineral soil, complete consumption of duff and logs as well as extended char layers) match conditions of burned slash pile plots in the area (Albini et al. 1996, Hungerford 1996, DeBano et al. 1998). Soil temperatures under high severity wildfires can exceed 250°C (DeBano et al. 1998, Neary et al. 2003), while slash pile temperature can exceed 500°C slightly below the soil surface (Rundel 1983, Neary et al. 1999). The severe nature of these burns explains some of the physical properties observed after the slash piles burned.

The changes in soil physical characteristics observed in this study do not appear to conflict with forest restoration goals. Although some differences did exist between burned plots and unburned plots, generally the differences did not show any patterns and often they did not exist between treatments and controls. Water infiltration rates (Fig. 2) exemplified this point since the rates associated with most of the treatments differed significantly, yet all of the treatments displayed the same pattern of high initial infiltration rates that decreased quickly to a constant rate. Assuming the slash pile burn effects were severe, this lack of hydrophobicity is consistent with other studies that state that water repellency is destroyed when soil temperatures exceed 288°C (Savage 1974, DeBano et al. 1976). Further, the results suggest that the amount of ash fines, from the burned piles, entering the macro-pores in the soil was insufficient to alter infiltration rates. This corresponds to the results displayed by soil bulk density analysis. Bulk density did not indicate the expected increase associated with soil compaction from piling the slash, nor did bulk density increase in the burned plots due to entry of fine ash particles (Fig. 1). The situation with porosity is the same, since porosity values were determined from the bulk density values.

Soil moisture content displayed a different situation (albeit not significant) between the large, burned pile plots and the large, unburned pile plots ($p=0.06$) and this implies a potential effect of intense burns of long durations on the soil. However, soil moisture within large, burned plots failed to differ from the moisture content in controls adjacent to, and outside of, the large, burned plots ($p=0.614$). Moisture levels in large, burned plots also failed to differ from moisture levels in control plots ($p=0.814$). According to these results, soil moisture is not significantly affected by the treatments in this study. This result is inconsistent with the idea that newly burned soil surfaces would have increased evaporation due to increased temperatures caused by increases in unimpeded solar radiation falling on the soil surface (Christensen and Muller 1975, Pickett and White 1985, Neary et al. 1999). The extremely low amount of precipitation during the time between

burning and sampling the soil moisture could have a major influence on our findings. Our findings may also reflect the theory that a decrease or absence of interception by vegetation and OM may result in decreased evapotranspiration of water (Bosch and Hewlett 1982, Whitehead and Robinson 1993, DeBano 1998).

Research in the 1960's and 1970's suggested that non-ionic wetting agents could be beneficial in

counteracting any hydrophobic layer created in soils. Wetting agents have been effectively administered onto soils after intense wildfires in a reasonably successful effort to reduce erosion and runoff (DeBano 2000b). Hydrophobic layers caused by wild fires can exist across landscape scales, and amending the soil to prevent erosion and induce percolation is definitely warranted. However, results in this study, which are based on data from a single dry year, indicate that restorationists and other land managers may not need to amend or treat the soil to offset physical changes from burning hand piled slash since no dramatic effects were observed. This conclusion should be taken cautiously since continued observation of the treatment plots is necessary to witness longer-term effects over different climatic conditions.

A major goal of forest restoration treatments in the Southwest is to thin the ponderosa pine overstory in an effort to reduce catastrophic wild fires as well as to promote understory health to levels of diversity and structure that are both socially and ecologically desirable. We must be careful that the methods we use to restore these forests do not compromise the overall goals that we strive to achieve. To this end, it is important to uncover the mechanisms that may or may not result in habitat reduction for native fauna, and have broad implications for ecological functions, processes, and management. This study has demonstrated that initial (first year) changes in soil infiltration capacity, soil moisture content, bulk density and porosity due to burning of slash piles are not causal mechanisms for habitat reduction since profound changes in these soil characteristics did not occur.

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LITERATURE CITED

ALBINI, F., M. R. AMIN, R. D. HUNGERFORD, W. H. FRANDSEN, and K. C. RYAN. 1996. *Models for fire-driven heat and moisture transport in soils.* USDA Forest Service, General Technical Report INT-335.

BAYLISS, J. S. 1911. Observations on *Marasmius oreades* and *Clitocybe gigantean* as parasitic fungi causing fairy rings. *Journal of Economic Biology* 6:111-132.

BLAKE, G. R., and K. H. HARTGE. 1986. Bulk density Pp. 363-375 *in* A. Klute, *Methods of soil analysis. Part 1, Agronomy No. 9.* American Society Agronomy, Madison, WI.

BOSCH, J. M., and J. D. HEWLETT. 1982. A review of catchment experiments to determine the effect of vegetation changes on water yield and evapotranspiration. *Journal of Hydrology* 55:3-23.

BRADY, N. C., and R. R. WEIL. 1996. *The nature and properties of soils, eleventh edition.* Prentice Hall, Engelwood Cliffs, NJ Pp. 446-486.

BROWN, J. K., J. A. K. SNELL, and D. L. BUNNELL. 1977. *Handbook for predicting slash weight of Western conifers.* USDA Forest Service, General Technical Report INT-37.

CARTER, M. R. 1993. *Soil sampling and methods of analysis.* Lewis Publishers, Boca Raton, Fl. Pp.330-32.

CHRISTENSEN, N. L., and C. H. MULLER. 1975 Effects of fire on factors controlling plant growth in *Adenostoma* chaparral. *Ecological Monographs* 45:29-55.

COVINGTON, W. W., P. FULE, M. MOORE, S., HART, T. KOLB, J. MAST, S. SACKETT, and M. WAGNER. 1997. Restoring ecosystem health in ponderosa pine forests of the Southwest. *Journal of Forestry* 95(4):23-29.

DEBANO, L. F. 1969. Observations on water repellant soils in the western United States. Pp. 17-29 *in* L. F. DeBano, and J. Letey, eds., *Proceeding of a conference on water repellent soils,* Riverside, CA.

DEBANO, L. F. 1981. *Water repellant soils: A state of the art.* USDA Forest Service, General Technical Report PS W-46.

DEBANO, L. F. 2000a. Water repellency in soils: A historical overview. *Journal of Hydrology* 231-232:4-32.

DEBANO, L. F. 2000b. The role of fire and soil heating on water repellency in wildland environments: A review. *Journal of Hydrology* 231-232:195-206.

DEBANO, L. F., and. J. S. KRAMMES. 1966. Water

repellent soils and their relation to wildfire temperatures. *International Association of Hydrological Sciences* 2:14-19.

DEBANO, L.F., D. NEARY, and P. FFOLLIETT. 1998. *Fire's effects on ecosystems.* John Wiley & Sons Inc., New York, NY.

DEBANO, L. F., S. M. SAVAGE, and D. A. HAMILTON. 1976. The transfer of heat and hydrophobic substances during burning. *Soil Science Society of America Journal* 40:779-782.

FISHER, R. F., and. D. BINKLEY. 2000. *Ecology and management of forest soils.* John Wiley and Sons, Inc. New York, NY.

FREEMAN, D. R., R. M. LOOMIS, and P. J. ROUSSOPOULOS. 1982. *Handbook for predicting slash weight in the Northeast.* USDA Forest Service, General Technical Report NC-75.

GIOVANNINI, G., and S. LUCCHESI. 1997. Modifications induced in the soil physio-chemical parameters by experimental fires at different intensities. *Soil Science* 162:479-486.

HARDY, C. C. 1996. *Guidelines for estimating volume, biomass, and smoke production for piled slash.* USDA Forest Service, General Technical Report PNW-364.

HILLEL, D. 1971. *Soil and water: Physical principles and processes.* Academic Press. New York, NY.

HUNGERFORD, R. D. 1996. Soils. *Fire in ecosystem management notes: Unit II-1.* USDA Forest Service, National Advanced Resource Technology Center, Marana, AZ.

LAWES, J. B., J. H. GILBERT, and R. WARRINGTON. 1883. Contribution to the chemistry of fairy rings. *Journal of Chemical Society (London)* 43:208-223.

MARCH, R. J., X. ARIAS, and A. SOLE. 1994. Effects of slash burning on some soil physical properties on an olm-oak coppice. Pp. 29-42 *in* M. Sala, and J. F. Rubio, eds., *Soil erosion and degradation as a consequence of forest fires.* Selection of papers from the International Conference on Soil Erosion and Degradation as a consequence of Forest Fires. Barcelona, Spain. Geoforma ediciones, Logrono, Spain.

MARTIN, R. E., H. E. ANDERSON, W. D. BOYER, J. H. DIETERICH, S. N. HIRSH, V. J. JOHNSON, and W. H. MCNAB. 1979. *Effects of fire on fuels: A state of knowledge review.* USDA Forest Service, General Technical Report WO-13.

MOLLIARD, M. 1910. De l'action du Marasius oreades Fr. Sur la vegetation. *Bulletin of the Society of Botany* t.57 s.4, t.1(1):62-69.

NEARY, D. G., G. J. GOTTFRIED, L. F. DEBANO, and A. TECLE. 2003. Impacts of fire on watershed resources. *Journal of Arizona-Nevada Academy of Science* 35:23-41.

NEARY, D. G., C. C. KLOPATEK, L. F. DEBANO, and P. F. FFOLLIOTT. 1999. Fire effects on belowground sustainability: A review and synthesis. *Forest Ecology and Management* 122:51-71.

PICKETT, S., and P. S. WHITE. 1985. *The ecology of natural disturbances and patch dynamics.* Academic Press, San Diego, CA.

ROBERTS, W. B. 1965. Soil temperatures under a pile of burning logs. *Australian Journal of Forest Research* 1:21-25.

RUNDEL, P. W. 1983. Impact of fire on nutrient cycles in Mediterranean-type Ecosystems with reference to chaparral. Pp. 192-207 *in* F. J. Kruger, D. T. Mitchell, and J. U. M. Jarvis, eds., *Mediterranean-type ecosystems: The role of nutrients.* Springer-Verlag, New York, NY.

SACKETT, S. S., S. M. HAASE, and M. G. HARRINGTON. 1996. Prescribed burning in southwestern ponderosa pine. Pp. 178-186 *in* P. F. Ffolliott, L. F. DeBano M. B. Baker, Jr., G. H. Gottfried, G. Solis-Garza, C. B. Edmister, D. G. Neary, L. S. Allen L.S., and R. H. Hamre, tech. coords., *Effects of fire on Madrean Province ecosystems: A symposium proceedings.* USDA Forest Service, General Technical Report RM-289.

SAVAGE, S. M. 1974. Mechanisms of fire indices water repellency in soil. *Soil Science Society of America Proceedings* 33:405-409.

SMITH, D. M., B. C. LARSON, M. J. KELTY, and P. M. S. ASHTON. 1997. *The practice of silviculture: applied forest ecology.* Wiley & Sons, Inc. New York, NY. Pp. 203-205.

SNELL, J. A. K., and J. K. BROWN. 1980. *Handbook for predicting residue weights of Pacific Northwest conifers.* USDA Forest Service, General Technical Report PSW-103.

SOIL MOISTURE EQUIPMENT CORPORATION. 1996. *Handbook for trase time domain reflectrometry system.* Santa Barbara, CA.

USFS. 1995. *Terrestrial ecosystem survey of the Coconino National Forest.* USDA Forest Service,

Southwestern Region, Albuquerque, NM..
USFS. 1998. *A guide to the Grand Canyon Forest Partnership: Working together in Flagstaff's urban wildland interface.* Greater Flagstaff Forest Partnership, Flagstaff, AZ.
WHITEHEAD, P. G., and M. ROBINSON. 1993. Experimental basin studies–an international and historical perspective of forest impacts. *Journal of Hydrology* 145:217-230.
ZAR, J. H. 1999. *Biostatistical analysis: Fourth edition.* Prentice Hall Inc. Engelwood Cliffs, NJ.

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Lassen County Fire Safe Council, Inc.
PO Box 816
Susanville, CA 96130

February 4, 2009

Lahontan Regional Water Quality Control Board
2510 Lake Tahoe Boulevard
South Lake Tahoe, California 96150

The following letters were sent to you during your informal comment period. Please accept them as comments for the formal comment period.

Lahontan needs to extend the exemption of the waiver requirements to the 10% Dead & Dying/Fuelwood Exemption just as they have for the Forest Fire Prevention Exemption and 150' From the Home Exemption. Again we encourage you to adopt the same process that the Central Valley Water Quality Control Board uses as outlined in the attached letters. Any activities conducted under those exemptions are automatically enrolled in the Central Valley's program. No additional filing or paperwork is required. 1 2

This is especially important now that governor has laid out a clear mandate to eliminate redundant regulatory activities by state agencies. We can think of no better example of redundancy than Lahontan's parallel regulation of fire safe council fuel treatment activities. The Department of Forestry and Fire Protection is quite capable of ensuring environmental compliance with regard to these minor timber treatments. And they are minor, that is why they are allowed to be conducted under an exemption. 3

Thank you for your consideration.

