

**OFFICIAL RESPONSE TO SIGNIFICANT ENVIRONMENTAL POINTS RAISED
DURING THE TIMBER HARVESTING PLAN EVALUATION PROCESS**

**FROM THE DIRECTOR OF THE CALIFORNIA DEPARTMENT OF FORESTRY
AND FIRE PROTECTION (CAL FIRE)**

TIMBER HARVESTING PLAN (THP) No:
SUBMITTER:
COUNTY:
END OF PUBLIC COMMENT PERIOD:
DATE OF RESPONSE AND APPROVAL:

1-20-00203-SON
Richardson Ranch LLC
Sonoma
February 21, 2021
April 13, 2021

The California Department of Forestry and Fire Protection (CAL FIRE) serves as the lead agency in the review of Timber Harvesting Plans. These plans are submitted to CAL FIRE, which directs a multidisciplinary review team of specialists from other governmental agencies to ensure compliance with environmental laws and regulations. As a part of this review process, CAL FIRE accepted and responded to comments, which addressed significant environmental points raised during the evaluation of the plan referenced above. This document is the Director's official response to those significant environmental points, which specifically address this Timber Harvesting Plan. Comments, which were made on like topics, have been grouped together and addressed in a single response. Remarks concerning the validity of the review process for timber operations, questions of law, or topics and concerns so remote or speculative that they could not be reasonably assessed or related to the outcome of a timber harvesting operation, have not been addressed.

Sincerely,



Shawn Headley
Forester II, Forest Practice
RPF #2970

Staff Forester / JR

cc: RPF, Unit, File; Timber Owner, Timberland Owner and/or Submitter
CP, CDFW, DPR, & RWB

<https://caltreesplans.resources.ca.gov/caltrees/caltrees.aspx>

PUBLIC NOTIFICATION

To inform the public of this proposed Timber Harvesting Plan (THP) and determine if there were any concerns with the plan the following actions were taken:

- Notice of the receipt of the plan was submitted to the county clerk for posting with other environmental notices.
- Notice of the plan was posted at the Department's local office and also at the regional office in Santa Rosa.
- Notice of the receipt of the THP was sent to those organizations and individuals on the Department's list for notification of plans in the county.

THP REVIEW PROCESS

The laws and regulations that govern the Timber Harvesting Plan review process are found in Statute law in the form of the Forest Practice Act which is contained in the Public Resources Code (PRC) and Administrative law in the rules of the Board of Forestry and Fire Protection (the Forest Practice Rules) which are contained in the California Code of Regulations (CCR).

The Forest Practice Rules are lengthy in scope and detail and provide explicit instructions for permissible and prohibited actions that govern the conduct of timber operations in the field. The major categories covered by the rules include:

- Timber Harvesting Plan contents and the Timber Harvesting Plan review process
- Silvicultural methods
- Harvesting practices and erosion control
- Site preparation
- Watercourse and lake protection
- Hazard reduction
- Fire protection
- Forest insect and disease protection practices
- Coastal Commission Special Treatment Areas
- Use, construction and maintenance of logging roads and landings
- County-specific rules

When a THP is submitted to the Department, it undergoes a multidisciplinary review consisting of several steps. In addition to CAL FIRE, the Review Team members include representatives of the California Department of Fish and Wildlife (CDFW); the appropriate Regional Water Quality Control Board (RWQCB or RWB); California Geological Survey (CGS); the Department of Parks and Recreation (DPR); the appropriate County Planning office; and if within their jurisdiction, the Coastal Commission (CC) (14 CCR §1037.5(a)). Once submitted the Director determines if the plan is accurate, complete, and in proper order, and if so, files the plan (14CCR §1037). In addition, the Review Team determines whether a Pre Harvest Inspection (PHI) is necessary, and what areas of concern are to be examined during the inspection (14 CCR §1037.5(g)(1)).

If the plan is accepted for filing, and a PHI is determined to be needed, a field review is conducted to evaluate the adequacy of the THP. All agency personnel who comprise the multidisciplinary Review Team are invited to attend the PHI as well as other experts and agency personnel whom the Department may request. During this field review, additional mitigation and/or recommendations may be formulated to provide greater environmental protection. These recommendations are forwarded to the RPF along with the Review Team member's PHI Report. The RPF will respond to the recommendations made and forward these to the Region office and Second Review Team Chair.

A Second Review Team meeting is held where members of the multidisciplinary Review Team meet to review all the information in the plan, and develop a recommendation for the Director (14 CCR §1037.5(g)(2)). Prior to and/or during this meeting they examine all field inspection reports, consider comments raised by the public, and discuss any additional recommendations or changes needed relative to the proposed THP. These recommendations are forwarded to the RPF. If there are additional recommendations, the RPF will respond to each recommendation, and forward his responses to the regional office in Santa Rosa.

The representative of the Director of the Department reviews all documents associated with the proposed THP, including all mitigation measures and plan provisions, written correspondence from the public and other reviewing agencies, recommendations of the multidisciplinary Review Team, and the RPF's responses to questions and recommendations made during the review period. Following consideration of this material, a decision is made to approve or deny a THP.

If a THP is approved, logging may commence. The THP is valid for up to five years, and may be extended under special circumstances for a maximum of two more years, for a total of seven years.

Prior to commencing logging operations, the Registered Professional Forester must meet with the licensed timber operator (LTO) to discuss the THP (CCR §1035.2); a CAL FIRE representative may attend this meeting. The Department makes periodic field inspections to check for THP and rule compliance. The number of inspections depends upon the plan size, duration, complexity, and the potential for adverse impacts. Inspections include but are not limited to inspections during operations pursuant to Public Resources Code (PRC) section 4604, inspections of completed work pursuant to PRC section 4586, erosion control monitoring as per PRC section 4585(a), and stocking inspection as per PRC section 4588.

The contents of the THP, the Forest Practice Act, and Rules, provide the criteria which CAL FIRE inspectors use to determine compliance. While the Department cannot guarantee that there will be no violations, it is the Department's policy to vigorously pursue the prompt and positive enforcement of the Forest Practice Act, the Forest Practice Rules, related laws and regulations, and environmental protection measures that apply to timber operations on non-federal land in California. This enforcement is directed primarily at preventing forest practice violations, and secondarily at prompt and adequate correction of violations when they occur.

The general means of enforcement of the Forest Practice Act, the Rules, and other related regulations range from the use of violation notices, which require corrective action, to criminal proceedings through the court system. Timber operator and Registered Professional Forester

licensing action may also be pursued. Most forest practice violations are correctable and the Department's enforcement program assures correction. Where non-correctable violations occur, criminal action is usually taken. Depending on the outcome of the case and the court in which the case is heard, some sort of environmental corrective work is usually done. This is intended to offset non-correctable adverse impacts.

Once harvesting operations are finished, a completion report must be submitted certifying that the area meets the requirements of the rules. CAL FIRE inspects the area to verify that all aspects of the applicable rules and regulations have been followed, including erosion control work. Depending on the silvicultural system used, the stocking standards of the rules must be met immediately or in certain cases within five years. A stocking report must be filed to certify that the requirements have been met.

