CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

ORDER NO. R6T-2012-(TENTATIVE)

WASTE DISCHARGE REQUIREMENTS (WDR)

FOR

UNITED STATES FOREST SERVICE
LAKE TAHOE BASIN MANAGEMENT UNIT

SOUTH SHORE FUEL REDUCTION
AND HEALTHY FOREST RESTORATION PROJECT

_____El Dorado County_____

A. FINDINGS

WHEREAS the California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Project. The U.S. Forest Service (USFS), Lake Tahoe Basin Management Unit (LTBMU) submitted a project description, a final environmental document, and other information for the South Shore Fuel Reduction and Healthy Forest Restoration Project (Project). The Project may also be referred to as the Facility. The term "Project" also refers to the Project-specific staging areas, storage areas, and access roads for equipment and materials.

2. Discharger. For the purposes of this Waste Discharge Requirements (WDR), the LTBMU is considered the Discharger.

3. Regulated Wastes. The specific types of discharges of waste this WDR regulates include, but are not limited to, earthen materials (such as soil, silt, sand, clay, and rock), organic materials (such as slash, sawdust, bark, and ash), construction wastes (such as concrete waste and removed culverts), oils and greases, herbicides, and fill materials resulting from timber harvest and vegetation management activities.

4. Project Purpose. The Discharger's South Shore Project is intended to reduce impacts from hazard fuels (see definition, WDR Attachment A) and restore ecosystem health on lands owned by the United States of America and managed by the U.S. Forest Service. The primary management objective is the reduction of hazard fuels within the South Shore of the Lake Tahoe Basin wildland urban intermix (WUI) in order to change fire behavior resulting in lower fire severity and reduced rates of spread. Secondary objectives include providing healthy wildlife habitat, restoring a forest structure with increased resistance to drought, disease, and insects, and restoring aspen stands within the South Shore Project area. The

Project will apply vegetative treatments to reduce hazard fuels on up to 10, 200 acres within the South Shore WUI over approximately three to seven-years with forest thinning occurring on approximately 2,660 acres per year. Of this, no more than 1,350 acres would be mechanically thinned per year. It is anticipated the results of the project will be effective (meet the Forest Service desired conditions) or a period of 15 to 20 years. Hazard fuel reduction would occur on Forest Service-managed lands in all three zones of the WUI: within the urban core where undeveloped public and developed private lands are adjacent; within the Defense Zone where undeveloped public lands extend ¼ mile from places where people live and/or work; and within the Threat Zone where undeveloped public lands extend 1 ¼ miles beyond the Defense Zone.

A combination of the following methods will be used to meet the fuels and vegetation objectives for the Project area, including Stream Environment Zones (SEZs):

- Mechanical thinning of brush and trees, using Cut-to-Length (CTL) or whole-tree operations (WT). WT logging equipment shall not operate within SEZs; however, WT equipment may be used to reach into or endline whole trees from SEZs.
- Hand thinning of brush and trees,
- Saw log and biomass removal, with chipping and/or masticating of slash and brush.
- Removing infested, diseased, and dead trees, both standing and down, that are in excess of wildlife and soils retention needs.
- Prescribed pile burning and underburning subsequent to vegetation treatments.

The thinning operations used will be based on soil type, slope, and associated water quality concerns such as risk of sediment delivery to surface water. Hand treatments, end-lining, or reaching in by equipment would be used where slopes or soil conditions are not suitable for mechanical treatments and where road access is not feasible. Overall, mechanical harvesting using ground-based equipment with follow-up biomass removal, chipping, mastication, or prescribed burning, would occur on approximately 4,100 acres. Hand thinning with similar follow-up fuels treatments would occur on approximately 6,000 acres. Best Management Practices (BMPs), mitigation measures, and a Monitoring Plan are incorporated into the Project description and in this WDR to avoid or substantially lessen adverse environmental impacts.

5. Regulatory Authority and Reason for Action. The drainages and wetlands affected by the Project are waters of the State, as defined by section 13050 of the California Water Code(Water Code), and are therefore subject to State requirements in accordance with section 13260 of the Water Code.

   The Project involves the proposed discharge of wastes (See Finding No. 3 above) The Water Board will regulate the proposed discharge of wastes into wetlands and other waters of the State by this WDR issued pursuant to Section 13263 of the Water Code. The Water Board considers WDRs necessary to adequately address potential and

planned impacts to waters of the State from this project, to require mitigation for these impacts to comply with the water quality standards specified in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan).

6. Project Location. The Project extends from Cascade Lake on the northwest to the Heavenly Mountain Resort Special Use Permit boundary and the Nevada State line on the northeast, and from Lake Tahoe on the north to the Discharger's National Forest boundary on the south (WDR Attachment E, Map 1). The overall Project area totals 86,790 acres, of which 70,581 acres are managed by the Discharger. The Discharger proposes vegetative treatments only on National Forest System lands within the three zones of the WUI identified in Finding 4. The Defense Zone comprises 60 percent of the WUI acres within the National Forest System, the Threat Zone 35 percent, and the remaining five percent is the Urban Core.

7. Hydrologic Areas. The Project area includes surface waters within the Lake Tahoe Hydrologic Unit (HU), as defined in the Basin Plan, specifically surface waters within the South Tahoe Hydrologic Area (HA), which drain into Lake Tahoe. The following FEIS-designated watersheds have areas proposed for treatment under this Project. Basin Plan-designated hydrologic subunits within the South Tahoe HA, which incorporate or are incorporated within the FEIS watersheds are noted italicized in parentheses.

   (a) Angora Creek (*Upper Angora Lake, Lower Angora Lake*)
   (b) Benwood Meadow (*Upper Truckee River*)
   (c) Big Meadow Creek (*Upper Truckee River*)
   (d) Bijou Frontage (*Tahoe Meadows Wetlands*)
   (e) Camp Richardson Frontal (*Pope Marsh/Wetlands*)
   (f) Cascade Creek (*Cascade Lake, Cascade Creek*)
   (g) Cold Creek (*Cold Creek*)
   (h) Echo Creek (*Echo Lakes, Upper Truckee River*)
   (i) Glen Alpine Creek (*Glen Alpine Creek*)
   (j) Grass Lake (*Grass Lake Wetlands, Grass Lake, Grass Lake Creek*)
   (k) Headwaters of Trout Creek (*Trout Creek*)
   (l) Lower Trout Creek (*Trout Creek*)
   (m) Lower Upper Truckee River (*Upper Truckee River*)
   (n) Middle Upper Truckee River (*Upper Truckee River*)
   (o) Osgood Swamp (*Osgood Swamp*)
   (p) Saxon Creek (*Saxon Creek*)
   (q) Tallac Creek (*Tallac Creek*)
   (r) Taylor Creek (*Fallen Leaf Lake, Taylor Creek, Taylor Creek Meadow Marsh*).

   Project treatment areas only occur in that part of a watershed that is within the WUIs. Additionally, one proposed treatment unit drains into the headwaters of the South Fork of the American River, which is not within the jurisdiction of the Lahontan Water Board, and is therefore not addressed by this WDR. Of the 840 miles of streams within the Project area, the Discharger proposes to conduct tree and vegetation removal along 76 miles of ephemeral streams, 1 mile of intermittent streams, and 21 miles of perennial streams.

