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Section III

GENERAL PLAN AREA DESCRIPTION

PROJECT LOCATION:

The THP is located approximately two miles east of the town of Gualala, CA in Sonoma County. The plan is located within Sonoma County along the South Fork Gualala River. The plan is located within the Big Pepperwood Creek and Mouth of Gualala River planning watersheds. The Plan falls within the McGuire Ridge and Stewarts Point 7.5 minute quadrangles and is located in portions of section 25, 26, and 36 of Township 11 North, Range 15 West, and Sections 6, 7, 8, and 17 of Township 10 North, Range 14 West and Section 31, Township 11 North, Range 14 West, Mount Diablo Base and Meridian.

SOILS AND TOPOGRAPHY:

The elevation within the proposed plan area is similar and averages 120 feet above mean sea level. The proposed harvest will mostly occur on the flood prone areas of the South Fork Gualala River. The THP is situated on predominantly flat to moderate slopes.

The Soil Survey Report for Sonoma County, Western Part, classifies the soils within the plan area as:

Caspar Sandy loam, 15 to 30 percent slopes

Caspar Sandy Loam, 30 to 50 percent slopes

Cortina Very Gravelly Sandy loam, 0 to 2 percent slopes

Empire loam, 9 to 30 percent slopes

Hugo loam, 30 to 50 percent slopes

Hugo-Hely complex, 50 to 75 percent slopes

Riverwash (These are locations of truck road crossings of the South Fork Gualala River)

WATERSHED AND STREAM CONDITIONS:

The THP is split between Big Pepperwood Creek Watershed (1113.850201) and the Mouth of Gualala River Watershed (1113.850202). The THP drains into the South Fork Gualala River. The South Fork Gualala River is a Class I Watercourse along the edge of the THP. There is one Class II-L, and several Class II-S and Class III drainages within and adjacent to the plan area. The Watercourses in the plan area were walked, classed, 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 pollutants for each water body that limit use or prevent attainment of its water quality objectives. As required by Section 303(d), a Total Maximum Daily Load (TDML) must be developed for water bodies on the 303(d) list. For the Gualala River Watershed, the listing was the result of water quality problems related to sedimentation. Currently, the Gualala River watershed is listed on the most recent 303(d) list for water quality issues related to sediment. Issues relating to sediment have been exacerbated by the history of heavy ground disturbance throughout the watershed.

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. Water Quality issues have contributed to population declines of salmonid species. 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).

The RPF preparing this THP has worked extensively in The Gualala River Watershed since 1992. Much of the work involved restoration work incorporated in Timber Harvest Plans designed to reduce or eliminate sources of sediment input to watercourses in the Gualala River Watershed. The majority of the man made sediment sources were the result of extensive road and skid trail construction, without proper erosion control, that took place in the late 1950s and early 1960s.

VEGETATION AND STAND CONDITION:

Vegetation on site primarily consists of coast redwood (*Sequoia sempervirens*), Douglas-fir (*Pseudotsuga menziesii*), red alder (*Alnus Rubra*), tanoak (*Notholithocarpus densiflorus*), and California bay laurel (*Umbellularia californica*) with blue blossom, ferns and various seasonal and perennial grasses. The 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 was completed in association with the proposed operations.

The plan area was last harvested under THP 1-11-087-MEN. Previous harvest history for this plan is unknown except that the entire area was harvested sometime in the last 40 to 60 years. Stands harvested during this time frame contain a varied distribution of age classes and diameters but generally consist of multiple generations of trees 50 to 90 years old with diameters ranging from 8” to 70”. Portions of the proposed plan area excluded from the last timber harvest vary from the harvested stand with a greater hardwood component and larger average diameter conifers. Current stocking levels throughout all of the plan area are stocked. Long term conifer growth and a wider distribution of age classes will benefit from a timber harvest. Hardwood competition is not an issue in this area and does not need to be addressed in order 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.