FOREST PRACTICE TERMS

ADA	Americans with Disabilities Act	LTO	Licensed Timber Operator
ASP	Anadromous Salmonid Protection	MAMU	Marbled Murrelet
BMP	Best Management Practice	NCRWQCB	North Coast Water Quality Control Board
BOF	California Board of Forestry and Fire Protection	NSO	Northern Spotted Owl
CAL FIRE	Calif. Dept. of Forestry & Fire Protection	OR	Official Response
CCR	California Code of Regulations	PC	Public Comment
CDFW	California Department of Fish and Wildlife	PHI	Pre-Harvest Inspection
CEG	Certified Engineering Geologist	PRC	Public Resources Code
CEQA	California Environmental Quality Act	RWB	Regional Water Quality Control Board
CESA	California Endangered Species Act	RPF	Registered Professional Forester
CIA	Cummulative Impacts Assessment	THP	Timber Harvesting Plan
CGS	California Geological Survey	TMDL	Total Maximum Daily Load
CSDS	Controllable Sediment Discharge Sources	TPZ	Timber Production Zone
DBH/dbh	Diameter Breast Height	USFWS	U.S. Fish and Wildlife Service
DPR	Department of Parks and Recreation	WDR	Waste Discharge Requirements
ECP	Erosion Control Plan	WLAS	Watershed with Listed Anadromous Salmonids
FPR's	California Forest Practice Rules	WLPZ	Watercourse & Lake Protection Zone

[sic] Word used verbatim as originally printed in another document. May indicate a misspelling or incorrect word usage

BACKGROUND

Timber Harvesting Plan (THP) # 1-20-00203-SON "Bootleg" proposes to harvest timber on 267 acres of Richardson Ranch LLC timberland using the selection silvicultural method. The THP was received by CAL FIRE on December 02, 2020, accepted for filing on December 10, 2020, and a Preharvest Inspection (PHI) was conducted on January 5, 2021. Attendees on the PHI included Dan Falk the RPF, Elliott Brooks, Justin Fitt and Jim Burke from NCRWQCB, Dave Longstreth, CGS, Barry Miller, CDFW, and Kim Sone, the CAL FIRE Inspector. Ben Harris the CAL FIRE Archeologist, completed a preconsultation meeting on June 10, 2020. The Final Interagency Review (aka Second Review) occurred on February 10, 2021. The Second Review Chair requested minor clarifications during the meeting. The RPF responded to those recommendations, and on February 11, 2021, the Second Review Chair accepted the revisions and recommended the Plan for approval. The public comment period then ended on February 22, 2021. The initial deadline for the Director's Determination Deadline (DDD) was set for March 15, 2021 per 14 CCR § 1037.4. Two extensions were granted extending the DDD to March 29, 2021, and then to April 13, 2021, in order to address public comments and generate the Official Response (OR) to concerns brought up by the public.

PUBLIC COMMENT SUMMARY

During the public comment period for this THP as described above, there were 23 public comment letters received at the CAL FIRE Region Headquarters in Santa Rosa. These public comments brought up concerns that are addressed in this Official Response (OR). General concerns are grouped by subject matter and followed by the Department's response. There were several concerns about archeological issues and were considered confidential in nature. Those comments were removed or separated and responded to in a different confidential OR. Original text taken directly from the public comments are presented as italicized text. Words that are emphasized in responses have underlined font. Unique individual concerns from a public comment letter are addressed after the general concerns immediately following that comment along with referencing any general comment responses that may be associated with that response. The public comments are identified with the CAL FIRE "PC" code. A copy of the original letters sent to the Department are viewable through the Department's online Forest Practice Database CalTREES.

CalTREES instructions: navigate to <https://caltreesplans.resources.ca.gov/caltrees/caltrees.aspx> Click the search icon at the top of the page, then type the Plan # in the Record Number box (county identifier not needed). Under the Document Number column, select the Plan Number for the "Timber Harvest Plan" Type. Below the "Record Details" should be a list of attachments for the Plan. (Note: if there are a substantial number attachments, or attachments with large file sizes, it may take some time to load) The Public Comments are labeled under "Record Type" and are in pdf format, usually with a "PC" label.

SUMMARY OF SIGNIFICANT ENVIRONMENTAL GENERAL CONCERNS WITH RESPONSES

1. GENERAL CONCERN: Conflict of Interest

The public believes that significant environmental issues could be hidden or ignored because of a conflict of interest. The RPF, Daniel Falk, represents the landowner, Richardson Ranch LLC, and the licensed timber operator (LTO), Richardson Ranch LLC. It is also recommended that all surveys be conducted by outside neutral consultants.

RESPONSE: The California Forest Practice Rules do not prohibit an RPF from preparing a THP on their own land. There is also no requirement to hire outside neutral consultants. The RPF is subject to the provisions of the Professional Foresters Law, including Disciplinary Guidelines (14 CCR 1612.1). If found guilty of fraud, deceit, or gross negligence in his or her practice, they are subject to revocation or suspension of their license.

The RPF provided the following statement on January 25, 2021, in response to the PHI recommendations:

Daniel Falk is a 5th Generation ranch and timberland steward in the Richardson Family. His 25 years of mentored work under Harold Richardson established a continuity of stewardship principles sent down by Harold Richardson and his forebears. The evidence of the quality of management is easily seen throughout the ownership in areas proposed for current harvest, areas of past harvest, the established Conservation Easement area, and with the continued preservation of the Harold Richardson Redwood Reserve.

The THP lists Richardson Ranch LLC, #C530, as the LTO. The California Forest Practice Rules also do not prohibit an LTO from working on their own property. The LTO is responsible for complying "with all provisions of the Act, Board Rules and regulations, the applicable Notice and any approved amendments (14 CCR 1035.3(d))." The California Forest Practice Rules allow for a "C" license under 14 CCR 10.22.1(c), which allows the LTO to work on their own property:

The Director may issue a License to an Applicant who is either the sole proprietor of, principal owner of, or principal officer of, an entity that owns the land on which all Timber Operations under the License will be conducted, and the Applicant will supervise those Timber Operations. Proof of such interest shall be provided to the Director prior to the issuance of such a License. Said License type is designated as "Restricted Timber Operator License", or "(C)".

The LTO listed on a Plan is not always the LTO that will complete timber operations. It is common for additional LTOs to be amended into the THP after it is approved.

The RPF provided the following statement on January 25, 2021, regarding the public's conflict of interest concerns:

The Bootleg THP was prepared not only by the RPF of record Daniel Falk, but with assistance of outside third party consultants.

- Elliott Brooks RPF#2910, and Zachary Jones RPF#2814 helped with layout and plan preparation.
- Engineering Geologist Elias Stienbuck #2669 was consulted for landslides and geology related issues.
- Elliott Brooks and supervised designee Gabby Tapia assisted Daniel Falk with NSO surveys.
- Elliott Brooks assisted Daniel Falk in MAMU surveys and prepared the pre-consultation for MAMU with DFW.
- Elliott Brooks performed Botanical surveys and Stream Surveys for the plan area.
- Archaeological surveys and the Section VI CAA was done by Elliott Brooks. Prior to the submittal of the THP a pre consultation was performed in the field with both the Kashia Band of Pomo Indians Tribal Historic Preservation Officer Elaini Vargas, and Calfire's Associate State Archaeologist Ben Harris.

RRLLC LTO #C530 was transferred in 2012 when Harold Richardson established his ownership as an LLC. Prior to that the LTO#C530 for Harold Richardson's personal logging operations on his property were assigned to him for decades. A reflection of how low the number is in relation to when the state began issuing LTO licenses. Please review it for its record of long standing forest practice operations and lack of violations. The class C LTO license is specifically assigned by Calfire to landowners to do timber operations on their own property. Daniel Falk, owner of Falk Forestry Inc, also has a class A LTO license #A011951.