Existing Water Quality Conditions. Ambient water quality monitoring throughout the Lahontan Region has been reported in the Water Board's 2007 *Surface Water Ambient Monitoring Program (SWAMP) at the Lahontan Region: Summary of Results for Years 2000–2005*, which includes the following findings:

> "Chemical and bacteriological monitoring was conducted by the U. S. Geological Survey (USGS) at 30 surface water sites throughout the Lahontan Region from 2000–2005. The results indicate that surface waters at the monitored sites are generally of high quality. However, some potential exceedances of State water quality standards (i.e., Basin Plan objectives) were observed."
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> "The highest rates of potential exceedance were documented for total dissolved solids (TDS) and dissolved oxygen (DO). The causes and significance of the potential exceedances for these parameters remains unknown. Potential exceedances of other Basin Plan objectives were relatively rare."

8. The 2009 Clean Water Act (CWA) Sections 305(b) and 303(d) Integrated Report for the Lahontan Region (Integrated Report) describes Water Board's regional water quality assessment process, including analysis of data and information, and recommendations for the additions, deletions, and modifications to the 2006 CWA section 303(d) list (303(d) list) of impaired waterbodies and Total Maximum Daily Loads (TMDLs) completion dates. Water quality monitoring data was submitted by stakeholders (including the Discharger) and from Lahontan's Surface Water Ambient Monitoring Program (SWAMP). The updated Integrated Report, approved by the Water Board in July 2009, provided the basis for adding Cold Creek and delisting from the 303(d) list pathogens as a stressor in Big Meadow Creek and Upper Truckee River.

   The 2010 303(d) list of water quality limited segments that are impaired and require TMDLs includes the following streams/lake within the Project area: (Stream: pollutant - pertinent potential sources):

   Cold Creek:
   - Total Nitrogen as N – agricultural water diversion – this listing is being addressed by a USFS restoration project.

   Heavenly Valley Creek (USFS boundary to Trout Creek):
   - Chloride –, highway/road/bridge runoff, natural sources, unknown source.
   - Sedimentation/siltation - construction/land development, habitat modification, hydromodification, non-point source, recreational and tourism activities (non-boating).

   Heavenly Valley Creek (source to USFS boundary):
   - Chloride –, highway/road/bridge runoff, natural sources.
   - Phosphorus –, erosion/siltation, natural sources, recreational and tourism activities (non-boating).

- Sedimentation/siltation – unknown source. This listing is being addressed by an adopted TMDL and through an individual WDR imposed on USFS/Heavenly Ski Area.

Lake Tahoe:

- Nitrogen – silviculture, runoff (other urban, surface, erosion and sedimentation), roads, channel erosion, atmospheric deposition, natural sources. This listing being addressed by August 2011 USEPA approved TMDL.
- Phosphorus – silviculture, runoff (other urban, erosion and sedimentation), roads, channel erosion, , sediment re-suspension, natural sources, nonpoint sources. This listing being addressed by August 2011 USEPA approved TMDL.
- Sedimentation/siltation - silviculture, runoff (other urban, erosion and sedimentation), roads, channel erosion, atmospheric deposition, sediment re-suspension, natural sources, nonpoint sources. This listing being addressed by August 2011 USEPA approved TMDL.

Tallac Creek (below Hwy 89):

- Pathogens – historic grazing; recreation users
- Iron – natural sources

Trout Creek (above Hwy 50):

- Iron – natural sources.
- Nitrogen – urban runoff, erosion/sedimentation, atmospheric deposition.
- Pathogens – historic grazing, recreation users, source unknown.
- Phosphorus - urban runoff, erosion/sedimentation, atmospheric deposition.

Trout Creek (below Hwy 50):

- Iron –natural sources.
- Nitrogen – urban runoff, erosion/sedimentation, atmospheric deposition.
- Pathogens – historic grazing, recreation users, source unknown
- Phosphorus - urban runoff, erosion/sedimentation, atmospheric deposition.

Upper Truckee River (above Christmas Valley):

- Iron – natural sources.
- Phosphorus – silviculture, natural sources, erosion/siltation, urban runoff.

Upper Truckee River (below Christmas Valley):

- Iron –natural sources
- Phosphorus – silviculture, erosion/siltation, , natural sources, urban runoff.

9. Hydrology. Elevations in the Project treatment area range from 6,224 feet at lake level to approximately 8,000 feet near Luther Pass. Average annual precipitation ranges from approximately 20 to 60 inches (mostly in the form of snow) in the Lake Tahoe Basin depending largely on elevation. Because of this, spring snowmelt gradually contributes the majority of the stream flow over an extended period. However, infrequent rain-on-snow events can affect the landscape and stream channels, and can contribute

disproportionate amounts of runoff-carried pollutants to surface waters including Lake Tahoe.

10. Soils. Soils in the Project area developed from glacial and alluvial materials primarily derived from granitic rocks, with some metamorphic and volcanic rocks. Soils are generally coarse-textured, with coarse sand, loamy coarse sand, and sandy loam surface layers. The "SEZ soils" are organic soils primarily derived from decomposed peat, have organic surface layers derived from decomposed plants, or are beach sands. Surface erosion has been identified in the Project area as the dominant erosional process. Trout Creek and the watersheds to the east have greater surface erosion potential than the other drainages, possibly due to their thicker layer of parent soil material. Fire suppression and conifer encroachment have been identified as the main causes of over-dense upslope forests, which can alter water flows and soil moisture conditions, tying up more water in the upper watersheds. Additionally, the loading rates for finer particles from hillslopes are currently higher than they had been in the recent past, due to the connection of hillslope roads and trails to surface waters. In lightly and moderately burned areas from the 2007 Angora Fire, the fire resulted in short-term detrimental water quality effects including temporary loss of ground cover. In areas with high-intensity burns, ground cover was almost completely removed: nearly all vegetation, including streamside vegetation (necessary for shading and healthy stream temperatures) was lost, and large and small organic material were removed.

    The Discharger proposes treatments, including but not limited to, thinning of forests, removal of excessive ground fuels, stabilization of exposed soils, decommissioning of roads, avoidance of sensitive soils, and restoration of vegetation, which will restore proper hydrologic conditions and functions. Through soil evaluations and analyses, the Discharger has identified soils within their Project area that have potentially severe or very severe limitations for mechanical harvest due to a high hazard rating for erosion, rutting, or damage from wildfire. These soils will be referred to as sensitive soils throughout this document.

11. Stream Environment Zones and Waterbody Buffer Zones. There are approximately 733 acres of SEZs within the Project treatment area. SEZs are defined as biological communities that owe their characteristics to the presence of surface water or a seasonally high groundwater table. The Tahoe Regional Planning Agency (TRPA) criteria used to delineate an SEZ include the presence of specific vegetation and soil types, plus hydrology. The dense vegetation of SEZs is capable of rapid nutrient uptake and incorporation, while the moist-to-saturated soils are conducive to denitrification. Studies of nutrient removal by SEZs have shown that:
    - Sheet flow across SEZs provides the most effective treatment of water;
    - The natural treatment capability of SEZs is destroyed where development causes channelization; and
    - Channelized SEZs may actually increase sediment and nutrient loading in areas where erosion is caused by concentrated flow.

    SEZs have been found to be effective in reducing nutrient and sediment loads from storm water. However, during certain rainfall and snowmelt episodes and following the fall die-off of vegetation, SEZs may also be a source of nutrients and sediments to

watercourses, especially where the SEZs have been disturbed. In addition to removing nutrients from storm water runoff, naturally-functioning SEZs can reduce flood peaks, diffuse flow, increase evapotranspiration, and increase the retention time of surface water. SEZs also have many other values related to water quality, such as water contact and non- contact recreation, wildlife habitat, aquatic habitat, and floodplain attenuation.