I. PROJECT DESCRIPTION, PURPOSE(S), NEED(S), AND OBJECTIVE(S)

The project is described in Sections I, II, and III of the THP. The Timberland Productivity Act of 1982 restricts the use of lands zoned Timberland Production Zone (TPZ) exclusively to the growing and harvesting of timber and compatible uses; it also establishes a presumption that timber harvesting is expected to and will occur on such lands. All of the lands included in the THP are TPZ lands which have timber production as the primary use.

Purpose(s). The landowner’s purpose in undertaking the project is:

- 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 impact 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 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 Sonoma County 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 Sonoma 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 the THP go directly to Sonoma 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.

Objective(s). 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 remaining a viable business with the capacity to produce a reasonable profit.
- 2) To plan and implement the timber operation to enhance the quality of local timber products. This entails using the Selection Group Selection Silvicultures in areas best suited for even aged

management to reestablish conifer dominance in order to achieve Maximum Sustained Production (MSP) of productive timberlands. Single 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 a 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 conducted 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 the other site-specific measures identified by the RPF and recommended in the multi-agency, inter-disciplinary, review team process.

II. ALTERNATIVES CONSIDERED IN THE ANALYSIS

The RPF considered seven alternatives for inclusion in the THP:

- 1) The project as proposed.
- 2) No project.
- 3) Alternative harvest approaches.
- 4) Alternative project location.
- 5) Conservation easement or public land purchase.
- 6) Alternative land uses.
- 7) Alternative timing of project.

III. ALTERNATIVES SELECTED FOR DETAILED EXAMINATION

1) Project as Proposed:

The project as proposed, which includes Single Tree Selection and Group Selection silvicultures meets the purposes, needs and objectives set forth above. The plan addresses and minimizes environmental impacts to wildlife habitat and cold-water fisheries from harvest operations through targeted practices and measures. Forest roads, skid roads, and landings are located to minimize the amount of sediment generation that could impact watercourses. The plan's silvicultural prescriptions are designed to improve forest stocking and health over time, while protecting and restoring salmonid habitat within the watercourse protection zones. The timber harvest will generate income for the company and supply raw materials to local mills. Operations in accordance with the provisions of THP will not result in significant effects to environmental resources.

2) No Project Alternative:

The No Project Alternatives 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 Sonoma 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 conducted. 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 the majority of this plan consists of productive timber growing ground (Timber Site Class I, II, and III), the overall productivity of those holdings would be reduced. This would place additional pressure to harvest on 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.

3) Alternative Harvest Approaches:

This alternative would involve harvesting the THP area in a manner different from that proposed in the THP. Alternatives here could include different silvicultural prescriptions, different yarding methods, and/or reduction in the project footprint/size.

Selection with Single Tree and Group Selection:

Per the objectives in 14 CCR § 913.2, unevenaged management works to establish and maintain an unevenaged stand with natural regeneration and vigorous trees in various age classes that form a highly diversified stand structure. The Selection silviculture is a preferred harvest approach in well stocked redwood stands, like those 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).

Other Yarding Methods:

Numerous yarding methods were considered by the RPF during preparation of the THP – tractor/ground-based, cable (ground and aerial), and helicopter. Tractor yarding was chosen as the least damaging alternative for removing logs. Tractor yarding was chosen for this THP based on the gentle topography of the alluvial flats along with existing stable access infrastructure (skid trail and roads), as surface erosion would

be very minimal in these areas. The skid trail system throughout the tractor yarding area is in good working condition with well-placed trails. Tractor yarding will involve driving the tractor (or rubber-tired skidder) on stable skid well-placed trails. Tractor yarding will involve driving the tractor (or rubber-tired skidder) on stable skid trails to downed logs, lifting one end of the log off the ground, and skidding the log to the road or landing.