CAL FIRE concludes that there is no legal prohibition from a landowner acting as the RPF and/or LTO. The two licenses require professional conduct and compliance with the California Forest Practice Rules. The California Forest Practice Rules were written with the allowance for landowners preparing, administering, and conducting timber operations on their own land.

2. GENERAL CONCERN: Cumulative Impacts Assessment

There has been excessive logging along the Middle South Fork of the Gualala River and that the Cumulative Impacts Assessment (CIA) is not complete. There is also concern that not all past projects have been included in the CIA.

RESPONSE: The CIA part of the Plan follows the instructions found in the "Board of Forestry Technical Rule Addendum No. 2" which describes past projects: "... For the purposes of this section, past projects shall be limited to those projects submitted within ten years prior to submission of the THP. Plans such as 1-95-250 SON do not have to be included in the ten-year history because they were submitted over ten years ago.

There is also concern that there have been substantial salvage operations in 2017-2018. These are also described as undocumented timber harvests. The RPF has disclosed these operations on page 86.1 of the THP:

Cumulative Effects Analysis do not generally include exemptions (10% DD&D). The watershed's 486 acre figure includes all parcels from past exemptions where some harvesting occurred. The total acres of timber operations was less, however the numbers have been rounded up to capture all possible harvested areas.

Under the California Forest Practice Rules, certain timber operations are exempt from filing a Timber Harvesting Plan. These include timber operations under 14 CCR 1038 (b) for the "Harvesting dead trees, Dying Trees, or Diseased Trees of any size, fuelwood or split products in amounts less than ten (10) percent of the average volume per acre, or the removal of Slash and Woody Debris that is not located within a WLPZ." These operations are considered low impact because they are only removing less than 10% of the average volume per acre. Timber operations must also must comply with all the FPR's including, but not limited to, wet weather operations, watercourse protection, avoidance of unstable areas, and avoidance of ground based operations on steep slopes. Because of this, 14 CCR 1038 (b) operations are normally not accounted for in the CIA.

There is concern that a majority of the Middle South Fork watershed has been logged within the recent past. One letter refers to the past 8 years while other reference longer time-frames with varying degrees of watershed disturbance. This discussion will not rebut each rate-of-harvest calculation, but disclose what the Department considers to be the appropriate time frame and standards.

For the purposes of the CIA, only plans that were submitted within the past ten-years are considered. After ten years, the impacts from previous operations diminish considerably as forests regrow. It should also be noted that the majority of past harvests have included only selection harvesting, retaining second-growth forest stands with considerable canopy cover. Previous harvests have allowed retained trees to grow with less competition. Healthy redwood and Douglas-fir stands have an amazing ability to take advantage of canopy openings to grow larger crowns and larger trees, which will not only enhance wood product quality, but wildlife habitat over time.

Page 86.1 of the plan discloses that 1924 acres, or 24 percent of the 7,910 acre Middle South Fork Gualala River Planning Watershed (#1113.850103), has had projects approved, reviewed and/or logged during the last decade. All of the harvest that has occurred has been selection. With the inclusion of the Bootleg THP, the percentage increases to 28%. This does not indicate a high rate of land disturbance. Descriptions of rate of harvest is found on page 86.2 of the THP.

While there is a potential for concern in regards to high watershed harvest rates or the effects of harvesting on peak flows, erosion and suspended sediment associated with canopy removal I would like to suggest that more concern should be directed to the scientific evidence linking roads to sediment rather than the rate of harvest. THPs over the last 10 years, current THPs and future THPs all have included measures consistent with low impact level of harvesting. Through Best Management Practices (BMPs) and site specific measures the cumulative effects of road generated sediment, legacy logging and to a lesser the extent current and future harvesting practices can be adequately ameliorated. Impacts from succeeding harvests are typically less than the initial entries since reuse of existing facilities minimizes the amount site

disturbance compared to new truck and tractor road construction. Re-entry also provides an opportunity to re-evaluate existing access networks and correct any developing problems which may be encountered.

The RPF provided the following information on January 25, 2021, in response to the PHI recommendations:

Stocking records for previous THPs in the past 10 years of the Cumulative Impacts Assessment Area show that on average the minimum stocking standard retained was at least double. Stands show marked improvement and growth in their 10 year Periodic Annual Increments. All past THPs have only proposed unevenaged silviculture harvests. The ownership is not restricted to unevenaged management except on areas with Conservation Easements. All decisions to maintain unevenaged Silvicultural practices have been made by the owners for the highest standard of stewardship for the watershed.

The THP proposes no harvest along the Watercourse Lake Protection Zone of the South Fork Gualala River. The WLPZ buffer extends from the edge of the Watercourse Lake Transition Line of the Class I watercourse 100-400 feet (depending on location, but the minimum width of the Class I WLPZ for Selection Silviculture is only 100 feet). Within the flagged Class I WLPZ the landowner has decided against harvesting any trees to help protect the esthetic view from the river along with allowing additional buffer protection of the Class I Watercourse. The only trees within the WLPZ that will be harvested will be for safety issues or cable corridor clearance as allowed by the forest practice rules and proposed under the THP.

RRLLC has planted over 120,000 redwood trees, though not required for stocking. The ownership's silviculture improvement program has purchased and planted these redwood seedlings to improve long term species composition and forest health.

The public questions what thresholds are used to determine cumulative impacts. PRC 15064.7 relates to Thresholds of Significance. This code section states that; "Each public agency is encouraged to develop and publish threshold of significance that the agency uses in the determination of the significance of environmental effects." At the present time, no such thresholds have been established in the Forest Practice Act or Rules. This direction is for agency level action and is beyond the scope of the review of a single harvesting plan. A concern of this scope would be better directed to the Board of Forestry with a suggestion that the rules be revised to include such thresholds.

Baselines and thresholds are not terms defined in the Forest Practice Rules. The descriptions found in the THP, the results of the preharvest inspection (documented in reports by CAL FIRE and other agencies), and review team meetings are the sources of information used for the Department to make a determination that the no significant unmitigated cumulative effects are likely to occur.

The public is also concerned that reviewing individual THPs is “piecemealing” under CEQA and requests that the Plan be reviewed along with all other plans, rather than independently. The definition of piecemealing is as follows from the CEQA Portal:

Piecemealing or segmenting means dividing a project into two or more pieces and evaluating each piece in a separate environmental document, rather than evaluating the whole of the project in one environmental document. This is explicitly forbidden by CEQA, because dividing a project into a number of pieces would allow a Lead Agency to minimize the apparent environmental impacts of a project by evaluating individual pieces separately, each of which may have a less-than-significant impact on the environment, but which together may result in a significant impact. Segmenting a project may also hinder developing comprehensive mitigation strategies.

In the case of THP 1-20-00203 SON, the RPF proposed a timber harvest plan with a logical logging area that could be completed within the 5-year planning horizon. The FPRs under 14 CCR § 1041 outline the limitations that shall be considered when developing a harvest Plan and therefore could impact the size, scope, timing, configuration and deployment of timber operations:

A plan shall be limited to an area with reasonably similar timber, geology, soil, topography, climate, and Stream characteristics that would constitute a logical harvesting unit. A plan should be limited to that area on which Timber Operations normally will be completed in one 12-month period, but in no case shall it extend beyond five (5) years after the plan is determined to be in conformance or otherwise becomes effective under PRC § 4582.7. Plans shall be limited to lands within a particular forest district.