The Discharger found from the Heavenly Valley Creek SEZ demonstration project (HSEZ) monitoring results that mechanical treatment of SEZs with CTL forwarding and harvesting technology could be implemented under favorable soil moisture conditions (i.e., relatively high soil infiltration capacity and low soil moisture content) without causing ecologically adverse impacts to soil or water quality. The Water Board reviewed the demonstration project and conclusions, and agreed to allow continued use of the treatment methodology, under specific conditions and criteria. The Discharger's South Shore SEZ Risk Rating System (May 2008, revised March 2011, and incorporated as FEIS Appendix C) was modified from the original sensitivity rating criteria agreed to by the Water Board for evaluation of the sensitivity of Project treatment units within fuel reduction projects that either contain or are entirely SEZ. The results from the Discharger's rating exercise for each SEZ treatment unit potentially considered for mechanical treatment using the South Shore SEZ Risk Rating System shall be compared to the original sensitivity rating criteria as accepted for use on the South Shore Project by the Water Board, May 30, 2008. If those SEZ units have an equal or higher rating under the original sensitivity rating criteria, they will be treated only by hand crews, end-lining or equipment reach, or mechanical over-snow operations.

The FEIS also contains a modified Soil Moisture Protocol (FEIS Appendix D) to determine operability on soils, based on soil moisture measured at the 4-8 inch depth. Operability soil moisture conditions shall be determined based on the accepted Soil Moisture Operability Protocol, measured at the 2 to 10 inch depth, as specified in WDR Attachment E, Table E1 and WDR Attachment F, BMP No. 6.

The Project soil evaluation and analysis done by the Discharger to identify sensitive soils as described above, are different from the TRPA SEZ designations; however, both the soil survey and the SEZ designations are used in the Discharger's analysis of effects. The Discharger proposes, and this WDR requires, special resource protection measures for Project activities within SEZs and Waterbody Buffer Zones (see WDR Attachment E, Table E2 and WDR Attachment F, BMPs No. 2, 6, 12 through 21, 24 through 31, 35, 38, 41, 45, 46, 49, 52b, 53 through 58, 76b, and 90). However, many of the Discharger's proposed resource protection measures allow for field decisions or do not provide adequate protection to the tributaries to Lake Tahoe (since they allow soil disturbance close to waterbodies during WT logging practices). The California part of Lake Tahoe is designated by the U.S. Environmental Protection Agency (EPA) as an Outstanding Natural Resource Water (ONRW), which provides that no further degradation of Lake Tahoe can be allowed. All reasonable, cost-effective, best management practices for nonpoint source control are required. The Waterboard finds that the proposed setbacks pose an unreasonable risk to water quality, including the avoidable delivery of nutrients and sediments to waters tributary to Lake Tahoe. Due to this, minimum WT logging set-backs are being imposed in this WDR (WDR Attachment F, BMP No. 15), using the same Waterbody Buffer Zones set forth in WDR Attachment B of the 2009 Timber

Waiver (R6T-2009-0029).

The Discharger proposes to limit work within SEZs to either hand crews, end-lining or equipment reach, over-snow logging, or using Cut-to-Length (low psi) equipment. As noted above, these particular resource protection measures, as proposed in the FEIS, also allow for field decisions without sufficient criteria for the protection of water quality to make those decisions, or do not provide adequate protection to the tributaries to Lake Tahoe. This WDR therefore requires the use of the specific BMPs and mitigation measures detailed in WDR Attachment F, which provide specific limitations within which the Discharger can base field decisions, and provide specified minimum protection requirements which are either lacking or insufficient in the RPMs and BMPs noted in the FEIS and Record of Decision (ROD) (see crosswalks between BMPs and RPMs in Tables E3a and E3b). Because certain construction resource protection measures could not be developed prior to issuance of this WDR, the Discharger shall develop and incorporate detailed BMPs for the construction, use, and removal of stream crossings in its Roads Package, Project Plans, and Erosion Control Plans (ECPs) consistent with the BMPs required in WDR Attachment F, which will be submitted to Water Board staff for review and acceptance before Project operations may commence. This will ensure that water quality will be protected during operations.

12. Monitoring Program. A Monitoring and Reporting Program (MRP, see WDR Attachment C) is designed to ensure that the Project management measures are installed and functioning prior to precipitation events (implementation monitoring), that the measures were effective in controlling sediment discharge sources (effectiveness monitoring), and that any new sediment sources occurring as a result of Project implementation are identified and corrected (forensic monitoring). The Water Board may require that any person who proposes to discharge waste within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires (Water Code section 13267). All monitoring must be conducted by qualified professionals (i.e., a person with a bachelor's degree or higher in a biological, ecological, or other relevant science such as engineering, geology, soils, hydrology, botany, or fisheries and with the appropriate training and/or licensing to conduct site inspections and prepare technical reports associated with preventing or minimizing the discharge of waste to waters).

The Discharger developed a Project Monitoring Plan, incorporated in Chapter 4 of the FEIS. However, this Monitoring Plan is based on national standards and not designed for activities that will occur within sediment-impaired watersheds or the watersheds of an ONRW; relied on the FEIS' inadequate resource protection measures and BMPs; and did not contain adequate details regarding long-term effectiveness or forensic monitoring, adequate follow-up contingency plans, or reporting specifications. Further, this Project includes a number of higher-risk, innovative activities for which there is little or no literature describing their environmental effects, such as allowing burning of waste piles within SEZs. The FEIS' Project Monitoring Plan does not adequately describe additional monitoring or follow-up mitigation measures for higher-risk, innovative Project activities.

This WDR, including the MRP in WDR Attachment C, therefore requires monitoring of the BMPs specified in WDR Attachment F, requires an increased percentage of effectiveness monitoring on Project-specific sites, includes additional details for photo-point and forensic monitoring, specifies reporting requirements, and contains additional details on effectiveness monitoring for higher-risk innovative activities, such as the placement and burning of slash piles within the SEZs. Results from this latter, additional monitoring will either support current resource protection measures or be used to modify them on the remaining burn piles to provide additional protection to the SEZs. The MRP requires the Discharger to provide an evaluation of the piles burned within the previous year in its annual July Monitoring Report. This evaluation shall include the following:

(a) The corrective actions taken at any burn pile location where the burn has impacted the soils or the site in some manner; the discussion of a "corrective" action may indicate that impacts were minor, not requiring immediate corrective actions, but include details on further monitoring and evaluations;
(b) What corrective actions will be undertaken on the existing burn piles not yet burned to avoid similar impacts; and
(c) A description of the corrective actions to be undertaken in future burn pile areas in the Project to avoid these impacts.

The Discharger shall submit a technical report detailing the winter operations activities and sampling results as noted in WDR Section E. Reports Required No. 4, the FEIS, ROD, and WDR, including WDR Attachment C. This technical report shall include detailed discussions of the conditions, activities, and mitigation measures in place during operations which occurred on dry soils between October 16th and April 30th, when snow coverage or hard frozen soil conditions did not exist.

The MRP also requires bioassessment monitoring (with the requisite associated habitat measurements) on Saxon Creek to reveal if substantial quantities of sediment are delivered to specified watercourses by Project activities or to verify protection or improvement of aquatic systems downstream of Project activites. The proposed MRP bioassessment monitoring site on Saxon Creek was chosen downstream of a variety of potentially high-risk Project activities where bioassessment monitoring efforts have already been performed. The rationale for this bioassessment monitoring requirement is detailed in MRP Attachment G.

13. As noted in WDR Attachment A (Definitions), which is incorporated into this WDR, certain terms used in this WDR have a specific, regulatory definition. The definition of these terms as listed in WDR Attachment A may differ from common, dictionary definitions. All other terms shall have the same definitions as prescribed in the FEIS, the California Forest Practice Rules (California Code of Regulations, title 14, section 895.1 et seq.), Public Resources Code section 4528, subdivision (f), and Water Code section 13000 et seq., unless specified otherwise.

