

Copper Top THP – SECTION III

14 CCR 1034(gg) General Site Description

Project Location:

Copper Top THP, a 163-acre harvest plan, is located within the Big Pepperwood Creek Planning Watershed in southern Mendocino County, adjacent to the community of Gualala, CA. The project location is legally described as portions of Sections 22,23,26, and 27 of Township 11N, Range 15W. This land lies within the Gualala USGS 7.5 Minute Quadrangle. The operations area may be accessed via Old Stage Road, Gualala Road and private, gated haul roads. The Main stem of the Gualala River and unnamed tributaries receive drainage from the plan area.

Soils and Topography:

The majority of the plan has primarily southern facing slopes. Roughly 30% of the plan is predominantly flat and the average slope is approx. 25% with steeper slopes located above Gualala Road. Elevations in the project area range from 40 feet along the Gualala River to 680 feet along Old Stage Road. Soils present within the plan area include: [107] Big River loamy sand, 0 to 5 percent slopes, [126] Coastal beaches, [173] Irmulco-Tramway complex, 30 to 50 percent slopes, [196] Quinliven-Ferncreek complex, 2 to 15 percent slopes, [199] Shinglemill-Gibney complex, 2 to 9 percent slopes, and [224] Vandamme-Irmulco-Tramway complex, 50 to 75 percent slopes

Erosion Hazard Rating is Low, Moderate, and Extreme.

Watershed and Stream Conditions:

The units that comprise the logging area are located upslope of the Gualala River within the Big Pepperwood Creek planning watershed. The Gualala River and related estuary is a Class I. No logging operations occur within a Class I WLPZ for this THP, however offsite drafting and seasonal bridge installation will occur within Class I WLPZ. The watercourses in the plan area were walked, classified, and checked for erosion, channel stability, canopy cover, LWD, and aquatic habitat.

The Gualala River watershed was listed on the 2016 303(d) list by the State of California as required by Section 303(d) of the Clean Water Act. This list describes water bodies that do not fully support all beneficial uses or are not meeting water quality objectives. It also describes the pollutant(s) for each water body that limit(s) use or prevent(s) attainment of its water quality objectives. As required by Section 303(d), a Total Maximum Daily Load (TMDL) must be developed for water bodies on the 303(d) list. Currently, the Gualala River watershed is listed on the most recent 303(d) list for water quality issues related to sediment and temperature. Issues relating to sediment have been exacerbated by the history of heavy ground disturbance throughout the watershed. An Action Plan for a Sediment TMDL is currently being developed.

The primary adverse impacts associated with excessive sediment in the Gualala River pertain to the anadromous salmonid fishery. The water quality conditions do not adequately support several anadromous salmonid species present in the Gualala River and its tributaries which, has contributed to severe population declines. The populations of coho salmon (*Oncorhynchus kisutch*), chinook salmon (*O. tshawytscha*), and

steelhead trout (*O. mykiss*) in this watershed are all listed as threatened under the federal Endangered Species Act.

The beneficial uses and water quality objectives for the Gualala River watershed are contained in the Gualala River Sediment Total Maximum Daily Load as amended in 2001 (USEPA 2001). The beneficial uses impaired by excessive sediment in the Gualala River watershed are primarily those associated with Gualala River's salmonid fishery, specifically: Cold Freshwater Habitat (COLD); Estuarine Habitat (EST); Migration of Aquatic Organisms (MIGR); and Spawning, Reproduction, and/or Early Development (SPWN).

Management-related activities have contributed to an increase in sediment delivery to the Gualala River watershed above acceptable background levels. Existing salmonid habitat is limited by various erosion-influenced factors, including infrequent and shallow pools, few backwater pools and other overwintering habitat, embedded cobble, and elevated fines in potential spawning gravels. In addition, the limited availability of large woody debris and the lack of other forms of shelter (particularly from high winter flows) in the channels of the Gualala River watershed contributes to the problems associated with sedimentation.

As per 14 CCR 916.4 a field evaluation was conducted of all watercourses within the vicinity of the project area and additional information concerning the watershed and stream conditions is contained within the Watershed Assessment portion of the Cumulative Impacts Assessment (Section IV).

Vegetation and Stand Description:

Vegetation on site primarily consists of coast redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*), Hemlock (*Tsuga heterophylla*), tanoak (*Notholithocarpus densiflorus*), Bishop pine (*Pinus muricata*), and madrone (*Arbutus menziesii*) with live oak, coyote brush, evergreen huckleberry, blue blossom, and various seasonal and perennial grasses. Exact species composition of a given stand depends on elevation, slope aspect, soil characteristics, stand history, and proximity to watercourses. A botanical survey of the project area will be completed and amended into the plan prior to operations.

A majority of the plan area has been entered repeatedly under various historic THPs, many predating the Forest Practice Act. The most recent entries to this plan were under 1-08-086MEN and 1-99-460MEN. Past management has created an area with a wide variety of stand structures with tree ages that range from >20 years old to over 80 years. Average diameter ranges from 10" to 24" with scattered large diameter trees. Generally, current stocking levels throughout with the plan area are well stocked and potentially overstocked and will benefit from a timber harvest. Small areas throughout the project area are dominated by sub merchantable trees, acting as pockets of early seral forests that diversify stand structures. Efforts to reduce hardwood competition are not proposed to maintain this healthy and vigorous conifer stand.

ANALYSIS OF PROJECT ALTERNATIVES

As a Certified Regulatory Program under CEQA, CalFire's THP process is exempt from the requirement to prepare Environmental Impact Reports (EIRs); a THP is a "functional equivalent" document. However, like an EIR, a THP must include "a description of the proposed activity with alternatives to the activity, and mitigation measures to minimize any significant adverse effect on the environment of the activity." PRC § 21080.5(d)(3)(A); 14 CCR §§ 15250-15253.

Cal Fire has informed RPFs that they must submit an alternative analysis with proposed THPs and has given RPFs guidance in preparing that analysis, based on the CEQA guidelines that dictate the alternatives analysis in EIRs. 14 CCR § 15126.6.

The THP process functions to ensure a THP will be designed to avoid significant environmental effects or to mitigate such effects to the point where no significant effects will occur. The THP process is based on the Forest Practice Rules (promulgated by the Board of Forestry), which require a layer and level of analysis not utilized in the typical EIR process, and the requirements of CEQA. 14 Cal. Code Regs. 895 et seq. (The Board of Forestry's rulemaking program – pursuant to which the Forest Practice Rules are promulgated -- is itself a CEQA functional equivalent program, so that the rulemaking file serves as the functional equivalent of an EIR, and ensures that those Rules, if properly implemented, will not result in significant environmental impacts.) The Forest Practice Rules are programmatic prescriptions and best management practices designed to avoid or mitigate significant impacts of timber harvesting, road building and other timber operations that are applied by the Registered Professional Forester (RPF) in preparing a THP. In addition to requiring RPFs to apply these prescriptions in preparing THPs, the Forest Practice Rules require plan submitters to conduct a site-specific analysis of potentially significant individual and cumulative effects that may not have been avoided or mitigated to less-than-significant by application of the prescriptions contained in the Forest Practice Rules alone. The RPF must incorporate feasible measures in the THP to avoid such effects or mitigate to a less-than-significant level. In only the rarest of cases will CalFire adopt a statement of overriding considerations to approve a THP that has any impacts that have not been mitigated to a less-than-significant level.

In preparing this THP, the RPF has applied the highly prescriptive standards of the Forest Practice Rules, including those applicable to Watercourse and Lake Protection Zones (WLPZ's) in watersheds with salmonids. These include the WLPZ Rules, special regulations designed to “maintain, protect, and contribute towards the restoration of” water quality and beneficial uses and aquatic and riparian habitat. 14 Cal. Code Regs. 916.2(a). In addition, the THP is subject to the Anadromous Salmonid Protection (ASP) Rules, an even more specialized subset of regulations applicable to logging in watersheds with listed anadromous salmonids to ensure that timber operations are “planned and conducted to protect, maintain, and contribute to restoration of Properly Functioning Salmonid Habitat and listed salmonid Species.” 14 Cal. Code Regs. 916.9. In addition, the RPF has adopted additional measures in the plan as necessary to avoid or mitigate to a less-than-significant level potentially significant site-specific individual and cumulative effects identified during THP preparation. Accordingly, the RPF has submitted a THP that already serves CEQA's objective of avoiding environmental effects or reducing them to a less-than-significant level.

Although the THP has been designed through avoidance and mitigation to have less-than-significant environmental effects, the RPF has analyzed alternatives which could avoid or substantially lessen environmental effects that are typically identified in the preparation and review of THPs. The RPF has used the CEQA Guidelines as well as Cal Fire's guidance (dated June 10, 1997) for addressing alternatives in the THP process.

CEQA requires neither any fixed number of alternatives, nor inclusion of every conceivable alternative. 14 CCR 15126.6(a)(c). Further, CEQA does not require the consideration of alternatives whose effect cannot reasonably be ascertained and whose implementation is remote and speculative. Instead, the CEQA guidelines provide that a “reasonable range” of alternatives must be selected for discussion, applying a rule of reason. 14 CCR 15126.6(f). In accordance with CEQA and its guidelines, the alternatives selected for detailed examination in this THP are limited to ones that could avoid or substantially lessen significant effects of the project (if any) and that could feasibly attain most of the basic objectives of the project. Finally, under CEQA, the alternatives considered need only relate to the project as a whole, not to its various parts. This Analysis describes the rationale for selecting the alternatives to be discussed, including an explanation of why some alternatives were considered but not selected for detailed discussion in the THP.

iii. Project Description as Proposed:

All of the required contents as outlined in 14 CCR 1034 (a) through (z), have been included in this THP document. Specifically, reference Sections I, II and III of the THP for project description information. This THP proposes to harvest 163-acres utilizing the Selection, Special Treatment Area, and No Harvest systems, utilizing tractor yarding methods(with a cable yarding option), within the Big Pepperwood Creek CalWater Planning Watershed (Version 2.2.1 # 1113.850201), portions of Sections 22,23,26, & 27 of Township 11, Range 15W MDBM, Mendocino County, CA.