Very Truly,

Thomas W. Esgate,
Managing Director

cc: State Senator
Assemblyman
Governor

FireSafe COUNCIL
Lassen County Fire Safe Council, Inc.
PO Box 816
Susanville, CA 96130

Tom Esgate
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December 4, 2008

Lahontan Regional Water Quality Control Board
2510 Lake Tahoe Boulevard
South Lake Tahoe, California 96150

Input and Comments Concerning Timber Waiver Revisions

The current Lahontan Timber Waiver process is costing our fire safe council thousands of dollars in unnecessary expenditures, money that could go to into protecting Lassen County communities, and hundreds of hours of staff time for filling out unnecessary paper work. We are hopeful that Lahontan will consider adopting the Central Valley Water Quality Control Board (CVWQCB) model for operating under a waiver. It's a simple process that automatically enrolls projects operating under CalFire exemptions in the waiver program. The relevant CVWQCB language sets this forth reads as follows: 4 5

Eligibility Criteria:

a. Timber harvest activities (Notices of Exemption or Emergency) within 150 feet of existing structures (i.e., "FireSafe" treatments), harvest of Christmas trees, dead, dying or diseased fuelwood or split products, public agency, public and private utility right of way, fuel hazard reduction, substantially damaged timberland unmerchantable as sawlog and woody debris and slash removal, that are conducted pursuant to a Notice of Exemption accepted by CDF under 14 California Code of Regulations (CCR), will automatically be enrolled in the Waiver.

Lassen County communities within CVWQCB region can be signed up for fire safe and conservation/restoration projects seamlessly and benefit from efficient project implementation at lower costs. The citizens living within the Lahontan Region, and those on the Fire Safe Council charged with landowner sign up, are literally being buried in Lahontan paper work and faced with seemingly endless bureaucratic inquiries and aggressive notices to comply. By the way, in the past 5 years our Fire Safe Council has never received a notice of violation from CalFire for any of our projects.

We strongly urge Lahontan to adopt the CVWQCB model for waivers operating under CalFire exemptions so that scarce fuel reduction funding can be put to work protecting life and property without overburdening and unnecessary regulation. Furthermore, there are also fuel reduction and conservation practices that do not even require CalFire permitting, for example, hand work and mastication. In cases where a CalFire exemption or permit is not required, neither should a filing with Lahontan be required.

There are also technical issues that need to be addressed in the Lahontan waiver process and we strongly urge you to consider the comments of Mark Shaffer, the Fire Safe Council's consulting forester, when revising the process. 6

Very truly,

Dorine Beckman,
Chair

Cc: State Senator
Assemblyman
Governor

County of Lassen
BOARD OF SUPERVISORS

ROBERT F. PYLE
District 1
JIM CHAPMAN
District 2
LLOYD I. KEEFER
District 3
BRIAN D. DAHLE
District 4
JACK HANSON
District 5

County Administration Office
221 S. Roop Street, Suite 4
Susanville, CA 96130
Phone: 530-251-8333
Fax: 530-251-2663

November 25, 2008

State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Re: Input and Comments Concerning Timber Waiver Revisions

Dear Representatives:

The current Lahontan Timber Waiver process is costing our local Fire Safe Council thousands of dollars in unnecessary expenditures, money that could go into protecting Lassen County communities, and hundreds of hours of staff time filling out paper work. We are hopeful that Lahontan will consider adopting the Central Valley Water Quality Control Board (CVWQCB) model for operating under a waiver. It's a simple process that automatically enrolls projects operating under CalFire exemptions in the waiver program. The relevant CVWQCB language that sets this forth reads as follows: 7

Eligibility Criteria: 8

a. Timber harvest activities (Notices of Exemption or Emergency) within 150 feet of existing structures (i.e., "FireSafe" treatments), harvest of Christmas trees, dead, dying or diseased fuelwood or split products, public agency, public and private utility right of way, fuel hazard reduction, substantially damaged timberland unmerchantable as sawlog and woody debris and slash removal, that are conducted pursuant to a Notice of Exemption accepted by CDF under 14 California Code of Regulations (CCR), will automatically be enrolled in the Waiver.

Lassen County communities within CVWQCB region can be signed up for fire safe projects seamlessly and benefit from efficient project implementation at lower costs. The citizens living within Lahontan Region, and those of the Fire Safe Council charged with landowner sign up, are literally being buried in Lahontan paper work and faced with seemingly endless bureaucratic inquiries and notices to comply. Please note that in the past 5 years, the Fire Safe Council has never received a notice of violation from the CalFire on any of their projects.

We strongly urge Lahontan to adopt the CVWQCB model for waivers operating under CalFire exemptions so that scarce fuel reduction funding can be put to work protecting life and property without overburdening and unnecessary regulation. 8

There are also technical issues that need to be addressed in the Lahontan waiver process and we strongly urge you to consider the comments of Mark Shaffer, the Fire Safe Council's consulting forester, when revising the process. 9

Sincerely,

Jack Hanson

Jack Hanson, Chairman
Lassen County Board of Supervisors

cc:

Governor Arnold Schwarzenegger
State Capitol
Sacramento, CA 95814

Senator Dave Cox
State Capitol, Room 2068
Sacramento, CA 95814

California Resources Agency
Mike Chrisman, Secretary
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

State Water Resources Control Board
Dorothy R. Rice, Executive Director
1001 I Street
Sacramento, CA 95814

Lahontan Regional Water Quality Control Board
2510 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

State of California - The Resources Agency
ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
Inland Deserts Region
407 West Line Street
Bishop, CA 93514
(760) 872-1171
(760) 872-1284 FAX

Letter Code: DFG

February 9, 2009

Ms. Andrea Stanley
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Subject: Revision of Conditional Waiver of Waste Discharge Requirements for Timber Harvest and Vegetation Management Activities in the Lahontan Region

Dear Ms. Stanley:

The Department of Fish and Game (Department) has reviewed the Initial Study (IS) supporting a Mitigated Negative Declaration (MND) for the above referenced project. The proposed project is the Revision of Conditional Waiver of Waste Discharge Requirements for Timber Harvest and Vegetation Management Activities (THW) in the Lahontan Region.

The Department is providing comments on the IS/MND as the State agency which has statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the State by the Department (Fish and Game Code §711.7). The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). The Department's Fish and wildlife management functions are implemented through its administration and enforcement of Fish and Game Code (Fish and Game Code §702). The Department is a trustee agency for fish and wildlife under the California Environmental Quality Act (see CEQA Guidelines, 14 CCR 15386(a)). The Department is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

The Department offers the following comments and recommendations.

As mentioned by Department staff during the scoping process, the large geographic area and multiple purposes for projects should be acknowledged. Vegetation management in Los Angeles County during winter will be extremely different from the same in Mono or Modoc counties. Requirements to protect the environment in each of these areas can be very different. For example, winter conditions may mean snow in one area--which could reduce discharge if project implementation were to occur during that season--or rain in another, during which project implementation would increase 1

discharge. Complicating matters are a multitude of factors like soil type, slope, vegetation type, and project purpose. Separate waivers with titles indicative of project purpose (e.g. Aspen Regeneration, Invasive Species Removal, Meadow Restoration) would also help to clarify the purpose and need of the "waiver" or "waste discharge requirements" for property owners and land managers when conducting timber harvest or vegetation management activities. Many landowners, including agency land managers, are not aware of these requirements for habitat restoration projects. 1

The stated purpose of the revised THW is to simplify the waiver for users and promote fuels reduction while ensuring protection of water quality. It appears that the proposed rules do simplify the process for projects in densely developed areas (less than 3-acre parcels). However, the Department is concerned that including mechanized equipment entry within riparian zones (projects under the proposed Category 1) may pose threats to riparian habitat and water quality because there are no notification requirements for these activities. 2

As a trustee agency for fish and wildlife resources, the Department is often involved with reviewing, approving, funding, and conducting various vegetation management activities on both private and public lands. A major concern of the Department under the proposed THW is the requirement to use a Registered Professional Forester (RPF) or Federal Forestry Professional (FFP) under Category 2, 4 and 6. Categorical Exemptions, such as CEQA Guidelines §15304(d), exist to reduce onerous requirements for projects that are conducted for the benefit of California, and in the Department's case, specifically for the benefit of California's natural resources on State lands. Under these circumstances, as a trustee agency over fish and wildlife resources, the Department would rely on its professional staff, rather than an RPF or FFP to make resource determinations. 3

Commercial projects should be regulated differently from projects that are attempting to address vegetation management for ecosystem health or to reduce the threat of catastrophic fire in riparian and wetland areas. Small construction sites and small parcels, especially those adjacent to waters of the state, have the potential to cause more damage to water quality due to the cumulative impact of multiple projects and the potential for already impaired riparian and upland habitat that will not buffer or prevent discharge as well as larger, undeveloped or low-density areas with intact vegetation. 4 5

For small projects that do not precisely fit under proposed Category 1, the Department foresees a reduction in restoration projects that would be beneficial to wildlife habitat in riparian areas. Economically restricting rules, such as requiring an RPF for riparian work, and protracted monitoring requirements may deter project proponents. The Department acknowledges that the public may not be aware of potential project impacts to water quality and wildlife habitat. However, when natural resource agency professionals work closely with landowners to improve wildlife habitat (e.g. through the Federal Partners for Wildlife Program), incorporated agency involvement should be more than adequate to determine which trees should be removed during a project. The Department recommends that projects on private lands that are conducted for habitat 6

restoration and in close collaboration with a natural resource agency (i.e. an agency with the purpose of managing and improving conditions for wildlife), be included in Category 1. 6

The Department reviews, approves, funds, and conducts many invasive species removal projects that focus on deleterious plants in the riparian corridor. These projects are often conducted by non-profits or local agencies and are funded by small grants. Example projects include: conifer removal from aspen groves; tamarisk, locust, and Russian olive removal from riparian corridors; juniper and pinyon pine removal from sage meadows; and other habitat restoration/invasive species control type projects. The requirement that an RPF be involved for any riparian work involving removal of trees greater than 3 inches dbh neither ensures habitat protection nor promotes future habitat restoration work in light of the current economic climate in California (e.g. reduced grant monies available for these types of projects). Conditions 2, 3, and 4 under Category 6 that require an RPF or FFP to identify various criteria can be done by other natural resource professionals. Although tamarisk removal utilizes hand crews, the cut and paint method of applying herbicide will push these projects into Category 6, which will require an RPF or FFP to mark any tamarisk, Russian olive, Tree of Heaven or other invasive species over 3 inches dbh. Under the 2007 waiver, there is a requirement that scientists with stated minimum qualifications be involved where sensitive habitat is being treated (in addition to the RPF or FFP which is a requirement specific to the Lake Tahoe). In the proposed THW, this requirement has been omitted and is now only under the purview of an RPF or FFP. The Department recommends that an appropriately-qualified natural resource professional be added as an option to the current RPF or FFP requirement and hopes that Board staff can work with the Department to encourage and facilitate non-profits to continue invasive species removal. 7

Waiver specific comments

Attachment C. The application for Category 4 erroneously states that there are 11 rather than 10 criteria. 8

Page 6, 14(c). States that the waiver will balance the need for fuel hazard reduction with protection of water quality by expediting permitting for lower impact fuels hazard reduction and forest enhancement projects. The Department does not agree that the RPF/FRF requirement for riparian work is the only (or best) way to accomplish this--there are many other natural resource professionals trained in land and wildlife management that are qualified to determine how to achieve desired project outcomes while minimizing impacts to natural resources. Conditions for Category 1, unless public education is included as a component of this waiver process, are of concern to the Department and should be reevaluated. 9

The Department commends and appreciates the goal of waiver General Provision 2 that allows for the division of projects into more than one category. 10

The Table 1 summary is not complete with regard to categorical caveats, so direction should be made to reference the text for further information regarding Category criteria. For example, Category 1 defensible space/fire prevention could indicate to a project proponent that their project would not require notification. Within the body of the document, however, Category 1 is further defined to be limited to parcels of 3 acres or less. The Department understands that the table is a summary, but makes this recommendation to prevent the reader from coming to an erroneous conclusion about the category requirements. 11

Unfortunately, many species of herbaceous and woody plants have invaded the riparian corridors of California. Invasive species removal may require the take of trees larger than 3 inches dbh. In addition, proper application of cut and paint herbicide, in a localized, targeted application, is often the most effective method to remove many invasive plant species, and it seems much more controlled than dry application of borax salts that can blow or wash into waterways during or after application. Revised Category 4 prohibits herbicide use, except dry application or borax or sporax. The Department hopes that the Board will consider adding 'cut and paint applications' of herbicides designed to be used near water into Category 4. 12