14. Basin Plan. Water quality standards and control measures for surface and ground waters of the Lahontan Region are contained in the Basin Plan. The Basin Plan designates beneficial uses for water bodies and establishes water quality objectives (WQOs), waste discharge prohibitions, and other implementation measures to protect

those beneficial uses. In 2011, the Basin Plan was amended to incorporate the Lake Tahoe Total Maximum Daily Load, which included requirements for forest management agencies.. WDR Attachment B contains excerpts from the Basin Plan on the beneficial uses, WQOs, prohibitions, and specific requirements of the Lake Tahoe TMDL applicable to this Project. This WDR implements the Basin Plan by specifying orders that the Discharger must comply with. Order A.3. and Order A.4., below, are the specific orders for the Discharger to meet the TMDL requirements.

15. California Water Code section 13241. Pursuant to California Water Code section 13241 the requirements of this WDR take into consideration:

(a) Past, present, and probable future beneficial uses of water:
These WDR identify existing surface water quality and past, present and probable future beneficial uses of water as discussed in Finding No. 14 and described in WDR Attachment B. Under certain circumstances during Project implementation or following severe rain storms (e.g., equipment failures, culvert blockages caused by storm events, a tree not falling where intended, etc.), short-term increases in turbidity may occur. However, the Project BMPs and monitoring/mitigation requirements in Attachments C and F have been designed to reduce any short-term adverse effects to less than significant. The Project purpose is to reduce the risk of wildfire, improve forest health, and enhance aspen habitat. Once these conditions are achieved they will result in improved water quality thereby enhancing the beneficial uses of waters in the Project area from improved forest uptake of nutrients and increased infiltration.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto:
Findings No. 7 and 8 describe the environmental characteristics and quality of water available.

(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality in the area:
Adherence to the Project plans, design criteria, monitoring, and mitigation measures in the FEIS and this WDR will avoid or reduce potential impacts to existing water quality conditions during Project activities. Although cumulative watershed effects already exist within the Lake Tahoe Basin and the analysis area for this Project, a number of currently implemented and proposed efforts under the Lake Tahoe TMDL program including required NPDES storm water permits and the Lake Tahoe Environmental Improvement Program (e.g., storm water treatment programs, BMP retrofit program, watershed restoration projects, etc.) will improve water quality over time.

(d) Economic considerations:
This WDR authorizes the Discharger to reduce hazard fuels in order to change fire behavior resulting in lower fire severity and reduced rates of spread, provide healthy wildlife habitat, and restore the forest structure to increase resistance to drought, disease, and insects within the public lands on the South Shore of the Lake Tahoe Basin WUI, as specified in the FEIS. The Discharger has indicated that, as the chosen alternative will produce revenues from tree thinning only, values generated from the sale of generally smaller trees would not cover the costs associated with tree removal and extensive slash cleanup from past tree

mortality. Additionally, CTL harvesting systems are more expensive than WT logging systems and will therefore raise the ratio of costs to revenue even higher. Although other fuel reduction methods, such as helicopter logging, are technically feasible to reduce effects in sensitive areas, they are not economically viable (as noted above, the Project will generate sub-merchantable material), nor would their use provide commensurate protections. Their use is therefore not required. Although there are recognizable additional costs involved in implementing, monitoring, and maintaining the more stringent BMPs required by this WDR as compared to those resource protection measures proposed in the FEIS and ROD, there will be substantial increases in prevention of water quality impacts. WDR Attachment F contains detailed and clear, prescriptive BMPs that augment the FEIS' and ROD's resource protection measures. The MRP, in WDR Attachment C, prescribes actions based on an adaptive management system, which sets forth procedures for the Discharger to follow to quickly identify issues before the issues become excessive; correct inherent faults in the prescribed BMPs; and re-evaluate the use of replacement protection measures. Under this adaptive management system, there is a far greater chance of preventing delivery of sediments into the tributaries of the ONRW. The additional expense of these BMPs and the manpower required to properly maintain the BMPs are insignificant compared to the potential costs to remove sediment from Lake Tahoe and its tributaries.

The Project is a necessity. The loss of economic values to homeowners and the City of South Lake Tahoe, surrounded by the WUI, would be much greater if the Project is not implemented and a large scale fire occurred. Additionally, public agencies would likely incur more significant fire suppression costs. This WDR accepts the Discharger's proposal, when used in conjunction with the Provisions and BMPs cited in WDR Attachment F of this WDR, as meeting the best practicable control method for protecting surface water quality from the effects of the Project activities, while at the same time meeting the project goals of reducing the risk for loss of private property and economic values from high-intensity wildfires.

(e) The need for developing housing within the region:
The Project activities will be conducted entirely on public lands, and therefore will not affect the need for developing additional housing within the region. The Discharger is not responsible for developing housing within the region, and the Project is not expected to influence any additional growth in the area. This WDR does not provide for additional capacity in housing development.

(f) The need to develop and use recycled water:
The Porter-Cologne Water Quality Control Act (Porter-Cologne), Section 13952.1 prohibits the use of recycled water in the Lake Tahoe Basin, except for fire suppression where the fire incident commander determines that catastrophic fire conditions exist that would result in severe harm to life, property, or the environment if recycled water could not be used. The only allowable source for this emergency use is the South Tahoe Public Utility District export pipeline which runs through Christmas Valley into Alpine County. This project will neither positively nor negatively affect the need to develop and use recycled water.

16. State Water Board Resolution No. 68-16. This resolution ("Statement of Policy with Respect to Maintenance of High Quality Waters in California") requires that the Water Board regulate discharges of waste to waters of the state to maintain existing high quality waters unless the regional water board finds that changes in water quality achieve the highest water quality consistent with maximum benefit to the people of the state. It further requires that changes to water quality does not unreasonably affect present and anticipated beneficial uses, does not result in water quality less than that prescribed in the Basin Plan. Discharges to existing high quality waters must meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the state will be maintained.

    Porter-Cologne defines “pollution” as an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either the waters for beneficial uses or the facilities which serve these beneficial uses. Porter-Cologne defines “nuisance” as anything which is: injurious to health, indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and occurs during, or as a result of, the treatment or disposal of wastes.

    This WDR is consistent with Resolution No. 68-16 because it requires compliance with applicable water quality control plans, including applicable water quality objectives, prohibits the creation of pollution or nuisance as defined above, and sets forth conditions that require the implementation of additional mitigation measures (noted in the BMP requirements in WDR Attachment F) to assure protection of beneficial uses of waters of the state and maintenance of the highest water quality consistent with maximum benefit to the people of the state.

    The Discharger will monitor the implementation of 100% of its proposed BMPs throughout the life of this Project, employ low impact technology within the SEZs, and utilize a soil sensitivity rating system to limit activities in sensitive areas, to reduce the possibility of sediments getting into the watercourses, and ultimately Lake Tahoe.

    As discussed in WDR Attachment B, Section 4(d), the Water Board has identified fine sediment to be the primary cause of clarity loss in Lake Tahoe. Project activities such as the construction and re-construction of 9.8 miles of temporary roads in SEZs, the use of up to 29 temporary road watercourse crossings (and a to-be-determined number of skid trail crossings on Class III [ephemeral] watercourses) (see Stream Classification Crosswalk in WDR Attachment E, Table E4), the use of 135 landings within the Resource Conservation Areas (see definition, WDR Attachment A), pile burning on up to 15% of the SEZ areas to be treated each year, and dust generation by vehicle and skidding equipment has the potential to increase delivery of fine sediments to watercourses and ultimately to Lake Tahoe. The WDR requires the best practicable treatment to avoid or substantially lessen the delivery of

sediments to waterbodies. The Project's proposed resource protection measures and BMPs, when used in conjunction with this WDR and the incorporated BMP Requirements in WDR Attachment F, require use of the best available technologies to prevent the generation of fine sediments near waterbodies.