Adjacent to the the project area the Gualala River is 303(d) listed for temperature and sedimentation.

The RPF has assessed how the project will interact with the environment in the cumulative impacts assessment; reference Section IV of this THP.

iv. Project Objectives:

The project objectives are:

- 1) To grow and harvest timber in a long-term sustainable manner and reduce dependence on purchasing logs from the open market. The landowner has made significant investments in its milling infrastructure, which needs to remain working in order to recover facility improvement and maintenance costs, while at the same time remain a viable business with the capacity to produce a reasonable profit.
- 2) To plan and implement the timber operation to enhance the quality and quantity of local timber products. This entails using the Selection, Group Selection, and Transition silvicultures in areas suitable for uneven aged management to enhance the Maximum Sustained Production (MSP) of productive timberlands. Individual tree Selection silviculture is prescribed by the Anadromous Salmonid Protection (ASP) Rules for WLPZs with the goal of increasing the proportion of large trees for large wood recruitment to benefit salmonids. Additional requirements of the ASP Rules are to retain higher basal area of conifers, provide additional shading, develop vertical structural diversity, and support a diversity of plant, shrub, and tree species for nutrient input. The ASP Rules assure protection and enhancement of public trust resources (fisheries, water quality, wildlife).
- 3) To manage the WLPZs to meet the intent of the ASP Rules and the Action Plan for the Gualala River TMDL of improving riparian habitats, while also maximizing timber stand growth and production over time for forest products -- i.e., maintain or increase Maximum Sustained Production (MSP).

The project is to be carried out in accordance with the California Forest Practice Act, Forest Practice Rules, and other applicable agency Rules and regulations. Potential impacts are mitigated to less-than-significant levels by the methods prescribed in the Forest Practice Rules, and by inclusion of other site-specific measures identified by the RPF and recommended in the multi-agency, inter-disciplinary, review team process.

v. Statement of Purpose (Need for the Project):

The landowner's purposes in undertaking the project are:

- 1) Access, harvest and regenerate the forested area delineated in the THP.
- 2) Maximize sustained production of high-quality timber products.
- 3) Maintain a forest products industry in the local community.
- 4) Maintain or improve existing wildlife habitat.
- 5) Maintain or improve existing cold-water fisheries.
- 6) To earn an economic return by operating the property, including the plan area, as commercial timberland per its present zoning and intended land use.

Need(s). The needs for the project from the perspective of the landowner are:

- 1) To meet certain fixed costs of ownership including, but not limited to, taxes, insurance, and debt service payments on loans, and meeting Maximum Sustained Production (MSP) as required by the Forest Practice Act and the Forest Practice Rules.
- 2) To maintain the flow of high-quality timber products to the economy, sustain a forest products industry, and provide a source of employment in the local community.

Log deliveries to the landowner's own mills are being supported in part by transported logs from other counties, and in the past even from other countries (New Zealand), to enable local mills to continue to operate. Supplying logs from outside the local geographic area is undesirable for many reasons. Transportation impacts to the environment (including air pollution and Green House Gas (GHG) emissions) are greater. Moreover, other states and countries from which logs must be imported may have far more lenient forestry regulations than California. Supplying local sawmills with logs from local timberlands is a far more efficient use of resources and has less environmental impacts than importing logs from other states and countries. The THP area is part of a land holding owned by Gualala Redwood Timber, LLC. Gualala Redwood Timber, LLC is part of an integrated group of companies affiliated with Pacific States Industries DBA Redwood Empire Sawmills that processes redwood logs into a variety of finished and landscape material products. Gualala Redwood Timber, LLC and Redwood Empire Sawmills are owned by a family that has been doing business in the region for fifty years, and now is in its second generation of family members active in the operations. The founder of the company lives in Sonoma County. Logs generated from this THP create employment for foresters, loggers and truckers who deliver logs to the Redwood Empire Sawmills located in Cloverdale and Asti, California. These sawmills generate products that are sold into local retail yards or are sold to redwood remanufacturing plants in Sonoma County, and each step of this lumber production adds value to the products and creates economic revenue for the company, jobs for local workers and companies, and tax revenues for local communities and for Mendocino County. Businesses that use products generated from the Redwood Empire redwood timberlands include Reuser Inc. in Cloverdale (producers of landscape products from redwood bark and shavings), Friedman's Home Improvement, Mead Clark Lumber Company, Burgess Lumber, Healdsburg Lumber, Lowes, NuForest redwood remanufacturing plant, and other local lumber suppliers. Timber yield taxes from this THP go directly to Mendocino County for maintenance and improvement of infrastructure, roads, and public safety and security services. Additional tax revenues that benefit County residents are generated from sales tax, lumber products assessment tax, and property taxes. The logs harvested from the THP generate income for many ancillary local businesses where the timber and sawmill workers spend their earnings for food, gas, clothing, home maintenance and repairs, and other living necessities. The timber generated on a sustainable basis from this THP and from these lands significantly adds to the well-being of the residents of the Gualala area and to residents and businesses in Sonoma and Mendocino Counties.

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vi. Identification of Six Alternatives to the Project As Proposed:

The RPF has considered six alternatives for discussion in the THP: 1) The No Project Alternative, 2) Public Purchase of the Timber/Timberland or Purchase of the Timber/Timberland as a Conservation Easement Alternative, 3) Alternative Silviculture Methods, including, a) The Silviculture Methods That Were Not Chosen, and, b) The Silviculture Methods That Were Chosen, 4) Alternative Yarding Methods, including, a) The Yarding Methods That Were Not Chosen, and, b) The Yarding Methods That Were Chosen, 5) Delaying the Timing of the Project, or Alternative Project Locations on the Ownership, and 6) Alternative Land Uses.

1. The No Project Alternative:

The No Project Alternative on these timberlands, although feasible, would not achieve any of the purposes, needs or objectives set forth above. This alternative would indefinitely delay or preclude the landowner from improving forest growth and health in the THP area. It would neither improve stocking, nor achieve maximum sustained production of forest products. The No Project Alternative would reduce both the local employment base and revenues to the State and Mendocino County generated by the yield taxes. It would not decrease the need for forest products, but could negatively impact the supply. This could potentially be offset by relying on timber harvest from areas outside of California, where significant environmental effects are not required to be mitigated. Although this alternative is clearly inconsistent with the project objectives, the CEQA guidelines nevertheless require that the No Project Alternative be evaluated. In accordance with the CEQA guidelines, the existing conditions have been considered, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans. 14 CCR § 15126.6 (e). The No Project Alternative would avoid potential environmental impacts that might occur in connection with the proposed timber operations. For example, any individual or cumulative impacts on fish and wildlife, water quality, or stand health and vigor would not occur if the THP were not carried out. The No Project Alternative would lead to non-operation on a portion of the ownership that is capable of producing long-term forest values. Because a majority of this plan consists of productive timber growing ground (Timber Site Class II/III), the overall productivity of those holdings would be reduced. This would place additional pressure to harvest on steeper, potentially more erosive and less productive timberlands within the landowner's holdings.

The No Project Alternative is inconsistent with the purposes of the project and addresses neither its needs nor objectives. The No Project Alternative is not environmentally superior to the Project as Proposed in the THP. If implemented on this THP, the No Project Alternative would result in significant adverse economic impacts and would slow the recovery of forest stands adjacent to anadromous salmonid streams in reaching the ASP Rules' intended goal of a restored forest stand and structure that benefits anadromous salmonids.

2. Public Purchase of the Timber/Timberland or Purchase of the Timber/Timberland as a Conservation Easement Alternative:

This alternative would involve limitations on management activities through public purchase of the subject property or donation or sale of conservation easements. If the property were covered by a conservation easement such that no timber harvesting could be conducted, then any potential impacts associated with this THP could be avoided through this alternative. If the public purchased the property, it is possible that some management of the land for timber could continue, in which case any potential impacts may not be lessened or altogether avoided. Currently many Non-Governmental Organizations or NGOs (e.g. Sempervirens Fund, The Save the Redwoods League, The Conservation Fund, the Redwood Forest Foundation, The Nature Conservancy) own redwood forestlands in California and are managing those lands to restore them, which requires reducing stand density with commercial logging. Redwood National Park is engaged in similar management efforts under the Redwood Rising Initiative, where it is currently harvesting thousands of acres of second growth parklands to speed restoration of redwood forests to an old forest condition. Given the missions and goals of such NGOs, their obligations to their donors and funders, and their current management approaches, it seems likely that an NGO (or a responsible state or federal agency) that succeeded to the land area covered by this THP would also manage it through unevenaged management, not unlike the management proposed in the THP.