The submission of previous and subsequent THPs in a planning watershed are part of the planned continuous management and are included in the past projects as well as future projects discussion in the CIA discussion. This does not constitute piecemealing because one large project is not broken into smaller parts solely to hide the environmental impacts. Future harvests are often too speculative to be evaluated, but they are still mentioned and indicate that they would be subject to future review.

The presentation of the cumulative impacts assessment data is found to be complete, appropriate and in compliance with 14 CCR § 912.9 by the Department. There are multiple reasons to have separate THPs on the forested landscape under the same ownership. Timberland owners space out harvest Plans to improve the flexibility with dynamic log markets, adhere to past timber harvest adjacency constraints, and achieving sustainable forestry as a part of the forest management planning process. These spaced-out scheduling techniques are common practice for forestry in California and the country in general. These management strategies demonstrate proven and sound forestry. Having all the harvest acreage tied up into one large project is also sometimes not feasible with the staff resources for a timberland owner and could have a greater cumulative impact on the environment. Spacing out the timing of harvest plans in close proximity also reduces traffic impacts during timber operations. For these reasons, along with the above supporting information, the Department has determined that there is no evidence of “piecemealing” for the Bootleg THP.

There were no concerns brought up by the CAL FIRE field inspector nor any other agency review member for issues with the analysis and conclusions of the Cumulative Impacts of the THP. The Department agrees with the summaries presented in Section IV of the THP that proposed timber operations will not cause or add to significant adverse Cumulative Impacts. These impacts by themselves or in combination with other Projects and listed resource subjects have been reduced to insignificance or avoided by mitigation measures or alternatives proposed in the Plan and application of the Rules.

3. GENERAL CONCERN: Timber Operations in Watercourses and Water Quality Impacts

The proposed THP could cause additional impacts to the Gualala River, a 303(d)-listed watercourse.

RESPONSE: The THP drains to the South Fork of the Gualala River, which is a 303(d) listed for sediment and temperature. A Total Maximum Daily Load (TMDL) for Sediment for the Gualala River was established by the U.S. Environmental Protection Agency in December 2001, and adopted by the NCRWQCB in November 2004. The entire Gualala River is 191,200 acres. The South Fork and Mainstem subwatershed contains 40,800 acres. The proposed THP proposes 267 acres of selection harvest within the CALWATER version 2.2 #1113.850103 "Middle South Fork of the Gualala River" watershed, which is 7,904 acres. The harvest area makes up 3.3% of the planning watershed and less than one percent of the greater subwatershed.

The THP includes an Erosion Control Plan (ECP) in THP Section V, pages 163 – 173. The ECP documents an inventory, prioritization, and proposed treatment of potential Controllable Sediment Discharge Sources (CSDS) in the plan area. This plan has zero CSDS's, which were confirmed in the NCRWQCB PHI report. This implies that the landowner has done a good job of maintaining their current road system by upgrading and maintaining watercourse crossings and roads to prevent erosion. It should also be noted that the existing and proposed roads are located along the main ridge line, which avoids proximity to watercourses and decreases the chances for sediment discharge.

A representative from the NCRWQCB attended the PHI, and made three recommendations to mitigate for impacts to water quality. The RPF has revised the THP to address the recommendations.

The NCRWQCB PHI report stated:

The purpose of the Gualala River sediment TMDL is to identify the total load of sediment that can be delivered to the Gualala River and its tributaries without violating water quality standards, and to allocate the total load among the sources of sediment in the watershed. These load allocations, when implemented, are expected to result in the attainment of the applicable water quality standards for sediment for the Gualala River and its tributaries.

As part of its efforts to control sediment waste discharges and restore sediment impaired water bodies, the Regional Water Board adopted the Total Maximum Daily Load Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region, which is also known as the Sediment TMDL Implementation Policy, on November 29, 2004. This Policy was adopted through Resolution R1-2004- 0087. The

Sediment TMDL Implementation Policy states that Regional Water Board staff shall control sediment pollution by using existing permitting and enforcement tools. The goals of the Policy are to control sediment waste discharges to impaired water bodies so that the TMDLs are met, sediment water quality objectives are attained, and beneficial uses are no longer adversely affected by sediment. Ensuring that projects such as THPs incorporate management practices designed to prevent sediment discharge is an integral component of TMDL implementation.

Discussion and recommendations proposed within this report are intended to provide input to CAL FIRE as part of the multi-agency review team process as well as to inform the RPF and plan submitter as to any issues that may be pertinent to the Regional Water Board permitting. If recommendations contained within this memorandum are adequately addressed, it appears that the THP may be eligible for coverage under Order No. R1-2004-0030, Waste Discharge Requirements for Discharges Related to Timber Harvesting Activities on Non-Federal Lands in the North Coast Region (General WDR).

Following plan approval by CAL FIRE, and prior to beginning timber harvest activities, landowners must apply for coverage under the General WDRs (Order No. R1-2004-0030), the Categorical Waiver (Order No. R1-2014-0011), an individual waiver or WDR, or in some cases a Watershed-wide WDR. If the review team recommendations, including those of the Regional Water Board, are incorporated into the THP, once approved, the THP will be likely to avoid or minimize both short term and long-term adverse impacts to beneficial uses of water. When considered with the proposed silviculture, the requirements for post-harvest retention of overstory canopy, and watercourse and lake protection zone requirements, the plan will likely comply with applicable water quality standards and therefore will be eligible for coverage under the General WDRs.

A public concern was raised about potential impacts to the drinking water of the community of Gualala. Note, the NCRWQB's purpose is to protect downstream beneficial uses of water. The NCRWQCB made recommendations to the plan and determined that "when considered with the proposed silviculture, the requirements for post-harvest retention of overstory canopy, and watercourse and lake protection zone requirements, the plan will likely comply with applicable water quality standards and therefore will be eligible for coverage under the General WDRs."

Therefore, CAL FIRE determined that the proposed timber operations are appropriate based on the entirety of the plan and NCRWQCB PHI report.

(Please also refer to General Concern #4 - Sediment Impacts and General Concern #5 - Temperature Impacts for how the THP mitigates for impacts to watercourses within and downstream of the THP area.)

4. GENERAL CONCERN: Sediment Impacts

Timber operations would lead to significant sediment impacts and that logging decreases the time of concentration for runoff and increases runoff velocities leading to heavy sedimentation.

RESPONSE: The THP proposes 267 acres of selection silviculture utilizing tractor and cable yarding. Tractor yarding is limited to gentler slopes. Sediment impacts could occur due to sediment transport from roads into watercourses, activation of slides, and disturbance of soils near watercourses. Winter operations are proposed and addressed under general concern, winter operations. The THP's CIA discusses sediment impacts on pages 90-92.

As addressed under General Concern #6 – Geologic Impacts, the geology report and CGS PHI report both conclude that sediment impacts have been mitigated through silviculture (tree retention), appropriate yarding methods, mapping and mitigation measures of unstable areas, and conservative WLPZ standards.

Existing and proposed roads can be a significant source of sediment. The THP's existing and proposed roads are located along the main ridge line, which avoids proximity to watercourses. The CAL FIRE PHI Report stated, "The access road to the plan area is an existing all season rocked road in good condition." There are no proposed watercourse crossings and the ECP did not identify any existing CSDS's. Therefore, it is unlikely that roads will be a significant contributor of sediment to the watershed. The FPRs require that all roads be maintained during the life of the THP as well as 3 years after completion of operations.