17. Discharge Prohibition Exemption. The Discharger is proposing potentially soil-disturbing activities extensively throughout several watersheds of the Lake Tahoe Basin, including on SEZ and other sensitive soils (see Finding No. 10). Additionally, the Discharger is proposing numerous high-risk activities (see the List of High Risk Activities and Sites ini WDR Attachment C) which either require additional protection measures, or for which little is known about the potential impacts. Tables E5 and E6 in WDR Attachment E list summaries of proposed fill, excavation, and coverage in or adjacent to SEZ. The Basin Plan prohibits permanent disturbance within 100-year floodplains and SEZ, unless the Water Board grants exemptions to these prohibitions to protect the natural treatment capacity of 100-year floodplains and SEZ, and to prevent channelized flows from causing erosion (see WDR Attachment B, Basin Plan). This WDR requires the Discharger to implement BMPs No. 1 through 58, and 90, listed in WDR Attachment F to protect sensitive soils and water quality. To allow for the timber harvesting activities under this WDR, the Water Board makes the following findings for a prohibition exemption to the Basin Plan prohibitions (WDR Attachment B) against disturbance or fill within SEZs. Timber harvest and vegetation management activities listed in WDR Attachment J, when conducted in compliance with this WDR and the BMPs and mitigation measures noted in WDR Attachment F, and which reflect the conditions and criteria specified in WDR Attachment J, do not result in discharges in conflict with the Basin Plan waste discharge prohibitions, and therefore do not require a prohibition exemption.

A. The project is necessary for public health, safety, or environmental protection.

The purposes of this Project are to:

- develop defensible space adjacent to communities in the South Shore area where fire suppression operations can be safely and effectively conducted in order to protect homes and communities from wildfires;
- restore forest health in the South Shore area where stands of trees have become sufficiently dense and surface fuels have accumulated to such a degree that wildfires with sustained crown fire and long range spotting could quickly develop, causing severe resource damage and threatening human life and property; and
- restore meadows and aspen stands in the South Shore area in order to reduce the potential for catastrophic wildfire to spread through these areas, to promote maintenance of meadows and aspen stands consistent with the TRPA and Pacific Southwest Research Station's "Aspen Community Mapping and Condition Assessment Report," and to provide wildlife habitat for species that are dependent on meadows and/or aspen.

The Forest Service's Lake Tahoe Watershed Assessment found that current tree density is approximately four times that of 150 years ago and that there has been a pronounced shift away from pine and towards fir in younger trees. The proportion of less fire-resistant white fir and incense cedar has doubled over the past 200 years, while the component of more fire-resistant Jeffrey pine has declined by half. The 2000 Lake Tahoe Watershed Assessment (Watershed Assessment) noted that the Tahoe Basin has one of the highest fire ignition rates in the Sierra Nevada, concentrated around the WUI. The Watershed Assessment projected that "should a fire escape initial control attempts under extreme wildfire conditions, at least 50 percent of the area in the resulting burn would likely be crown fire, with overstory tree mortality greater than 50 percent … Even a small wildfire in the basin is potentially a significant event because of the juxtaposition of high ignition potential, high density and value of human developments, and high fuel hazard." The recommendation from this assessment was "A combination of increased fire prevention, education, and strategic fuel hazard reduction will be most effective at reducing the likelihood of damaging fire in the basin." Some Project activities will therefore result in increased environmental protection and improvement (specifically within the units where riparian enhancement will occur). The Project is therefore necessary for public health and safety, and environmental protection.

B. There is no reasonable alternative, including spans, which avoids or reduces the extent of encroachment.

To reduce the threat of a catastrophic wildfire, the Project's proposed timber harvest activities include the removal of dead, dying, and diseased vegetation and ladder fuels which occur within the 100-year floodplains and SEZs within the WUI. To provide access to these sites and across them to reach other key units, existing permanent watercourse crossings, existing permanent roads, temporary roads, and temporary watercourse crossings/approaches which will be in place more than one year must be constructed/reconstructed and used within the 100-year floodplains and SEZs. To minimize impacts throughout the Project areas, trees have to be skidded across Class III (ephemeral) channels to reduce the number of longer roads which would otherwise need to be built, and the Discharger must be allowed to pile and burn slash within SEZs which would otherwise not be removed and therefore remain a fire hazard. Finding No. 15(d) describes why alternate routes or methodologies would be less feasible than these proposed actions. The proposed actions also include the use of existing roads, locating landings outside of SEZs, and decommissioning of temporary roads following the Project to reduce or avoid the extent of encroachment into the SEZs and floodplains.

Existing roads, including those within SEZs, must be widened and strengthened to accommodate and support the log trucks and chip vans which must be brought in to remove much of the current excess fuel load in the forest. Skid trails and temporary roads within SEZs, and temporary watercourse crossings are also necessary components of any timber operation where the goal is to reduce the threat of catastrophic wildfires, but especially for this Project, where the threat of wildfire within SEZs is currently high. Approximately 670 cubic yards of permanent fill will be

added on system roads in or adjacent to SEZs. The FEIS and this WDR include limits on the amount of new or temporary construction within the SEZs, specify that approximately 50% of the proposed temporary roads be built where roads had previously existed, and specify decommissioning or removal of temporary features following use in any given treatment unit. The Discharger has limited new road construction to temporary roads, with temporary crossings, which will be decommissioned or removed following use in order to avoid temporal impacts on the landscape and avoid the need to place permanent spans or bridges across watercourses.

The proposed actions will also include a combination of hand work and mechanical treatments to reduce or avoid the extent of encroachment by vehicles and road construction into the SEZs and floodplains. The use of hand crews within the SEZs to remove the threat of a catastrophic wildfire involves the labor-intensive piling and burning of dead and dying fuels. Burn piles must be stacked and later burned within SEZs due to the safety limitations placed on hand crews to safely move the slash acceptable distances. Alternately, the use of WT mechanical equipment to remove the slash from SEZs has more negative consequences than pile burning, due to potential compaction and disturbance of these sensitive soils. CTL equipment, with its lighter impact, must be used in the SEZs in order to remove trees over 20" DBH, (diameter at breast height) which could not be removed by hand, due to the safety limitations for hand crews to lift and move the larger logs. This WDR includes BMPs that require a minimum amount of surface cover, pre- and post-operations.

C. The impacts are fully mitigated.

The Discharger used an iterative process to schedule the Project treatment units in order to reduce potential cumulative impacts on any particular watershed and decrease the number of watersheds that exceed the threshold of concern due to fuels treatments. However, short-term impacts were expected to occur mainly from the inherent inability of the Discharger's current BMPs and Resource Protection Measures, as described in the FEIS, to effectively retain fine sediments following heavy rainstorms (greater than one inch per hour).

WDR Attachment F, Best Management Practices and Mitigation Measures, describe the specific mitigation measures, which, when implemented in conjunction with this WDR, will ensure that significant effects are avoided; where impacts cannot be avoided, these mitigation measures are sufficiently detailed to ensure that impacts will be fully mitigated.