The Department questions the rationale that places 'construction activities' in Category 1, regardless of proximity to waters of the state. The Department recommends that Category 1 projects should have the same protective measures regarding work in the riparian as Category 2, and suggests that project size rather than parcel size is the deciding factor of whether a project should require more or less monitoring reports and restrictions. One suggestion would be to combine Categories 1 and 2, with the new category having water zone restrictions that are now in Category 2. In addition, the Department questions the rationale that allows mechanical access off existing roads in Category 1, but not Category 2, and, in fact, in any other category, off road mechanical equipment (tractors, masticators, etc.) use invokes higher monitoring requirements. While the Department comprehends that damage can occur with repeated off road use, a one-time project where off-road use in not expected to create ongoing erosion issues or create new roads should be used as criteria that allow projects to fall under Category 1. That is, if off-road access is required, but the project proponent does not perceive habitat damage due to limited access events and work on low-gradient, non-saturated soils, the project should fall into Category 1. 13 14 15 16

The IS/MND and draft waiver (Page 3 and 5, respectively) both define a myriad of projects that fall under 'timber harvest and vegetation management activities,' none of which includes commercial harvest. It is perplexing, therefore, that an RPF or FFP is required to mark trees for projects such as aspen regeneration, meadow rejuvenation, fuels reduction, and invasive species removal. It seems that the Board is using excerpts from the Forest Practice Rules that focus on revenue-generating projects with goals quite different from those that would be implemented to improve wildlife habitat. In addition, as commercial harvest is not listed in the definition of projects covered by this waiver, as mentioned previously during scoping, it is suggested that the current 17

nomenclature for the waiver be changed to delete or relegate to a subtitle the phrase "timber harvest." Agencies, non-profits, and individuals conducting restoration will be more likely to comprehend that a waiver is necessary and implement Board requirements under a "vegetation management waiver." 17

IS/MND specific comments

It is within the authority of the Board to regulate land uses in a watershed that may infuse pollutants into waters of the state. Requiring RPFs or FFPs to implement Board standards seems beyond that realm of authority. Many other classifications of natural resource professionals are perfectly capable of assessing watershed conditions and implementing projects that meet Board standards. Whether the project is on private, State, or federal lands, there are numerous classifications natural resource professionals qualified to make the requested determinations, an RPF not necessarily being the most desired classification for designing a restoration project for aquatic species, for example. Thus, additional personnel would be required, and in many cases, the RPF or FFP would not already be on staff, thus would need to be contracted. The Department is concerned that this specific requirement will either encourage more revenue-generating timber harvest projects to pay the salary of the RPF or discourage fuel reduction and habitat restoration projects due to the extra costs incurred by this requirement. 18

The Department questions the inconsistency of requiring RPFs or FFPs to mark trees, while placing the possibly more important component of monitoring water quality on project proponents with no required qualifications. This implies that a skidder operator or high school level summer intern has the expertise to determine impacts to aquatic invertebrates, for example, but a biologist or agency land manager does not have the capability to determine which trees should be removed to improve habitat or remove an invasive species. The Department suggests providing guidelines of what may cause an impact to water quality for private individuals conducting projects--especially with regard to Category 1 projects. 19

Page 7: The categories are organized based on threats to water quality, but the Department perceives that small parcel owners may have larger impacts to water quality due to potential higher density of impacts than projects on large public or private lands. 20

Page 17: The IS/MND assumes that the waiver is in compliance with the Basin Plan, and that projects will be designed and implemented to "ensure biological resources are protected, and any impacts will be reduced to less than significant levels." But the only professional required is an RPF. Thus, "protection or enhancement of fish passage and protection of riparian vegetation"...is dependent upon an RPF while a Fishery Professional has no authority within the confines of this waiver to conduct a project that may require removal of trees without obtaining the assistance of an RPF. 21

Page 18: Simply because an area is urban or industrial does not mean that impacts to water quality are low. Category 1 is described as very low or no threat to water quality, yet includes construction clearing and urban defensible space. The Department would rather see criteria such as low slope, stable soils, vegetation type and density, distance to water, as criteria--as they are in some of the other categories. As previously stated, restoration projects should have a separate waiver with different criteria/requirements from commercial timber harvest, the method and monitoring may be the same, but the goal of restoration projects is to improve habitat quality and stability of sites--including water quality (a goal much different from commercial timber harvest). 22 23

Page 26 states that the categorical treatment of timber harvest activities is designed to ensure that impacts from soil erosion will be less than significant. These categories and projects vary from those conducted around existing structures, which fall under Category 1 with low or no threat to water quality, to timber harvest activities on sensitive land which fall under Category 6. Category 1 allows activities up to the water's edge, regardless of the type of water, which does not seem to imply 'very low or no threat' to water quality, while the same activities within 75 feet of a fish-bearing water on a larger parcel, fall within Category 6. The Department also questions the zoning requirements. Why are agricultural and resource management zones not included in Category 1? Why does a parcel size of 'less than 3 acres' reduce the potential impacts to water quality rather than the project size and project components? 24 25 26

Page 37: Is an RPF required for all categories except Category 1 if trees greater than 3 inches dbh are being removed? 27

Page 37: It would be beneficial to cite the studies that demarcate the difference in impact between 10 pounds per square inch and 13, since 10 can be utilized in Category 2, but if it's 13 pounds per square inch, the project moves into a more restrictive category . 28

The Department's current understanding of this waiver is that it assumes that all habitat restoration projects to reduce fuel, remove invasive species, etc. will result in waste discharge almost with no regard to proximity to water, project design, soil type, and slope. The Department agrees that water quality standards should be upheld, and that notification should occur for work where a discharge is expected. However, for vegetation management projects where no discharge is anticipated, the Department questions the notification, monitoring reports, and RPF requirements being put forth in this waiver. 29

The Department appreciates and supports the attempt to streamline the process of notification for waivers of discharge and to reduce potential threats to water quality and hopes that our recommendations will assist in accomplishing this goal.

If you have any questions or comments, please contact Ms. Dawne Becker via email at dbecker@dfg.ca.gov or at the letterhead telephone number or address.

Sincerely,

Troy Kelly FOR:

Brad Henderson
Habitat Conservation Supervisor

cc: Dawne Becker
Troy Kelly

Tahoe Area Sierra Club Group

Sierra Forest Legacy
Protecting Sierra Nevada Forests and Communities

KEEP TAHOE BLUE
League to Save Lake Tahoe

California Regional Water Quality Control Board,
Lahontan Region
Attn: Andrea Stanley
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

February 9, 2009

Letter Code: Sierra Club, SFL, and League

Dear Ms. Stanley:

We submit the following comments on behalf of the Sierra Forest Legacy, the Tahoe Group of the Sierra Club and the League to Save Lake Tahoe. We would like to thank the Lahontan Water Board (hereafter "Lahontan") for the opportunity to provide comments on the Draft proposed Region-wide Timber Waiver ("Waiver"). We agree that there is a need to better streamline the permitting process for fuels reduction projects and appreciate Lahontan's efforts to improve its Regional Timber Waiver. However, as discussed in previous letters and meetings with staff, we have concerns that the proposed changes to existing law portend a substantially reduced role for Lahontan in protecting water quality within its region. As stated in our 12/5/08 letter on the working draft, we expect Lahontan to complete a comprehensive environmental review for these proposed changes, as required by the California Environmental Quality Act ("CEQA"), Pub. Res. Code § 21000 *et seq*. As discussed further in this letter, the documentation provided with the proposed Waiver fails to perform this review as it relates to the entire Lahontan Region, and specifically the Lake Tahoe Basin, which as a designated Outstanding National Resource Water (ONRW), affords special protection. 1

However, we do not believe that including the necessary information will require a significant investment of time and resources by Lahontan staff. Rather, according to recent discussions with staff, much of the information we expect appears to be available and/or known to Lahontan staff and simply needs to be included in the proposed waiver and/or environmental analysis so the public is provided with the same information Lahontan used to inform proposed changes. In other areas, proposed changes are not supported by adequate scientific evidence; in these cases, we recommend that other Categories and/or regulations available in the proposed waiver (for example, regulations for demonstration projects) allow for fuels reduction projects which are eligible for the Waiver to proceed but to be done in a way which prevents significant impacts while providing important scientific information that can be used to guide the development of future projects.

We remain hopeful that Lahontan will take responsible action that ensures the improvement in water quality and other beneficial uses that Lahontan is charged to protect under California law while still allowing for necessary fuel reduction activities to occur.

Jennifer Quashnick,
Tahoe Area Sierra Club

Carl Young
League to Save Lake Tahoe

Michael Graf
Sierra Forest Legacy

Demonstration Projects:
Demonstration Projects were the subject of extensive discussion during the Tahoe Fire Commission process and vegetation management workshops. There has been a general recognition by all parties involved that more data is needed regarding the environmental impacts of fuels reduction activities and possible mitigation measures, especially in sensitive environments like stream environment zones and on steep slopes. However, because it is important to implement fuels reduction projects in a timely manner, efforts have focused on developing ways to complete projects without causing significant environmental impacts while gathering the data necessary to meet the following objectives:

1) Answer remaining research questions regarding the impacts of various methods;
2) Evaluate the efficacy of BMPs/mitigation measures; and
3) Prevent significant impacts through adapting project activities when data indicate impacts are occurring.

As a result, recent workshops and scientific reports have focused on implementing fuels reduction projects with consistent monitoring methods to answer remaining research questions.

Once a demonstration project has proven a method and/or BMP is effective at preventing significant impacts, this information can be used to guide future projects without the additional monitoring requirements. For example, the Heavenly Creek SEZ project demonstrated that the impacts of the cut-to-length harvester, *as used in those specific conditions,* were less than significant. Thus, these methods have been proven acceptable for use in future projects with comparable conditions and the additional monitoring requirements associated with demonstration projects would not be needed.

Lahontan should incorporate a section into the Waiver, where appropriate, which addresses demonstration projects. In fact, we heard project implementers express the same request during the public workshops held in November. As discussed with Lahontan staff during our 2/4/09 meeting, we request that language be added to Category 6 to recognize that demonstration projects may proceed with Executive Officer approval of the approach (additionally, the Waiver should reiterate General Provision 4 as well). The Waiver must clearly define what a demonstration project is. In addition to implementation, effectiveness and forensic monitoring (required for other Category 4 and 6 projects), all demonstration projects will require quantitative monitoring of impacts to soils, vegetation recovery, infiltration rate, etc. Monitoring protocols will be approved on a case-by-case basis and will be required prior to the start of the project, during the project, immediately after completion and following the winter after a project has been completed. 2

Once a demonstration project has shown that activities can be successfully mitigated and/or a given BMP is effective in appropriate situations, then such activities/BMPs can be used in other projects eligible for the Timber Waiver under comparable conditions.

Pile Burning in Sensitive Waterbody Buffer Zones

As discussed at our 2/4/09 meeting with Lahontan staff, mitigation for pile burning in sensitive Waterbody Buffer Zones (e.g. stream environment zones ([SEZs] in Lake Tahoe Basin) has yet to be proven effective. Fortunately, there are proposed demonstration projects in the planning stages which aim to investigate such mitigation (e.g. Alpine Meadows). However, the proposed Waiver allows pile burning in SEZs when impacts can be mitigated based on the expectation that during the 5 year time frame of the Waiver, new information will be gleaned from such demonstration projects that there will eventually be proven mitigation options However, because this 'placeholder' concept is not clear in the proposed Waiver, we request the Timber Waiver specifically include a requirement that until effective mitigation measures have been determined, pile burning in SEZs should only occur if the project includes a demonstration component incorporating rigorous scientific data collection and analysis that examines the effectiveness of the mitigation measures. Once effective mitigation measures have been proven, future projects in comparable conditions could proceed under the Timber Waiver Category 6, Condition 18 without requiring a demonstration component. 3

Selection of environmental thresholds of allowable disturbance

As stated in our 12/5/08 comments: 4

> "The proposed Waiver includes significant revisions to the waiver categories, aimed at creating categories associated with environmental impact, rather than land ownership or which entity is implementing a project. The scientific basis for the selected 'impact' limits must be provided in the environmental documentation. For example, the working draft (Category 2) proposes to allow equipment up to 10 pounds per square inch (psi) off of existing roads[1] without notification or monitoring. In this example, we expect the environmental documentation to include adequate scientific evidence supporting the selection of the 10 psi limit. The document should also evaluate alternative 'impact limits' and their effect on the environment and project implementation and monitoring."