Sediment may also enter the watershed via the watercourse system. The RPF has mapped all watercourses within the THP area. During the PHI, the review team inspected a sample of the watercourses. With the exception of a minor mapping discrepancy, the PHI team found the watercourses were appropriately identified and protection measures were consistent with the FPRs. The RPF utilized the WLPZ standards consistent with the Anadromous Salmonid Protection (ASP) rules. The 2009 ASP rules were developed to ensure rule adequacy in protecting listed anadromous salmonid species and their habitat, to further opportunities for restoring the species' habitat, and to ensure the rules are based on credible science. The THP implements these minimum standards, but also provides for a no-harvest Class I WLPZ. Page 45 of the THP states "No timber operations are proposed within the Class 1 WLPZ, with exception to the harvest of trees used for tail-holding and trees that are needed to be cut for cable corridor clearance for cable operations."

The proposed silviculture system also provides an additional buffer to the watercourse system because of the additional tree canopy retention and surface cover remaining post-harvest. The residual stand intercepts rainfall and provides a more intact surface cover, especially in the cable yarding areas where exposed soil is minimized. The CAL FIRE PHI report states:

The THP meets the Forest Practice Rules and in some instances exceeds the Forest Practice Rules. As indicated on THP page 62, the residual stand will consist of healthy and vigorous dominant and co-dominant trees from the pre-harvest stand. the residual stand will exceed 75 square feet of basal area per acre of conifers (this exceeds the Forest Practice Rule requirement). This was verified by observing the sample mark during the PHI with the multi-agency review team. The estimated timber stand data on THP page 62 indicates a light single tree selection harvest.

The THP also includes soil stabilization measures under item 18 of the THP. These measures ensure that exposed soil is treated to prevent erosion, roads and landings are maintained for

proper drainage, and skids trails are treated. The completion of these activities minimizes soil erosion. Soil stabilization in combination with the WLPZ standards provides a sediment buffer to streams.

Therefore, CAL FIRE determined that sediment impacts have been mitigated and the proposed timber operations are appropriate based on the entirety of the Plan.

5. GENERAL CONCERN: Temperature Impacts

Timber harvesting could increase water temperatures harming anadromous fish and contribute to potential increases in harmful algal blooms.

RESPONSE: Stream temperatures are a result of a complicated ecosystem process including forestry, geology and hydrology. The THP discusses potential temperature impacts on page 92. Forestry primarily affects stream temperature by changing shade canopy. Shade from WLPZs moderates stream temperatures through retention of stream canopy. Excessive removal of riparian canopy could lead to excessive summer temperatures that may be lethal to aquatic invertebrates and fish. The effect on winter water temperatures is usually less pronounced due to reduced solar radiation during the winter and cooler temperatures. The retention of WLPZs even along clearcut units been found to be effective in shading the streams. The amount of shade canopy and distance of WLPZs increases as the watercourse classifications change. For example, small class III watercourses that are capable of transporting sediment during the winter require less shade canopy due to their small stream size and intermittent nature. Class II watercourses, which support non-fish aquatic life, require more shade canopy and wider buffers. Class I watercourses, which support fish habitat, require the widest buffers with the highest shade canopy. The ASP rules were established based on scientific review and have established WLPZs that maintain current stream temperatures through shade canopy requirements.

The THP discloses several class III watercourses. These watercourses are within the selection silviculture prescription which is required to maintain at least 75 square feet of basal area. These retention standards often maintain at least 50% shade canopy. This THP also has Class II watercourses. These will maintain at least 50% canopy cover and range in width between 50-100', depending on slope. The THP also includes the class I watercourse. This has been given a no-harvest designation and will retain its current shade canopy. The only exception to harvest is the harvest of trees used for tail-holding trees and trees that are needed to be cut for cable corridor clearance. This impact is expected to be negligible on shade canopy. Regardless, at a minimum, the THP must retain 80% overstory canopy in the inner zone from 30-100 of the class I watercourse.

In addition to the effects of canopy retention on stream temperature, groundwater and bank storage contributions to stream flow and is not subject to changes in temperature from canopy cover.

Therefore, CAL FIRE determined that the proposed timber operations are appropriate based on the selection silviculture, standard WLPZ measures, and no-harvest Class I WLPZ. It is unlikely that any change in water temperature can be attributed to the proposed THP.

(Please also refer to General Concern #8: Algal Blooms for more information.)

6. GENERAL CONCERN: Geologic Impacts

The THP will increase erosion and sediment delivery to watercourses from landslides.

RESPONSE: The THP includes a geology report entitled, "Focused Engineering Geologic Assessment Bootleg Timber Harvest Plan, Gualala River Watershed, Sonoma County, CA." The report is authored by Elias J. Steinbuck, Engineering Geologist #2669. The report shall be referred to as geology report. The geology report includes background information on the underlying geology, the presence of known geologic features, and mitigation measures. There is also a detailed analysis of the relationship between timber harvesting and slope stability.

The THP was reviewed by Dave Longstreth, CEG # 2068, Senior Engineering Geologist for CGS. Mr. Longstreth authored a PHI report, dated January 11, 2021. The Mr. Longstreth's report will be referred to as CGS PHI report. The CGS PHI report reviewed the geology report, included PHI field observations, and recommendations.

The public is concerned about the location of the THP in relation to the regional geology. One concern stated the following:

*This section of river sits *directly* on top of the San Andreas Rift Zone. The proposed harvest is along extremely steep slopes, making the chance of landslides and serious erosion even greater.*

The geology report acknowledges the location of the fault in the THP:

The THP is located on the east side of the tectonic plate boundary between the North American Plate and the Pacific Plate within the Coast Range Geomorphic Province. The plate boundary is characterized by the presence of the San Andreas Fault Zone (SAFZ), a ~800 foot wide right-lateral strike-slip fault zone that juxtaposes Tertiary-Cretaceous Coastal Belt Franciscan Complex in the east against Miocene Gualala Block Sandstone in the west (Blake and others, 1971; Huffinan and Armstrong, 1980; Wagner and Bortugno, 1982; Fuller and others, 2002). Although movement along the SAFZ is predominately strike-slip, a component of convergence is causing relatively rapid uplift in the area, resulting in contemporary uplift rates on the order of 0.3 mm to 0.5 mm per year (Richardson, 2000).

The geology report evaluated all the geologic factors as well as the proposed timber operations and determined that the THP is unlikely to significantly increase sediment delivery from either deep- or shallow-seated landslides:

Observations made during this assessment did not reveal any significant increase in sediment delivery from deep-seated landslide activity in response to previous timber harvesting (e.g. increased incidence of channel bank failures or pervasive gully erosion). Based on the relatively dormant appearance of the deep-seated slides despite several above average annual rainfall years since past harvesting, the retention proposed across the slides, and the protections provided to the watercourses

in the area, the risk of increased sediment delivery from accelerated movement of the deep-seated slides due to the proposed harvest appears relatively low.

Additionally, observations made during this assessment did not reveal any significant increase in sediment delivery from shallow-seated landslide activity in response to previous timber harvesting. Proposed areas of cable yarding will significantly reduce the potential for sediment delivery from road and skid trail erosion, or shallow-seated landsliding. Current road construction and harvesting techniques, and watercourse protection measures, are significantly more conservative than those employed in the past, and will considerably decrease the likelihood of sediment delivery from the proposed harvest.