Skyline cable (aerial) yarding was also determined to be feasible on areas that are more difficult to access with ground-based equipment without potentially greater significant impacts compared to skyline cable yarding. Skyline cable involves using cables suspended above the ground that allows skidded logs to be either partially or fully suspended off the ground. This method typically reduces ground disturbance and potential soil erosion attributed to ground-based yarding. However, because skyline cable yarding requires the proper infrastructure for tail holding and suspending skidded logs over the ground surface, no portions of the plan area will permit this yarding technique.

Helicopter yarding is a feasible option. However, it would greatly increase noise levels at the yarding and landing sites. Several residences are located within a few miles west and south of the THP area, and numerous noise complaints could potentially be expected due to this type of operation. Helicopters require unusually large landings of up to one and a half acres for safely delivering and loading logs, which would increase the area affected by soil disturbance within the plan area and reduce the shade canopy in the vicinity of the landings. Other impacts of helicopter yarding include those to safety of wildlife and their habitats. While most all timber harvesting operations present dangers to workers harvesting trees, as well as to workers yarding and loading logs, helicopter yarding presents a markedly greater risk to human health and safety because of the high potential for falling debris. In addition, many of the dangers of helicopter yarding to workers - logs knocking into other trees and their branches while being picked up and carried, logs falling altogether while being carried, and the "blowdown" from helicopters taking off that disturbs the forest canopy and sends debris flying - potentially can harm birds and their nests and displace birds. Moreover, and in any event, at present there are only a few known helicopter firms working in California or within the greater Pacific Northwest that would be available to log, and it is very difficult to find helicopter logging contractors that are willing to work on smaller total volume projects such as this one. The largest helicopters available would be needed to lift the larger second growth logs, and these contract helicopters are more difficult to find. In addition, many helicopter firms have stopped logging in favor of other more lucrative lift projects and fire suppression work. As a result, logger availability is becoming more of an issue with this harvest method.

Size Reduction of the Harvest Area:

This is a feasible alternative, but it would not further reduce potential adverse impacts or cumulative effects. With proper implementation of the best management practices and Forest Practice Rules, there should be no measurable project or cumulative impacts to watershed, biological, or soil resources, regardless of harvest area size. THPs are valid for five (5) years, with an available two-year extension. There is no measured difference in effects to resources of producing three 100-acre plans or one 300-acre plan over this time frame. Potential cumulative impacts are likely higher on numerous smaller plans because of the need to reopen the appurtenant haul roads every year for the smaller plans, rather than opening them once for the larger plans. In the meantime, the landowner, the agency, and the interested public benefits from the economy of scale afforded by a single plan versus three separate plans. Multiple smaller THPs could also require recurring road crossing, which could result in additional short-term impacts to fisheries relative to a onetime entry for this plan. Furthermore, any reduction in the harvest area would slow the productivity of the forest lands in reaching the California Forest Practice Rules goal of Maximum Sustained Production. A size reduction of proposed harvest areas could be made, but that would only result in alternate land holdings

being harvested sooner pursuant to other THPs. The size of the proposed harvest area was determined mostly by the topography, the location of roads, and the location of watercourses.

4) Alternative Project Location:

This alternative would involve conducting 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 conducted at some alternative location on the 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 conducting 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 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 the 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 to be considered for inclusion. In this case, because the THP is on land in the Gualala River Watershed it is considered a sensitive area due to geologic reasons. However, because lands within the Gualala River Watershed comprises 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 land 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.

5) Conservation Easement or Public Land Purchase:

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. The Conservation Fund has thinned 71 acres of its flood plain lands in the Big River drainage under THP 1-10-030 MEN (the Picolotti THP), pursuant to the same WLPZ and ASP Rules authorizing, and governing timber operations proposed in this THP. 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 continue practicing timber 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 Sonoma 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 Card 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 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 consider 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 I, II, and 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.

6) Alternative Land Uses:

The timberlands proposed for harvest are zoned Forest Land (FL) per Sonoma County General Plan and carry a Timberland Production Zone (TPZ) designation. These zoning designations establish the presumption that timber harvesting is expected to and will occur on such lands as the primary use.

