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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 promulgate 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.

a. Describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant Effects of the Project, and evaluate the comparative merits of the alternatives [ref. 14 CCR §§ 15126.6(a) & 15252(a)(2)(A)].

- Every conceivable alternative to the Project does not need to be considered [ref. 14 CCR § 15126.6(a)].
- The discussion of alternatives shall focus on alternatives to the Project, or its location, which are capable of avoiding or substantially lessening any significant Effects of the Project, even if these alternatives would impede to some degree the attainment of the Project objectives or would be more costly [ref. 14 CCR § 15126.6(b)].
- The range of potential alternatives to the proposed Project shall include those that could feasibly accomplish most of the basic objectives of the Project and could avoid or substantially lessen one or more of the significant Effects [ref. 14 CCR § 15126.6(c)].
- Include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project [ref. 14 CCR § 15126.6(d)].
- If an alternative would cause one or more significant Effects in addition to those that would be caused by the Project as proposed, the significant Effects of the alternative shall be discussed, but in less detail than the significant Effects of the Project as proposed [ref. 14 CCR § 15126.6(d)].
- The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant Effects of the Project [ref. 14 CCR § 15126.6(f)].

No Project [ref. 14 CCR § 15126.6(e)]:

CEQA Guidelines require all projects to consider the no-project alternative. The No Project alternative is feasible. This alternative would avoid any potential impact that directly results from the timber operations proposed being conducted. Although the No Project is feasible, it would not fulfill the purposes, needs, or objectives set forth by the landowner. This alternative does not improve stocking, nor does it enable the landowner to achieve maximum sustained production of forest products. The decision not to proceed with the harvest would not alter the need to convert raw timber into lumber to meet statewide demand. This makes it highly likely that leakage would occur, and that the need for raw materials would have to come from somewhere, be it another local forest or a source farther away. The decision not to proceed would likely result in reduced yield tax revenue to the county. The no-project alternative does not alter the landowner's need to generate revenue to pay for the land or to create feedstock for the sawmill, meaning that any supplementary acreage within the ownership would need to be assessed for timber harvesting. Finally, by engaging in this project as proposed, the landowner is compelled by regulation to allocate revenues generated by the project to road improvements to reduce potential road sediment sources. In this project, 7 road points are identified as needing upgrades to reduce the potential for sediment delivery to watercourses. In addition to these drainage structures, by engaging in operations at this location the landowner will take additional steps including but not limited to grading, installation of waterbars/critical dips, and other road maintenance activities that will reduce the road's hydrologic connectivity. In conclusion, this alternative is feasible and may avoid

some impact, but in the absence of the project the landowner's objectives are not met and sediment issues may not be addressed.

Alternative Timber Operations:

Yarding Methods Not Chosen

Cable- The project area is generally along a flat alluvial terrace. Cable yarding is commonly utilized on steeper terrain where adequate deflection from a landing can be obtained. Within the project area, no areas of adequate deflection exist. It is feasible to use the existing road network to cable log this project area. This approach would require creating cable corridors from the yarder to the tail hold trees. For crew safety the corridors need to have trees cut to provide a clear path for the logs to reach the yarder. The tail hold tree will need to be cut for crew safety. Yarders also have between 3 and 8 guy lines to hold the yarder in place during operations. The guy line trees will need to be cut for crew safety and additional trees around the yarder that could accidentally fall in the landing zone around the yarder will need to be cut for crew safety. The RPF believes that the number of trees cut in order to safely cable log this project would more than double that which is currently marked for harvest. This makes it difficult if not impossible to maintain the required WLPZ shade canopy. It is likely that some of the 13 largest trees per acre would be cut for safety reasons. Additionally, given the flat terrain of the project area, logs will drag along the ground all the way from where they are choked to the yarder without even one end of the log being supported, thereby causing ground disturbance in excess of that which would be caused by a grapple cat or grapple skidder. The RFP knows that, given the terrain, the use of ground-based equipment is the most efficient, cost-effective, least damaging to the residual timber stand and safest method for harvesting the project area. Cable yarding is a feasible alternative; however, given the terrain, the RPF has determined that ground-based logging is the most appropriate yarding method.

Helicopter- This method would fulfill many of the project objectives and could avoid some of the impacts associated with ground-based yarding. However, to utilize this silviculture, the landowner would need to create at least one landing that is sufficient in size to facilitate a log deck, a helicopter landing zone, YUM piles, and a refueling zone. No landings currently meet the size requirement, so the landowner would need to clear and level at least one large area of forest to accommodate helicopter yarding, resulting in new impacts. Additionally, helicopter yarding is extremely expensive when compared to ground-based yarding and would generate substantial noise impacts to sensitive species and the local community. No local contractors currently have the capacity to helicopter log and the landowner is committed to utilizing local businesses when feasible. Helicopter yarding is a feasible alternative; however, given the previously listed factors, the RPF has determined that ground-based logging is the most appropriate yarding method.

Other alternative(s) (if applicable):

Alternative Location

This alternative would involve carrying out the harvesting proposed in the THP at a different location on the landowner's property. This alternative is feasible and would fulfill many of the project objectives. 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 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 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 be merely shifted to another area of the timberlands. Some potential impacts would be exacerbated. Additionally, shifting harvest to another location would not address the identified road points that need improvement. Harvesting at other locations would require many of the same measures to avoid or substantially lessen such impacts to less-than-significant levels.

