

DEPARTMENT OF FORESTRY AND FIRE PROTECTION

NORTHERN REGION HEADQUARTERS REDDING

6105 Airport Road Redding, CA 96002 (530) 224-2445 Website: www.fire.ca.gov



OFFICIAL RESPONSE OF THE DIRECTOR OF THE CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION TO SIGNIFICANT ENVIRONMENTAL POINTS RAISED DURING THE TIMBER HARVESTING PLAN EVALUATION PROCESS

THP NUMBER: <u>2-20-00211-PLU</u>

SUBMITTER: Sierra Pacific Industries

COUNTY: Plumas

END OF PUBLIC COMMENT PERIOD: June 28, 2021

DATE OF OFFICIAL RESPONSE/DATE OF APPROVAL: July 6, 2021

The California Department of Forestry and Fire Protection has prepared the following response to significant environmental points raised during the evaluation of the above-referenced plan. Comments made on like topics were grouped together and addressed in a single response. Where a comment raised a unique topic, a separate response is made. Remarks concerning the validity of the review process for timber operations, questions of law, or topics or concerns so remote or speculative that they could not be reasonably assessed or related to the outcome of a timber operation, have not been addressed.

Sincerely.

John Ramaley, RPF #2504

John Kamaley

Forester III

Cascade, Sierra & Southern Regions

cc: Unit Chief Keefer Hokanson, RPF Dept. of Fish & Game, Reg. 2 Water Quality, Reg. 5 Jean Marquardt, Perry Metzger

COMMON FOREST PRACTICE ABBREVIATIONS

CAL FIRE	Department of Forestry & Fire Protection	FPR	Forest Practice Rules
CAA	Confidential Archaeological Addendum	LTO	Licensed Timber Operator
CESA	California Endangered Species Act	NMFS	National Marine Fisheries Service
CEQA	California Environmental Quality Act	PHI	Pre-Harvest Inspection
CIA	Cumulative Impacts Assessment	RPF	Registered Professional Forester
CGS	California Geological Survey	THP	Timber Harvest Plan
CSO	California Spotted Owl	USFS	United States Forest Service
DBH	Diameter at Breast Height	WLPZ	Watercourse/Lake Protection Zone
DFG	Department of Fish & Game	WQ	California Regional Water Quality Control Board
DPR	Department of Pesticide Regulation	PCA	Pest Control Advisor
NSO	Northern Spotted Owl	[SIC]	Word used verbatim as originally printed in another document. May indicate a
CDFW/DFW	California Dept. of Fish & Wildlife		misspelling or uncommon word usage.
AB 32 NPP NEPA NEP NTMP OPR Pg PNW	Assembly Bill 32 Net Primary Production National Environ. Policy Act Net Ecosystem Production NonIndust. Timb. Manag. Plan Govrn's Office of Plan. & Res. Petagram = 10 ¹⁵ grams Pacific NorthWest	ARB BOF CAPCO CCR CESA	Air Resources Board Board of Forestry A Calif. Air Pollution Control Officers Assoc. Calif. Code of Regulations Calif. Endangered Species Act
CO ₂ CO ₂ e DBH/dbh DFG EPA FPA FPR GHG ha-1 LTSY m-2 MAI MMBF MMTCO ₂ E	Carbon Dioxide Carbon Dioxide equivalent Diameter Breast Height Calif. Department of Fish and Game Environmental Protection Agency Forest Practice Act Forest Practice Rules Greenhouse Gas per hectare Long Term Sustained Yield per square meter Mean Annual Increment Million Board Feet Million Metric Tons CO ₂ equivalent	PRC RPA RPF SPI SYP tC Tg THP LBM TPZ USFWS WAA WLPZ yr¹ per	Public Resources Code Resource Plan. and Assess. Registered Professional Forester Sierra Pacific Industries Sustained Yield Plan tonnes of carbon Teragram = 10 ¹² grams Timber Harvesting Plan Live Tree Biomass Timber Production Zone U.S. Fish & Wildlife Service Watershed Assessment Area Watercourse. & Lake Prot. Zone year

NOTIFICATION PROCESS

In order to notify the public of the proposed timber harvesting, and to ascertain whether there are any concerns with the plan, the following actions are automatically taken on each THP submitted to CAL FIRE:

- Notice of the timber operation is sent to all adjacent landowners if the boundary is within 300 feet of the proposed harvesting, (As per 14 CCR § 1032.7(e))
- Notice of the Plan is submitted to the county clerk for posting with the other environmental notices. (14 CCR § 1032.8(a))
- Notice of the plan is posted at the Department's local office and in Cascade Area office in Redding. (14 CCR § 1032))
- Notice is posted with the Secretary for Resources in Sacramento. (14 CCR § 1032.8(c))
- Notice of the THP is sent to those organizations and individuals on the Department's current list for notification of the plans in the county. (14 CCR § 1032.9(b))
- A notice of the proposed timber operation is posted at a conspicuous location on the public road nearest the plan site. (14 CCR § 1032.7(g))

THP REVIEW PROCESS

The laws and regulations that govern the timber harvesting plan (THP) 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 (rules) which are contained in the California Code of Regulations (CCR).