The geology report concludes:

In summary, it is my opinion that the proposed timber operations will not result in a significant increase in risk of sediment delivery to a watercourse from landsliding provided the watercourse protection measures found in the THP and the recommendations described in this assessment are properly implemented. Current harvesting techniques and watercourse protection measures are significantly more conservative than those employed in the past, and will considerably decrease the likelihood of sediment delivery. Any impact is likely to be temporary, diminishing relatively quickly as vegetation becomes reestablished.

The CGS PHI report concludes:

Review of hillshade imagery (SCVMLC, 2013, Figure 4) and PHI observations support the presence and mapped extent of the unstable areas. The large, dormant-mature feature contains nested areas of small-scale slope instability that appear to range from suspended to recently active. This is particularly the case along steep side slopes that flank the South Fork Gualala River and its tributaries that drain the THP area. Incremental periodic movement may occur on landslides in response to heavy and long-duration rainfall, loss of support at the toe of the landslides by stream bank erosion and/or road cutting, or strong ground shaking from large earthquakes. The southern plan boundary along the Middle South Fork Gualala River borders the active San Andreas Fault Zone (Jennings and others, 2010) and should be understood to be subject to strong ground motions generate by nearby earthquakes. Because the timber harvesting operations propose high retention standards and the stand consists of redwoods which stump sprout it appears THP operations are designed to minimize the potential for adverse effects to the stability of the large dormant feature and smaller unstable areas.

Therefore, CAL FIRE determined that the proposed timber operations are appropriate based on the entirety of the plan, geologic report and CGS PHI report.

7. GENERAL CONCERN: Alternative Analysis

There is concern that the landowner owns thousands of acres outside this area that could be logged instead of the current proposal.

RESPONSE: The Forest Practice Rules do not direct how alternatives should be addressed in a Plan. However, code section 14 CCR 896 states:

"It is the Board's intent that no THP shall be approved which fails to adopt feasible mitigation measures or alternatives from the range of measures set out or provided for in these rules which would substantially lessen or avoid significant adverse impacts which the activity may have on the environment."

The location and timing of the proposed plan are subject to the landowner's management objectives, which are based on many factors. The RPF has discussed delaying the timing of the project on page 60 of the THP:

This alternative would involve carrying out the project as proposed, except at a time other than that proposed. Delaying the project for a number of years, say 5 to 10 years, was considered as an alternative to the project proposed. Delays would be detrimental in terms of improving stand structure, wild fire access, aesthetic appeal of the forest and the recreational potential of the property. Delaying the proposed project would also not allow the landowners to gain more sunlight on the property and to meet certain fixed costs of ownership including, but not limited to, taxes, insurance and debt service payments on loans. Therefore, the landowners reject this alternative because it would not effectively meet any of the landowners objectives.

The landowner also discussed alternative locations for the project:

This alternative would involve carrying out the harvesting proposed in the THP at a different location on the landowner's property. Since the project as proposed involves the majority of the landowner's property available for harvest, an alternative location would not be feasible. Therefore, the landowners reject this alternative because it is inconsistent with the project objectives and is infeasible.

The landowner's project objectives are also personal decisions. The RPF has proposed timber operations in a logical logging area that can be harvested during the life of the THP. He has also proposed conservative selection silviculture, high WLPZ standards, and cable yarding over a majority of the area.

There is a concern that alternatives were not explored in order to prevent the reduction of critical wildlife habitat. The alternative to not harvest could potentially give higher protection to wildlife species by eliminating potential disturbance. However, the RPF has consulted with CDFW on marbled murrelets, surveyed for northern spotted owls, and proposed a conservative selection harvest method. The THP proposes to harvest timber on 267 acres of second growth redwood and Douglas fir using single tree selection and retaining a minimum of 75 square feet of basal area. In addition, the THP proposes no harvesting along the Class I watercourse. Within the THP, wildlife trees with specific values will also be retained. Selectively harvesting will accelerate the development of larger diameter redwood trees promoting old forest structural features faster than no

harvesting because the trees crowns can expand growing larger branches. Retaining the selectively harvested second growth forest with intact wildlife trees also retains wildlife habitat throughout the THP area.

The plan has adopted selection silviculture from the silviculture options provided by the rules. The Department has not found that choosing different silviculture, changing other aspects of the proposed operations, or reducing the overall size of project would substantially lessen or avoid the impacts of the proposed operation, which have been minimized to a level of insignificance by the design of the harvest plan. The alternative discussion provided has been found to be in conformance with the intent of the Forest Practice Rules.

8. GENERAL CONCERN: Algal Blooms

Timber harvesting could increase the potential for harmful algal blooms in the Gualala River.

RESPONSE: According to online reporting from the California Water Quality Monitoring Council website there has been one reported incident in the Gualala River.

On 10/11/2020 the Water Boards received a report from an individual who developed skin symptoms after contacted attached algal mats in the Gualala River. Caution advisory, and avoid contact with or ingestion of any algal material.

Harmful algal blooms can be dangerous or lethal to humans, pets, and wildlife. These algal blooms are the result of a variety of factors. Climate change is also increasing the presence of toxic cyanobacteria. The bacteria prefer standing water, low turbidity, and warm temperatures. As the climate begins to warm and more water evaporates into the atmosphere or is siphoned away for human use, rivers slow or even become stagnant in some areas. The stagnation allows the water to quickly warm and let more light pass through the water, creating optimal growing conditions for algae.

The public is concerned that timber harvesting on THP 1-20-00203-SON would accelerate the problem by reducing shade canopy, reducing the filtration of nutrients and increasing erosion to the stream system. The Department has concluded that the selection silviculture system and WLPZ protections, including a no-harvest Class I WLPZ, will mitigate temperature increases. In addition, the THP has been designed to minimize erosion to the stream system. The roads are located on the ridgeline, cable yarding will be used on steeper slopes, and tractor yarding is proposed on gentler slopes. The THP provides mitigations for these potential impacts through erosion control measures in Item 18, winter period restrictions in Item 23, road construction and maintenance standards in Item 24, and watercourse protection in Item 26. Note that the THP does not propose using phosphate fertilizers and that a significant amount of forest cover and ground cover will remain post-operations to filter nutrients.

The entire Gualala River is 191,200 acres. The South Fork and Mainstem subwatershed contains 40,800 acres. The proposed THP proposes 267 acres of selection harvest within the CALWATER version 2.2 #1113.850103 "Middle South Fork of the Gualala River" watershed, which is 7,904 acres.

The harvest area makes up 3.3%, less than one percent of the greater subwatershed, and a very small part of the entire Gualala River.

The Department has concluded that the THP will not increase the likelihood of harmful algal blooms through THP mitigations that prevent temperature and sediment impacts. The harmful algal blooms are more likely a result of climate change and weather patterns that decrease summer stream flow when combined with other anthropogenic influences.

(Please also refer to General Concern #4 - Sediment Impacts and General Concern #5 - Temperature Impacts for how the THP mitigates these concerns.)

9. GENERAL CONCERN: Anadromous Salmonids

The THP could impact salmon and its habitat.