The proposed Waiver and Initial Study (IS) did not include this evidence. Per CEQA, the public must be provided the same information that Lahontan has used to proposed the new Waiver. Further, a member of the public should be able to view the evidence and understand how Lahontan selected the values it has proposed. Yet based on answers received at our 2/4/09 meeting with Lahontan staff, it appears that several values were chosen based on 'institutional knowledge' by Lahontan staff, and the only way for the public to find out this information is to contact Lahontan staff and make specific requests. This is certainly not the type of informational document required by CEQA.

Lahontan must include all evidence, including analyses, comparisons, references to other documents, etc., in the environmental review for the proposed Waiver. The environmental review must assess every impact of the proposed Waiver, the extent of that impact and how it is mitigated or addressed in the proposed Waiver.

Several categories allow equipment in sensitive "Waterbody buffer zones" up to 13 psi. In order to conclude that this 'limit' will not result in significant impacts, there must be evidence showing no impact on all soil types that would be encountered by projects in the Lahontan Region. We could not find any such evidence in the IS or associated references. 5

[1] Except within 25 feet of a water body.

Lahontan staff confirmed that no such evidence exists; the only study of such impacts in SEZs appears to be the Heavenly Creek SEZ project, which only tests equipment on the particular soil types in the project area. In fact, the project documentation recognizes that additional research on other soil types is needed: 5

> "Monitoring should also be conducted where CTL technology is proposed for use on sites that have significantly different site conditions, including steeper slopes, soils with a higher silt-to-clay content, or less pre-existing vegetation cover in the form of grasses and shrubs."
>
> (Heavenly Creek SEZ Demonstration Project, 2007 Soil Monitoring Report, USDA Forest Service, LTBMU, page 20).[2]

According to the LTBMU Heavenly Creek Final Report, the USFS intended to work with Lahontan and TRPA to further investigate the use of equipment on other soil types:

> "...A procedure will be developed by LTBMU staff for comparing the sensitivity of the Heavenly SEZ site relative to other SEZ sites proposed for future mechanical treatment. The delineation criteria for comparison will incorporate the characteristics of SEZs that make them prone to impacts from mechanical operations, such as connectivity to ground water and surface water, soil type, and slope. The criteria and methodology for comparing SEZ characteristics will be reviewed by staff at the Lahontan Regional Water Quality Control Board and the Tahoe Regional Planning Agency prior to its application..."

Were the criteria and methodology developed and peer reviewed? Is there a scientific report available from the USFS outlining their methods, results and conclusions? It appears that the USFS planned to investigate the use of cut to length equipment on other soil types *prior to its application*, yet no further research was performed. How can Lahontan conclude no significant impact if the impacts are unknown?

In summary, the environmental documentation fails to assess the impacts of allowing equipment up to 13 psi on all soil types in the Lahontan Region, and thus fails to analyze the environmental impacts of the proposed project. The same question exists for the allowance of equipment up to 10 psi found in category 2. Further, the document fails to analyze any alternative 'limits'.

Lake Tahoe's designation as Outstanding National Resource Water (ONRW):

We are pleased the proposed Waiver has been developed to include the Lake Tahoe Basin in the event it is not covered by another waiver. Lake Tahoe is a designated ONRW and a world-known National Treasure with a very fragile watershed and ever-decreasing clarity. However, it appears that only two areas within the proposed waiver may afford Lake Tahoe the additional protection it requires, which are provisions in Category 6 (as they reference possible prohibition exemptions) and Attachment O, which identifies additional USFS monitoring provisions for 303(d) water bodies (or those at or above TOC). Where is the analysis of how the Waiver will achieve Lake Tahoe's more stringent environmental standards on all projects? This analysis must be included and presented clearly in the environmental documentation. 6

[2] http://www.fs.fed.us/r5/ltbmu/documents/ecd/2008/Heavenly_Creek_SEZ_Report_Final.pdf

Comparison between existing and proposed Waiver:

The CEQA documentation does not provide an analysis of how monitoring requirements will change throughout the Lahontan Region (including the Tahoe Basin) as a result of the new waiver. In particular there is inadequate analysis of how the Forest Service will monitor projects subject to this waiver. For example: 7

- The documents fail to provide a clear comparison of the existing versus proposed waiver's regulation of various activities. For example, what are the existing requirements compared to proposed requirements for projects that would fall in the proposed Category 2? Upon what evidence are any regulations (primarily monitoring and reporting requirements) reduced? 7a

- How do the proposed monitoring and reporting requirements specifically compare to the existing "Monitoring and Reporting Program?" A simple tabular representation would help inform the public of the changes being proposed, including examples of typical fuels reduction projects and how they would be covered under the current versus proposed Waiver. 7b

Additional Concerns for the Lake Tahoe Basin:

We remain particularly concerned about this issue given that Lahontan's waiver for the Tahoe Basin is currently before the State Board on review. If the State Board grants our Petition, we do not believe that the current CEQA documents for this regional waiver would constitute an adequate analysis of the issues regarding water quality in the Tahoe Basin. 8

To the extent Lahontan believes that this waiver would be controlling in the event the State Board were to grant the Petition, it must analyze the effects of reducing the monitoring components of the 2007 waiver as applied to projects in the Tahoe Basin. Accordingly, we hereby incorporate our previous comments, expert declaration and submitted evidence as part of these comments as well.

Other comments:

On page 10 of the proposed waiver, we recommend Lahontan clarifies how much 'advance notice' is needed as required in number 7. Notice should provide adequate time for Lahontan to assess impacts of the change. 9

The existing waiver requires the submission of maps and other project information (page 4, number 8). Lahontan staff explained that this information will remain available under the proposed Waiver, yet not actually *required*.. We request the proposed Waiver/IS discuss what information will be available and where the public can access such information. 10

On page 12 of the proposed Waiver, we recommend Lahontan add the following (in bold): "...(3) No construction of new landings **or expansion of existing landings**." 11

On page 13 and in other areas, the new Waiver limits chipped material in Water zones to 2 inches average and 4 inches maximum. As we stated at the 2/4/09 meeting, the environmental documentation should explain what this limit is based upon and the reason it was selected. 12

Additionally, the same section, number 7, includes requirements based on a specific forecast. The environmental documentation should explain the basis for the selection of these parameters and include historical weather data showing actual conditions occurring after these forecasts. 13

As we stated at the 11/14/08 public workshop, Lahontan should review and assess the adequacy and success of the 2007 MRP before making changes to the program. How can Lahontan assess what has been effective and what needs improvement without reviewing how the program has operated since its adoption in February 2007? In the proposed Waiver, several changes are proposed to the monitoring and reporting requirements; we reiterate our request that Lahontan first examine how well existing requirements have performed before proposing such changes. 14

Letter Code: SPI

Sierra Pacific Industries

Tahoe District • P.O. Box 1450 • Cedar Ridge, California 95924 • (530) 272-2297

February 5, 2009

RECEIVED
FEB 09 2009
By DMC

Mr. Douglas Cushman
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Email: dcushman@waterboards.ca.gov
Phone: (530) 542-5417
Fax: (530) 544-2271

Dear Mr. Cushman,

First of all I'd like to thank you for incorporating some of the public concerns into your revised waiver language.

I have reviewed the (Tentative) Conditional Waiver of Waste Discharge Requirements. My comments and questions follow. Comments are bullet pointed and followed or preceded by context taken from the Document.

Page 2 (Table 1)

- Category 3: Following our discussion I reviewed this Category. It appears to only include "Public" agencies as written here but in the Category description (page13) it appears private individuals or companies can use this one too under certain circumstances. Can you please clarify this? 1

Page 14 (Category 4), Eligibility Criteria 8:

- Some mechanical sides will deck on sideslopes (>20%) without earthwork being needed. Would recommend adding some language here to reflect that this entails earthwork (grading, shaping). 2

Page 17 (Category 5), Conditions 2-4:

- Condition 2: By "clearly" indicating do you mean a simple yes or no statement or is mapping required for the 4 items (I am assuming mapping). Items a,b,c are already required to be mapped for THP's; item d is not. 3
- Condition 3: Once again, a yes or no statement? 4
- Condition 4: Yes or no statement? 5
  - Item a: 6
    1. Do you mean existing skid trails also or newly constructed skid trails?

2. Is this an average slope over 20 acres (as per FPR 934.2(f)(2)? This requirement is above and beyond the Forest Practice Rules. 7
   - As this was mentioned also in my previous letter I would appreciate an explanation as to why your agency thinks this is appropriate and what, if any, additional mitigation you would require for tractor operations on these slope gradients.

- Condition 1: Activities may begin upon receipt… (Page 3 "Application processing timeline states 5 working days) 8

General observations:

- Categories 4 and 6 both list using the daily monitoring forms if operations occur past October 15th. Both categories also state: "All areas disturbed by timber harvest and vegetation management activities must be stabilized at the conclusion of operations or before October 15th". These statements seem to contradict each other. 9
- Categories 4 and 6 Application Forms both ask for location of all existing watercourse crossings (Item #9/10: Map of project area). Do you want all existing CMP's mapped? Would prefer changing this to *all existing temporary watercourse crossings where work is proposed.* (which is already requested in the Specific Project Information) 10
- SPI has used its' own monitoring forms up to this point and is hoping to continue to use these forms. 11
- Concerns with the timing of Category 6 for both start of operations and herbicide application. (30 day waiting period) 12
  - After discussing these issues with you with you I am more assured we will be able to pursue earlier starting times as long as we communicate our needs for timelines on specific operation(s).

Typos?

- **Category 4 Application Form** (lists 11 criteria instead of 10) 13
  - Item 8: Describe activities on slopes >20% ???? 14

Thank you for allowing us to review and comment on your project.

Sincerely

Doug Praetzel
Forester-Sierra Pacific Industries
RPF #2402

Brett Emery
P.O. Box 758
Bridgeport, CA 93517
760/920-0734

RECEIVED
FEB 09 2009
By AKS

February 3, 2009

Letter Code: EMERY

Andrea Stanley
Lahontan RWQCB
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Re: Comments on proposed 2009 Timber Waiver Program.

I received a copy of the 2009 proposed revisions to the Timber Waiver Program and would like to comment on the Program and some of the proposed changes.

It is not clear from the accompanying documents that there are data substantiating a region-wide need for this level of regulation, especially in the case of infrequent entry, non-commercial fuel reduction or habitat enhancement projects. It appears that the standards applied in the Tahoe Basin under the 2007 Timber Waiver Program are now arbitrarily being imposed on the Region as a whole. 1

It is also not clear why the proposed Lahontan Region Timber Waiver Program appears to rely so much on the California Forest Practice Rules and Registered Professional Foresters/Federal Forestry Professionals to supervise vegetation management activities that have minor incidental or no commercial timber harvest component. Timber management activities that are subject to Forest Practice Rules primarily include sustainable yield of commercial species, with secondary concerns about fuels reduction and restoration of forest structure, and little to no concerns about restoration of declining habitat or non-commercial species (eg. riparian forests, pinyon/juniper forests). Commercial harvest of sawlogs and/or fuelwood is an important and appropriate component of some, but not all, fuel reduction and restoration activities. The application of the California Forest Practice Rules and oversight by RPFs/FFPs is in part responsible for the current condition of our forests. Forest Practice Rules should continue to be revised and applied where commercial timber harvest activities take place, but it is not appropriate to apply them to fuel reduction and habitat enhancement projects that do not include commercial harvest. 2

Perhaps the Regional Board should consider structuring separate Waiver Programs - one for commercial timber harvest activities (which would fall under Forest Practice Rules, revised to address the concerns of the Lahontan Regional Board), and another for infrequent vegetation management activities primarily focused on fuel reduction and restoration projects. Separate programs with separate titles would also help to clarify the purpose and need of the programs for property owners and land managers. In my experience, many property owners are uncomfortable signing an application labeled "Timber Waiver", thus compromising the effectiveness of community or watershed scale fuel reduction and restoration efforts. 3

Forests, brushlands, and grasslands in the Lahontan Region evolved under conditions where disturbance from fires occurred relatively frequently. Riparian forests are adapted to the added disturbance of overbank flows. Attempting to manage forests and brushlands without consideration of natural disturbance regimes and their effect on baseline water quality is inappropriate. Prescribed fire and fire use are important for restoring and managing lands in the Lahontan Region, and should not only be available, but promoted as appropriate tools for land owners and managers. Disturbance and impacts to water quality from properly applied fire is minimal compared to the disturbance and impacts to water quality from watershed and regional scale fires that result from lack of or inappropriate management. 4