The 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:

- *THP contents and the THP 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
- *Logging roads and landing

When a THP is submitted to the California Department of Forestry and Fire Protection (CAL FIRE) a multidisciplinary review team conducts the first review team meeting to assess the THP. The review team normally consists of, but is not necessarily limited to, representatives of CAL FIRE, the Department of Fish and Wildlife (DFW), and the Regional

Water Quality Control Board (WQ). The California Geological Survey (CGS) also reviews THP's for indications of potential slope instability. The purpose of the first review team

meeting is to assess the logging plan and determine on a preliminary basis whether it conforms to the rules of the Board of Forestry. Additionally, questions are formulated which are to be answered by a field inspection team.

Next, a preharvest inspection (PHI) is normally conducted to examine the THP area and the logging plan. All review team members may attend, as well as other experts and agency personnel whom CAL FIRE may request. As a result of the PHI, additional recommendations may be formulated to provide greater environmental protection.

After a PHI, a second review team meeting is conducted to examine the field inspection reports and to finalize any additional recommendations or changes in the THP. The review team transmits these recommendations to the RPF, who must respond to each one. The director's representative considers public comment, the adequacy of the registered professional forester's (RPF's) response, and the recommendations of the review team chair before reaching a decision 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 2 years more for a total of 7 years.

Before commencing operations, the plan submitter must notify CAL FIRE. During operations, CAL FIRE periodically inspects the logging area for THP and rule compliance. The number of the inspections will depend upon the plan size, duration, complexity, regeneration method, and the potential for impacts. The contents of the THP and the rules provide the criteria CAL FIRE inspectors use to determine compliance. While CAL FIRE cannot guarantee that a violation will not occur, it is CAL FIRE's policy to pursue vigorously the prompt and positive enforcement of the Forest Practice Act, the forest practice rules, related laws and regulations, and environmental protection measures applying to timber operations on the timberlands of the State. This enforcement policy is directed primarily at preventing and deterring forest practice violations, and secondarily at prompt and appropriate correction of violations when they occur.

The general means of enforcement of the Forest Practice Act, forest practice rules, and the other related regulations range from the use of violation notices which may require corrective actions, to criminal proceedings through the court system. Civil, administrative civil penalty, Timber operator licensing, and RPF licensing actions can also be taken.

THP review and assessment is based on the assumption that there will be no violations that will adversely affect water quality or watershed values significantly. Most forest practice violations are correctable and CAL FIRE's enforcement program seeks to assure correction. Where non-correctable violations occur, civil or criminal action may be taken against the offender. Depending on the outcome of the case and the court in which the case is heard, some sort of supplemental environmental corrective work may be required. This is intended to offset non-correctable adverse impacts. Once a THP is completed, a completion report must be submitted certifying that the area meets the requirements of the rules. CAL FIRE inspects the completed area to verify that all the rules 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. If the stocking standards have not been met, the area must be planted annually until it is restored. If the landowner fails to restock the land, CAL FIRE may hire a contractor to complete the work and seek recovery of the cost from the landowner.

General Discussions for the Introduction

Although more specific detail is provided in the responses below, the following summary is provided for some of the over-arching concerns expressed in public comment.

Evenage Management and Impacts to Fire Hazard

The historical variability of fire hazard is a function of many variables, one of which is forest management (both active and passive). Many areas within California are experiencing an increase in wildfire size and intensity resulting from a reduction of forest management without considering the role that fire and timber management has played in fuels reduction. Timber management activities create a mosaic of age, size and density of forest cover that alone can stop or direct wildfire by modifying the fuel component of the fire tetrahedron. Conversely, omission of fuel management or controlled fire in a forest setting will result in an increased fuel load and potential for catastrophic fire. An objective view of forest management effects on fire occurrence reveals a matrix of fire risk and fire hazard. Fire seasons in the last 5 years have demonstrated that when wind driven, plume dominated fires occur, all forest types are vulnerable and all forest types have suffered catastrophic fire impacts, from young plantations to old growth forested stands.

"Successfully managing fuel conditions across landscapes will increase fire risk because of changes in microclimate and increases in fine fuels (Deeming and others 1977; Weatherspoon 1996; Agee and others 2000). Thinning of stands for fuel treatment and creating openings to encourage regeneration of ponderosa pine does allow more sun to reach the forest floor, contributing to faster drying of surface vegetation and more air/wind movement, and the open crowns encourage more fine fuels — herbaceous plants and fresh needle litter. However, when all the effects of these treatments are considered together (e.g., reducing stand density, reducing surface fuels, providing for long-term regeneration of ponderosa pine) fire hazard across the landscape is dramatically reduced, while the prospects of achieving multi-aged, multi-story, resilient forested landscapes are greatly improved. Additionally, fire suppression is generally made more efficient since the reduction of fire hazard more than offsets the increase in fire risk (Martin and Brackebusch 1974; Rothermel 1983; Agee 1996; van Wagtendonk 1996; Agee and others 2000)."1

Fire behavior is influenced by three primary factors: Fuels, Weather and Topography. Of the three factors, fuels are the only factor that can reasonably be modified by human interaction. It is important to remember that the primary characteristics of fuels are

¹ United States District Court for the Eastern District of California, 2005, Declaration of Carl N. Skinner, Case No. S-04-CV-2023 LKK/PAN.

modified over time in the absence of any human interaction; the natural environment is ever changing; as are the vegetative conditions and the relative fire threat that exists at any one time.