RESPONSE: The proposed THP proposes 267 acres of selection harvest within the CALWATER version 2.2 #1113.850103 "Middle South Fork of the Gualala River" watershed, which is 7,904 acres. The harvest area makes up 3.3% of the planning watershed. CAL FIRE and the RPF are aware of steelhead (*Oncorhynchus mykiss*) and coho (*Oncorhynchus kisutch*) presence in the Middle South Fork of the Gualala River, to which the THP area drains. This watershed meets the 14 CCR 895.1 definition of a Watershed with Listed Anadromous Salmonids (WLAS). As such, any forest practice rules that are required in a WLAS apply to this THP. Note that surveys for salmonids are not required to be completed prior to the submission of a THP. The species are assumed to be present from past surveys, or the presence of habitat, and therefore, mitigation measures are implemented to maintain and enhance habitat.

The causes of salmonid decline has been linked to human factors including loss of suitable habitat, interaction with hatchery fish, over fishing and climatic factors, such as oceanic conditions and precipitation. Timber operations can threaten salmonid habitat through increases in temperature and sediment. The THP provides mitigations for these potential impacts through erosion control measures in Item 18, winter period restrictions in Item 23, road construction and maintenance standards in Item 24, and watercourse protection in Item 26. Many of these standards were developed through the California Forest Practice Rule's 2009 Anadromous Salmonid Protection (ASP) rules and 2013 road rules package.

The (ASP) rules were approved by the State Board of Forestry and Fire Protection (BOF) during their September 2009 meeting held in Sacramento. The ASP rules are intended to protect, maintain, and improve riparian habitats for state and federally listed anadromous salmonid species. These rules are permanent regulations and replaced the interim Threatened or Impaired Watershed Rules (T/I Rules) which were originally adopted in July 2000 and readopted six times.

This THP complies with the ASP rules. The THP has several class III watercourses. These watercourses are within the selection silviculture prescription which is required to maintain at least 75 square feet of basal area. These retention standards often maintain at least 50% shade canopy. This THP also has Class II watercourses. These will maintain at least 50% canopy cover and range in width between 50-100', depending on slope. The THP also includes the class I watercourse. This

has been given a no-harvest designation and will retain its current shade canopy. The only exception to harvest is the harvest of trees used for tail-holding trees and trees that are needed to be cut for cable corridor clearance. This impact is expected to be negligible on shade canopy. Regardless, at a minimum, the THP must retain 80% overstory canopy in the inner zone from 30-100 of the class I watercourse.

On pages 7-8 of the CAL FIRE PHI report, the following was confirmed by CAL FIRE in the field:

- The post-harvest stand in the WLPZ provides for large wood recruitment that improves or maintains salmonid habitat on Class I and Class II large watercourses.
- The post-harvest stand in the WLPZ will retain the 13 largest conifer trees per acre, live or dead, on each acre that encompasses the core and inner zones for large wood recruitment.
- The proposed erosion control and soil stabilization measures for sediment control are adequate to protect salmonid habitat.

The 2013 road rules were developed over a 14 year period and included considerable work provided by two BOF committees. The BOF's primary objectives in adopting the new road rules were to ensure that the road-related Forest Practice Rules are adequate to prevent adverse impacts to beneficial uses of water, and organize all road-related Forest Practice Rules into a logical, consistent order and locate them in one portion of the Forest Practice Rulebook for ease of reference and understanding by all.

The THP complies with the FPR's road rules. The THP's existing and proposed roads are located along the main ridge line, which avoids proximity to watercourses. The CAL FIRE PHI Report stated, "The access road to the plan area is an existing all season rocked road in good condition." There are no proposed watercourse crossings and the ECP did not identify any existing CSDS's. Therefore, it is unlikely that roads will be a significant contributor of sediment to the watershed. The California Forest Practice Rules require that all roads be maintained during the life of the THP as well as 3 years after completion of operations.

THP 1-20-00203 SON contains enforceable mitigations designed to protect anadromous salmonids and anadromous salmonid habitat, including:

- Item 18 describes soil stabilization practices and mitigations to prevent sediment input into watercourses that drain from the THP area.
- Item 23 describes winter operations and includes a Winter Period Operating Plan (WPOP). The purpose of the plan is to prevent mobilization of sediment caused by operating on saturated soils.
- Item 24 contains operational instructions for road construction and maintenance standards. The instructions are designed to prevent erosion and sediment discharge.
- Item 26 describes watercourse protection measures designed to prevent unwanted inputs into watercourses, blockage of stream flow, and reduction of riparian habitat elements.

CAL FIRE has evaluated the THP and believes that the THP complies with Forest Practice Rules designed to protect anadromous salmonids.

(Please also refer to General Concern #4 - Sediment Impacts and General Concern #5 - Temperature Impacts for how the THP mitigates these concerns.)

10. GENERAL CONCERN: Northern Spotted Owl

The THP could impact the northern spotted owl (*Strix occidentalis caurina*) and its habitat.

RESPONSE: The northern spotted owl is state and federally listed as threatened. The THP addresses northern spotted owls on pages 50.9-50.11 and pages 194-243. The THP will comply with 14 CCR 919.9(e) of the California Forest Practice Rules which allows a landowner to consult with the United States Fish and Wildlife Service:

If the submitter proposes to proceed pursuant to the outcome of a discussion with the U.S. Fish and Wildlife Service, the submitter shall submit a letter prepared by the RPF that the described or proposed management prescription is acceptable to the USFWS.

For timber operations, the USFWS has provided standard surveying and mitigation measures in a letter "USFWS Take Avoidance Analysis and Guidance for Northern spotted owl (*Strix occidentalis caurina*) Attachment A," dated November 1, 2019. The THP will comply with these recommendations.

There are currently no known NSO activity centers within 0.7 miles of the THP. Protocol NSO surveys were conducted in 2019 and 2020. Additional surveys are required in subsequent years to determine whether there is a new NSO activity center in the THP area. The maps on pages 216 to 217 show the THP area is currently nesting habitat with a majority transitioning to foraging habitat post-harvest. The following habitat typing was used:

- Nesting/Roosting: Habitat with $\geq 60\%$ canopy cover of trees that are ≥ 11 inches DBH and have a basal area of ≥ 100 square feet/acre of trees ≥ 11 inches dbh. Trees may be conifer or hardwood.
- Foraging: Habitat that contains $\geq 40\%$ canopy cover of trees that are ≥ 11 inches DBH and have a basal area of ≥ 75 square feet/acre of trees ≥ 11 inches dbh. Trees may be conifer or hardwood.

It should be noted that the transition to foraging habitat is reported conservatively. The selection prescription for the THP requires a minimum of 75 square feet of basal area, which will easily be meet the foraging habitat requirement. However, it is likely that some of the area will meet the requirements of nesting habitat. In addition, it is likely that the area will become nesting/roosting habitat again in the near future. The maps on pages 216 and 217 indicate that there is significant nesting/roosting habitat in the watershed.

The CAL FIRE PHI report evaluated the selection harvest and documented that the post-harvest stand is expected to exceed the stocking requirements:

The THP meets the Forest Practice Rules and in some instances exceeds the Forest Practice Rules. As indicated on THP page 62, the residual stand will consist of healthy and vigorous dominant and co-dominant trees from the pre-harvest stand. the residual stand will exceed 75 square feet of basal area per acre of conifers (this exceeds the Forest Practice Rule requirement). This was verified by observing the sample mark during the PHI with the multi-agency review team. The estimated timber stand data on THP page 62 indicates a light single tree selection harvest.

On pages 8-9 of the CAL FIRE PHI report, the report documented the THP's NSO information:

- The NSO habitat definitions (USFWS) used in the plan accurately reflect vegetation conditions.
- The retained NSO habitat quantities depicted on the Plan maps are accurate.
- The proposed NSO call points are distributed appropriately and located adequately.