The MRP, as described in the WDR Attachment C, specifies procedures for verifying that the BMPs are successful in avoiding significant impacts to soil stability, soil productivity, and riparian plant growth. Results from this monitoring will be used to either support the current BMPs, or to modify them through an adaptive management strategy to provide additional protection and mitigation measures in SEZs. The MRP also requires 100 percent of the BMPs associated with all Project activities be properly implemented and functional. The Monitoring Program allows the Discharger to use the Forest Service's Best Management Practices Evaluation

Program (BMPEP) to test the effectiveness of these BMPs and identify areas which need to be strengthened, and the prescribed Forensic Monitoring outlined in the MRP to determine the source of any impact or potential impact in order to correct the problem. Additional monitoring is included in the MRP to verify the effectiveness of BMPs implemented for innovative high-risk activities; where impacts are noted, the MRP includes an adaptive management strategy to correct the impacts and change future BMPs for these activities. The MRP shall be used to determine if compliance with this WDR has been achieved, and includes inspection checklists, specific provisions for when monitoring must occur, and follow-up procedures to ensure that actions have been documented and mitigation measures have been implemented and performed as intended.

D. SEZ lands are restored in an amount 1.5 times the area of land developed or disturbed by the project

Approximately 730 SEZ acres will be hand treated or (CTL) mechanically treated under the conditions noted in Finding No. 11. Project activities in SEZs will reduce surface and ladder fuels, reducing the potential loss of riparian and SEZ habitat through a catastrophic fire, and will reduce stand mortality by reducing stand density, thus reducing competition for water and nutrients and increasing resistance to drought, insect invasions, and disease. By removing shade-tolerant fir and cedar while retaining Jeffery, Ponderosa, and Sugar Pine, Project activities will produce a healthier ecological species balance in these sensitive areas.

Additionally, the Project includes aspen regeneration components which will reduce encroaching conifers in aspen stands and meadows to restore riparian species dominance within these vegetation types. Approximately 250 acres of aspen areas will be treated and enhanced by reducing conifer encroachment. In effect, Project actions will be restoring natural functionality within the SEZ and riparian areas treated in the Project area.

Currently, up to 0.74 miles of temporary roads already cross SEZs and approximately one-half of a mile of temporary roads cross riparian areas within the Project area. These roads would be cleared to the original road prism to allow passage for logging trucks and chip vans, although some road widening might be required around curves. The additional width is necessary to accommodate chip vans which will remove biomass that would otherwise need to be burned. An additional 0.15 miles of temporary road will be built across SEZ soils and up to 0.14 miles of temporary road will be built through riparian habitat for the Project. Average road width would be approximately 14 feet, to a maximum of 30 feet. The Discharger submitted a Report of Waste Discharge (RWD) which indicated that a maximum of 23,760 square feet (0.54 acre) of new disturbance in SEZs and 117,216 square feet (2.7 acres) reconstruction on previously-disturbed SEZ soils will temporarily occur due to the construction and reconstruction of these roads.

Attachment E Table E6 provides a breakdown of the most recent Discharger estimates of SEZ disturbance (in acres). Total new disturbance from existing road maintenance and reconstruction, temporary road construction, and forwarder/skid

trail crossings, would only create 1.7 acres of new disturbance in SEZs. The Discrepancies between the numbers in Table E6 and what was reported in either the FEIS or the RWD are attributable to the following:

a. width estimates in calculating acreages (FEIS acreage is based on 14-foot widths; accurate assumed road widths, which vary between 4 [trails] and 40 [State and Federal Highways] feet, are shown in FEIS Table 3-46, page 3-114),
b. maximum road length vs. actual sections of road requiring maintenance or reconstruction,
c. maintenance which could extend beyond current road widths (brushing, minor blading , etc.),
d. ground-truthing following publication of the FEIS, and/or
e. recent conversion of WT or CTL Units to Hand Treatment Units (thereby reducing the numbers of roads requiring maintenance or reconstruction).

Additionally, the Discharger intends to pile and burn on 138 SEZ acres. This WDR mandates that no more than 30 percent of an SEZ area may be covered in burn piles and only 15 percent of the SEZ area may be burned in a given year (WDR Attachment F, BMP No. 31). Thirty percent of the 138 acres covered with burn piles equates to 42 acres of SEZ coverage. Piles are generally burned within two or three years after being built. The removal of the biomass will provide both better utilization of forest product and a BMP that protects air and soil quality.

As discussed in WDR Attachment B, the Basin Plan requires restoration of SEZ lands at a ratio of 1.5 to 1 where Project activities result in permanent soil disturbance. The Water Board finds that the area to be covered in burn piles is considered a temporary, not permanent, disturbance due to the relatively rapid recovery of the soils following the burning of the piles and application of the mitigation measures in WDR Attachment F BMPs No. 25 through 31. Restoration for this temporal disturbance of SEZ soils shall be at a ratio of 1:1. All other Project disturbance in these SEZ is assumed to be creating 100% new land coverage, and must be replaced at the 1.5 to 1 ratio.

Impacts from Project road and crossing activities shall be mitigated through implementation of resource protection measures and BMPs, which include decommissioning of the temporary roads by ripping and seeding with native seed or, where sufficient rock content exists to prevent ripping of the soils, ground cover such as slash, wood chip, or masticated material shall be applied, and water breaks (water bars) shall be installed to prevent accumulating water on the road surface (see WDR Attachment E, Table E7 and WDR Attachment F, BMPs No. 11, 13d, 37, 38). Additionally, the prescribed maintenance period for erosion controls on permanent and seasonal roads and associated landings and drainage structures which have not been decommissioned such that they are hydrologically invisible on the landscape shall extend for three years following completion of the Project.

The Project may not commence until the final ECP, roads package, and Project plans (construction plans, fire prescription plan, and restoration plans) are submitted

and accepted by Water Board Executive Officer. The Water Board has determined that the decommissioning of all Project-related constructed or reconstructed temporary roads in the SEZs and the recent decommissioning of 8.24 acres of other temporary roads within nearby SEZs at or before Project completion offsets the short-term impacts of the 1.7 acres of SEZ disturbance (see Attachment E, Table E6). The Water Board has also determined that the Project's improvement of approximately 250 acres for aspen recovery compensates for the 42 acres of temporary SEZ soil disturbance created by the SEZ burn piles. The overall Project activities therefore satisfy the restoration requirement of the prohibition exemption criteria.

18. The EPA's Water Quality Handbook, Chapter 4, section 4.7 Outstanding National Resource Waters (ONRW) – 40 CFR 131.12 (a)(3) notes that ONRWs, such as Lake Tahoe, are provided the highest level of protection under the antidegradation policy. According to this source, BMPs for timber harvesting in ONRW watersheds should include preventive measures more stringent than for similar logging in less environmentally sensitive areas.

19. The Water Board recognizes the need statewide to address the current and growing threat of catastrophic wildfire. Decades of fire suppression have resulted in thick stands of trees and vegetation requiring thinning and in some cases, prescribed fire. Many of these activities need to occur in areas adjacent to waterbodies where there is a higher potential to adversely impact water quality than if the same activity was to occur away from a waterbody. Limited quantitative information about site specific effects of certain activities conducted in these areas are known. Similarly, the water quality effects from wildfire in these areas can be significant and, to some extent, may be estimated based on fire intensity and predicted hydrology. The Water Board recognizes a need for more information on the impacts and appropriate mitigation measures for equipment use and pile burning within 100-year floodplains of the Little Truckee River or Lake Tahoe HUs, or in Lake Tahoe HU SEZ. The Discharger intends to propose specific research and demonstration activities which would occur during this Project, in order to apply results to future activities both within this Project and others. The Water Board will allow these research and demonstration activities to proceed under this WDR when the proposals meet the following specific criteria. To ensure these activities do not in themselves create a potentially significant effect on the environment, The Discharger shall:

    a. ensure proposals are peer-reviewed and include clearly defined project goals and focused monitoring/analyses objectives to meet those goals;
    b. ensure proposals include appropriate Best Management Practices/resource protection measures and mitigation measures to prevent or limit impacts to water quality;
    c. ensure proposals include sufficient monitoring, such as quantitative monitoring of impacts to soils (compaction, infiltration rate, etc.), ground cover inventories, vegetation recovery, and/or water quality analysis;
    d. ensure monitoring plans and mitigation measures extend over multiple years to adequately verify results and ensure complete recovery;
    e. ensure proposals include specific environmental triggers or thresholds that must

not be exceeded during project implementation; and

f. ensure proposals include provisions to apply adaptive management techniques as the demonstration activities progress.