Even though topography cannot be changed readily by human interactions, it is also important to view the proposed project from the perspective of topography to understand how the vegetation that has been modified from harvesting operations would influence fire behavior. The National Wildfire Coordinating Group (NWCG) provides a variety of courses to teach and train wildland firefighters in understanding how wildland fires burn and the strategy and tactics that can be applied to safely extinguish them. There is a series of courses devoted exclusively to fire behavior (S-190, S-290, S-390, S-490 and S-590). These courses lay the foundation upon which a fire manager can predict the spread and direction of wildland fires across the landscape. S-190 and S-290 are standard courses which many CAL FIRE foresters take as part of their career development. Others go on to complete the full course and are eventually certified as Fire Behavior Analysts (FBAN). The experience that a forester brings from the natural resources side complements the course materials well.

One of the principles introduced in S-290 and expanded upon in S-390 is how to predict fire spread potential based upon the point of ignition for a fire. In addition to the fuels and weather at the fire location, the point where the fire originates also plays a large role in how it will behave and determine its potential to spread and become a large fire. Since the composition and distribution of fuels have the most influence on smaller fires, this is an important consideration when evaluating the fire danger that could potentially be created as a result of timber harvesting. Larger fires that have reached a plume, wind or terrain-dominated stage tend to be much less restricted by small-scale changes in vegetation, like that which would be seen resulting from timber management. It is the small-scale fires that deserve the most consideration in these instances.

A small ignition, occurring within an area that receives intensive forest management, is more likely to be extinguished during the incipient phases, due in large part to the access that is granted by the timberland owners road system. These smaller fires can be more easily extinguished during the phases where they are burning within the ground and surface fuels. The specific behavior of any fire is difficult to predict even under theoretical circumstances, let alone one burning in the open environment. There is no direct "cause and effect" relationship that can be drawn between evenage plantations and fire danger, because each fire start is different and each fire burns under different conditions. The assumption that a plantation has, at certain times in its development, higher fire dangers than others, is insufficient grounds to deny the use of evenage silviculture. In either event, the THP as proposed does not adversely add to the potential fire danger present within the plan area.

Aside from direct vegetation management, fire danger can also be reduced through the modification of practices that either reduce the potential for fire starts, or reduce the chance that a fire start will escape into the wildland and beyond the control of initial attack resources.

Catastrophic wildfire is the greatest threat to a timber resource based industry such as Sierra Pacific. As a result, one of the land manager's primary objectives is to protect that resource and the multitude of other values associated with it from destruction. It is important to differentiate between fire risk and fire hazard. While evenage units will experience a short period in their life span where they have greater risk of ignition (fire risk), as they develop they become more and more resistant to fire and thus have a much lower fire hazard over the longer term. Thus, the only way to effectively manage against catastrophic wildfire is at the landscape level. The activities that have led to increasing risks for catastrophic fire and the landowner's strategy to mitigate these are described in the THP. Maintaining a mosaic of forest stands at different ages that are managed to control forest density and thus fuel loads is an effective landscape level approach to containing large fires.

At the very least, the regeneration units afford an area of fire control in the event of an unplanned wildfire event. The units would represent areas of easier control of fires when the seedlings or saplings of conifers are shorter than the surrounding forest area. Unbroken areas of standing timber with ladder fuels can lead to large crown fires that are difficult to suppress because there is no natural barrier to fire, other than ridge tops, watercourses or wide roads and fuelbreaks. An occasional area of shorter timber with no ladder fuels can afford an area where fire control becomes feasible.

The Department has concluded that the wildfire assessment meets the intent of the Forest Practice Rules.

About Agency "Activism"

Another theme is the idea that CAL FIRE should take a somewhat activist role in steering plan submitters towards, or in this case away from, certain actions that the comment writer deems deleterious to the natural environment. To do so would be contrary to our purpose and entirely outside of our jurisdictional authority. The plan submitter is responsible for proposing plans consistent with their objectives and CAL FIRE is responsible for determining whether or not the operations as proposed would cause a significant adverse effect on the environment. How an individual THP may or may not align with state goals or other non-regulatory targets is not a factor we can consider when making such a determination.

The Value of Cited Literature:

Proponents and opponents of a project often use literature to support their positions. It is CAL FIREs responsibility to evaluate this literature to determine how applicable it may be to the proposed project. In doing so, CAL FIRE must dispassionately and thoroughly review the submitted materials to understand what is, and often is not, being said, supported or hypothesized as part of the work. All too often, individuals assign significance to an individual study far beyond what is appropriate, in exceedance of prudence and even the author's intentions. It is valuable to consider each study as a reference point in a larger picture, never placing too much weight on any one paper. Doing so places too high a

burden on the scientific method, which is designed to be a journey as opposed to a destination.

CAL FIRE is not in the business of directly refuting or dismissing concerns either pro or con. On the contrary, CAL FIRE is responsible for evaluating the proposed plan within the context of the available information (record) and making a determination of impacts. This decision is made without regard to the popularity of such a decision, nor with prejudice to the information presented by those who disagree with the position. CAL FIRE must weigh the available information and determine whether to approve or deny an individual plan. This decision does not prejudice CAL FIRE against making a different determination on a different plan with similar concerns, nor does it obligate us to continue future actions if it is determined that incomplete or faulty information was relied upon. Each project stands on its own merits, and every decision is unique to that particular plan.

When the public provides arguments and evidence to impeach the credibility of the plan or its conclusions, it is appropriate that CAL FIRE respond. When necessary, it is further appropriate to explain how the information was unpersuasive or not applicable. In this, the Lead Agency has deference, but must proceed in a manner prescribed by law. 14 CCR §1037.4 provides little clarification on what response is to be given, saying merely that CAL FIRE must "respond in writing to the issues raised". Under PRC §15132(d), we are provided the additional direction of "The responses of the Lead Agency to significant environmental points raised in the review and consultation process." Ultimately, there is no clear direction on the extent and nature of the response, although it appears prudent to follow the pattern that CAL FIRE has used in this and other responses.