The Forest Lands classification is intended to be applied to lands which are suited for and are appropriately retained for the growing, harvesting and production of timber and timber related products. The classification includes lands eligible to be zoned Timberland Production (TPZ); intermixed smaller parcels and other contiguous lands, the inclusion of which is necessary for the protection and efficient management of timber resource lands.

Principle Permitted Use on Forest Lands Designated Timber Production Zone:

Forest production and processing and associated uses including: one single family dwelling and home occupations.

Conditional Permitted Uses on Forest Lands Designated Timber Production Zone: Light agriculture; cottage industry; dwelling groups; campgrounds where designated by an * on the Land Use Maps; major impact services and utilities (i.e., power generating facilities, sewage disposal facilities, sanitary landfills and water treatment plants); farm employee housing, farm labor camps; extraction of sand, shale and gravel. Uses determined to be related to and compatible with forestry; conservation, processing and development of natural resources; recreation and utility installations. No use permit shall be granted for areas designated FL

in TPZ until a specific finding has been made that the proposed use is compatible with the growing and harvesting of timber and timber products.

While the number of possible uses for any parcel of land zoned FL is not insubstantial, the touchstone for any and all uses that are not strictly timber production is that they do not interfere with or derogate from sustainable management for commercial timber production. The landowner could apply to the Sonoma County Planning Commission for a rezone, initiate the process to subdivide the parcels, and attempt to market and sell individual lots. However, such a scenario is entirely speculative, not only because the landowner only recently purchased the timberlands for the purpose of supplying logs for its associated sawmills, but also because of the difficulty of obtaining the permits and approvals that would be required from County, State and Federal agencies, including the Planning Commission, to rezone and eventually convert the timberlands to a non-timber use. These include, but are not limited to, taking the land out of TPZ zoning, filing for a Timberland Conversion Permit, showing the requisite domestic water supply availability and leach field capacity for human uses, obtaining a Conditional Use Permit or Permits, and complying with CEQA. The new, authorized use/development would need to avoid and mitigate possible significant adverse environmental impacts as a condition of a zoning change and of the new use. However, this alternative would likely result in much greater significant adverse environmental impacts when compared to the expected insignificant impacts of the THP. The infrastructure for such development would have to provide for the increased needs of the developed lands. This would likely entail much greater (and permanent) land disturbance than timber harvesting, limiting wildlife habitat and use, and hardening permanent road and parking surfaces that reduce stormwater infiltration and flood attenuation. Wastewater disposal would need to be engineered within close proximity to the development, and could lead to detrimental environmental effects, especially in the event of major winter storms. Land uses that would increase human population would most likely lead to a decrease in native animal and plant populations within the THP area. For these reasons this alternative, although feasible, is highly unlikely to come to fruition unless economic, social, and environmental conditions in Sonoma County change radically.

7) Alternative Timing of the Project:

This alternative would involve conducting 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 achieve 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.

IV. COMPARISON OF PROJECT ALTERNATIVES

The project as described in the THP is preferred over the project alternatives for the following reasons:

No Project:

The owner of Gualala Redwood Timber, LLC also owns and operates local sawmills inland from the coastal land holdings, and has made significant investments in that milling infrastructure, which needs to remain working in order to recover facility improvement and maintenance costs. The landowner acquired the Gualala Redwood Timber, LLC timberlands for the exclusive purpose of growing and harvesting timber to achieve MSP (as required by the Forest Practice Act and Forest Practice Rules) and reducing dependence on purchasing logs in the open market, such purchases result not only in foregone economic benefits for the local community, but also greater environmental impacts. Such adverse impacts include, but are not limited to, the transportation/import externalities (e.g., increased GHG emissions from trucks) and the less stringent environmental regulation of timber harvesting in Oregon, Washington, and all states and countries outside of California. This project - which will "locally source" timber -- is one of many needed to allow the landowner to operate a viable business that benefits Sonoma and Mendocino Counties and their North Coast communities and, that, at the same time, provides the revenue needed to continually provide for the stewardship and maintenance of timberlands - and their sustained productivity -- as mandated by the Forest Practice Act and Forest Practice Rules, as well.