The Discharger shall submit each research or demonstration project proposal to Water Board staff for review and approval 30 days prior to initiating any activities related to the proposal.

Water Board staff shall notify the public of those research/demonstration projects requiring additional prohibition exemption(s) a minimum of ten days before such an exemption and coverage under this WDR is considered.

20. The Water Board has identified a number of potential short-term significant effects in the FEIS, and has therefore prescribed additional protective measures in this WDR to ensure that any potential impacts are reduced to less than significant.

A mitigated negative declaration (MND) was circulated with this WDR (see CEQA Environmental Checklist, WDR Attachment H). The MND is composed of the FEIS and ROD, including all the additional mitigation measures in WDR and the WDR Attachments. In addition to circulating the MND, the Regional Water Board provided notice of intent to adopt a MND for the Project (SCH No._XXX), pursuant to section 15072 of the CEQA Guidelines (14 Cal. Code Regs. § 15072.) The MND reflects the Regional Water Board's independent judgment and analysis. After considering the document and comments received during the public review process, the Regional Water Board hereby determines that the proposed project, with mitigation measures incorporated into this WDR, will not have a significant effect on the environment. In addition, a Monitoring and Reporting Program with all of its associated attachments (MRP Attachments A through G), which in included in Attachment C and incorporated into this permit. The MND is hereby adopted. The documents or other material, which constitute the record, are located at 2501 Lake Tahoe Blvd., S. Lake Tahoe, California. The Regional Water Board will file a Notice of Determination within five days from the issuance of this order.

21. The Water Board held a public hearing on _____, in South Lake Tahoe, California, and considered all evidence concerning this matter.

IT IS HEREBY ORDERED that the Discharger must comply with all applicable conditions of this WDR, as set forth below.

B. REQUIREMENTS AND <u>PROHIBITIONS</u>

1. Project activities subject to this WDR must not create a pollution, contamination, or nuisance, as defined by Water Code section 13050, subdivisions (k), (l), and (m).

2. The Discharger must meet the Water Quality Objectives contained in section 2 of WDR Attachment B.

3. To mitigate for new disturbance or land coverage within SEZ largely attributable to roads and trails for this project, the Discharger must restore a minimum of 2.55 acres of existing disturbance or land coverage within SEZ. The 2.55 acre restoration requirement is a calculation of 1.7 acres (from WDR Attachment E Table E6) of new disturbance or land coverage in SEZs multiplied by 1.5. This calculation conservatively assumes that the 1.7 acres of new disturbance or land coverage does not have any existing disturbance or land coverage. Within three years of project commencement involving ground disturbance, the Discharger must submit documentation from the Tahoe Regional Planning Agency that verifies the Discharger has restored a minimum 2.55 acres of SEZ disturbance or land coverage within the project area.

4. To meet the TMDL requirements specified in section 3 of WDR Attachment B, the Discharger must comply with this WDR, including WDR Attachments B, C, F, I.

5. The Discharger must comply with the waste discharge prohibitions contained in section 4 of WDR Attachment B, unless the Water Board has granted specific prohibition exemptions in this WDR or a separate Order of the Water Board.

6. The Basin Plan requires compliance with specific BMPs that prohibit the removal of vegetation and/or soil disturbance between October 15 and May 1. All areas disturbed by non-winter operation timber harvest and vegetation management activities must be stabilized (as defined in WDR Attachment A) at the conclusion of operations, or before October 15th, whichever is sooner.

   The Project proposes vegetation-removal operations and associated activities from October 16th through April 30th. This WDR includes BMPs and mitigation measures which prohibit soil disturbance during these winter operation activities, as noted in WDR Attachment F, BMPs No. 22 through 24, and 42 through 47. The Discharger is also required to conduct additional monitoring as specified in the MRP Section II, III, and IV, and Attachments C and D when operating during winter conditions.

   The Water Board grants a variance to the October 15 – May 1 soil disturbance prohibition period for this Project. The variance is based upon the following conditions:

   (a) This variance allows only the specific work described in the FEIS, ROD, and WDR, while applying the BMPs in WDR Attachment F, noted above. .
   (b) This variance allows Project-related winter period activities to be conducted between October 15th and May 1st of each year of operation. During this period of operations all Project activities must stop and the Project sites must be “winterized” when forecast changes in weather patterns would prevent continuation of field operations as noted in “(c)” below. “Winterized” means stabilized to prevent soil movement permanently if site activities are completed, or temporarily in a manner which shall remain effective until activities can be restarted, if site activities are planned to continue later into the year.

(c) During the variance period when adverse weather conditions are predicted by the National Weather Service and prior to the onset of adverse conditions, all soil disturbance activities must cease and the project site must be winterized. "Adverse" conditions refer to conditions that threaten to shut down the project due to rain or increased temperatures, or which would cause siltation and erosion problems.

7. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until the Water Board officially rescinds the WDR. The WDR rescission procedures are specified in WDR Attachment D. Following completion of the project, including all required monitoring and mitigation, the Discharger must sign and submit the form in WDR Attachment D to initiate the WDR rescission process.

8. Timber harvest and vegetation management activities must be conducted in accordance with this WDR, including all attachments and Discharger-submitted and Water Board accepted Project information and plans, including the ECP, design criteria, roads package, construction plans (see WDR Section E), contract specifications, the restoration plan, annual unit-specific workplans, and FEIS/ROD mitigation measures.

9. The Discharger shall develop and implement a Fire Prescription Plan in order to avoid adverse effects on air, soil, water resources, and habitat by planning prescribed fires in such a way to ensure that fire intensity and duration do not result in severely burned soils or impact air quality. The Fire Prescription Plan shall incorporate the requirements of BMPs No. 25 through 31 in WDR Attachment F, including the additional protection measures from the Discharger's Project-specific Thinning Contract, Burn Plan, and Smoke Management Plan. The Discharger shall submit this Fire Prescription Plan to Water Board staff for review and acceptance 30 days prior to any Project-related burning activity.

10. Any pesticide usage proposed for the Project different from that described in the FEIS must be within the scope of what was analyzed in FEIS. Any deviations from that previously analyzed is considered a material change per WDR Provision D.3, and a new Report of Waste Discharge (RWD) must be submitted to address these changes. The new RWD must include the following:

    a. Type of pesticide
    b. Method and area of application
    c. Projected date of application
    d. Measures that will be employed to assure compliance with the WQOs specified in the Basin Plan.

11. The Discharger shall submit each research or demonstration project proposal, including all the requirements described in Finding No. 19, to Water Board staff for review and approval 30 days prior to initiating any activities related to the proposal. Water Board staff shall notify the public of those research/demonstration projects requiring additional prohibition exemption(s) a

minimum of ten days before such an exemption and coverage under this WDR is considered.