Reduced Size

This alternative is feasible, but it would not further reduce potential adverse impacts or cumulative effects. The decision to reduce the project size would result in the additional acreage being selected at an alternative location (see above). The project, as proposed, has been designed in a way to avoid significant impacts. Reducing the size of the project would likely not further reduce impacts from the proposed operations.

Delaying 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, by delaying road work identified in the Section II, Map Point Table along with routine road maintenance delaying this project may actually result in more impacts than if the project were to occur within the time proposed.

1. Alternatives to the Proposed Project:

To the specific Timber Operations that, if unmitigated, would have a Significant Adverse Impact on the Environment or a reasonable potential to join with the Impacts of any other Project to cause, add to, or constitute significant adverse Cumulative Impacts

b. Describe the rationale for selecting the alternatives to be discussed [ref. 14 CCR § 15126.6(c)].

No Project [ref. 14 CCR § 15126.6(e)]: This alternative was selected in compliance with 14 CCR § 15126.6(e) which requires all projects to consider the no project alternative.

Alternative Timber Operations:

Alternative Silviculture: Different silvicultural systems will result in different harvest intensities and can create a variety of forest structural conditions following operations. Alternative silvicultures could still meet many of the project objectives. Regulations restrict what silvicultures can be utilized in certain circumstances.

Alternate Yarding Methods: The two alternate yarding methods chosen are feasible to facilitate the landowner meeting the goals of the plan. As discussed above, although feasible, cable and helicopter logging were not selected largely due to operational constraints that make ground-based yarding the most appropriate yarding method for this particular project.

Other alternative(s) (if applicable):

Alternate location: Identified as a feasible alternative to meet many of the project objectives. This alternative would avoid site-specific impacts from timber harvest, and past public participation has identified this as an alternative.

Reduced Size: Identified as a feasible alternative to meet many of the project objectives. This alternative would avoid site-specific impacts from timber harvest for the areas excluded from harvest, and past public participation has identified this as an alternative.

Delaying Project: Identified as a feasible alternative that would alter the timing of impacts from this project well still enabling the landowner to harvest the project area at a later date.

All of the alternatives identified above would change the location and timing of impacts from the project as proposed but would not avoid impacts since operations would still occur in a different location to fulfill the landowners' objectives.

c. Identify any alternatives that were considered but were rejected as infeasible and briefly explain the reasons underlying these determinations [ref. 14 CCR § 15126.6(c)].

- Among the factors that may be used to eliminate alternatives from detailed consideration are:
 - failure to meet most of the basic project objectives,
 - infeasibility, or
 - inability to avoid significant environmental impacts.

Alternative Land Uses: The land in question is zoned for Timber Production, and the landowner purchased the land with the intention of generating sawlogs as discussed in the project objectives. This alternative does not meet the most basic objectives of the project.

Alternative Silvicultures: Single Tree Selection silviculture is one of two silvicultures permitted in the WLPZ, which constitutes a majority of the plan area. No other silvicultural treatments assessed could reasonably be expected to substantially reduce the impacts of this project.

This THP, as proposed, is preferred over the above 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 would not address the need to upgrade the road network. This alternative was therefore rejected.
- 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, Reduced Size, 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.

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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.

Use of Skid trails in flood prone areas of the WLPZ

Standard rule: The standard rule is 916.3 (c) which states that 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.

Explanation: The majority of the THP is within the flood prone area of the South Fork Gualala River. The WLPZ, which is a combination of the Core Zone, Inner Zone A and Inner Zone B often is over 300 feet wide. The Core Zone is a no harvest zone. Inner Zone A requires a minimum shade canopy post-harvest of 80 percent canopy. Harvest trees were marked in Inner Zone A and Inner Zone B to be felled to locations that would minimize canopy damage to the leave stand and reduce breakage of trees being felled. Skid trails were then flagged from the marked trees back to existing roads and landings. Skid trails were flagged in locations that would minimize stand damage and soil disruption. 916.9 (f) (D) The Preferred Management Practices in the Inner Zones are being used where feasible.

Justification: If the skid trails in the flood prone area were not used, trees would be felled toward roads outside of the WLPZ and be long lined to the roads. This would cause more canopy damage and ground damage and considerable breakage to the trees. The other alternative would be to cable yard the trees. These areas have close to zero deflection for cable yarding. The trees could be felled to ideal locations to save canopy and reduce breakage but then corridors would need to be harvested to remove the selected logs. This would cause more canopy reduction. Therefore, the preferred method of skidding logs along flagged skid trails is the preferred method to remove logs.

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

Standard rule: 916.4(d) Heavy equipment shall not be used in timber falling, yarding, or Site Preparation within the WLPZ unless explained and justified in the THP and approved by the Director.

Explanation: There are existing landings within the WLPZ that have been used multiple times in the past with no negative impacts.

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 logs would tend to drift off of the truck destroying vegetation and exposing more bare soil thereby increasing the potential of sediment mobilizing. This is not an In Lieu practice but would cause far more ground disturbance than using the existing landings. 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 rockied (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.