Category 1 projects. Why is there a three acre limitation on parcels eligible for this category? Are there data to support negligible impacts associated with projects at this scale? The threshold of a three acre or less residential lot size may be appropriate in areas such as the Lake Tahoe Basin, Truckee, or Mammoth Lakes, but is not appropriate to the majority of lands within the Lahontan Region. In areas with smaller parcel size, threats to water quality may already be greater than in those areas with larger parcels. Impacts from landscaping, pesticide use, vehicle use, disposal of pet and yard waste, and encroachment into waterbody buffer zones already exist in many of these areas. Projects eligible under Category 1 should be expanded to include larger residential parcels. 5

Why are there no waterbody setbacks for Category 1 projects? It is implied that projects eligible under Category 1 allow use of any size equipment or vehicle to at least the top of bank of any waterbody (and possibly to water's edge in areas with coarse soils). Similarly, it is implied that pile burning, broadcast burning, and disposal of chips/harvest debris may be allowed to the top of bank of a waterbody. There are no requirements for retention of stabilizing vegetation, large woody debris, or thermal cover within waterbody protection zones. The conditions of Category 2 should be included for Category 1 projects. 6

Construction projects may include a large amount of soil and ground disturbance. At a minimum, the conditions of Category 2 should apply. 7

Category 2 projects. What is the justification for requiring an RPF/FFP or supervised designee to mark trees three inches or greater in size for treatment or retention within waterbody buffer zones? Once again, this requirement may be appropriate in the Lake Tahoe Basin, Mammoth Lakes, or Truckee, but is not appropriate for the majority of lands within the Lahontan Region. To apply this requirement to non-commercial thinnings, riparian restoration, and removal of invasive exotic species (Tamarisk, Russian olive) in riparian areas is ridiculous and costly. The requirement of hiring an RPF to perform this work will likely lead to the increase in otherwise unnecessary removal of merchantable trees as a component of fuel reduction and riparian enhancement projects in order to pay the additional cost of having an RPF on the project. Many fuel reduction and riparian enhancement projects will either not be implemented or will be reduced in size if this requirement is retained. The availability of grant funding for such projects is already limited without imposing this costly and unnecessary requirement. The remaining required conditions for projects under Category 2 seem sufficient to protect surface waters from discharges of deleterious material and retention of an appropriate percentage of vegetation within waterbody buffer zones. 8

Category 4 and 6 projects. Retention and recruitment of large woody debris is important in forest and riparian ecosystems. Many forests within the Lahontan Region currently have an overabundance of large woody debris as a result of fire suppression policies and poor land and livestock management. Under proposed Categories 4 and 6, prescribed burning is allowed within waterbody buffer zones as long as this activity does not result in the loss of large woody debris. This is inconsistent with the fact that Categories 1 through 6 contain no specified limitation on hand removal of large woody debris within waterbody buffer zones. Rather than prohibiting loss or removal of large woody debris, and given the variability between watersheds in existing volume and placement of large woody debris, it may be better to prescribe certain retention or recruitment targets. 9

The term "stabilized" as used in the conditions for Categories 1, 2, 4, and 6 is not defined in Attachment A. 10

Finally, I would recommend that Regional Board staff work on development and dissemination of educational materials for landowners, land managers and public works employees. A publication similar to the Sediment and Erosion Control Handbook (available for purchase from the San Francisco Regional Board office), focusing on applied best practices to avoid or mitigate water quality concerns associated with vegetation management and timber harvest activities, would be helpful. 11

Thank you for the opportunity to comment on the proposed changes to your Timber Waiver Program

Sincerely,

Brett Emery

Letter Code: FAS

Philip E. Nemir
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(530-257-2294)

February 9, 2009

California Regional Water Quality Control Board
Lahontan Region
Attn: Andrea Stanley
2501 Lake Tahoe Blvd
South Lake Tahoe, CA 96150

SUBJECT: Revisions to Timber Waiver

Members of the Water Quality Control Board:

The "Waiver for Waste Discharge Requirements for Timber Harvest and Vegetation Management" adopted in 2007 is clearly needed. While the circulated revisions are an improvement over the existing requirements, much more needs to be done to simplify the process. 1

Of special note is the quote on page 2 of the Initial study that makes reference to the need to **"eliminate or otherwise reduce the adverse effects of confusing, overlapping, or unnecessarily restrictive regulations and regulatory procedures..."**. Unfortunately, this statement still applies to the proposed revisions and areas outside of the TRPA region. 2

I would suggest that the Water Quality Control Board needs a major paradigm shift in how it thinks about and protects water quality in the Lahontan Region. I would assert that the 2007 requirements have done little or nothing to improve water quality protection (at least from what I've seen here in northeastern California). The Board should abandon the application and regulatory approach that places a substantial burden on its limited staffing. Instead of dealing with a glut of unnecessary paperwork, staff should be spending 80% of their time in the field. The Board should work toward a goal of annual staff field assessment of 20% of the streams and lakes in the Lahontan Region. This would entail staff actually walking up stream channels and along lakefront, to identify threats to water quality, and work with landowners to correct problems and apply pragmatic solutions. One staff member should be able to easily assess 100 miles of stream a year. If the focus was on Class I and II watercourses, a lesser amount of survey work would be required, and the highest priority watercourses would be studied. 3

I believe that my proposal would actually accomplish better water quality protection than what the Board is achieving today. Any activities negatively impacting

water quality would be identified during a stream survey, and could be reduced or eliminated with direct contact of the responsible parties. 3

Additionally, the Timber Waiver revisions, as currently written, cannot be effectively enforced by Lahontan staff. The total area of the Region is over 21,000,000 acres. This is huge. If every landowner who could be required to submit a form, based on the very broad definition of "timber harvest and vegetation management activities", did so, your office would be inundated with paper. The more realistic scenario is that a very low percentage of property owners will actually comply. And, your Staff has no effective way of knowing when activities are occurring unless they are doing field inspections. 4

I would propose the following changes to your revisions that would better meet the message of the Governor's Proclamation:

1. Combine Categories 1, 2, and 3. No notification or monitoring required. 5

2. Category 4. The winter period re-defined to December 1 to February 29 to more accurately reflect climate change effects since the "winter period" definition was developed 36 years ago for the State Forest Practice Act. No application required if the project is submitted to CAL FIRE or other public agency. 6

3. Category 5. No application required. Waiver request included as part of THP, or NTMP process since Water Board is already involved in the process. This avoids duplication and excessive regulation. Submission of only one monitoring form (Winter Implementation) for harvest operations with Class I and II watercourses by July 15 after first winter. Drop "Fall Implementation" monitoring. Drop "Forsenic" monitoring except where operations occur with "Extreme" erosion hazard, and Class I or II watercourses. 7 8 9 10

4. Category 6. Remove prescribed burning and pile burning where activities are more than 25 feet from the edge of Class I and II watercourses (move to Category 2). Requiring notification for these activities is unnecessary and excessive. For instance, fifteen piles six-foot in diameter per acre only accounts for 1% of the area. I would suggest that any impacts from burning those piles is less than significant. 11

Thanks for consideration of my comments.

Sincerely,

Philip E. Nemir

Philip E. Nemir
Registered Professional
Forester No. 1666

Section 3. RESPONSES TO COMMENTS

1. Andrew Breibart, Hydrologist, USFS-Lassen National Forest (Letter Code: LASSEN NF)	
Lassen NF # 1	The proposed Timber Waiver deliberately limits the types of equipment that may be used under Category 2 for several reasons: (a) to limit the nature of activities that can proceed with no notification so that there will be no adverse effects (b) to allow equipment access (e.g., chippers and brush mowers with low psi) to support hand crew operations, and (c) to allow for small equipment access with conditions (i.e., ATVs and snowmobiles) to assist in the transport of hand crews. The eligibility criteria of Category 2 have been modified to allow for "light equipment with ground pressures less than 10 pounds per square inch (psi), such as chippers, brush mowers, or similar equipment for onsite processing of materials cut by hand crews." This language modification will allow other equipment with less than 10 psi to operate off roads to assist with onsite processing of materials cut by hand crews.
Lassen NF # 2	Yes, Category 3 will pertain to activities conducted under a BAER (Burn Area Emergency Response) Plan, including soil stabilization, upgrading of road and stream crossings, and the rehabilitation of fire lines constructed during fire suppression efforts. All of these activities would qualify as activities taken to minimize threats to life or property, and/or to stabilize and prevent unacceptable degradation of natural cultural resources resulting from the effects of a wildfire.
2. Randy Moore, Regional Forester, USFS-Region 5 (Letter Code: USFS Region 5)	
USFS Region 5 # 1	Comment noted.
USFS Region 5 # 2	Comment noted.
3. Crawford Tuttle, CAL FIRE-Chief Deputy Director (Letter Code: CAL FIRE Sacramento)	
CAL FIRE Sacramento # 1	Comment noted.
CAL FIRE Sacramento # 2	All language stating "prescribed burn" has been changed to "prescribed fire," or where necessary, "pile burning" or "broadcast burning" is used.
CAL FIRE Sacramento # 3	Please see response **Lassen NF # 1**. (page 5)
CAL FIRE Sacramento # 4	Hazard tree removal undertaken to comply with state, local, or county defensible space requirements or in response to an emergency or imminent threat to life or property, are automatically enrolled under Category 1 (which does not require notification to the Water Board). Felling of storm debris and individual hazard trees along utility corridors will be covered under Category 1 and do not require notification to the Water Board. Timber harvest and vegetation management activities undertaken to comply with California Public Resources Code section 4291 are eligible under Category 1. Scheduled or routine hazard tree removal conducted along linear features such as utility corridors are not covered under Category 1 because Water Board staff find such activities within forested landscapes may involve equipment, steep slopes, and multiple watercourse crossings. Scheduled routine utility line vegetation management activities will be eligible under a higher-order category (i.e., Category 2, 4, or 6) depending upon the nature of the work and landscape involved.
CAL FIRE Sacramento # 5	Please see response **Lassen NF # 1**.

CAL FIRE Sacramento # 6	Water Board staff assume this comment is in reference to Page 12, Category 2, Condition 3 (this condition was *Page 10, Category 2, Condition 2* under a previous draft version of the proposed revised Timber Waiver). After consultation with legal counsel, Water Board staff is confident that we are within our authority in making certain professional credentials and/or qualifications a condition of a waiver. As amended, project proponents can also rely on the expertise of a Natural Resource Professional where there is no other legal requirement to use a Registered Professional Forester (RPF) or Federal Forestry Professional. After consultation with CAL FIRE staff, Water Board staff have added language (underlined) to the following General Condition on page 11 of the Timber Waiver: "This Timber Waiver does not permit any illegal activity, and does not preclude the need for permits <u>or licenses</u> which may be required by other governmental agencies, or other approvals by the Water Board such as discharges subject to a National Pollutant Discharge Elimination System (NPDES) permit under the Clean Water Act, including silvicultural point sources as defined in 40 Code of Federal Regulations, section 122.27. This waiver is not a substitute for state water quality certification under section 401 of the federal Clean Water Act which is required if a federal Clean Water Act section 404 permit is required. <u>Also persons practicing forestry must ensure that they maintain appropriate licenses and certifications pursuant to Public Resources Code section 752 and 753.</u>" We have also added an additional explanation in the Definitions (Attachement A) for Natural Resource Professional.
CAL FIRE Sacramento # 7	Water Board staff have added the following language (underlined) to conditions within Categories 2, 4, and 6, that apply to the removal of trees within Water Body Buffer Zones: "Prior to the commencement of timber harvest and vegetation management activities within Waterbody Buffer Zones (as defined in Attachment B), trees with a DBH greater than 3 inches planned for removal, or trees designated for retention, must be marked (including a base mark below the cutline) <u>or designated by written prescription and/or sample mark</u> by either a: a. Registered Professional Forester or supervised designee, b. Federal Forestry Professional (as defined in Attachment A) or supervised designee<u>, or</u> c. <u>Natural Resource Professional, or supervised designee.</u>"
CAL FIRE Sacramento # 8	Water Board staff recognize the difficulty associated with vegetation management within Waterbody Buffer Zones with common site constraints such as topography, access, and/or human hand-thinning limitations. Such constraints make it difficult and costly to remove accumulated biomass from areas near lakes and streams. Therefore the regulated/implementing community has expressed a strong interest in having onsite treatment options (e.g., chipping or burning) incorporated within the proposed revised Timber Waiver. Water Board staff have included provisions within the Timber Waiver to allow for chipping within Waterbody Buffer Zones. Please see response **<u>SFL et al # 12</u>**. To allow the placement and burning of burn piles within Waterbody Buffer Zones within the Timber Waiver the Water Board must determine that such activity is consistent with the Basin Plan for the Lahontan Region (Burn Plan) and is in the public interest, pursuant to Water Code section 13269. Water Board staff has added conditions to Categories 2 and 4 allowing limited burning in Waterbody Buffer Zones. In the Little Truckee and Truckee River HUs, the Basin Plan contains specific prohibitions against the discharge of waste within 100 year floodplains. In the Lake Tahoe HU, the Basin Plan contains prohibitions against permanent disturbance within SEZs, without defining 'permanent.' Water Board Executive Officer will consider granting exemptions for pile burning in the Tahoe and Truckee HUs where appropriate mitigation and monitoring is proposed. Water Board staff recognizes there is a need for more information on the impacts and appropriate mitigation for pile burning within Stream Environment Zones. Limited information exists today suggesting burning can occur with minimal impacts (LTBMU, 2008). However, quantitative studies are now being proposed. As this information is gathered, amendments to the Timber Waiver may be considered. The Water Board does find it within the public interest and consistent with the Basin Plan to permit these activities. Therefore Water Board staff added Finding 6 of the proposed Timber Waiver to support demonstration projects. These activities are covered under Category 6.