The analysis of these two project alternatives (Conservation Easement or Public Land Purchase) is combined because each alternative presents the same basic issues. The landowner is unwilling at this time to consider selling or donating any part of the THP and, consistent with Mendocino County's zoning for the land, considers its highest and best use to be producing timber under the proposed THP. Land that is zoned Timberland Production Zone (TPZ) includes a significant part of the total value of the property in the timber value, as this zoning designation strictly limits residential, vineyard, commercial development, and other uses. The TPZ zoning also has significant regulatory and tax consequences under California law. Cal. Govt. Code 51110 et seq; Cal. Govt. Code 51140 et seq.; Cal. Rev. & Tax Code 434 et seq. Indeed, TPZ land is considered "enforceably restricted." All this makes a sale of the Copper Top THP area as a non-timber producing use highly speculative.

The landowner is optimistic about the future value of this project area as timberland and is presently unwilling to consider selling at current fair market value related only to the present stumpage value. The landowner has an economic interest in the affiliate Redwood Empire Sawmills which generates added revenue from the sale of lumber, and this added value must be added to the stumpage value to arrive at the actual total value of the THP area to the landowner. NGOs typically will use public funds to purchase conservation lands, and those funds are typically justified based on fair market values of land and timber that rely on stumpage values only and do not take into account added values of lumber sales. It would be unlikely for an NGO to obtain an appraised value for the THP area based on current stumpage that is as high as the value that the landowner can generate based on stumpage value plus the added sales value of the redwood lumber from the sawmill. Also, sales of land to NGOs can take years due to the need to conduct multiple appraisals and then access and get approvals for public funding sources, and that delayed timing is inconsistent with the landowner's need to service debt. Another factor affecting a possible conservation sale is that the parcel includes the main haul route on the property that logging trucks and equipment must use to access the remainder of the property. A sale of this area for public use would cause significant conflicts between recreationists and timber harvesting contractors, including issues from noise, dust impacts, tree falling hazards, and could also lead to significant traffic safety risks between loaded logging trucks and users of the public area.

Given the fact that the majority of the area is Site Class II & III timber growing ground on the Gualala Redwood Timber, LLC property, and is zoned for timber production as its highest and best use, the landowner intends to implement the harvest of this area as planned and ensure this area remains in timber production.

Applying the "rule of reason," as set forth in 14 CCR §15126.6(f), project alternatives whose implementation is remote and speculative need not be given extensive consideration. Because the Conservation Easement and Public Land Purchase alternatives are remote and speculative and would not meet any of the primary or most of the secondary project objectives, they were rejected for further consideration.

3. Alternative Silvicultural Methods:

This alternative would involve carrying out the project as proposed, except that a different silvicultural method would be chosen.

Silvicultural objectives shall meet the objectives of the FPA (PRC 4512 and 4513). “The RPF shall select systems and alternatives, which achieve maximum sustained production (MSP) of high quality timber products” (14 CCR 913).

NOTE TO REVIEWER: Since Variable Retention generally leaves an evenaged stand structure, it is addressed under Evenaged Silviculture instead of under “Special Prescriptions” like in the Forest Practice Rules.

a) The Silvicultural Methods That Were Not Chosen:

Evenaged Silviculture:

Clearcut: This silviculture method was NOT chosen due to some of the following reasons: Stand age, stand is located within close proximity to a Class I or II watercourse, geologic constraints, adjacency, and/or wildlife constraints. Many areas of the plan are within close proximity to a Class I or II watercourse. Geologic concerns have also limited the utilization of clearcutting. Finally the plan is within .7 miles of Northern Spotted Owl Activity Centers. Within the 0.7 mile circle, 500 acres of habitat must be maintained (at least 200 acres of nesting/roosting, and the remaining must be foraging). Clearcutting converts habitat to non-habitat.

Shelterwood: The Shelterwood silvicultural system is a 3 step system: 1.) Shelterwood Preparatory Step, 2.) Shelterwood Seed Step, and 3.) Shelterwood Removal Step. The Preparatory Step is used to improve crown development, seed production, and wind firmness. The seed step is designed to promote natural regeneration from seed. The removal step removes the “shelter trees” when the stand is fully stocked (300 point count per acre) with the next generation of trees. The Shelterwood system is designed for shade tolerant species and species whose primary form of reproduction is from seed. This system would be inappropriate as the intent of this plan is to create an uneven aged stand in the long-term.

Seed Tree: The Seed Tree silvicultural system involves two-steps: 1.) The seed tree seed step and 2.) The Seed Tree Removal Step. The goal of the seed tree seed step is to pick the trees that will produce seed to grow the next generation of trees. These trees should have full crowns and have excellent seed production capabilities. The Seed Tree Removal step occurs after the seed trees have produced seed and the next generation of trees are established. According to the Forest Practice Rules this means the stand must have a stocking level of 300 point count per acre. This silvicultural system is best suited for species whose primary form of reproduction is seed. Coast redwood primarily reproduces by coppice sprouting, and generally do not produce a lot of seed. Additionally, this silvicultural system will promote the growth of undesirable species whose primary form of reproduction is through seed, such as grand fir and western hemlock. Therefore, in order to meet the goal of this THP and the intent of the rules, sustainable production of high quality timber products, it is better not to use seed tree silviculture in this area, which is dominated by a highly desirable species capable of producing high quality timber products, coast redwood.

Variable Retention: According to 14 CCR 913.4, 933.4, 953.4 (d) “Variable Retention is an approach to harvesting based on the retention of structural elements or biological legacies (trees, snags, logs, etc.) from the preharvest stand for integration into the post-harvest stand to achieve various ecological, social, and geomorphic objectives.” This silviculture was not selected as it creates a post-harvest condition most similar to evenaged and the intent is to create uneven-aged stands.

Uneven Aged Silvicultures

Group Selection: This approach is similar to single tree selection with the exception that small group openings may be created. The landowner has determined that creating small group openings is not necessary nor desired under this entry as project objectives can be met under the utilized .

Transition: All areas of the project exceed the minimum basal requirements to utilize this silviculture under the FPRs. Therefore, State regulation precludes utilization of transition on this project.

Intermediate Treatments:

Commercial Thinning: Commercial Thinning is designed to use in conjunction with evenaged management. It usually occurs 10 to 15 years prior to the stand reaching its rotation age. It is designed to encourage and maximize growth on the healthiest most vigorous trees by removing intermediate, suppressed, and unhealthy trees from the stand. This way the final cut (usually Clearcut) is maximized. The landowner intends on creating unevenaged stands under this entry so the use of commercial thinning is not appropriate at this time.

Sanitation/Salvage: Sanitation/ Salvage is designed for sickly stands that are infested with insects and disease or stands that were devastated by fire. None of the Units in this THP meet this description. Therefore, this silviculture is inappropriate.

Special Prescription:

Rehabilitation of Understocked Area: The purpose of this silviculture is to restore and enhance the productivity of commercial timberlands. It can only be used in stands that do NOT meet the stocking standards of 14 CCR 912.7[932.7, 952.7] prior to any timber operations. All of the stands within the THP area meet these stocking standards and therefore do NOT qualify for this silviculture.

Fuelbreak/Defensible Space: This treatment is not applicable to any area within the THP.

Alternative Prescriptions:

According to 14 CCR 913.6 [933.6, 953.6] (a), “An alternative prescription shall be included in a THP when, in the judgment of the RPF, an alternative regeneration method or intermediate treatment offers a more effective or more feasible way of achieving the objectives of section 913 [933, 953] than any of the standard silvicultural methods provided in this article.” The RPF deemed that there is no need for an alternative prescription in this THP. The units’ stand structures and the long term goals for these stands fit the silvicultures chosen for them and the chosen silvicultures came from the standard list provided in section 913 [933, 953] of the Forest Practice Rules.

b) The Silvicultural Methods That Were Chosen:

Evenaged Silviculture: None chosen.

Unevenaged Silviculture:

Selection: Per the objectives in 14 CCR § 913.2, uneven aged management works to establish and maintain an uneven aged stand with natural regeneration and vigorous trees in various ages classes that form a highly diversified stand structure. The Selection silviculture is a preferred harvest approach in well stocked redwood stands, like those in in the plan area, that greatly benefit from light to moderate thinning treatments. The Selection silviculture was chosen because of the healthy multi-age stands currently present are expected to have increased health and productivity following harvest. Other silvicultural options such as variable retention, clearcutting, or other even-age type prescriptions would remove the vigorous younger trees and not meet the goals of 14 CCR § 913.11 for Maximum Sustained Production of High-Quality Timber Products (MSP).

Special Treatment Area: Parts of this project fall within the California Coastal Commission Special Treatment Area. Within the CCCSTA, the plan proposes Selection Silviculture with additional harvest limitations pursuant to 14 CCR 921.3.

No Harvest: This Silviculture is utilized in areas where harvesting trees is not proposed. This THP proposes a no harvest upslope of a domestic water supply.

4. Alternative Yarding Methods:

This alternative would involve carrying out the project as proposed, except that a different yarding method would be chosen.

There are 3 categories of yarding methods being considered:

- Ground-based (tractor, including tractor end-lining, rubber-tired skidder and feller buncher)
- Cable (including ground lead, high lead and skyline)
- Special (including animal and helicopter)

a) The Yarding Methods That Were Not Chosen:

Animal. This method was rejected because the landowner and contract loggers do not own, or have access to, livestock for this purpose. In addition, the terrain and size of logs do not readily lend themselves to animal methods. The primary method of animal yarding is to drag logs downhill to a landing; however, this would require roads at the bottom of slopes near watercourses. In the interest of water quality protection it is beneficial to have roads near the upper portions of slopes or ridge tops, which excludes animal yarding for much of the project area. Considering a lack of animals, need for water quality protection and larger size of logs it is not feasible or appropriate for the landowner to utilize animal logging methods.