Alternative Harvest Approaches:

Other harvest approaches as discussed are neither feasible nor necessary given the THP's robust impact avoidance and mitigation measures. The RPF has exercised professional judgement and has demonstrated proper justification for the silvicultural prescriptions chosen. The already highly restricted Single Tree and Group Selection silvicultural prescriptions that govern the entire plan are made more so by the retention standards of the WLPZ and ASP Rules. The RPF proposes acres for harvest that are ready and should be harvested at this time. An even lesser intensity of harvest would not be financially viable. Tractor yarding was deemed environmentally and economically superior for harvesting based on potential environmental impacts and local topography. Skyline cable yarding would require the proper infrastructure for tail holding and suspending skidded logs over the ground surface. Helicopter yarding would be very costly, present human safety concerns, and may not be possible, in any event, because of the limited availability and/or the willingness of such companies to perform the work. The THP review process allows the agencies charged with protecting fish and wildlife and water quality to make recommendations about the proposed silvicultures, yarding methods, and plan size. The THP review process also allows the public the opportunity to comment on those same aspects of the proposed plan. In addition to the financial impacts already noted, a lighter harvest than that proposed would not fulfill the intent of the California Forest Practice Rules for achieving MSP and the ASP Rules of maintaining forest productivity and restoring habitat for anadromous salmonids by creating a diverse forest structure. No other alternative harvest approaches than those chosen were shown to be superior or otherwise warranted and, therefore, the discussed alternative harvest approaches were rejected.

Alternative Project Location:

Because this THP's potential impacts are being avoided or mitigated to be less-than-significant, relocating the project to an alternative location would not avoid possible significant adverse environmental impacts. Not operating on the THP area would require operations to occur elsewhere on the property where potentially greater impacts would occur due to possible relocation into a more environmentally sensitive area. In

addition, operating in an alternative location would be less suitable for achieving MSP across the Gualala Redwood Timber, LLC property.

Public Acquisition (conservation easement of public purchase):

This would avoid any potential impacts of this THP (as noted above, any potential impacts of the THP have been mitigated to less-than-significant). However, it is not feasible because the likelihood of either occurring in the near or even distant future is remote and speculative. It is very unlikely that an agreement on purchase price could be reached. The landowner is not a willing seller at this time for the reasons provided in the discussion of the "No Project Alternative," above. Public acquisition is further complicated by the location of the THP area. Opening this area to public access would be highly likely to present safety hazards associated with conflicts between public recreational use and operation of logging equipment and log truck traffic.

Alternative Land Uses:

Some of the alternative land uses described above are feasible, but not environmentally superior to the project as described in the THP; indeed, they are environmentally inferior. If implemented, these alternative uses would likely result in significant adverse environmental impacts that exceed any potential impacts of the proposed timber operations as described in the THP. Given the intended use of timberlands zoned TPZ, the proposed project best fits both the intended use for timber production and the landowner's objectives set forth in the THP.

Timber harvesting is the expected and required activity on the parcels that the THP overlays and is compatible with the surrounding land use zoning. The proposed THP is consistent with the Sonoma County General Plan and the current zoning. Because other allowed alternative land use(s) or change(s) in zoning would not meet any of the basic objectives of the landowner, and the environmental impacts from the development activities for those other land uses would exceed any potential impacts of the proposed timber operations as described in the THP, this alternative was rejected.

Alternative Timing:

Though this alternative is feasible, delaying implementation of the project to a later point in time would neither avoid nor mitigate potential significant adverse environmental impacts. Instead, delaying harvesting would simply push any potential environmental impacts into the future. Operations elsewhere will result in further delays to the harvest and planned reentry sequence of these areas. Accordingly, this alternative is rejected because it is inconsistent with the project objectives of managing these areas on a periodic re-entry basis. It would also frustrate management of the Gualala Redwood Timber, LLC timberlands for MSP and providing the local region with economical timber products.