CAL FIRE Sacramento # 9	Water Board staff assume this comment is in reference to Page 13, Category 2, Condition 7(c). Water Board staff deliberately limit the types of activities that can proceed under Category 2 (see response **Lassen NF # 1**). If such conditions are too restrictive for a burn plan that is part of a hand crew project, then the burn plan should be submitted to the Water Board under Category 4, 5, or 6. See General Provision 2.
CAL FIRE Sacramento # 10	Please see response **CAL FIRE Sacramento # 6**.
CAL FIRE Sacramento # 11	Please see response **CAL FIRE Sacramento # 8**.
CAL FIRE Sacramento # 12	Water Board staff discovered that the 40% slope threshold was an error. Condition 4 of Category 5 now states that the RPF must clearly indicate whether new or existing skid trails on slopes greater than 50% are included within the plan. Water Board staff have clarified this condition by stipulating that this condition applies to new and existing skid trails.
CAL FIRE Sacramento # 13	Water Board staff will not make this change. We will retain the definition of "Broadcast Burning." Please note that "Prescribed Fire" and "Burn Pile" are also defined separately in Attachment A.
CAL FIRE Sacramento # 14	This change was made previously. "Burn Pile" is defined within Attachment A as "hand and machine constructed piles of organic materials intended for burning."
CAL FIRE Sacramento # 15	Water Board staff have changed all definitions of the Winter Period within the Timber Waiver (and attachments) to October 15 through May 1 for the Lake Tahoe and Truckee River Hydrologic Units; and November 15 through April 1 elsewhere in the Lahontan Region. This change is consistent with the Water Quality Control Plan for the Lahontan Region (Basin Plan).
4. Brad Lutts, Unit Chief, CAL FIRE-Lassen Modoc Plumas Unit (Letter Code: CAL FIRE Lassen)	
CAL FIRE Lassen # 1	All language stating "prescribed burn" has been changed to "prescribed fire."
CAL FIRE Lassen # 2	Please see response **CAL FIRE Sacramento # 6**.
CAL FIRE Lassen # 3	Please see response **CAL FIRE Sacramento # 7**.
CAL FIRE Lassen # 4	We have removed the following statement from the eligibility criteria of Category 3. "Non-emergency activities are not eligible for Category 3."
CAL FIRE Lassen # 5	We have revised Category 4, condition 5 to allow for aerial or cable operations on slopes greater than 60%.
CAL FIRE Lassen # 6	Water Board staff have added the following language to Eligibility Criterion 8 of Category 4: "No construction of landings requiring earthwork (i.e., grading or excavation) on slopes greater than 20% within 200 feet of a watercourse and where there is potential for sediment delivery to a waterbody due to soil disturbances."
CAL FIRE Lassen # 7	Please see response **CAL FIRE Sacramento # 6**.
CAL FIRE Lassen #8	Water Board staff have dropped the condition for retention of large woody debris. The other conditions under the prescribed fire condition adequately protect water quality.

CAL FIRE Lassen # 9	Please see response **CAL FIRE Sacramento # 8.**
CAL FIRE Lassen # 10	Please see response **CAL FIRE Sacramento # 13**
CAL FIRE Lassen # 11	Please see response **CAL FIRE Sacramento # 15.**
5. Bill Holmes, Unit Chief, CAL FIRE-Amador El Dorado Unit (Letter Code: CAL FIRE El Dorado)	
CAL FIRE El Dorado # 1	All language stating "prescribed burn" has been changed to "prescribed fire."
CAL FIRE El Dorado # 2	Please see response **Lassen NF # 1**.
CAL FIRE El Dorado # 3	Please see response **CAL FIRE Sacramento # 4.**
CAL FIRE El Dorado # 4	Please see response **Lassen NF # 1**.
CAL FIRE El Dorado # 5	Please see response **CAL FIRE Sacramento # 6.**
CAL FIRE El Dorado # 6	Please see response **CAL FIRE Sacramento # 7.**
CAL FIRE El Dorado # 7	Please see response **CAL FIRE Sacramento # 8.**
CAL FIRE El Dorado # 8	Please see response **CAL FIRE Sacramento # 9.**
CAL FIRE El Dorado # 9	Please see response **CAL FIRE Sacramento # 6.**
CAL FIRE El Dorado # 10	Please see response **CAL FIRE Sacramento # 8.**
CAL FIRE El Dorado # 11	Please see response **CAL FIRE Sacramento # 12.**
CAL FIRE El Dorado # 12	Please see response **CAL FIRE Sacramento # 13.**
CAL FIRE El Dorado # 13	Please see response **CAL FIRE Sacramento # 14.**
CAL FIRE El Dorado # 14	Please see response **CAL FIRE Sacramento # 15.**

6. Tamara Sasaki, Senior Environmental Scientist, CA State Parks (Letter Code: CA State Parks)	
CA State Parks # 1	Comment noted.
CA State Parks # 2	Comment noted.
CA State Parks # 3	Water Board staff will not make this change, but did modify the language for . Please see response **Lassen NF # 1**.
CA State Parks # 4	Water Board staff will not make this change. Please see response **CAL FIRE Sacramento # 4.** Hazard tree removal undertaken within 300 feet of facilities (i.e. campgrounds, parking lots, and public use areas) or in response to an imminent threat to life or property, are automatically enrolled under Category 1 (which does not require notification to the Water Board). Note: this does not include "routine" tree removal near linear features such as roads, trails, or utility corridors, unless there is no threat of waste discharge to waters of the state. As is stated on page 1 of the proposed revised Timber Waiver: "Only persons proposing timber harvest and/or vegetation management activities that could result in a discharge or threatened discharge of waste earthen or organic materials or other wastes to Waters of the State are subject to regulation by the Water Board and need to apply for coverage under this waiver of waste discharge requirements of rile a report of waste discharge pursuant to California Water Code section 13260."
CA State Parks # 5	Water Board staff have added the options of following a written prescription or sample mark, rather than identifying every tree for cutting or retention.
CA State Parks # 6	Water Board staff have included a definition for "stabilized" within Attachment A.
CA State Parks # 7	Water Board staff encourage project proponents to install all erosion and sediment control structures (e.g. waterbreaks) as soon as is practicable. However, in the interest of stipulating enforceable thresholds and language within the conditions of the proposed revised Timber Waiver, Water Board staff opted to include existing CAL FIRE regulations, California Code of Regulations, title 14, section 914.6, subdivision (a)(2).
CA State Parks # 8	Water Board staff has modified Category 4 to allow herbicide applications that are associated with timber harvest or vegetation management activities under Category 4. Activities solely focused on invasive species eradication under the Tahoe Weed Coordinating Group MOU do not need coverage under the waiver.
CA State Parks # 9	Water Board staff has made changes the proposed revised Timber Waiver to address this comment. Please see response **CA State Parks # 5**.
CA State Parks # 10	Water Board staff have removed this condition. Please see response to **CALFIRE Lassen #8.**
CA State Parks # 11	Water Board staff have removed the condition regarding retention of large woody debris. Please see response to **CALFIRE Lassen #8.**
CA State Parks # 12	Please see response **CA State Parks # 7**.
CA State Parks # 13	Water Board staff has made changes the proposed revised Timber Waiver to address this comment. Please see response **CA State Parks # 6**.

CA State Parks # 14	Please see response **CA State Parks # 5**.
CA State Parks # 15	Please see response **CA State Parks # 10**.
CA State Parks # 16	Please see response **CA State Parks # 11**.
CA State Parks # 17	Please see response **CA State Parks # 7**.
CA State Parks # 18	Please see response **CA State Parks # 8**.
CA State Parks # 19	Please see response **CA State Parks # 11**.
CA State Parks # 20	Water Board staff added "under specified environmental conditions" to the definition of "Prescribed Fire" in Attachment A.
CA State Parks # 21	Water Board staff has made changes the proposed revised Timber Waiver to address this comment. Please see response **CA State Parks # 6**.
CA State Parks # 22	Water Board staff revised the language to reference Table B1 when mentioning Waterbody Buffer Zone Widths in Attachment B.
CA State Parks # 23	Water Board staff have revised the Effectiveness Monitoring Form (Attachment J) in an effort to make the directions more clear.
CA State Parks # 24	Water Board staff have added Attachment P which provides a charted summary of the monitoring and reporting required for Categories 4, 5, and 6. As recommended, these charts specify the monitoring type, monitoring form required, monitoring periods, and reporting due dates.
7. Mark Shaffer, President and Registered Professional Forester (RPF), Evergreen Resource Management (Letter Code: Evergreen)	
Evergreen # 1	Water Board staff modified Category 1 to include CAL FIRE "Christmas Tree; Dead, Dying or Diseased; Fuelwood or Split Products Exemption" CCR, title 14, section 1038, subdivision (b) as long as no exceptions occur to conditions 6 or 9 of the CALFIRE exemption.
Evergreen # 2	Comment noted.
Evergreen # 3	Only timber harvest activities (Timber Harvest Plans, Non-Industrial Timber Management Plans, other plans, and Amendments) that propose to proceed under Category 5 of the proposed revised Timber Waiver must have approval from CAL FIRE before enrolling under the Timber Waiver. This condition does not apply to fuel reduction projects that would typically be eligible under proposed Categories 1, 2, 4, or 6.
Evergreen # 4	The proposed revised Timber Waiver allows for timber harvest and vegetation management activities throughout the year. The level of monitoring required for certain types of activities that proceed in the winter has decreased for some activities and increased for others (based on potential for environmental impacts). As an addendum to the Initial Study, Water Board staff has created a document that compares the notification, monitoring, and reporting conditions of the existing Timber Waiver with the notification, monitoring, and reporting conditions of the proposed revised Timber Waiver.
Evergreen # 5	Comment noted. Activities that meet the eligibility criteria and conditions of Categories 1 and 2 may begin without notification to Water Board staff. Activities that meet the eligibility criteria and conditions of Categories 4 and 5 may begin upon

	verification from Water Board staff that an application was received (as determined by a notice of receipt from Water Board staff or by confirmation of delivery by the United States Postal Service). Activities that meet the eligibility criteria and conditions of Category 6 may begin once Water Board staff has notified the discharger that their application is complete, or 30 days following receipt of an application by Water Board staff (as determined by a notice of receipt from Water Board staff, or by confirmation of delivery by the United States Postal Service). Dischargers may request expedited review of the application by notifying Water Board staff.
Evergreen # 6	Comment noted, please see response **Evergreen # 5**.
Evergreen # 7	Comment noted, please see responses **Evergreen # 1 and Evergreen #5**.
Evergreen # 8	Please see response **Evergreen # 5**.
Evergreen # 9	Please see response **CALFIRE Sacramento #6.**
Evergreen # 10	Condition 6 of Category 2 and Condition 11 of Category 4 both state: "Chipped and masticated material must not be discharged to waterbodies, or be deposited in locations where such material may discharge to a waterbody. Within Waterbody Buffer Zones chipped and masticated material must not exceed an average of two inches in depth, with a maximum depth of four inches."
Evergreen # 11	Comment noted.
Evergreen # 12	Comment noted.
Evergreen # 13	Comment noted. Before the formal 30 day pubic comment period held between January 6 and February 9, 2009, Water Board staff allowed for several other opportunities for public comment, including an informal comment period on the draft proposed revised Timber Waiver that concluded on December 5, 2008, and an early public comment period between June 11 and July 11, 2008, after Water Board staff announced their intent to revise the Timber Waiver. Water Board staff have also hosted several public workshops region wide during and following these comment periods.
8. Thomas Esgate, Managing Director, Lassen County Fire Safe Council, Inc. (Letter Code: Lassen FSC)	
Lassen FSC # 1	Please see response **Evergreen # 1**.
Lassen FSC # 2	Comment noted.
Lassen FSC # 3	Comment noted.
Lassen FSC # 4	Comment noted.
Lassen FSC # 5	Comment noted.
Lassen FSC # 6	Comment noted.
Lassen FSC # 7	Comment noted.
Lassen FSC # 8	Comment noted.