Helicopter. This method has not been chosen primarily due to the increased costs associated with helicopter yarding. Additionally, however, are concerns regarding flight restrictions near Northern Spotted Owls (NSOs) and the requirement for larger landings. Tight restrictions on flying helicopters near known NSO nest sites can create issues when harvesting within ½ mile of these sites. The pace of helicopter yarding requires larger landings than conventional harvesting methods in order to provide safe operating conditions for crews. It is also advantageous for helicopters to yard logs downhill, again

bringing up the need for roads along watercourses. Due to the increased financial costs, the fact that the road and landing system is not acceptable and the existence of NSOs in the vicinity of the proposed project, this yarding method was rejected.

Cable Yarding. This is often the preferred method for logging steep slopes in this region. Much of the plan is relatively low gradient and appropriate deflection is not present to safely log the area well minimizing ground scour from dragging logs. The portions of the plan area that have slopes descending down towards the Gualala River have reasonable deflection to potentially cable yard. However, this would necessitate a skyline cable being suspended over a public road and high recreation part of the Gualala River. This would create a short-lived visual impact to a Wild and Scenic River, necessitate traffic control and road closures (particularly when raising and lowering the skyline), coordination with electric/utility companies to avoid impacts to lines, and most importantly may present a safety hazard as a skyline can be subjected to thousands of pounds of force. Although not selected, the LTO may utilize a cable system if determined in consultation with the plan submitter that the LTO can do so safely and with less ground disturbance than tractor yarding.

b) The Yarding Methods That Were Chosen:

Ground-based yarding, including tractor, end/long lining, feller buncher and rubber tired skidder. This method has been proposed in areas of the project which are favorable. Such areas include gentle slopes and areas above roads. Though ground based equipment tends to cause more soil disturbance than cable systems, on average the ground based method is less disturbing on gentle slopes and areas above roads. This is because cable systems rely on deflection (getting the cable into the air) and yarding uphill. Without a road above a slope it is impossible to yard uphill and gentle slopes do not allow for deflection. In order to allow for all areas to be cable yarded additional roads would have to be constructed. In the interest of water quality protection as well as preservation of growing space, proposed road construction has been minimized. Even if additional roads were built to allow for cable yarding of these areas, the gentle slopes would create problems for deflection and might result in more disturbance than tractor yarding would. The proposed project has mitigated for tractor yarding to a level of insignificance through implementation of all measures contained in the Forest Practice Rules (FPRs). This method would allow the LTO the option to utilize available equipment, in which the LTO has made a significant financial investment.

5. Delaying the Timing of the Project, or Alternative Project Locations on the Ownership:

Delaying the timing of the Project:

This alternative would involve carrying out the project as proposed, except at a future time. Delaying the project for several years, say 5 to 10 years, was examined as a potential alternative. This alternative would attain many of the landowner's objectives by allowing the landowner to manage the parcel for eventual timber production, even though postponing the operations would delay the Forest Manager/RPF from maximizing the productivity of the stands in the THP area, as required by the Forest Practice Act and Forest Practice Rules. Such postponement would also delay implementation of the management that will improve forest health and productivity.

Altering the timing of operations such that some other area of the property is entered and harvested now, so that this area can be entered at a later point in time, would not have the effect of mitigating or avoiding potential significant adverse or cumulative impacts associated with harvesting the proposed stands. Rather, it might result in lowering the area's mean annual growth and reduce the property's overall

growth to achieving MSP, contrary to the mandate of the Forest Practice Act and the Forest Practice Rules. Additionally, potential significant adverse impacts of proposed timber operations will not be eliminated, but merely deferred to a later point in time. Accordingly, this alternative was not considered further because it is inconsistent with the requirement to maximize sustained productivity of timber stands while complying with all applicable laws and regulations, and meeting the purposes, needs and objectives of the THP.

Alternative project location

This alternative would involve carrying out the harvesting proposed in the THP at a different location on the landowner's property.

Sustainable management of timberlands requires timing harvests to when it is most biologically and economically effective for stand development. Stands are chosen for harvest based on a variety of parameters including age, stocking levels, and current growth rate. Harvest entries are planned ahead of time and areas such as the proposed THP area have been selected for harvest because they are more suitable for harvest at this time, in comparison to other areas of the property which may have been harvested more recently and are re-growing to full site capacity. Adverse impacts of timber operations in this THP area are not greater than impacts that may occur should planned timber operations be carried out at some alternative location on the property. In fact, due to the very low impact nature of the harvest in terms of canopy retention and ground disturbance, unevenaged management with limited evenaged management is likely some of the lightest impact operations on the entire property. Obviously, the silvicultural prescriptions and operational impact avoidance and mitigation requirements are especially restrictive for timber harvesting in the coast redwood region because of the current California Forest Practice Rules, the WLPZ Rules, and ASP Rules reflecting the relatively more ecologically sensitive character of the region for impacts to water quality and salmonids. Nonetheless, the point remains that there would be no reduction or "savings" in environmental impacts by carrying out this long-planned harvest elsewhere on the timberlands; the environmental impacts of the THP are less than significant, both individually (i.e., as a "project") and cumulatively. Moreover, and in any event, continued dislocation and delay of timber harvesting not only greatly inhibits proper (indeed, legally required) management of lands zoned exclusively for timber production, but delays and disrupts maintenance of riparian habitat pursuant to the ASP Rules for the benefit of salmonids.

The timing of harvests on upslope areas is determined mostly by homogenous vegetation types and the age and/or health of the stands.

The landowner purchased the timberland for the sole purpose of managing the property for timber production, while at the same time giving full consideration to protection of other resources and the environment. Each stand is at different stages in growth and production, and each THP area and watershed present different challenges in terms of protecting the resources and the environment. Over the years, each THP involves a further investment in the long-term growth and productivity of the particular timber stands within the THP area, as well as producing timber products to generate income and finance initiatives to stabilize roads, improve conifer stocking, and enhance fish and wildlife habitat.

Even if the landowner were able to generate income by harvesting elsewhere on the property, the primary objectives of this THP can no more be met under the Alternative Project Location alternative than under the No Project alternative. Commercial timber management needed to properly maintain production from these stands can only occur with a THP. Selection of the Alternative Project Location alternative would essentially mean that these lands and these timber stands would be taken out of production. For that reason, the Alternative Project Location is inconsistent with the primary objectives of this landowner in owning timber lands and is inconsistent with the project area land use zoning (Timberland Production Zone).

CEQA recognizes that, particularly with projects involving natural resources, alternative locations may not be feasible. 14 CCR § 15126.6 (f)(2)(A)(B). Further, the key question in analyzing alternative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion. In this case, because the THP is on lands in the Gualala River Watershed it is considered a sensitive area due to geologic reasons. However, because lands within the Gualala River Watershed comprise a significant percentage of the landowner's holdings, at some point harvesting will occur at these locations. The only way to avoid the potential impacts of harvesting sensitive areas would be to forgo timber harvesting in any of them. However, as noted, the lands are zoned Timberland Production Zone. They were so zoned when the landowner purchased the timberlands that include this THP area. As a result, the lands commanded a purchase price commensurate with that zoning designation and its highest and best use; viz., timber production. The landowner is not willing to refrain from lawful and responsible management of its timberlands, including lands in the Gualala River Watershed. Indeed, the landowner must manage those timberlands for Maximum Sustained Production (MSP) (14 CCR § 913.11), as required by the Forest Practice Act and Forest Practice Rules, subject to the highly prescriptive constraints imposed by the Forest Practice Rules, and the WLPZ and ASP Rules in particular. Moreover, by harvesting elsewhere potential impacts associated with this THP would not be avoided, but rather would merely be shifted to another area of the timberlands. Some potential impacts would be exacerbated. Harvesting at other locations would require many of the same measures to avoid or substantially lessen such impacts to less-than-significant levels.

6. Alternative Land Uses:

This alternative would involve the landowner to use the property for a use other than managing timber for harvest. The number of possible uses for any relatively sizeable parcel of land, such as in this landowner's case, is theoretically very large. The land could be marketed and sold for residential, recreational, agricultural activities, and/or timber harvesting. As with the alternative of selling the property to the public or imposing a conservation easement, this alternative would not attain most of the basic objectives of the project. An alternative land use would not allow the landowner to meet the project's primary objectives discussed above. Further, only uses compatible with timber production are permissible on lands zoned TPZ (uses which do not detract from or inhibit use of the land for growing and harvesting trees), such uses have not been identified and are therefore speculative in nature.

VI. Conclusions:

This THP, as proposed, is preferred over the six alternatives for the following reasons:

- The No Project Alternative. The landowner acquired these lands for the exclusive purpose of growing and harvesting timber. This project is one of many needed to allow the landowner to operate a viable business. These lands are zoned TPZ and timber harvests are expected to occur. This alternative was therefore rejected.
- Public Purchase of the Timber/Timberland or Purchase of the Timber/Timberland as a Conservation Easement Alternative. The landowner finds the highest and best use of the land to be in the use proposed in the THP. The landowner has received no reasonable offers to purchase either the property or a conservation easement on the property. Since this land is zoned TPZ, its value for possible sale lies in its timber value. If timber crops are not available for harvest, the value for possible sale is highly speculative. This alternative was rejected because it is inconsistent with the landowner's LTSY goals and the project objectives, and it appears infeasible.
- Alternative Silvicultural and Yarding Methods. None appear to be necessary, because the RPF has exercised professional judgment and has demonstrated proper justification for the methods chosen. These

are consistent with MSP, LTSY goals of the landowner and protection of the resources as required by the FPRs. The THP review process and pre-harvest inspections allow the various agencies the opportunity to make recommendations to change the RPF's silviculture or yarding method choices, if it is deemed necessary for protection of the resources. This alternative was therefore rejected, as no better alternatives have been identified at this time.