C. PROHIBITION EXEMPTION GRANTED

Based on Findings made in Finding No. 17, an exemption to the Basin Plan prohibition for permanent disturbance in the 100-year floodplains and SEZs, including the placement and burning of burn piles (as defined in WDR Attachment A) within SEZ, is hereby granted for activities and Project units described in the Tables and shown on the Maps in WDR Attachment E.

D. PROVISIONS

1. The Discharger must conduct monitoring and reporting as specified in the attached MRP (WDR Attachment C), pursuant to Water Code section 13267, or as directed by the Executive Officer. Should site conditions or Project activities change during the course of the Project, the Discharger may request a modified monitoring and reporting program, subject to approval by the Executive Officer.

2. Timber harvest and vegetation management activities must be conducted in accordance with this WDR, including all attachments and Discharger-submitted and Water Board accepted Project information and plans, including the design criteria, roads package, ECP, and FEIS/ROD mitigation measures.

3. Pursuant to Water Code section 13260, subdivision (c), the Discharger must file with the Water Board a report of waste discharge for any proposed material change to the Project timber harvest and vegetation management activities from those authorized by this WDR at least 75 days in advance of implementation of any such change. Material changes include but are not limited to:

   (a) All significant soil disturbances,
   (b) Change of project location or size,
   (c) Change to proposed winter period operations,
   (d) Relocation or addition of watercourse crossings
   (e) Any pesticide usage proposed for the Project different from that analyzed in FEIS.

   The EO can make a determination in a period shorter than 75 days that the proposal is not considered a material change and therefore can proceed under this WDR. However, if the proposed change is considered to be material, then the WDR must be revised prior to implementation of any Project activity. The revision can occur within a shorter period provided that the FEIS and MND analyzed the activity.

   Some activities (e.g., the relocation of a specified watercourse crossing to an area of lesser sensitivity) are not considered a material change which would trigger this provision; however, such changes must be reported to Water Board staff for review and acceptance at least 10 days prior to implementation. Where timing is critical,

the Discharger may request a shorter time period for staff review and acceptance.

4. Water Board staff must be allowed reasonable access onto property where timber harvest and vegetation management activities are proposed, or are being conducted, or have been terminated or completed, for the purpose of performing inspections and conducting monitoring. Inspections and monitoring may include sample collection, measuring, and photographing/taping to determine compliance with this WDR. Such inspections and monitoring are consistent with Water Code section 13267(c), Public Resources Code section 4604(b)(1), and other applicable laws.

   Prior to entering the Project areas, Water Board staff will attempt to contact the Discharger, persons performing the timber harvest and vegetation management activities, or other on-site representative(s) in order to inform the landowner or persons onsite of each inspection, and to discuss any safety considerations.

5. The FEIS includes the use of a U.S. EPA-registered borate compound on cut stumps that are 14 inches diameter and greater for the prevention of annous root disease. No other pesticide use is proposed for this Project, nor was any other pesticide application analyzed in the FEIS. Any other pesticide usage proposed for the Project different from that described in the FEIS must follow the requirements specified under WDR Section B.10.

E. REPORTS REQUIRED

1. The Discharger shall submit the Fire Prescription Plan as described in WDR BMP No. 25 and required under WDR Section B.9, to Water Board staff for review and acceptance 30 days prior to any Project-related burning activity.

2. If the Discharger determines to use chemical means to eradicate invasive /noxious weeds, the Discharger's Noxious Weed Coordinator shall develop and submit a Noxious Weed Plan, as described in WDR BMP No. 77 and required under WDR Section B.10, to Water Board staff for review and acceptance prior 30 days prior to using any pesticides to control or eradicate invasive or noxious weeds

3. The annual ECP, construction plans (including alternative crossing plans, diversion plans, dewatering plans, and the road package and/or plans), BMP requirements (e.g., for use of alternative mitigation measures made at the Discharger's discretion per WDR BMP No. 3 and other items such as flagging, road drainage and emergency water drafting), contract specifications (including the final contract plans and map), and the restoration plan must all be submitted to Water Board staff for acceptance 30 days prior to commencement of operations in the relevant treatment units.

4. The Discharger shall submit all Monitoring Reports as described in WDR Attachment C, Monitoring and Reporting Program.

5. The Discharger expects to develop unit-specific workplans for this Project annually, some of which (not previously covered under WDR Provision D.3, above) could modify the prescriptions specified in the FEIS and WDR, and their attached maps and tables. For example, a unit currently identified for Whole Tree logging might be changed to Hand Treatment, or a road currently identified for reconstruction for chip van use might not be used and therefore not reconstructed; any changes to be made in these instances would always be made to decrease direct impacts, not increase them. The Discharger shall therefore submit annual workplan reports to Water Board staff for review and acceptance by no later than May 1 of each year. These reports shall specifically include an ECP, as described in WDR Attachment F, BMP No. 90, detailing the proposed activities for the year, amended or updated topographic maps and tables (illustrating locations and acres of the proposed activities, potential sensitive species, air, and/or SEZ, 100-year floodplain, and waterbody impacts, SEZ excavation and fill, and any related road work), and the applicable Resource Protection Measures, BMPs, monitoring, mitigation measures, and adaptive management strategies. The detailed maps shall also include all previously unidentified waterbodies and other sensitive areas, user-created roads and trails, and pre-activity impacts within the proposed work areas. Any material changes proposed in the annual reports which could be covered under WDR Provision D.3 must have been previously reported as specified under that provision.

   Annual workplans which specifically state that they are "consistent with, and will have equal or lesser impacts than the requirements of the WDR and its Attachments" do not require review and acceptance by Water Board staff. Work may proceed when conditions allow, following submittal of the above statement with the workplans, unless otherwise informed by Water Board staff within 30 days.

F. CERTIFICATION

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on _____.

_____
HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A: Definitions and List of Acronyms
B: Basin Plan Excerpts:

1. Beneficial Uses
2. Water Quality Objectives
3. Lake Tahoe TMDL
4. Discharge Prohibition, Required Findings, and Exemption

C: Monitoring and Reporting Program
- A. Bioassessment Monitoring Requirements
- B. Implementation Monitoring Checklist
- C. Daily Winter Period Monitoring Form
- D. Winter Implementation Monitoring Checklist
- E. Effectiveness Monitoring Form
- F. Forensic Monitoring Form
- G. Photo-Point Monitoring Form

D: Notice of Project Completion Form

E: Maps and Tables

Map 1 – Project Overview
Map 2 – NW Quadrant
Map 3 – NE Quadrant
Map 4 – SE Quadrant
Map 5 – SW Quadrant

Table E1 - Soil Moisture Operability Protocol for Ground Based Equipment
Table E2 - Waterbody Buffer Zones
Table E3a - WDRs' Best Management Practices (BMPs) to FEIS' Resource Protection Measures (RPMs) Crosswalk
Table E3b - FEIS' Resource Protection Measures (RPMs) to WDRs' Best Management Practices (BMPs) Crosswalk
Table E4 - Stream Classification Crosswalk
Table E5 - Summary of Permanent Fill and Excavation on System Roads in or adjacent to SEZs, including Crossings
Table E6 - Disturbance in Uplands and SEZs (in acres)
Table E7 - Maximum Distance between Waterbreaks

F: Best Management Practices and Mitigation Measures

G: Rationale for Bioassessment Monitoring

H: CEQA Environmental Checklist

I: Standard Provisions for Waste Discharge Requirements

J: Forestry Activities Exempt from Requiring Basin Plan Discharge Prohibition Exemptions Under the 2009 Timber Waiver