Finding

Because this THP as proposed follows the restrictive California Forest Practice Rules and ASP Rules for timber harvesting, it will not result in significant adverse environmental impacts and is selected as the preferred project alternative. For the reasons detailed above, selection of a different project alternative is not necessary to serve CEQA's core purpose of avoiding or substantially lessening significant environmental impacts to less-than-significant.

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 2021 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)(l)) 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 "Implementation 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 Cal. Code Regs. §898.1 [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,¹ 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

¹ A Class I Watercourse is a stream that contains fish or is a domestic water supply. A Class II watercourse is a stream that does not contain fish but may contain other aquatic life or is within 1,000 feet of a class I stream. A Class III watercourse does not support aquatic life. A Class IV watercourse is a man-made watercourse. See 14 CCR § 916.5 (Table I).

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 Card 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 interrelationship 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) 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 posting of an Official Notice of Conformance, finding that the THP is in conformance with the Forest and 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 "Implementation 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 makes similar provisions with respect to water quality. A THP cannot be approved if "Implementation 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.

ELABORATION ON ITEMS IN SECTION II:

PLAN ADDENDUM TO ITEM 27(a)

Standard Rule: 14 CCR 916.3(c) The Timber Operator shall not construct or use tractor roads in Class I, II, III, or IV Watercourses, in the WLPZ, marshes, wet meadows, and other wet areas unless explained and justified in the plan by the RPF, and approved by the director except as follows:

- (1) At prepared tractor road crossings as described in 14 CCR § 914.8(b) [934.8(b), 954.8(b)].
- (2) Crossings of Class III watercourses that are dry at the time of use.
- (3) At new and existing tractor road crossings approved as part of the Fish and Game Code process (F&GC § 1600 et seq.).

Explanation: Operations at Map Points C involve the use of an existing tractor road that enter the WLPZ of a Class II-S watercourse. This existing tractor road is in good working condition with no signs of instability or erosion. Entering the WLPZ at Map Point C is necessary to avoid building a new tractor road outside of the WLPZ that would involve the removal of numerous trees and stumps.

Justification: Abiding by the standard rule it not feasible at this location because the existing tractor road: 1) allow for access into areas that would be inaccessible if operations as proposed were not allowed, 2) allows for less ground disturbance as the timber operations will utilize existing infrastructure (landings and tractor roads) rather than building new landings and roads upslope on less favorable (steeper) ground, 3) the existing skid trails are on stable slopes and are in good condition with no signs of instability or erosion, and 4) cable yarding would require extensive tree removal throughout the stand and in Class II WLPZ's to establish cable corridors. In summary a new tractor road outside of the WLPZ is feasible but would require the removal of numerous redwood trees and stumps to construct the tractor road and would cause much more ground disturbance.

ELABORATION ON ITEMS IN SECTION II:

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- (1) At prepared tractor road crossings as described in 14 CCR § 914.8(b) [934.8(b), 954.8(b)].
- (2) Crossings of Class III watercourses that are dry at the time of use.
- (3) At new and existing tractor road crossings approved as part of the Fish and Game Code process (F&GC § 1600 et seq.).

Explanation: Operations at Map Points C involve the use of an existing tractor road that enter the WLPZ of a Class II-S watercourse. This existing tractor road is in good working condition with no signs of instability or erosion. Entering the WLPZ at Map Point C is necessary to avoid building a new tractor road outside of the WLPZ that would involve the removal of numerous trees and stumps.