All literature was reviewed, and where it appeared appropriate to directly address information provided, a statement is provided within the individual Responses below. A response is justifiable when substantiated concerns are presented in an attempt to impeach the credibility of the Plan Submitters position. It is reasonable, therefore, for CAL FIRE to provide a response as to why, or why not, the information is persuasive. While this could be interpreted as dismissive, this is not intended to indicate that the information provided is without merit, false or misleading. Also, this same information could be viewed differently with respect to another proposed harvesting plan.

Public Comment

Public comment for this plan came in the form of mailed and emailed letters, included for reference at the end of this document. Comment letters 3 and 4 are duplicates as one was emailed and the other arrived via the postal service. The brackets around the snapshot below show that this is considered specific Concern #1, of which a corresponding Response #1 is provided.



My concern is the increased fire risk of the logging. We are in a critical climate change and a critical drought both of which will lend to a huge fire season this year. Today May 5, 2021 is a red flag warning here in Chico, California. We are anticipating future evacuation days and smoke-filled days where outside activity is prohibited. This is May and fire season is quickly approaching if not already here.

The following issues/concerns were raised during the public comment period and are addressed as follows:

Concern #1:



My concern is the increased fire risk of the logging. We are in a critical climate change and a critical drought both of which will lend to a huge fire season this year. Today May 5, 2021 is a red flag warning here in Chico, California. We are anticipating future evacuation days and smoke-filled days where outside activity is prohibited. This is May and fire season is quickly approaching if not already here.

Response #1:

Please refer to the "Evenage Management and Impacts to Fire Hazard" section within the introduction. The plan provided Wildfire Risk and Hazard Impact Assessment on page 132 addresses expected fuel conditions and impacts, CAL FIRE and the other multi-agency review team concurs with the assessment.

All trees within evenage harvest units that are not designated as individual or group retention elements as described in Item #38 or are not retained within watercourse zones, will be cut and processed into merchantable logs within the harvest unit or at the landing; unmerchantable trees will be severed and left on site. Operations will temporarily rearrange dead fuel loading but will permanently reduce live fuel loading through the stand treatments described above. Slash, tops and unmerchantable trees will be dispersed throughout the harvest units after the regeneration harvest occurs. Dead and downed material in most cases will not be removed from the site. LTO's will be instructed to disperse submerchentable material throughout the harvest unit with a focus on keeping the material away from roads, individual and group retention elements. LTO's will be instructed to drive over concentrations of slash exceeding 30" in height to reduce vertical continuity, improve ground contact and accelerate decomposition. Follow-up site preparation treatments, such as contour tilling and mastication, may be initiated to facilitate planting opportunities. These treatments, if initiated, will further reduce fuel continuity and arrangement. Local climatic conditions further accelerate reductions in fuel loading. The assessment area is located within the northern California snow belt; snow usually occurs in the area from November –April. Snow loading over slash increases decomposition rates due to its weight (attributed to the high moisture content common in California mid-elevation climates) and persistence, both factors enhancing decomposition rates. This reduction in fuels over time has been observed during follow-up inspections of harvest areas where these methods have occurred. The resulting fuel condition will decrease the potential rate of spread of an active fire. Surface fuels resulting from the combination of these practices will be short-lived and will not result in any significant effects on live fuel loading.

In addition to any specific practices specified in the Plan, the following rules pertaining to fire danger apply and are enforced on all Timber Harvesting Activities. These rules are not required to be reiterated into the timber harvest plan, but must be followed for every timber harvest plan. Fire tools and clearance are regularly enforced by CAL FIRE Inspectors.

Per Article 8 of the FPR.

Article 8 Fire Protection

918, 938, 958 Fire Protection [Coast, Northern, Southern]

When burning permits are required pursuant to PRC § 4423, Timber Operators shall:

- (a) Observe the fire prevention and control Rules within this article.
- (b) Provide and maintain fire suppression related tools and devices as required by PRC §§ 4427, 4428, 4429, 4431, and 4442.
- (c) Submit each year, either before April 1st or before the start of Timber Operations, a fire suppression resources inventory to the Department as required by the Rules.

918.1, 938.1, 958.1 Fire Suppression Resource Inventory [All Districts]

The Fire Suppression Resource Inventory shall include, as a minimum, the following information:

- (a) Name, address and 24-hour telephone number of an individual and an alternate who has authority to respond to Department requests for resources to suppress fires.
 - (b) Number of individuals available for firefighting duty and their skills.
- (c) Equipment available for firefighting. The Fire Suppression Resource Inventory shall be submitted to the ranger unit headquarters office of the Department having jurisdiction for the timber operation.

918.3, 938.3, 958.3 Repealed [All Districts]

918.4, 938.4, 958.4 Smoking and Matches [All Districts]

Subject to any law or ordinance prohibiting or otherwise regulating smoking, smoking by persons engaged in Timber Operations shall be limited to occasions where they are not moving about and are confined to cleared Landings and areas of bare soil at least three feet (.914 m) in diameter. Burning material shall be extinguished in such areas of bare soil before discarding. The Timber Operator shall specify procedures to guide actions of his employees or other persons in his employment consistent with this subsection.