CAL FIRE has determined that the THP complies with 14 CCR 919.9(e) of the California Forest Practice Rules and the USFWS Attachment A guidelines. The THP will retain NSO habitat in the THP area and there is abundant NSO habitat in the watershed.

11. GENERAL CONCERN: Marbled Murrelet

The THP could impact the marbled murrelet (*Brachyramphus marmoratus*) and its habitat.

RESPONSE: The marbled murrelet is listed as state endangered and federally threatened. As stated in 14 CCR 919.11:

Where there is evidence of an active murrelet site in or adjacent to the THP area, or where there is evidence of a potential Impact to a murrelet, the Director shall consult with CDFW as to whether the proposed THP will result in a "take" or "jeopardy" (pursuant to the California Endangered Species Act) of the murrelet before the Director may approve or disapprove a THP.

The RPF identified eleven areas within the THP that had suitable habitat for marble murrelet. These areas were surveyed in 2019 and 2020 with negative findings. The surveys were reviewed by the CDFW who concluded that the areas could be categorized as "probable absence" for a period of three years. There are also marbled murrelet stands identified near the THP area. For these occupied areas, mitigation measures were developed. These findings and the CDFW analysis is found in Section V of the THP, with recommendations to avoid "take." The November 13, 2020, marbled murrelet consultation was revised February 3, 2021, with the following changes:

- Updating the location descriptions of both THPs
 - In the original version of the consultation, the Bootleg THP was incorrectly described as the northern THP unit and the Bootleg 2 THP was incorrectly described as the southern THP unit. The revised version corrects the location description of both THPs. Bootleg is the southern unit, Bootleg 2 is the northern unit.

- Updating the description of the Ox Bow Habitat Area to reflect submission of the 2020 protocol surveys (1-18-076-SON-DEV6 - OX BOW) and subsequent extension of the 'probable absence' site classification through the 2023 breeding season (top page 4 in attached PDF).
 - In the original version of the consultation, the 'probable absence' site classification for the Ox Bow Habitat Area was due to expire at the end of the 2020 breeding season. Per the post-consultation for the Ox Bow Habitat Area, dated April 23, 2018, if an additional year of surveys are conducted as the 2016/2017 surveys expire, and show no detections of MAMU, the results of the survey will be considered acceptable for an additional three years before resumption of two-year survey protocols. The 2020 surveys were submitted to CAL FIRE, and verified by CDFW, in January 2021, and showed no detections, resulting in an extension of the 'probable absence' site classification through the 2023 breeding season.
- Updating the map labeling of the Bootleg and Bootleg 2 THP locations (pages 16-18 in attached PDF).
 - In the original version of the consultation, all maps showed incorrect labeling for the Bootleg and Bootleg 2 THPs. The revised version corrects the map labeling to reflect the actual location of the THPs. Bootleg is the southern unit, Bootleg 2 is the northern unit.
- Updating the shading of the Ox Bow and L-Camp Habitat Area polygons to reflect their current 'probable absence' site classification (page 16 in attached PDF).
 - In the original version of the consultation, the shading of the Ox Bow and L-Camp Habitat Areas was incorrect, showing the site classification of both areas as 'suitable, not surveyed'. The revised version corrects the map shading to reflect the current site classification for both areas as 'probable absence'.

The following recommendations were incorporated into the THP, pages 50.12-50.14 to avoid take:

Entire Plan Area

Ravens, crows, and jays, which have large home ranges, are known predators of marbled murrelet eggs and nestlings (Marzluff and Neatherlin 2006). CDFW recommends that the plan require that all garbage and food scraps produced by workers be packed out and disposed of in animal-proof containers. Workers, when feasible, should consume food inside their vehicles.

Harvest Operations in Proximity to the 60-Best/Clipper Mill Habitat Areas

The Clipper Mill Habitat Area and the 60-Best Habitat Area are "occupied" by marbled murrelets based on surveys conducted in 2007 and 2008. Buffers shall be implemented in the Bootleg THP as shown in Figure 3, THP page 50.17 and described below.

1. No timber harvesting or any other vegetation modification shall occur within 300 feet of these Habitat Areas. This restriction shall be in effect year-round.
2. Timber harvesting activities producing High sound levels shall not occur within 500 feet of the Habitat Areas during the marbled murrelet breeding season.

3. Timber harvesting activities producing Very High sound levels shall not occur within 1,320 feet of the Habitat Areas during the marbled murrelet breeding season.
4. The 300-foot no-vegetation modification buffer and the 500-foot and 1,320-foot seasonal harassment minimization buffers shall be flagged in the field by the RPF prior to timber harvesting.
5. Prior to timber harvesting, the RPF shall inform all timber harvest crews of the above recommendation through a pre-project meeting.

Harvest Operations in Proximity to Habitat Areas 1-9 and the L-Camp Habitat Area

CDFW has determined that Habitat Areas 1-9 and the L-Camp Habitat Area may be considered "probable absence" sites. Survey results will be considered valid for up to three years. However, because marbled murrelets occupy habitat within the South Fork Gualala River watershed, the following protective measures should be amended into the THP:

1. Trees with canopy deformities or limbs exceeding four inches in diameter that provide relatively flat potential nesting platforms shall be retained as wildlife trees. Where feasible, screen trees and overlapping canopy trees shall be retained to promote and recruit lateral foliar of suitable nesting platforms. Proposed harvest of screen trees shall be evaluated during the Pre-Harvest Inspection.
2. The locations of suitable marbled murrelet habitat shall be conveyed to the Licensed Timber Operator to ensure retention and nearby harvested trees should be directionally felled to avoid damage to these mature trees.
3. If marbled murrelets are detected during the harvest activities, work shall stop immediately, and CDFW shall be consulted. Take of marble murrelet is prohibited under CESA without appropriate take coverage.
4. To avoid attracting ravens, crows, and jays, known nest predators of marbled murrelets, timber harvesting crews shall pack out all litter and food scraps. Food shall be consumed inside vehicles when possible. It shall be the responsibility of the RPF and/or his designee to inform work crews of this restriction.
5. Prior to timber harvesting, the RPF shall inform all timber harvest crews of the above recommendation through a pre-project meeting.

There was concern that the noise analysis was not adequate to protect marbled murrelets. CDFW conducted a noise disturbance analysis for the proposed THPs according to the U.S. Fish and Wildlife Service document titled "Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California" (USFWS 2006). Results from the analysis resulted in mitigation measures which were included in the consultation letter and Section II of the THP, page 50.13. Restrictions include 300-foot no harvesting near MAMU habitat areas and 500-foot or 1320-foot noise buffers.

The THP complies with 14 CCR 919.11 by including the CDFW consultation letter and incorporating the mitigation measures into the THP. The Department has determined that the THP incorporates measures to bring the Impacts to a level at which "take" would not occur.

12. GENERAL CONCERN: Noise

Noise generated by the proposed timber operations will be a nuisance.

RESPONSE: The THP is located in a rural area. The map below shows that there are 30 parcels within 1 mile of the THP area. The majority of the parcels are zoned timber production zone (TPZ), accounting for 70% of the parcels. In addition to timber production, the second most common zoning is agriculture, accounting for 13% of the parcels. Of the 30 parcels, 2 are zoned miscellaneous, 2 residential, and 1 church. Because the majority of the area is rural and zoned for timber production and agriculture, periodic noise from timber harvesting is expected to occur.