Lassen FSC # 9	Comment noted.
9. Brad Henderson, Habitat Conservation Supervisor, California Department of Fish and Game (Letter Code: Lassen FSC)	
DFG # 1	Water Board staff appreciate your concerns and have included some watershed specific requirements. The proposed waiver also allows for alternate monitoring requirements to address site-specific concerns and water quality risks. Water Board staff find the proposed Timber Waiver sufficiently addresses project purpose and location variables by categorizing projects based on threat to water quality and prescribing specific eligibility criteria and conditions. Water Board staff do not feel that making regulatory distinctions based on the purpose of tree removal (e.g., commercial timber harvest vs. habitat enhancement) is necessary within the proposed Timber Waiver. Despite differences in purpose these activities could result in water quality impacts (e.g., heavy equipment operation off roads or tree removal near riparian areas or on steep slopes). In short, because the risk of water quality impacts could be the same despite the purpose, Water Board staff find that making the distinction as to whether trees are being felled for commercial sale or for environmental improvement is not appropriate for the revised Timber Waiver.
DFG # 2	Category 1 activities are subject to all the general conditions of the revised Timber Waiver. General Condition No. 4 prohibits the creation of pollution, contamination, or nuisance, as defined by Water Code section 13050, subdivisions (k), (l), and (m). Water Board staff have also added the following general condition to the waiver: Earthen and organic material (including soil, silt, sand, clay, rock, slash, sawdust, and bark) must not be discharged to waterbodies, or be deposited in locations where such material may discharge to waterbodies. Water Board staff have added the following condition to Category 1: Timber harvest and vegetation management activities must not cause or create erosion, destabilization of stream banks, temperature increases in waterbodies, disturbance to non-target Waterbody Buffer Zone vegetation, or concentrated surface runoff. Activities eligible under Category 1 are limited to areas near structures and near areas zoned as residential, commercial, or industrial; or are conducted under a Forest Fire Prevention Exemption issued by CAL FIRE pursuant to California Code of Regulations (CCR), title 14, section 1038, subdivision (i) or a CAL FIRE Exemption pursuant to CCR, title 14, section 1038 (b) where no equipment is allowed within a WLPZ, except for maintenance of existing structures or roads, and no harvesting within a WLPZ is allowed. Equipment access to trees near structures, and areas zoned as residential, commercial, or industrial, will rely mostly on existing roads and driveways that exist as part of the residential, commercial, or industrial infrastructure.
DFG # 3	Water Board staff have modified the eligibility criteria and conditions of Categories 4 and 6 to allow for a Natural Resource Professional, or supervised designee, to make tree markings within Waterbody Buffer Zones. A Natural Resource Professional is defined within Attachment A as "persons with a bachelor's degree or higher in a biological, ecological, or other relevant science (e.g., soils, hydrology, botany, fisheries). This person is not a substitute for a Registered Professional Forester when one is required by federal or state code or regulation."
DFG # 4	Please see response **DFG # 1**, last paragraph. Commercial Timber Harvest Plans (THPs) will be regulated somewhat differently under Category 5. The chief reason for segregating commercial THPs in a separate category is to recognize that CAL FIRE's THP review process substitutes for the EIR process under the California Environmental Quality Act because the THP process has been certified pursuant to Public Resources Code section 21080.5. The THP process includes Water Board staff participation as a review team member. As a member of the CAL FIRE review team, Water Board staff receive detailed project information independent of the Timber Waiver application process and make recommendations to reduce potential impacts to less than significant. Incorporation of recommendations made by Water Board staff during the CAL FIRE Review Team process is Eligibility Criterion 2 of Category 5.

DFG # 5	Comment noted. Please see response **DFG # 2**.
DFG # 6	Please see responses **DFG # 1** (last paragraph) and **DFG # 3**. Applicants for the Timber Waiver may request reduced monitoring and reporting requirements subject to approval by the Executive Officer (see Condition 3 of Category 4, Condition 6 of Category 5, and Conditions 6 and 7 of Category 6). Water Board staff do not need to be notified of habitat restoration activities that qualify under Categories 1, 2, and 3. Water Board staff do need to be notified of habitat restoration activities that include activities that qualify under Category 4. Habitat restoration activities that would only qualify under Category 6 do require monitoring. To seek individual or reduced monitoring and reporting requirements the project proponent must submit information describing how the project poses no significant threat to water quality pursuant to Water Code section 13269.
DFG # 7	Water Board staff have modified conditions 2, 3, and 4 of Category 6 to allow for a Natural Resource Professional. Please see response **DFG # 3**.
DFG # 8	Water Board staff have revised the application for Category 4 (Attachment C) to state that there are 10 criteria for eligibility.
DFG # 9	Comment noted. Please see responses **DFG # 1, 2, 3, and 7.**
DFG # 10	Comment noted.
DFG # 11	Water Board staff added additional language to the title of Table 1 to caution readers about the limited information furnished within Table 1. Water Board staff have also added Attachment P which provides a charted summary of the monitoring and reporting required for Categories 4, 5, and 6. These charts specify the monitoring type, monitoring form required, monitoring periods, and reporting due dates.
DFG # 12	It is not the intent of the Water Board to deter project proponents from implementing effective habitat and riparian restoration projects. If greater than 3 inches DBH trees are proposed for removal, such removal must be supervised by a qualified professional (RPF, Federal Forestry Professional, or Natural Resource Professional) who is aware of the potential impacts associated with vegetation removal adjacent to surface waters. Water Board staff no longer specify dry application only. Paint-on applications will also be permitted under Categories 4, 5, and 6.
DFG # 13	See additional conditions in General Conditions and Category 1 conditions. Category 1 is intended to allow residential construction on up to 3 acre lots within existing subdivisions. The Water Board's Basin Plan restricts or prohibits (in the Lake Tahoe and Truckee River Hydrologic Units) the creation of new disturbance in riparian areas. It is reasonably presumed that such development has also been previously subject to environmental review as part of a County's General Plan or local development plan.
DFG # 14	Water Board staff chose to stipulate parcel size under eligibility criterion 2 of Category 1 so as to limit piece-mealing or staggered implementation on larger parcels. Water Board staff specified certain conditions for Categories 1 and 2, to ensure such activities are self-limiting.
DFG # 15	Water Board staff will not combine Categories 1 and 2. Activities eligible under Category 2 are limited to those completed by hand-crews and therefore should be subject to different conditions than those of Category 1. Segregating the types of activities that can proceed under Category 1 and Category 2 allows for the assignment of more specific conditions to fit those specific activities.
DFG # 16	Water Board staff will not make this change. Please see response **Lassen NF # 1** and **DFG # 2**.
DFG # 17	Comment noted. Please see response **DFG # 1** (last paragraph), **DFG # 3**, and **DFG # 7**. The project title is Conditional Waiver of Waste Discharge Requirements for Waste Discharges Resulting from

	Timber Harvest and Vegetation Management Activities in the Lahontan Region.
DFG # 18	Please see response **DFG # 3**.
DFG # 19	Please see response **DFG # 3**. Water Board staff works with fire safe councils and other organizations to provide outreach on potential water quality impacts associated with residential properties.
DFG # 20	Comment noted. Please see response **DFG # 2** and **DFG #13**.
DFG # 21	Comment noted. Please see response **DFG # 3**.
DFG # 22	Comment noted. Please see response **DFG # 2**.
DFG # 23	Comment noted. Please see response **DFG # 1**, last paragraph.
DFG # 24	Comment noted. Please see response **DFG # 2**. The notification, monitoring, and reporting requirements of Category 6 are much more comprehensive.
DFG # 25	Please see response **DFG # 2** and **DFG #14**. Expanding the types of activities that can proceed under Category 1 to agricultural and resource management zones could potentially include many commercial silvicultural activities and activities that are not self-limiting.
DFG # 26	Please see response **DFG # 2**.
DFG # 27	Conditions of Categories 2, 4, and 6 require that an RPF, Federal Forestry Professional, or Natural Resource Professional supervise the marking of trees greater than 3 inches DBH for removal within a Waterbody Buffer Zone. Please see response **DFG # 7**. This condition does not apply to the removal of trees greater than 3 inches DBF outside of Waterbody Buffer Zones.
DFG # 28	Comment noted. Please see response **Lassen NF # 1**.
DFG # 29	Comment noted. Proximity to water, project design, and soil stability are accounted for in the eligibility criteria and conditions of the proposed revised Timber Waiver. The notification, monitoring, and reporting requirements are minimal to none for lower threat projects (Categories 1 – 4), and are more specific for potentially higher threat activities conducted under Categories 5 and 6. Please see response **DFG # 3** regarding RPF requirements.
10. Jennifer Quashnick, Tahoe Area Sierra Club; Carl Young, League to Save Lake Tahoe; Michael Graf, Sierra Forest Legacy (Letter Code: SFL et al)	
SFL et al # 1	The proposed project involves an expansion of the types of activities that can proceed without notification to the Water Board; it does not change any laws. These activities will be automatically enrolled under the Timber Waiver are still subject to conditions of the Timber Waiver. Water Board staff have determined these activities have no potentially significant threat to water quality. Water Board staff will still be aware of most of these projects because CAL FIRE provides the Water Board with copies of CALFIRE Exemptions. The proposed project does not involve a reduction in the notification and monitoring requirements for higher-threat activities, including post-fire salvage logging, industrial timber harvest, and operations within sensitive areas (including steep slopes and riparian areas). Water Board staff anticipate that the reduction in notification and monitoring requirements for low threat projects will result in increased staff availability for agency monitoring and regulation of the higher threat projects; resulting in a net increase in Water Board staff protection of water quality in the Lahontan Region.

SFL et al # 2	Water Board staff agree that there is a need for more information on the impacts and appropriate mitigation for certain types of timber harvest and vegetation management activities. For example, future regulatory decisions regarding the following will need to be supported with evidence of whether these activities can proceed without a significant impact either because they do not result in significant impacts or impacts can be mitigated to a less than significant level. (a) the placement and burning of burn piles within Waterbody Buffer Zones, 100-year floodplains of the Little Truckee or Truckee River hydrologic units, or 100-year floodplains or Stream Environment Zones of the Lake Tahoe hydrologic unit. (b) the operation of various types of equipment on slopes greater than 50%, or 30% in the Lake Tahoe Hydrologic Unit. (c) prescribed fire within Waterbody Buffer Zones, 100-year floodplains of the Little Truckee or Truckee River hydrologic units, or 100-year floodplains or Stream Environment Zones of the Lake Tahoe hydrologic unit. This evidence can be gathered from specific monitoring and with demonstration projects. Water Board staff have added Finding 6 of the proposed Timber Waiver so as to support demonstration projects. Also see revised conditions in Category 6 regarding additional monitoring. As part of the Executive Officer's discretion in granting prohibition exemptions, additional mitigation measures and monitoring may be required to be included in plans (Waiver conditions require approved plans are implemented).
SFL et al # 3	Water Board staff agree, and the inclusion of finding No. 6 addresses this request. Also see Attachment N. Pile burning within Tahoe SEZs will require prohibition exemption findings to be made if considered by the Water Board under the proposed waiver.
SFL et al # 4	A remote-controlled chipper with a psi of 10 psi or less has been used to assist hand crews within SEZs in the Lake Tahoe Basin with no observed impact (Lake Valley Fire Protection 2006).
SFL et al # 5	The proposed waiver (Finding No. 6) and Attachment N now recognize the applicability of the Heavenly SEZ Demo project to only future cut-to-length operations on granitic soils. All other low impact equipment on similar soils or use of cut-to-length equipment on volcanic soils will be subject to Basin Plan prohibitions. The Executive Officer is required to make required findings, provide a 10 day review, and grant an exemption prior to the activity proceeding.
SFL et al # 6	The proposed revised Timber Waiver requires compliance with the Water Quality Control Plan for the Lahontan Region (Basin Plan). The Basin Plan included all additional environmental standards for the Lake Tahoe Hydrologic Unit. Environmental analysis and documentation was completed when the Basin Plan was adopted in 1995. Finding No. 5 was added, along with modifications of some of the waiver conditions to apply strictly to the Lake Tahoe Basin.
SFL et al # 7	As an addendum to the Initial Study, Water Board staff has created a document that compares the notification, monitoring, and reporting conditions of the existing Timber Waiver with the notification, monitoring, and reporting conditions of the proposed revised Timber Waiver (see Attachment 1).
SFL et al # 7a	Please see response **SFL et al # 7**.
SFL et al # 7b	Please see response **SFL et al # 7**.
SFL et al # 8	Please see response **SFL et al #6 and # 7**. The proposed revised Timber Waiver includes timber harvest and vegetation management activities in the Lake Tahoe Hydrologic Unit. In the event that the 2008 Memorandum of Understanding between the Water Board and the Tahoe Regional Planning Agency (TRPA) is terminated, timber harvest and vegetation management activities proposed within the Lake Tahoe Basin may be eligible under the proposed revised Timber Waiver.
SFL et al # 9	Water Board staff agree that the amount of advance notice required should be explicitly stated. See revised general condition No. 4.
SFL et al # 10	Maps that clearly indicate the project area location and information including access roads, waterbodies, watercourse crossings, landings, skid trails within Waterbody Buffer Zones is required to complete an application for coverage under Categories 4 and 6 of the proposed revised Timber Waiver (See Category 4 and 6 conditions and the Category 4 and 6 Applications, Attachments C and K). Detailed plan area maps are produced as part of the Category 5 Timber Harvest Plan (THP) review process pursuant to California Code of Regulations, title 14 (Forest Practice Rules), and furnish