918.5, 938.5, 958.5 Lunch and Warming Fires [All Districts]

Subject to any law or ordinance regulating or prohibiting fires, warming fires or other fires used for the comfort or convenience of employees or other persons engaged in Timber Operations shall be limited to the following condition:

- 1. There shall be a clearance of 10 feet (3.05 m) or more from the perimeter of such fires and flammable vegetation or other substances conducive to the spread of fire.
 - 2. Warming fire shall be built in a depression in the soil to hold the ash created by such fires.
- 3. The Timber Operator shall establish procedures to guide actions of his employees or other persons in their employment regarding the setting, maintenance, or use of such fires that are consistent with (a) and (b) of this subsection.

938.8 Inspection for Fire [Northern]

(a) The Timber Operator or his/her agent shall conduct a diligent aerial or ground inspection within the first two hours after cessation of felling, Yarding, or loading operations each day during the dry period when fire is likely to spread. The person conducting the inspection shall have adequate communication available for prompt reporting of any fire that may be detected.

918.10, 938.10, 958.10 Cable Blocks [All Districts]

During the period when burning permits are required, all tail and side blocks on a cable setting shall be located in the center of an area that is either cleared to mineral soil or covered with a fireproof blanket that is at least 15 ft. in diameter. A shovel and an operational full five-gallon back pump or a fire extinguisher bearing a label showing at least a 4A rating must be located within 25 feet of each such block before Yarding.

Per 14 CCR 943.6(d) Use of Logging Roads and Landings

(d) When burning permits are required pursuant to PRC § 4423, Logging Roads and Landings that are in use shall be kept in passable condition for fire trucks.

Below are pertinent excerpts from the Public Resources Code, Division 4, Chapter 6.

4428. Use of hydrocarbon powered engines near forest, brush or grass covered lands without maintaining firefighting tools.

No person, except any member of an emergency crew or except the driver or owner of any service vehicle owned or operated by or for, or operated under contract with, a publicly or privately owned utility, which is used in the construction, operation, removal, or repair of the property or facilities of such utility when engaged in emergency operations, shall use or operate any vehicle, machine, tool or equipment powered by an internal combustion engine operated on hydrocarbon fuels, in any industrial operation located on or near any forest, brush, or grass-covered land between April 1 and December 1 of any year, or at any other time when ground litter and vegetation will sustain combustion permitting the spread of fire, without providing and maintaining, for firefighting purposes only, suitable and serviceable tools in the amounts, manner and location prescribed in this section.

- (a) On any such operation a sealed box of tools shall be located, within the operating area, at a point accessible in the event of fire. This fire toolbox shall contain: one backpack pump-type fire extinguisher filled with water, two axes, two McLeod fire tools, and a sufficient number of shovels so that each employee at the operation can be equipped to fight fire.
- (b) One or more serviceable chainsaws of three and one-half or more horsepower with a cutting bar 20 inches in length or longer shall be immediately available within the operating area, or, in the alternative, a full set of timber-felling tools shall be located in the fire toolbox, including one crosscut falling saw six feet in length, one double-bit ax with a 36-inch handle, one sledge hammer or maul with a head weight of six, or more, pounds and handle length of 32 inches, or more, and not less than two falling wedges.
- (c) Each rail speeder and passenger vehicle, used on such operation shall be equipped with one shovel and one ax, and any other vehicle used on the operation shall be equipped with one shovel. Each tractor used in such operation shall be equipped with one shovel.
 - (d) As used in this section:
- (1) "Vehicle" means a device by which any person or property may be propelled, moved, or drawn over any land surface, excepting a device moved by human power or used exclusively upon stationary rails or tracks.
- (2) "Passenger vehicle" means a vehicle which is self-propelled and which is designed for carrying not more than 10 persons including the driver, and which is used or maintained for the transportation of persons, but does not include any motor truck or truck tractor.

4429. Camps or local headquarters, firefighting equipment.

During any time of the year when burning permits are required in an area pursuant to this article, at any camp maintained in such area for the residence of employees, or at any local headquarters in such area of any industrial, agricultural, or other operations on or near any forest-covered land or brush-covered land, there shall be provided and maintained at all times, in a specific location, for firefighting purposes only, a sufficient supply of serviceable tools to equip 50 percent of the ablebodied, personnel, resident of such camp, or working out of such headquarters, for fighting fires. Among these tools shall be included shovels, axes, saws, backpack pumps, and scraping tools. With such tools there shall also be one serviceable headlight adaptable for attachment to at least one-half of the tractor-bulldozers used on the operation, and a sufficient number of canteens and flashlights to equip a third of the able-bodied personnel.

4431. Gasoline powered saws, etc.; firefighting equipment.

During any time of the year when burning permits are required in an area pursuant to this article, no person shall use or operate or cause to be operated in the area any portable saw, auger, drill, tamper, or other portable tool powered by a gasoline-fueled internal combustion engine on or near any forest-covered land, brush-covered land, or grass-covered land, within 25 feet of any flammable material, without providing and maintaining at the immediate locations of use or operation of the saw or tool, for firefighting purposes one serviceable round point shovel, with an overall length of not less than 46 inches, or one serviceable fire extinguisher. The Director of Forestry and Fire Protection shall by administrative regulation specify the type and size of fire extinguisher necessary to provide at least minimum assurance of controlling fire caused by use of portable power tools under various climatic and fuel conditions.