- Delaying the Timing of the Project, or Alternative Project Locations on the Ownership. If this project is not allowed to occur, another project would need to be proposed to balance the effect of not conducting this project where and when it is proposed. This alternative is rejected because it is inconsistent with the project objectives and would not lessen adverse impacts on the environment.
- Alternative Land Uses. There does not appear to be any alternative land uses that the RPF can identify at this time that would be legal. This alternative is therefore rejected.

In summary:

The landowner finds that the highest and best use of the property is the use proposed in this THP.

THE REGULATORY PROCESS FOR TIMBER HARVESTING ON PRIVATE LANDS IN CALIFORNIA

The regulatory system consists of a raft of federal and California laws and regulations that restrict timber harvesting on private lands and prescribe, often in minute detail, how timber operations must be conducted to ensure sustained yield of timber products and the protection of the environment, including water quality and fish and wildlife and their habitats.

Forest Practice Act and Rules

The Z'berg-Nejedly Forest Practice Act of 1973 established California's system for regulating timber harvesting on private lands. The Forest Practice Rules (FPR) are formal regulations that impose detailed requirements controlling all aspects of timber harvesting. 14 Cal. Code Regs. (CCR) § 895 et seq. The 2024 FPR span nearly 400 pages. The State Board of Forestry (BOF) develops and adopts the FPR and, and CAL FIRE administers them. Fluency with the FPR is a requirement for licensing as a Registered Professional Forester.

Landowners must submit, and CAL FIRE must review and approve, a THP prepared by a Registered Professional Forester (RPF) before initiating harvesting activities. Pub. Res. Code §§ 4581; 750-83 et seq.; 14 CCR § 1035.1; 1600-1651 (RPF licensing requirements and duties). As noted, the FPR are highly prescriptive, dictating every aspect of timber operations, ranging from rotation age constraints (14 CCR § 913.1, subd. (a)(1)) to stream side buffer zones (14 CCR § 916.5) to replanting requirements (14 CCR §§ 913.5, 912.7).

CAL FIRE is prohibited by the Forest Practice Rules from approving a THP (in fact, it "shall disapprove" a THP) if "[i]mplementation of the plan as proposed would result in a 'taking'" of a listed species, or "would cause significant, long-term damage to listed species." 14 Cal. Code Regs. §898.2(d)[Special Conditions Requiring Disapproval of Plans]. For federally-listed species, the Forest Practice Rules define "take" to be the same as the federal Endangered Species Act's definition of take. 14 CCR§895.1 [Definitions].

The FPR have an entire, stand-alone article devoted to requirements and measures to ensure no adverse effects from harvesting, road and landing construction, and other timber operations on water quality, aquatic and riparian species, or riparian ecological functions, including from sediment and temperature. See 14 CCR §§ 916-916.12 (Water Course and Lake Protection). Watercourses are divided into four classes, with Class I afforded the most protection and Class IV the least. 14 CCR § 916.5. Watercourse class is dependent on presence or potential presence of fish and on the capability to transport sediment to fish bearing waters. The width of the corresponding Watercourse and Lake Protection Zone (WLPZ) for each class depends on the steepness of the adjacent slope.

Over the last three decades, these regulations were revised multiple times to increase restrictions and limitations, and were made significantly more restrictive in 2010 when the BOF adopted the Anadromous Salmonid Protection (ASP) Rules. 14 CCR § 916.9 (Protection and Restoration of the Beneficial Functions of the Riparian Zone in Watersheds with Listed Anadromous Salmonids). And in 2014, the FPR were substantially revised to enhance the requirements to address sediment-related impacts from roads (the “Road Rules”). 14 CCR § 923.2 (Design and Location of Logging Roads and Landings). As part of this further strengthening of the FPR, Board of Forestry Technical Rule Addendum No. 5 was added, which is titled: “Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings” (1st ed., revised 10/27/14). The ASP Rules and the Road Rules, including TRA No. 5, are enforceable requirements of every THP to which they apply.

Other California Laws Protecting Water Quality, Streambeds and Species

Among the many laws and regulations, federal and California, with which timber harvesting must comply are those for the protection of water quality, streambeds, and their associated riparian areas, and threatened and endangered species. On the North Coast, the state agencies responsible for administering these laws and regulations – the North Coast Regional Water Quality Control Board (NCRWQCB or Regional Water Board) and the California Department of Fish and Wildlife – have closely scrutinized and imposed stringent limitations on timber harvesting for many years.

North Coast Regional Water Quality Control Board

Since the late 1990s, the NCRWQCB has intensively regulated timber harvesting on private lands to address concerns about the impacts of timber operations on water quality. Its efforts have focused on preventing and minimizing sediment discharges (as well as remediating historic sediment sources) and preventing increases in stream temperatures. The agency has accomplished this through issuing two types of general permits with which all timber harvesting activities must comply, Waste Discharge Requirements (WDRs) and Waivers of Waste Discharge Requirements (which is a misnomer in that all that is “waived” is the requirement to obtain a WDR if all of their own conditions are satisfied). Cal. Water Code §§13260 (WDRs), 13269 (Waivers). The Regional Water Board adopted and currently implements these permits to protect beneficial uses of water identified in its Basin Plan, especially for salmonids, listed species and other fish and wildlife. See General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region, Order No. R1-2004-0030, Par. 18 at 3 (list stating “existing and potential beneficial uses of waters potentially affected by the proposed activity include”: “Rare, Threatened, or Endangered Species (RARE),” “Migration of Aquatic Organisms (MIGR),” “Spawning, Reproduction, and/or Early Development (SPWN),” “Cold Freshwater Habitat (COLD),” “Estuarine Habitat (EST),” and “Wildlife Habitat (WILD)”); Categorical Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal

Lands in the North Coast Region, Order No. R1-2014-0011, Par. 8 at 2 (listing same beneficial uses and additional beneficial uses, including “Wetland Habitat (WET)”). Both types of permits have highly prescriptive requirements and measures.

The Regional Water Board’s Permit for Timber Harvest Activities

The Copper Top THP is subject to the General Waste Discharge Requirements (Waste Discharge Requirements or GWDR). General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region, Order No. R1-2004-0030. The GWDR (not the Waiver) applies to this THP. At the center of both permits are requirements for preparation of an Erosion Control Plan (ECP). The Waiver includes an extensive recitation of the Regional Water Board’s regulation of the water quality effects of timber harvesting, including the inter-relationship between the ASP Rules (and Road Rules) and the Regional Water Board permitting program for timber harvesting on private lands in the North Coast Region.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW), like the Regional Water Board, applies the laws and regulations it administers to THPs. These include California Endangered Species Act’s (CESA) “take” prohibition and incidental take permitting provisions (Fish and Game Code section 2080 et seq.) and the permitting requirements of the Lake and Streambed Alteration Program (Fish and Game Code section 1600 et seq.) for activities which alter the bed, channel, or bank of a stream, or substantially diverts or obstructs the flow of a stream. They also include other sections of the Fish and Game Code applicable to fish and wildlife that may be impacted by timber harvesting, such as Fish and Game Code section 3503, which prohibits taking or destroying the nest or egg of any bird, and section 3503.5, which prohibits the taking, possessing, or destroying the nest or egg of raptors and owls.

THP Review Process – Multiagency

The Forest Practice Act and FPR establish a formal process for public and agency review of THPs. The Regional Water Quality Control Boards (Regional Water Boards), California Geological Survey (CGS) and California Department of Fish and Wildlife (CDFW) are designated members of the “Review Team” for each THP by the Forest Practice Act itself. Public Resources Code § 4582.7. CAL FIRE convenes the Review Team to scrutinize the THP for its compliance with applicable federal and California laws and regulations and to suggest changes to and refine the THP over the course of multiple review meetings (including one or more field reviews called a “Pre-harvest Inspection”). Public Resources Code §§ 4581-4583.5; 14 CCR §§ 1037-1037.11. This process culminates in the preparation by CAL FIRE of an “Official Response” to significant environmental issues raised by comments from agencies and the public on the THP (the FEIR from a California Environmental Quality Act (CEQA) perspective) and issuance and posting of an Official Notice of Conformance, finding that the THP is in conformance with the Forest Practice Act and FPR. Public Resources Code §§ 4582.6-4582.7; 14 CCR §§ 1037.1, 1037.8.

As noted above, CAL FIRE is prohibited by the FPR from approving a THP (in fact, the FPR state that it “shall disapprove” a THP) if “[i]mplementation of the plan as proposed would result in a ‘taking’” of a listed species, or “would cause significant, long-term damage to listed species.” 14 Cal. Code Regs. §898.2(d) [Special Conditions Requiring Disapproval of Plans]. The FPR make similar provision with respect to water quality. A THP cannot

be approved if “[I]mplementation of the plan as proposed would cause a violation of any requirement of an applicable water quality control plan adopted or approved by the State Water Resources Control Board.” 14 Cal. Code Regs. §898.2(h)[Special Conditions Requiring Disapproval of Plans]. Regional Water Board Basin Plans are such water quality control plans. The Forest Practice Act further empowers Regional Water Boards even further with respect for THPs near watercourses that have been classified as “sediment impaired.” It gives the Regional Water Board, acting through its Executive Officer, the power to prevent approval of a THP if it “finds, based on substantial evidence, that the timber operations proposed in the plan will result in a discharge into a watercourse that has been classified as impaired due to sediment pursuant to subsection (d) of Section 303 of the Federal Water Pollution Control Act, that causes or contributes to a violation of the regional water quality control plan.” Public Resources Code Cal. Cod. § 4582.71.