	information adequate for Water Board staff review of proposed timber harvest activities. Inspection of, and/or obtaining copies of, public records maintained by the Water Board is governed by the California Public Records Act. Records of projects that apply and proceed under the Timber Waiver must be made available to the public promptly upon request as long as such disclosure does not jeopardize competing constitutional rights to privacy and the government's need to perform its functions in a reasonably efficient manner (e.g., by maintaining the confidentiality of some records relating to pending investigations and litigation). The California Public Records Act establishes reasonable procedures providing for prompt disclosure while allowing government agencies the time to locate records and to determine which records, if any, are exempt from disclosure. Records that relate to archeological site information is statutorily exempt from public disclosure. A complete list of statutory exemptions is found in the California Public Records Act. Finding 4(f) also explicitly states that monitoring results shall be made available to the public.
SFL et al # 11	Water Board staff agree and the statement "or expansion of existing landings" was added to eligibility criterion 3, of Category 2.
SFL et al # 12	One of the conditions of Categories 2 and 4 of the proposed revised Timber Waiver specifies that "Chipped and masticated material must not be discharged to waterbodies, or be deposited in locations where such material may discharge to a waterbody. Within Waterbody Buffer Zones chipped and masticated material must not exceed an average of two inches in depth, with a maximum depth of four inches." Water Board staff decided to add a condition regarding the deposition of chipped and masticated material to the lower-order categories of the proposed revised Timber Waiver because staff have noted an increase in vegetation management and fuel reduction projects that employ on-site treatment such as chipping and mastication of thinned trees. Water Board staff foresee potential benefits and potential ecological and water quality risk associated with leaving chipped and masticated biomass within project areas including Waterbody Buffer Zones. Environmental and water quality benefits include erosion control (Hatchett et al., 2006), buffering soil from compaction due to equipment operation (cite something here –hogan or Han), nitrogen immobilization (Homyak et al., 2008), and favorable germination environment for some species (Wolk and Rocca, 2008). Potential ecological and water quality risk can be associated with delivery of chipped and masticated material to surface waters either by direct placement or via stormwater or snowmelt runoff, or suppression of vegetation growth when the depth of material exceeds ____ (Wolk and Rocca, 2008).
SFL et al # 13	This condition is identical to one found in the California Forest Practice Rules (CCR, title 14, sections 14.6, 934.6, 954.6 (a) (2).
SFL et al # 14	The 2007 Waiver has not been in place long enough to adequately assess the efficacy of the monitoring requirements. Monitoring requirements for the greater risk categories have not been changed substantially. Monitoring and Reporting Forms have been provided to ensure improved reporting. Changes to monitoring requirements are limited and illustrated in the documents described above (See response **SFL et al # 7**). The Waiver general conditions require dischargers to notify the Water Board of discharges of waste to waterbodies (Condition No. 2).
11. Doug Praetzel, Forester & RPF, Sierra Pacific Industries (Letter Code: SPI)	
SPI # 1	For clarification, Water Board staff removed "Public agencies" from Condition 1 of Category 3. Private individuals and companies may conduct post-fire emergency erosion control (not Emergency Exemptions) on their land under the Timber Waiver if the activities meet the eligibility criteria and conditions of Category 3.
SPI # 2	Water Board staff agree that adding the language "requiring earthwork" allows the condition to more accurately reflect the intent of eligibility criteria 8 of Category 4.
SPI # 3	Water Board staff confirm that this information must already be included in the Timber Harvest Plan (THP) pursuant to California Code of Regulations (CCR), title 14, section 1034. If this information is already mapped within the approved THP, a yes or no statement or additional map production is not necessary to satisfy this condition. Water Board staff will verify this information is present during THP review.

	Water Board staff removed Condition 2(d), because these features are rarely affected by commercial timber harvest, and if such activities are proposed they would be identified in the THP pursuant to CCR, title 14, section 1034, subdivision (x)(16).
SPI # 4	This information is not required to be included within the THP. Therefore Water Board staff revised the language of Condition 3 of Category 5 to say that this information must be indicated (within the approved Plan or as an addendum to the Timber Waiver application).
SPI # 5	This information must already be included in the Timber Harvest Plan (THP) pursuant to California Code of Regulations (CCR), title 14, section 1034. If this information is already included within the approved THP, a yes or no statement or additional map production is not necessary to satisfy this condition. Water Board staff will verify this information is present during THP review.
SPI # 6	Please see response **CAL FIRE Sacramento # 12**.
SPI # 7	Please see response **CAL FIRE Sacramento # 12**.
SPI # 8	Water Board staff have revised the language on Table 1 to more accurately reflect Condition 1 of Category 5, "Work may begin upon receipt of application by Water Board."
SPI # 9	Water Board staff do not think that Condition 12 of Category 4 contradicts with the allowance for limited operations during the winter period. Winter operations should not result in the destabilization of soils. This is ensured by Conditions 7 and 8 which limit tractor, vehicle, and equipment operations to: dry soil conditions, hard-frozen soil conditions, or conditions where snow depth is sufficient to not allow visible disturbance of soils. Similarly, Water Board staff do not think that Condition 12 of Category 6 contradicts with the allowance for activities during the winter period. Conditions 9 and 10 limit tractor, vehicle, and equipment operations to: dry soil conditions, hard-frozen soil conditions, or conditions where snow depth is sufficient to not allow visible disturbance of soils.
SPI # 10	Water Board staff will not make this change. To complete a Category 4 or 6 application, the discharger must disclose the location of all watercourse crossings, including existing culvert or corrugated metal pipe (CMP) crossings.
SPI # 11	A general provision has been added allowing Dischargers the ability to request a modified or alternate monitoring and reporting program, subject to approval by the Executive Officer. Also, on each of the Monitoring and Reporting Forms, a statement allows for the use of your own forms if they contain the equivalent information or if a revised monitoring program is approved by the Executive Officer.
SPI # 12	Comment noted. Water Board staff encourage project applicants to notify staff of any issues regarding timing of review and approval of Category 6 projects. In many cases, Water Board staff may be able to expedite review. Please be advised that expedited review can always be requested, but Water Board staff may not have the work load flexibility to accommodate short notice requests. Therefore it is in the best interest of the applicant that they notify Water Board staff of pending projects as soon as possible. Category 4 now includes herbicide application where only the herbicide application plan needs to be submitted at least 30 days in advance of the application; other activities may proceed without delay.
SPI # 13	Water Board staff have revised the application for Category 4 (Attachment C) to state that there are 10 criteria for eligibility.
SPI # 14	Water Board staff discovered that the 20% slope threshold was an error. Water Board have revised Item 8 of the Category 4 Application Form (Attachment C).
12. Brett Emery, Bridgeport, CA (Letter Code: Emery)	
Emery # 1	The 2007 Timber Waiver applied to the entire Lahontan Region and covered vegetation management activities in addition to timber harvests. The differences between the existing 2007 Timber Waiver and the proposed revised Timber Waiver include: • a reorganization of Timber Waiver categories based on threat to water quality, and de-emphasizing land ownership as a basis for categorization • an expansion of the types of activities that may proceed under the revised Timber Waiver without notification to Water Board staff

	• an expansion of the types of activities that may proceed under the revised Timber Waiver without 30-day notification to Water Board staff • revision and refinement of Timber Waiver eligibility criteria, conditions, and definitions • the removal, reduction, and/or clarification of monitoring requirements for certain categories of activities • an expansion of conditional opportunities for activities within sensitive lands[1] • allowance for conditional operation of low ground pressure equipment to within 25 feet of a watercourse • allowance for the deposition of limited chipped material within Waterbody Buffer Zones These changes in the Timber Waiver are proposed by Water Board staff for several reasons: • to streamline implementation of a broader range of vegetation management activities to mitigate the threat of catastrophic wildfire, while ensuring less than significant impacts to water quality • to facilitate compliance with Timber Waiver conditions, and assist applicants in identifying eligibility criteria, conditions, and monitoring requirements that apply to their proposed activities • to allow Water Board staff to focus limited staff resources on timber harvest and vegetation management activities that pose greater threats to water quality.
Emery # 2	Comment noted. Please see response **DFG # 3** regarding RPF requirements and see response **DFG # 1** (last paragraph) regarding regulatory distinctions between commercial and non-commercial timber harvest and vegetation management activities. When regulating timber harvest and vegetation management activities Water Board staff have chosen to recognize the California Forest Practice Rules (FPRs) in the interest of not duplicating other state regulations.
Emery # 3	Please see response **DFG # 1** regarding regulatory distinctions between commercial and non-commercial timber harvest and vegetation management activities. Please see response **DFG # 17** regarding the title of the proposed revised Timber Waiver, *Conditional Wavier of Waste Discharge Requirements for Waste Discharges Resulting from Timber Harvest and Vegetation Management Activities in the Lahontan Region.*
Emery # 4	Water Board staff do not seek to discourage appropriate prescribed fire within or near riparian areas with the Timber Waiver. See revisions made to allow prescribed fire within Categories 2, 4, 5 and 6. In some cases, monitoring is required.
Emery # 5	Please see response **DFG # 2**, **DFG # 11**, and **DFG # 14**.
Emery # 6	Please see response **DFG # 2**.
Emery # 7	Please see response **DFG # 2, DFG # 13** and **DFG # 15.**
Emery # 8	Please see response **DFG # 3** regarding RPF requirements. Please see response **DFG # 12** regarding conditions for removal of greater than 3-inch DBH trees.
Emery # 9	Please see response **CAL FIRE Sacramento # 9**.
Emery # 10	Water Board staff have include a definition for "stabilized" within Attachment A.
Emery # 11	Comment noted.

[1] The term 'sensitive lands' used within this Initial Study and the Timber Waiver includes: aquatic and wetland habitat, soils with high or extreme erosion hazard rating, slopes greater than 40%, known slides and unstable areas (including unstable and erodible watercourse banks, migrating channels, overflow channels, watercourse channels with inadequate flow capacity, flood prone areas, riparian areas, 100-year floodplains within the Truckee River, Little Truckee River, and Lake Tahoe Hydrologic Units (HUs), slopes over 30% in the Lake Tahoe HU, and Stream Environment Zones within the Lake Tahoe HU.

13. Philip Nemir, RPF, Forestry & Appraisal Services (Letter Code: Nemir)	
Nemir # 1	Comment noted.
Nemir # 2	Comment noted.
Nemir # 3	Comment noted. Water Board staff anticipate that the re-categorization combined with reduced notification, monitoring, and reporting requirements for lower-threat projects will open up staff time and resources for more thorough regulation of the higher threat projects.
Nemir # 4	Comment noted.
Nemir # 5	Water Board staff will not make this change. Water Board staff have segregated these activities in interest of pairing appropriate conditions to specific types of activities. Segregating these activities also preserves the self-limiting nature of the activities that can proceed with no notification.
Nemir # 6	Water Board staff will not make this change. Wet conditions frequently exist before December 1 and persist after February 29.
Nemir # 7	Water Board staff have significantly reduced what is required for those applying to proceed with timber harvest activities under Category 5. The only information requested on the Category 5 application form (Attachment F) are the Plan name, CAL FIRE Plan number, landowner's contact information, other contact information, a yes/no question regarding CAL FIRE Director approval of the Plan, RPF contact information, a yes/no question regarding Water Board staff participation in the CAL FIRE review team process for the Plan, and a signature from the Landowner, agent thereof, or Land Manager, certifying compliance with all conditions of the Timber Waiver.
Nemir # 8	Water Board staff will not make this change because each year winter operations occur, the discharger must verify that conditions of the waiver were met and any BMPs proposed as part of the plan were implemented.
Nemir # 9	Please see response **DFG # 6**.
Nemir # 10	Please see response **DFG # 6**.
Nemir # 11	Please see response **Emery # 4** and **CAL FIRE Sacramento # 8**.