Justification: Abiding by the standard rule it not feasible at this location because the existing tractor road: 1) allow for access into areas that would be inaccessible if operations as proposed were not allowed, 2) allows for less ground disturbance as the timber operations will utilize existing infrastructure (landings and tractor roads) rather than building new landings and roads upslope on less favorable (steeper) ground, 3) the existing skid trails are on stable slopes and are in good condition with no signs of instability or erosion, and 4) cable yarding would require extensive tree removal throughout the stand and in Class II WLPZ's to establish cable corridors. In summary a new tractor road outside of the WLPZ is feasible but would require the removal of numerous redwood trees and stumps to construct the tractor road and would cause much more ground disturbance.

Item 27(f)- Exclusion of Heavy Equipment from a WLPZ

Explanation: Per 14 CCR 916.4 (d) & (f) Heavy equipment shall not be used in the WLPZ.

Justification: There are several WLPZ landings proposed for use within the Class I WLPZ. The landings are in good condition. There is not a reasonable alternative to the use of the landings. The landings are in or partially in the flood prone area of the South Fork Gualala River. The flood prone area has been logged in the past with ground based equipment. These landings were all used in the past logging. The flood prone area is again proposed for ground based yarding with the use of these same landings. The alternative would be to skid logs down the truck road until locations were reached to load logs that are not within the WLPZ. This would damage the truck road and not be a good idea. All the proposed landings are over 100 feet from the WLTL.

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): **Patrick Hovland and Maxwell Hovland**

() Archaeological Survey conducted by Professional Archaeologist

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

CALFIRE Archaeological Training Course# (196 **Maxwell Hovland**), **81R, 110R, 131R, 155R,**

187R by Patrick Hovland

Date Training Course was completed: **October 7-11, 2024, for Maxwell Hovland and October 2002 to May 2022 for Patrick Hovland**

Archaeological Record Check Information:

A record check was conducted through the Information Center on 8/19/2025. 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 6/30/2025. One reply was received from the Kashia Band of Pomo Indians as of 6/30/2025 and one reply from NAHC was received.

Literature Reviewed:

The 1902 J. N. Lentell Map of Mendocino County. (Updated 1905)

Mills of Mendocino County: A record of the lumber industry, 1852-1996 1996 by Alice Holmes

Sawmills of Mendocino County 1946-1960 by Chris Baldo and Theron Brown April 9, 2009

California Railroads Alvin Fickewirth Golden West Books San Marino, CA 1992

Handbook of the Indians of California, Kroeber, A.L., Dover Publications, New York, 1976. pages 222 to 271

Handbook of North American Indians, Vol. 8, Heizer, R.F., Smithsonian Institution, Washington, 1978. pages 274 to 282

Reference Manual and Study Guide for the California Department of Forestry and Fire Protection Archaeological Training Program, CDF&FP, 200. (Specifically, chapter #7 which describes the Native Californian's lifestyle).

Persons Contacted: John Bennett, forester for GRT, had no knowledge of sites in the THP area.

Research revealed the following information-Pre-history- The THP area occupies an area previously occupied by the Southern Pomo Native American subgroup. Gifford states "what we call Pomo refers to no definable cultural entity. There was a series of highly similar but never quite identical Pomo cultures, each carried by one of the independent communities or tribelets."

Climate and resources determined settlements in this zone. Most permanent villages were in the inland areas out of the fog with seasonal campsites along the shoreline and near river and creek mouths. "The redwood forests were considered hinterlands and were rarely occupied for periods longer than a month. Villagers made forays into them for various products, establishing seasonal campsites that were reoccupied year after year by the same kin groups. Other seasonal campsites were near salmon streams, offshore seal and sea lion rookeries, and other food producing areas." (Heizer) The acorn (of which seven species were collected) was the primary plant food available. Also eaten were buckeye nuts, berries, seeds from at least fifteen kinds of grasses, roots and bulbs, seaweed, and greens. Deer, elk, antelope, rabbits, squirrels, birds, bears, seals, and sea lions were hunted. Fish were caught in traps, with lines or weirs. Shellfish were gathered.