DISCUSSION AND JUSTIFICATION OF SECTION I & II ITEMS

Item 11a: Plan Submitter Responsibilities

The plan submitter is responsible for compliance with the plan, requirements of the Forest Practice Act and where applicable, Board rules regarding site preparation, stocking, and maintenance of roads, landings, and erosion control facilities. Specific responsibilities of the plan submitter include but are not limited to the following.

Pursuant to 14 CCR 1035 - Plan Submitter Responsibility

The plan submitter, or successor in interest, shall:

- (a) Ensure that an RPF conducts any activities which require an RPF.
- (b) Provide the RPF preparing the plan or amendments with complete and correct information regarding pertinent legal rights to, interests in, and responsibilities for land, timber, and access as these affect the planning and conduct of timber operations.
- (c) Sign the THP certifying knowledge of the plan contents and the requirements of this section.
- (d) Retain an RPF who is available to provide professional advice to the LTO and timberland owner upon request throughout the active timber operations regarding 1) the plan, 2) the Forest Practice Rules, and 3) other associated regulations pertaining to timber operations.

The RPF retained by the plan submitter to provide professional advice throughout the timber operations shall be present, or shall ensure that their supervised designee is present, on the logging area at a sufficient frequency to know the progress of operations and advise the LTO and timberland owner as needed, but not less than once during the life of the plan. [Ref. 14 CCR 1035.1(e)]

The plan submitter may waive the requirement to retain an RPF during the course of operations if conditions set forth by 14 CCR 1035(2)(A),(B) and (C) are met.

- (e) Within five (5) working days of change in RPF responsibilities for THP implementation or substitution of another RPF, file with the Director a notice which states the RPF's name and registration number, address, and subsequent responsibilities for any RPF required field work, amendment preparation, or operation supervision. Corporations need not file notification because the RPF of record on each document is the responsible person.

(f) Provide a copy of the portions of the approved THP and any approved operational amendments to the LTO containing the General Information, Plan of Operations, THP Map, Yarding System Map, Erosion Hazard Rating Map and any other information deemed by the RPF to be necessary for timber operations.

(g) The plan submitter shall notify the Director prior to commencement of site preparation operations. Receipt of a burning permit is sufficient notice.

(h) Disclose to the LTO, prior to the start of operations, through an on-the-ground meeting, the location and protection measures for any archaeological or historical sites requiring protection if the RPF has submitted written notification to the plan submitter that the plan submitter needs to provide the LTO with this information.

Pursuant to 14 CCR 1035.4 - Notification of Commencement of Operations

Each calendar year, within fifteen (15) days before, and not later than the day of the start-up of a timber operation, the Timber Harvesting Plan Submitter, unless the THP identifies another person as responsible, shall notify CDF of the start of timber operations. The notification, by telephone or by mail, shall be directed to the appropriate CDF Ranger Unit Headquarters, Forest Practice Inspector, or other designated personnel.

Item 13e: Licensed Timber Operator Responsibilities

The RPF preparing the harvest plan will not directly supervise or control the LTO that will likely do the work. But the RPF will be available to clarify or convey plan content to the LTO as required of 14 CCR 1035.2 and as listed below. The plan submitter and the LTO are advised here that the LTO has specific responsibilities as stated in 14 CCR 1035 of the Forest Practice Rules.

Pursuant to 14 CCR 1035.2 - Interaction Between RPF and LTO

After the start of the plan preparation process but before commencement of operations, the responsible RPF or supervised designee familiar with on-site conditions, shall meet with either the LTO, or supervised designee, who will be on the ground and directly responsible for the harvesting operation. The meeting shall be on-site if requested by either the RPF or LTO. An on-site meeting is required between the RPF and LTO to discuss protection of any archaeological or historical sites requiring protection if any such sites exist within the site survey area pursuant to Section 929.2(b). If any amendment is incorporated to the plan by an RPF after the first meeting, the RPF shall comply with the intent of this section by explaining relevant changes to the LTO; if requested by either the RPF or LTO, another on-site meeting shall take place. The intent of any such meeting is to assure that the LTO:

- (a) Is advised of any sensitive on-site conditions requiring special care during operations.
- (b) Is advised regarding the intent and applicable provisions of the approved plan including amendments.

Pursuant to 14 CCR 1035.3 - Licensed Timber Operator Responsibilities

Each affected Licensed Timber Operator shall:

- (a) Sign the plan and major amendments to the plan, or sign and file with the Director a facsimile of such plan or amendments, agreeing to abide by the terms and specifications of the plan. This shall be accomplished prior to implementation of the following; which the affected LTO has responsibility for implementing:
 - 1) those operations listed under the plan and
 - 2) those operations listed under any amendments proposing substantial deviations from the plan.
- (b) Inform the responsible RPF or plan submitter, either in writing or orally, of any site conditions which in the LTO's opinion prevent implementation of the approved plan including amendments.

- (c) Keep a copy of the applicable approved plan and amendments available for reference at the site of active timber operations. The LTO is not required to possess any confidential addenda to the plan such as the Confidential Archaeological Addendum, nor is the LTO required to keep a copy of such confidential plan addenda at the site of active timber operations.
- (d) Comply with all provisions of the Act, Board rules and regulations, the applicable approved plan and any approved amendments to the plan.
- (e) In the event that the LTO executing the plan was not available to attend the on-site meeting to discuss archaeological site protection with the RPF pursuant to Section 929.2(b), it shall be the responsibility of the LTO executing the plan to inquire with the plan submitter, timberland owner, or their authorized agent, or RPF who wrote the plan, in order to determine if any mitigation measures or specific operating instructions are contained in the Confidential Archaeological Addendum or any other confidential addendum to the plan.
- (f) Provide the RPF responsible for professional advice throughout the timber operations an on-site contact employee authorized by the LTO to receive RPF advice.
- (g) Keep the RPF responsible for professional advice throughout the timber operations advised of the status of timber operation activity.
 - 1) Within five days before, and not later than the day of the start-up of a timber operation, the LTO shall notify the RPF of the start of timber operations.
 - 2) Within five days before, and not later than the day of the shutdown of a timber operation, the LTO shall notify the RPF of the shutdown of timber operations.
- (A) The notification of the shutdown of timber operations is not required if the period of the shutdown does not extend beyond a weekend, including a nationally designated legal holiday.
- (h) Upon receipt of written notice of an RPF's decision to withdraw professional services from the plan, the LTO or on-site contact employee shall cease timber operations, except for emergencies and operations needed to protect water quality, until the LTO has received written notice from the plan submitter that another RPF has visited the plan site and accepts responsibility for providing advice regarding the plan as the RPF of record

Item 19(I). Ground based equipment on slopes steeper than 50 percent with High or Extreme EHR

The Standard Rule: 14 CCR 914.2

(f) The following limitations apply:

(1) Except for Tethered Operations, heavy equipment shall be prohibited where any of the following conditions are present:

(A) Slopes steeper than 65%

(B) Slopes steeper than 50% where the Erosion Hazard Rating is high or extreme

(2) Heavy equipment shall be prohibited on slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a Watercourse or Lake.

(3) On slopes between fifty (50) percent and sixty-five (65) percent where the Erosion Hazard Rating is moderate, and all slope percentages are for Average Slope steepness based on sample areas that are twenty (20) acres, or less if proposed by the RPF or required by the Director, heavy equipment, except for Tethered Operations, shall be limited to:

(A) existing Tractor Roads that do not require reconstruction, or

(B) New Tractor Roads at a location that has been shown on the Plan map, flagged by an RPF or Supervised Designee prior to the pre-harvest inspection or, when a pre-harvest inspection is not required, prior to the start of Timber Operations, and approved by the Director.

Explain and describe each proposed practice: This project proposes the use of ground-based equipment on slopes over 50% that have Extreme EHR soils. These areas have been previously tractor logged and existing tractor roads are in good condition. This area was assessed for cable yarding potential. These units were found to contain the following conditions: lack of deflection and cable corridors may need to cross public road/utility lines making the practice unfeasible. Only existing tractor roads that do not require reconstruction will be used, thereby minimizing the potential for concentrated soil displacement and excessive site disturbance. For all areas, the existing tractor road network will provide adequate access for the proposed harvest.

How the proposed practice differs from the standard practice: The proposed practice would allow for ground-based operations on slopes greater than 50% that have Extreme EHR.

The specific locations where it shall be applied: The proposed practice would be applied throughout the project area. Refer to Sec II, Item 38, Operations Map for locations.

Explanation and justification as to how the protection provided by the proposed practice is at least equal to the protection provided by the standard rule: The proposed practice will provide equal protection by allowing merchantable volume to be removed from the harvest areas using only existing stable tractor roads. The use of the existing tractor roads combined with long-lining allows for tractors to yard logs cleanly and minimize soil disturbance. Tractor yarding would allow for more flexibility in yarding and minimize situations where low deflection cable yarding would occur thereby reducing the potential for breakage of merchantable timber and excessive ground disturbance. Prohibition of tractor yarding in these areas would result in significantly higher logging costs for the landowner. The plan restricts operations to preflagged and mapped skid trails that will be waterbarred and slash packed to the standards of Sec. II Item 18.

Item 19 - 21(h) Ground Based Operations on slopes over 65%.