The required fire tools shall at no time be farther from the point of operation of the power saw or tool than 25 feet with unrestricted access for the operator from the point of operation.

4442. Spark arresters or fire prevention measures; requirement; exemptions.

- (a) Except as otherwise provided in this section, no person shall use, operate, or allow to be used or operated, any internal combustion engine which uses hydrocarbon fuels on any forest-covered land, brush-covered land, or grass-covered land unless the engine is equipped with a spark arrester, as defined in subdivision (c),maintained in effective working order or the engine is constructed, equipped, and maintained for the prevention of fire pursuant to Section 4443.
- (b) Spark arresters affixed to the exhaust system of engines or vehicles subject to this section shall not be placed or mounted in such a manner as to allow flames or heat from the exhaust system to ignite any flammable material.
- (c) A spark arrester is a device constructed of nonflammable materials specifically for the purpose of removing and retaining carbon and other flammable particles over 0.0232 of an inch in size from the exhaust flow of an internal combustion engine that uses hydrocarbon fuels or which is qualified and rated by the United States Forest Service.
- (d) Engines used to provide motive power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code.
- (e) Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.

Concern #2:



Logging and especially clear cutting also disrupt our fire-adapted forest ecosystems. The SPI indiscriminate cutting of trees and vegetation create conditions that exacerbate and increase fire activity. Clearcutting allows the wind and embers to move faster into the standing forests. Wildfires are clearly unpredictable but clearcutting increases the risks of deadly fires into our communities and environment.

Response #2:

Concern #2 has been addressed within the Response to Concern #1 and the "Evenage Management and Impacts to Fire Hazard" section within the introduction.

Concern #3:



It is common sense that by the elimination of trees the land becomes hotter and dryer. The forest floors and the fire-adapted vegetation dries out and are susceptible to fire. Cal Fire has the



obligation to hold SPI accountable for forest management practices that reduce the risks of wildfires. Section IV of the Roll and the Rim THPs provide very little assurance to the public of science-based practices to reduce fire risk.

Response #3:

Please refer to the Concern #1 Response above and the "Evenage Management and Impacts to Fire Hazard". Additionally, the THP as proposed has been found to be in conformance with the Z'eberg-Nejedly Forest Practice Act and the requirements of the Forest Practice Rules. The Department does not have the legal authority to deny approval of a THP that is in conformance with the rules and regulations of the Board. Furthermore, the Department does not have the legal authority to establish laws or revise those laws which regulate timber harvesting. The California Legislature and the California Board of Forestry and Fire Protection are responsible for rules and regulation making, while CAL FIRE enforce those rules and regulations.

Concern #4:

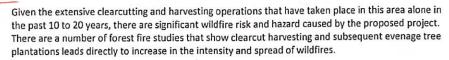


The revision to these THPs is time critical. The National Forest Supervisor Dean Gould was about to implement a plan for forest treatment in 2020 when the Sierra Sequoia-Creek Fire destroyed 850 homes and the surrounding forest land. Cal Fire needs to stop approval of these clear cutting THPs and/or add forest management practices that slow this in-coming fire season.

Response #4:

Please refer to the "About Agency Activism" section in the introduction.

Concern #5:





Zald and Dunn 2018 found intensive plantation forestry characterized by young forests and spatially homogenized fuels (evenage management), rather than pre-fire biomass, were significant drivers of wildfire severity.

DellaSala, et.al., 2018 Examined the severity of 1,500 forest fires across the West over a four-decade period to determine if wilderness, roadless areas and national monuments burned more severely than logged areas. The studies found the forests with the most logging burned in the highest severities. It also determined logging slash that is often left strewn across the landscape and small trees densely planted (evenage management) both act like kindling for fires.

Thompson, Spies and Ganio, 2007. Fire severity studies in plantations and naturally regenerated vegetation of similar ages show that site history influences fire severity and have found an association of high-severity fire with conifer plantations.

Response #5:

Please refer to the "Value of Cited Literature" section in the introduction and Response #1 above.

The literature reference was reviewed and the information gleaned was utilized in making the final Determination of Plan Approval by CAL FIRE. The following statements/notes from the review are provided.

Zald and Dunn Study: CAL FIRE reviewed the Zald study. There are myriad differences between California and Oregon forestry practices that must be considered. The primary author of the study (Zald) was contacted on April 8, 2019 to inquire about applicability of this study to areas in California. The author was cautious about applying the study results outside of the geographic region and context of the study. The study itself provides numerous caveats that must also be considered when determining how applicable the results are to a particular area. For example, the plantations on the O&C lands mentioned in the study are typically managed on a 30-50 year harvest rotation. The harvest rotation ages in the study area are well below those found in California, by as much as half the minimum age for Site 1 timberland. Also, pre-commercial and commercial thinning is not a common practice in plantations in the Pacific Northwest. California plantations receive both pre-commercial and commercial thinning treatments in addition to other vegetation management treatments (e.g. site preparation, herbicide treatments) that appear to be lacking in the study area. These practices align with the authors descriptions of measures that would reduce fire severity and further differentiate the study area from California forests. For example, the author provides suggestions on measures that would reduce fire severity, one being, "increasing the age (and therefore size) of trees and promoting spatial heterogeneity of stands and fuels is a likely means to reducing fire severity, as are fuel reduction treatments in plantations." When compared to the study area, California plantations are grown to an older age and receive fuel reduction treatments in the form of pre-commercial thinning and commercial thinning. Clearcut size limitations are also different between the two states. Whereas California's clearcut limitation is 20 acres for tractor and 30 acres for cable logging, Oregon's size limits are 120 acres for clearcutting.