Dwellings in this area seem to have been primarily conical dwellings of redwood bark slabs with diameters of 8-15 feet and heights of 6-8 feet and they are said to have held as many as twelve people. In every village there was at least one small circular subterranean structure built in the spring for the men's daily sweat baths. Larger assembly houses were sometimes built for dancing and ceremonies.

The types of sites known in the region are villages, campsites, shell middens, lithic scatters and artifact isolates.

The type of prehistoric sites that are most likely in this area are transitory camps along class II watercourses where they empty onto the coastal plain. Camps are usually found just at the edge of the transition zone between the redwood forest and the grasslands. These camps are usually recognized by the presence of shell middens. It appears that the Native Americans brought their harvest of shellfish back away from the coastal plain into the shade of the forest prior to processing them.

Historically, Russian trappers arrived in the area in 1811 and by 1838 all Pomo territories within the Gualala Region had been invaded by Mexico and hard boundaries established. By the 1860s and 1870s white settlers had become fully established. By the 1890's logging was in full swing and artifacts from this period can often be seen in the woods such as bull lines and pieces of steam donkeys. Rail grades, rail ties and rails can still be found along the Gualala River. Other artifacts can still be found from this logging period as well as from the next logging entry that took place in the late 1950s and early 1960s.

Historic sites in this area are usually found along the creek bottoms in the form of old corduroys (logs perpendicular to the creek and used for skidding down the draws). Remnants of the rail lines that paralleled the Gualala River from the Gualala Mill Company are often found on the alluvial flats. Sometimes metal from

turn of the century donkey logging systems can be found as well as from logging equipment from the 1950s and 1960s. Bottle dumps have also been found on the property, but none were found in the area of this THP. Old homesteads are sometimes recognized by the presence of old wooden fence lines or fruit trees.

Survey Methods and Procedures:

Survey strategy: The environmental setting— This plan is situated on the alluvial flats and the adjacent hill slopes that follow the south fork of the Gualala River south of its confluence with the North Fork. The majority of the plan area is on the flood prone area west of the south fork of the Gualala River, which is mostly flat. The area is high site redwood ground and has probably always had a dense forest with high canopy closure. The alluvial areas throughout the Plan are damp throughout the winter with areas of standing water. The soil is sandy alluvium. Springs are rare, but a few class II, and III watercourses empty into the flats before disappearing before reaching the river. The Pacific Ocean is approximately 2 miles to the west of the units closest to the mouth of the river.

In the past forty years it has been documented that the forest floor has accumulated alluvium from periodic flooding. This accounts for the fact that most tree species besides Redwood and Bay Laurel are absent from the flats. As soon as you reach the side slopes Douglas Fir and tanoak reappear. This accumulation of alluvium would have the effect of burying Native American artifacts as well as historic artifacts.

The majority of the survey effort was spent throughout the Alluvial flats and along the side slopes. I spent considerable effort scraping the ground vegetation away but spent even more time looking for areas with already exposed soil as this seemed to be a more productive use of my time. I concentrated my efforts on exposed banks, exposed road surfaces and exposed skid trail grades. Very few prehistoric artifacts have been discovered on any of the alluvial flats within this ownership. Historic artifacts have been discovered, however. It is known that logging by wide gauge rail took place along the south fork and mainstream of the river. Although steel rails and wooden ties are occasionally still found, none were found along the south fork of the Gualala in this survey.

Time spent conducting archaeological field survey: 40 hours.

Date or dates the survey was conducted: May 2025 through November of 2025.

Survey coverage intensity: General coverage in the flood prone areas and in the upslope areas, cursory coverage of the appurtenant road system.

Ground visibility/other limitations: Visibility along the portions of the appurtenant roads was good along those portions that are not rocked (along the edge of the flood prone areas). Visibility along the ridge top roads was good in most locations. Visibility along much of the skid trail system was fair. Visibility throughout the rest of the survey area was poor because of the darkness from the canopy and because of the accumulated leaf fall.

Survey Results:

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.