Explanation: Areas where slopes steeper than 65% are present within areas designated for tractor and cable yarding. These areas are mapped on the Operations Map in Sec II. These areas have been previously tractor logged and existing tractor roads and logging roads are in good condition. Each area was assessed for cable yarding potential. These units were found to contain one or more of the following conditions, predominantly moderate gradient slopes, short reaches, lack of adequate deflection for cable yarding, and/or lack of existing access roads for cable yarding equipment. Existing tractor roads that do not require reconstruction will be utilized, thereby minimizing the potential for concentrated soil displacement and excessive site disturbance. Tractors are restricted to existing skid trails in these areas. The existing tractor road network will provide adequate access for the proposed harvest. End lining at certain locations within the steep areas from these existing skid trails is required in order to avoid new construction on steep slopes. Prohibition of tractor yarding in these areas would result in significantly higher logging costs for the landowner due to the necessity of new road construction or the use of helicopter yarding.

Justification: The proposed practice will provide equal protection by allowing merchantable volume to be removed from the harvest areas using only existing stable tractor roads. The use of the existing tractor roads combined with long-lining allows for tractors to yard logs cleanly and minimize soil disturbance. Two specific areas where tractor yarding may result in a better application of the Forest Practice Rules are:

1. Tractor yarding can be done in the above listed areas without new road construction thereby reducing the total amount of site disturbance and avoiding further reduction in growing space.
2. Tractor yarding would allow for more flexibility in yarding and minimize situations where low deflection cable yarding would occur thereby reducing the potential for breakage of merchantable timber and excessive ground disturbance.

Item 26r Addendum: Water Drafting

The following information has been formatted as question/response to 14 CCR 923.7(1)(2).

(A) A general description of the conditions and proposed water drafting:

Three drafting sites have a previously approved 1600 that is associated with THP 1-22-00029MEN. A new 1600 agreement is being prepared for this THP with similar water drafting instructions 1600-2022-0021-R1. The following information will satisfy the ASP rule requirements regarding water drafting activities. In aggregate, GRT will use no more than 8,000 gallons per day from active channel water holes on the North Fork of the Gualala (WD4) or 25,000 gallons per day on the South Fork of the Gualala (WD3). See attached table for calculations as to how these numbers were obtained.

One drafting site is on the South Fork of the Gualala River and one is on the North Fork of the Gualala. The South Fork of the Gualala is contained in the San Andreas Fault in a 100-200 foot wide very low gradient alluvial channel. The alluvium has been estimated to be up to 175 feet deep in the center and tapering toward the edges. The summer wetted channel is approximately 25 feet wide. The substrate is composed exclusively of cobbles, small gravel, sand, and silt. The stream banks have a 50% slope and transition onto the alluvial flats that can be up to 1000 feet wide and are 20 or 30 feet higher in elevation. Several seasonal roads cross the Gualala River and temporary bridges with gravel abutments are used to span the wetted portion of the channel. The North Fork of the Gualala also contains a deep alluvium and the wetted channel is only about 10 feet wide in the summer. The banks transition into the alluvial flats with less elevation rise than on the south fork. The flats are narrower and are usually between 150 and 600 feet wide.

In addition to the drafting sites described above, WD 2 drafts an open well to avoid drafting from a watercourse; this site can be used for water drafting but is not part of the standard water drafting rules.

Water may be drafted from gravel bar pits in the active channel at the two sites shown on the appurtenant roads map in section II and in the 1600 agreement. These sites are WD3 and WD4. Operational instructions for the LTO regarding active channel water drafting are summarized below.

(B) The watercourse classification:

The South Fork and North Fork Gualala River is a Class I fish bearing watercourse and meets the definition of "Watersheds with listed anadromous salmonids" and is subject to the Anadromous Salmonid Protection Rules 2009 and 14 CCR 916.9.

(C) The drafting parameters including: 1) the months the site is proposed for use, 2) estimated total volume needed per day; 3) estimated maximum instantaneous drafting rate and filling time and 4) disclosure of other water drafting activities in the same watershed

1) Water will be drafted between May 1 and October 15.

2) In aggregate, GRT will use no more than 8,000 gallons per day from active channel water holes on the North Fork of the Gualala (WD4) or 25,000 gallons per day on the South Fork of the Gualala (WD3), normally far less is needed. For instance, in 2015 drafting from the channel for all operations occurred over 85 days, and average usage was 2,447 gallons per day. The most water pumped in a day was 12,000 gallons.

3) Water drafting would be at a rate of less than 300 gallons per minute, a 4,000 gallon truck will take about 15 minutes to fill.

4) Gualala Redwood Timber has historically drafted from four locations that lie between the confluence of the Wheatfield branch and the south fork of the Gualala and the confluence of the south fork and the north fork. North Gualala Water Company and Sea Ranch Water Co. get water from the Gualala River watershed via wells. The North Gualala Water Company wells are in the North Fork Gualala River. The Sea Ranch wells are one mile below Twin Bridges.

(D) The estimated drainage area (acres) above the point of diversion:

North Fork- WD4-24,457 Acres

South Fork-WD3-165,000 Acres

(E) The estimated unimpeded stream flow, pumping rate, and drafting duration

Bypass flows shall be provided in volume sufficient to avoid dewatering the watercourse and maintain aquatic life downstream, and shall conform to the following standards unless modified in the 1600 agreement for this THP:

Drafting will occur between May 1 and October 15.

The likely drafting requirements in the 1600 being drafted for this THP are;

To avoid take of fish, Permittee shall not draft water from the flowing stream channel; instead, all water shall be drafted from pits dug in gravel bars or upland locations. The gravel bar hole shall be no less than 10 feet from the wetted channel. Excavation of the gravel bar hole shall be conducted in isolation from the flowing stream.

- Before commencing any water drafting operation, the RPF and the drafting operator shall conduct a pre-operations field review to discuss the water drafting measures in the plan and in the 1600 agreement.
- The drafting site shall have a downstream pool designated within the wetted channel that is easily observable from the drafting site but as far away as possible. This pool shall be used to determine any flow changes from drafting activities. A water level gauge with at least 0.05 foot increments shall be installed in this pool.

- A pump test shall be conducted by an RPF at the site prior to commencement of any drafting activities and monthly thereafter. The purpose of this test is to establish if enough flow is present to allow for water drafting without significantly altering flow as measured by the wetted width of the channel. The test shall provide an estimate of the maximum change in water surface elevation as measured at the downstream water level gauge that would result in a change of less than 0.10 foot to the wetted width at the monitoring site.
- The diversion rate shall not exceed 300 gallons per minute.
- In aggregate, for GRT operation, GRT will use less than 25,000 gallons per day from active channel water holes.
- Water truck operators shall be in possession of log books that shall contain the following information, kept current during operations: 1) drafting site location, 2) date, 3) time, 4) pump rate, 5) filling time 6) screen cleaning/inspection notes, 7) pre and post drafting pool water elevation as recorded from the water level gauge. Drafting logbook data shall be submitted to CDFW monthly for each year that drafting operations occur, or sooner upon request.
- If, during any drafting activity, the water level as read on the water gauge falls below the amount determined to cause a change of 0.10 foot to the wetted width, pumping shall immediately cease and a pump test shall be conducted to determine the maximum rate of diversion that can occur without causing significant reductions as defined by a 0.10 foot change in the wetted width.

(F) A discussion of the effects on aquatic habitat downstream from the drafting site(s) of single pumping operations, or multiple pumping operations at the same location, and at other locations in the same watershed

A hydrological study by O'Connor Inc. dated June 11, 2010 (previously submitted to CDFW) indicates that even at the rate of 25,000 gallons of water per day GRT would be using only 0.05% of the available daily flow and that any downstream effects would be insignificant on fish and wildlife. Drafting logs show that virtually no reduction of pool volume occurs even during periods of low bypass flows because of the large subsurface flow that is available.

Sea Ranch Water Co. pumps from wells during periods of high flows and stores the water in reservoirs.

(G) A discussion of proposed alternatives and measures to prevent adverse effects to fish and wildlife resources, such as reducing hose diameter; using gravity-fed tanks instead of truck pumping; reducing the instantaneous or daily intake at one location; describing allowances for recharge time; using other dust palliatives; and drafting water at alternative sites

- GRT has used magnesium chloride in the past as a dust palliative and may do so again.
- Drafting takes place at sites closest to the roads needing dust abatement, which spreads out the impacts along the Gualala River. However, as the O'Connor Report (2010) indicates, this is not really a concern.

(H) The methods that will be used to measure source streamflow prior to the water drafting operation and the conditions that will trigger streamflow to be measured during the operation

Methods and conditions requiring streamflow measurements prior and concurrent to operations have been addressed above. Relying on the O'Connor hydrological study and past experience, drafting 25,000 gallons per day will not have a significant effect on downstream flow.

ITEM 27 (a) & (f) HEAVY EQUIPMENT USE WITHIN THE WLPZ – IN-LIEU PRACTICE:

The Standard Rule: *14 CCR 916.4(d)&(f) – Heavy equipment shall not be used in timber falling, yarding, or site preparation within the WLPZ unless such use is explained and justified in the THP and approved by the Director, except at:*

- (1) Prepared tractor crossing described in 14 CCR 914.8(b)*
- (2) Class III watercourse crossings dry at the time of use*
- (3) Existing road crossings*
- (4) New tractor and road crossings approved as part of a Fish and Game Code Process (F&GC 1600 et seq.)*

Explain and describe each proposed practice: The project proposes the creation of one new trail and associated Class II tractor crossing to access an area between two parallel CII crossings. The RPF has considered alternative access routes to this area. Field examination has determined that the area cannot be accessed from below due to a powerline or from above due to a public road. The proposed skid trail is located along an area of gentle slope.