<u>DellaSala 2018:</u> This letter was written to the ODF (Oregon Department of Forestry) to provide an opinion on the development of a statewide carbon policy framework. The authors comments are specific to flaws he believes exist within the framework that was being considered at the time of the writing. He provides suggestions for how to correctly account for carbon sequestration and release based upon a review of some literature. The author appears to have a perspective that carbon sequestration is the preeminent consideration. While this may be acceptable from a position of influencing public policy, it does not directly translate to evaluating an individual project, nor even to determining the appropriateness of a class of projects (e.g. timber harvesting as a whole). The data and opinions presented are Oregon-specific. No additional changes to the plan were deemed necessary as a result of the information presented in the DellaSala letter.

<u>Thomson et al. 2007:</u> This study appeared to have two primary questions: 1) Did the area burned by the 1987 Silver fire burn with the same intensity in the Biscuit Fire and 2) Did

areas salvage logged and planted burn more or less severely than other stands that were not treated. The study found that "Overall, unburned areas or those that burned at lower severities in the Silver Fire tended to burn at lower severities in the Biscuit Fire, whereas areas that burned at higher severities in Silver Fire tended to reburn at higher severities in the Biscuit Fire.", and further explaining these findings "Biscuit Fire severity in the logged and planted areas was 16–61% higher than comparable unmanaged areas depending on the values of the covariates. The particular ecological effects of this difference are unknown; nonetheless, the hypothesis that salvage-logging followed by planting reduces reburn severity is not supported by these data.". It can be ascertaining that the study deals with the fact that areas that are salvaged logged and replanted can reburn with high intensity years after a plantation is established. The report does conclude, however: "Managers may have few options to reduce the risk of high-severity fire within areas that have recently burned severely. Typical fuel treatments, such as thinning, do not have much effect on fire risk in young forests. Reducing connectivity of surface fuels at landscape scales is likely the only way to decrease the size and severity of reburns until vertical diversification and fire resistance is achieved. The decision to salvage-log and plant, or not, after fire depends on a number of management considerations including risk of future high-severity fire, reducing hazards to fire fighters, timber revenue, and conservation of biodiversity. Further research, especially controlled experiments, is clearly needed to help managers understand tradeoffs.".

CAL FIRE has determined that the THP as prepared, and mitigated through the application of the Rules, adequately addresses the concerns of increased fire danger as a result of proposed timber operations.

Concern #6:



Currently, the State of California is facing and severe fire season. Should another Camp Fire occur here and destroy the town of Chester, the responsibility of such a fire will fall directly on the shoulders of Calfire and their failure to adequately address and review these fire risks and issues.

Response #6:

Please refer to the "About Agency Activism" section in the introduction above. The THP as proposed has been found to be in conformance with the Z'eberg-Nejedly Forest Practice Act and the requirements of the Forest Practice Rules. The Department does not have the legal authority to deny approval of a THP that is in conformance with the rules and regulations of the Board. Furthermore, the Department does not have the legal authority to establish laws or revise those laws which regulate timber harvesting.

SUMMARY AND CONCLUSIONS

The Department recognizes its responsibility under the Forest Practice Act (FPA) and CEQA to determine whether environmental impacts will be significant and adverse. In the case of the management regime which is part of the THP, significant adverse impacts associated with the proposed application are not anticipated.

CAL FIRE has reviewed the potential impacts from the harvest and reviewed concerns from the public and finds that there will be no expected significant adverse environmental impacts from timber harvesting as described in the Official Response above. Mitigation measures contained in the plan and in the Forest Practice Rules adequately address potential significant adverse environmental effects.

CAL FIRE has considered all pertinent evidence and has determined that no significant adverse cumulative impacts are likely to result from implementing this THP. Pertinent evidence includes, but is not limited to the assessment done by the plan submitter in the watershed and biological assessment area and the knowledge that CAL FIRE has regarding activities that have occurred in the assessment area and surrounding areas where activities could potentially combine to create a significant cumulative impact. This determination is based on the framework provided by the FPA, CCR's, and additional mitigation measures specific to this THP.

CAL FIRE has supplemented the information contained in this THP in conformance with Title 14 CCR § 898, by considering and making known the data and reports which have been submitted from other agencies that reviewed the plan; by considering pertinent information from other timber harvesting documents including THP's, emergency notices, exemption notices, management plans, etc. and including project review documents from other non-CAL FIRE state, local and federal agencies where appropriate; by considering information from aerial photos and GIS databases and by considering information from the CAL FIRE maintained timber harvesting database; by technical knowledge of unit foresters who have reviewed numerous other timber harvesting operations; by reviewing technical publications and participating in research gathering efforts, and participating in training related to the effects of timber harvesting on forest values; by considering and making available to the RPF who prepares THP's, information submitted by the public.

CAL FIRE further finds that all pertinent issues and substantial questions raised by the public and submitted in writing are addressed in this Official Response. Copies of this response are mailed to those who submitted comments in writing with a return address.

ALL CONCERNS RAISED WERE REVIEWED AND ADDRESSED. ALONG WITH THE FRAMEWORK PROVIDED BY THE FOREST PRACTICE ACT AND THE RULES OF THE BOARD OF FORESTRY, AND THE ADDITION OF THE MITIGATION MEASURES SPECIFIC TO THIS THP, THE DEPARTMENT HAS DETERMINED THAT THERE WILL BE NO SIGNIFICANT ADVERSE IMPACTS RESULTING FROM THE IMPLEMENTATION OF THIS THP.