How the proposed practice differs from the standard practice: The proposed practice would result in the creation of a new WLPZ skid trail. This practice does not meet the exceptions listed under 916.4(f) and therefore constitutes an in-lieu practice.

The specific locations where it shall be applied: The site is identified on Section II maps.

Explanation and justification as to how the protection provided by the proposed practice is at least equal to the protection provided by the standard rule: The creation of this skid trails is necessary to access an area of timber. The areas were assessed for cable yarding feasibility but a lack of deflection ruled out this approach.. The one new skid trail and associated crossing is an area of low gradient(>5%) with no obvious instability. The trail has been designed to avoid removing mature conifers within the inner core zone and crosses the Class II at a favorable area where minimal excavation will be required. T After operations the new skid trails will be waterbarred to the extreme EHR standard and disturbed soils will be slash packed or mulched. For the new Class II Crossing a culvert is proposed even if dry during operations.

Item 27(j) Additional in-lieu and/or alternative watercourse and lake protection practices to allow for the cutting of unmarked trees for safety and cable clearance.

Although, no cable logging units are proposed, the LTO has the ability to use cable logging where deemed appropriate therefore, pursuant to 14 CCR 916.6 an Alternative Watercourse and Lake Protection Measure is proposed.

916. 6, 936. 6, 956. 6 Alternative Watercourse and rake Protection [All Districts]

(a) Alternative prescriptions for the protection of watercourses and lakes may be developed by the RPF or proposed by the Director on a site-specific basis provided the following conditions are complied with and the

alternative prescriptions will achieve compliance with the standards set forth in 14 CCR 916.3 [936.3, 956.3] and 916.4(b) [936.4(b), 956.4(b)].

(1) The following information regarding an alternative prescription shall be included in the THP:

(A) An identification of each standard prescription which would be replaced by the alternative prescription.

No standard prescription is being replaced in its entirety. The plan submitter is seeking to allow the harvesting of unmarked trees within the WLPZ which may be necessary for safety & cable clearance. The standard prescriptions which require all marking within the WLPZ to be completed prior to the PHI, and which prohibit the harvesting of unmarked trees are 14 CCR 916.S(e)"A", "B", "D", and "E".

(B) An identification of any beneficial uses of water or other features listed in 14 CCR 916.4(b) [936.4(b), 956.4(b)] which may be adversely affected by the replaced standard prescription and the alternative practice.

The LTO is directed to comply with any other applicable Forest Practice Rules, and therefore none of the features or beneficial uses listed in 916.4 should be adversely affected.

(C) An evaluation of any significant effects on such beneficial uses or features due to implementation of the alternative prescription.

No significant effects are anticipated, therefore there are none to evaluate.

(D) A clear and complete explanation and justification as to the reasons why, given site- specific technical, environmental, economic, or institutional considerations, an alternative prescription is needed. The reasons given must include at least one of the following:

(aa) Implementation of the specified standard prescriptions would not be feasible.

(bb) Implementation of the specified standard prescription(s) would not adequately prevent or reduce damage to the quality and beneficial uses of water.

(cc) Implementation of the proposed alternative prescription would provide equal or greater protection, including all proposed mitigations for the quality and beneficial uses of water and those features listed in 916.4(b) [936.4(b), 956.4(b)] than would implementation of the specified standard prescriptions.

Implementation of the standard prescription requiring all marking be completed prior to the PHI is not feasible for this given circumstance. Cable yarding is not anticipated under this THP; however, after approval of the Plan Submitter the LTO is permitted to utilize cable systems provided ground disturbance does not exceed ground based operations. Cable road placement is governed by suitable road locations and the availability of safe, functional tailholds.

(E) A plan for evaluating the results of the proposed alternative practice by either the plan submitter or the Director. The plan must include the criteria and procedures for evaluating and inspecting each approved alternative practice.

The proposed practice may be evaluated by either party during any inspection. The criteria and procedures for evaluating the alternative are the same as those for evaluating the standard. The L TO is still required to meet the standards in all other respects.

(2) The alternative measures stated in the plan shall be written so that they provide clear, enforceable standards for the guidance of the timber operator.

When LTOs are amended to the THP, they shall acknowledge this on the LTO Responsibility Form.

See Section II, Item 27(j).

(3) Prior to beginning or continuing an operation in which alternative measures have been added to an approved THP in regard to watercourse and lake protection measures, the timber operator shall acknowledge the new specifications by signing and filing with the Director, a copy of the amended plan.

Item #36, Cultural Resources

The following is a description of the procedures required to be taken by the RPF to determine presence of, assessment, and protection of any and all cultural resources present on the THP area. The following is performed by a Cal Fire certified Archaeological Surveyor: A scoping is performed including reviewing previously recorded sites on the property and pertinent literature. Native American groups are contacted with a confidential information request letter asking them to provide information on known sites of significance to them and for their input. The entire THP area is surveyed to locate and record any new significant sites they find, and to locate existing sites. Measures are taken to confidentially inform the Native American groups previously contacted as part of the scoping process, as well as the Historical Information Center, of new significant sites that have been found for their input on site protection measures. Protection measures are determined in consultation with the Cal Fire Archaeologist to avoid or mitigate sites on the THP. The entire process is described in a Confidential Archaeological Assessment report that is in Section VI of the THP.

Training and Experience of Archaeological Surveyors:

Name of current Archaeological Surveyor(s): Mark Pugsley

() Archaeological Survey conducted by Professional Archaeologist

(x) Archaeological Survey conducted by person with current CALFIRE Archaeological Training

CALFIRE Archaeological Training Course # 190R

Date Training Course was completed: 10/10/2022

Archaeological Records Check Information:

A record check was conducted through the Information Center on 5/24/2023 under Information Center File Number 22-1755

The results of the record check are contained in the THP's Confidential Archaeology Report.

Native American Consultation Information:

Native American groups on the CALFIRE Native American Contact List were sent notification letters (with maps) on 6/25/2024. Replies were received. Contact information for Mendocino County was obtained from the most recent list at time of mailing dated February 28,2024. The following Tribes were contacted:

Tribe Name	Affiliation	Representative	Representative Title
Cahto Tribe of the Laytonville Rancheria	Cahto, Kato, Pomo	Mary Norris	Chairwoman
Coyote Valley Band of Pomo Indians	Pomo	Richard Campbell	Acting Chairperson
Coyote Valley Band of Pomo Indians	Pomo	Eddie Knight, Sr.	Tribal Historic Preservation Officer
Guidiville Rancheria of California	Pomo	Michael Derry	Historian
Guidiville Rancheria of California	Pomo	Bunny Tarin	Tribal Administrator
Habematolel Pomo of Upper Lake	Pomo	Robert Geary	THPO
Habematolel Pomo of Upper Lake	Pomo	Sherry Treppa	Chairperson
Habematolel Pomo of Upper Lake	Pomo	Michael Marcks	Vice Chairperson
Hopland Band of Pomo Indians	Shokowa-ma, Sokow-Shanel	Sonny Elliott Sr.	Chairperson
Hopland Band of Pomo Indians	Shokowa-ma, Sokow-Shanel	Ramón Billy, Jr.	THPO
Kashia Band of Pomo Indians of Stewarts Point Rancheria	Pomo	Reno Franklin	Chairman
Kashia Band of Pomo Indians of Stewarts Point Rancheria	Pomo	Anthony Macias	Tribal Historic Preservation Officer
Manchester Point Arena Band of Pomo Indians	Pomo	Tisha Jones	Chairperson
Native American Heritage Commission			
Noyo River Indian Community	Pomo		
Pinoleville Pomo Nation	Pomo	Leona Williams	Chair
Potter Valley Tribe	Pomo	Salvador Rosales	Chairperson
Redwood Valley Little River Band of Pomo Indians	Pomo	Debra Ramirez	Chairperson
Robinson Rancheria of Pomo Indians	Pomo	Beniakem Cromwell	Chairperson
Round Valley Reservation/ Covelo Indian Community	Yuki, Pit River, Achomawi, Pomo, Conkow, Wailaki, Nomlaki, Wintu	Lewis Whipple	President

Round Valley Reservation/ Covelo Indian Community	Yuki, Pit River, Achomawi, Pomo, Conkow, Wailaki, Nomlaki, Wintu	Patricia Rabano	Tribal Historic Preservation Officer
Sherwood Valley Band of Pomo Indians	Pomo	Hazel Ramirez	Chairperson
Sherwood Valley Band of Pomo Indians	Pomo	Valerie Stanley	THPO
Sherwood Valley Band of Pomo Indians	Pomo	Josh Gravier	Tribal Administrator
Yokayo Tribe	Pomo		Chairperson

Survey Methods and Procedures:

Survey strategy: An examination of company GIS layers, internal records, aerial photos, and previous CAAs was conducted along with a discussion with company staff and other RPFs who are familiar with the area. From these records along with the surveyor’s experience and general trends where archeologic sites have been located on the ownership high probability areas were selected to be surveyed within the project area at varying intensities above cursory. Particular areas determined to be sensitive include: trending ridges, flats adjacent to perennial watercourses, confluences, non-linear water features, midslope benches, road cuts, skid trails, up rooted trees, gopher mounds, and ecotones.

Survey Results: Refer to Section VI.

Survey results are contained in the THP’s Confidential Archaeology Report. Disclosure is confidential under CEQA Guideline 15120(d) and Government Code Section 6254. Mitigations to protect Archaeological Sites (if any exist) are developed with the guidance of the State Archaeologist and/or Native American representative.