21PC- 600000361

Japp, Jeannie@CALFIRE

From:

Jean Marquardt <jeanmarquardt@gmail.com>

Sent: Saturday, May 1, 2021 8:54 PM

To: Review Team Redding Inbox@CALFIRE

Cc: Houser, Ivan@CALEIRE-

Subject: Re: Public Comment 2-20-00211 and 2-20-00215 PLU

Follow Up Flag: Follow up

Flag Status: Flagged

Dist. Date: \$ -9 | 202|

FG TO

WO TLO

ARCH LTO

FPF DMG

INS BOE

OTHER:

FPS Status: LOC

Warning: this message is from an external user and should be treated with caution.

Thanks for all the information. I am concerned about the Plumas County abundance of clear cutting. I'll be writing comments soon.

Sent from my iPhone

On Apr 23, 2021, at 7:18 AM, Review Team Redding Inbox@CALFIRE < reddingreviewinbox@fire.ca.gov>wrote:

RECEIVED

Thank you, Ivan. We also monitor this inbox:

MAY 0 3 2021

CALFIREReddingpubliccomment@fire.ca.gov

REDDING
FOREST PRACTICE

Thank you,

Jeannie Japp

Jeannie Japp
Program Technician II
<image001.png>
Northern Region Headquarters
6105 Airport Road
Redding, CA 96002

530-224-2454 530-224-4841 (F)

From: Houser, Ivan@CALFIRE

Sent: Thursday, April 22, 2021 4:39 PM

To: jeanmarquardt@gmail.com

Cc: Review Team Redding Inbox@CALFIRE < reddingreviewinbox@fire.ca.gov>

Subject: Public Comment 2-20-00211 and 2-20-00215 PLU

Jean, as we discussed – I'm providing the email for you providing your public comment. See above in the CC line.

21 PC-000000 365

MAY 0 5 2021

May 5, 2021

TLO

DMG

To Cal Fire Northern Regional Headquarters, Redding, California

CalFirereddingpubliccomment@fire.ca.gov

reviewteamreddinginbox.com

RE: THP 2-20-00211 and THP 2-20-00215

Please consider these comments on the fire risks associated with these two THP plans. In the Roll and the Rim THP documents over 1,900 acres are slated to be logged. These logging plans are very close to recreation areas including the North Shore Campground and the towns of Chester and Lake Almanor. On page 132 of the THP regarding fire there is very little written about mitigations that would hopefully decrease fire risks. In fact, the THP does state that there does exist a very high fire hazard zone.

My concern is the increased fire risk of the logging. We are in a critical climate change and a critical drought both of which will lend to a huge fire season this year. Today May 5, 2021 is a red flag warning here in Chico, California. We are anticipating future evacuation days and smoke-filled days where outside activity is prohibited. This is May and fire season is quickly approaching if not already here.

The Camp Fire is a daily reminder of the pending doom for many communities and forest lands in the Sierra Nevada mountains. Indeed, climate is one cause of these fires and since we cannot control the weather or climate, we need to look at what we can control. Logging is something that we can control.

The two THPs in Plumas County submitted by Sierra Pacific Industries (SPI) will substantially add to the massive checkerboard of clear cuts north and east of Lake Almanor. It is appalling to see the extraordinary number of heavily logged patches already in that forest area. Since 1997 the logging industry has devastated the area with clear cutting and removal of large trees.

The Plumas National Forest conducted the "hazardous fuels reduction" project for the claimed purpose of protecting towns from fire and this obviously did not work. The Camp Fire claimed 85 lives and left many people in trauma of running for their lives and dealing with the consequences of lost homes and businesses.

Logging and especially clear cutting also disrupt our fire-adapted forest ecosystems. The SPI indiscriminate cutting of trees and vegetation create conditions that exacerbate and increase fire activity. Clearcutting allows the wind and embers to move faster into the standing forests. Wildfires are clearly unpredictable but clearcutting increases the risks of deadly fires into our communities and environment.

It is common sense that by the elimination of trees the land becomes hotter and dryer. The forest floors and the fire-adapted vegetation dries out and are susceptible to fire. Cal Fire has the

生3

obligation to hold SPI accountable for forest management practices that reduce the risks of wildfires. Section IV of the Roll and the Rim THPs provide very little assurance to the public of science-based practices to reduce fire risk.

I would like Cal Fire to respond to me personally with a return email. Since the CalTrees website is confusing on Cal Fire responses, I would like to see something sent to me.

女山

The revision to these THPs is time critical. The National Forest Supervisor Dean Gould was about to implement a plan for forest treatment in 2020 when the Sierra Sequoia-Creek Fire destroyed 850 homes and the surrounding forest land. Cal Fire needs to stop approval of these clear cutting THPs and/or add forest management practices that slow this in-coming fire season.

Thank you for the work that you do for the health of our forests.

Sincerely,

Jean Marquardt, 2050 Springfield Dr., Spot 111, Chico, California. 95928, jeanmarquardt@gmail.com,

21 PC - 000000369

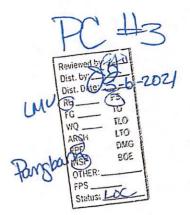
May 4, 2021

CAL FIRE Review Team
Forest Practice Program Manager
CAL FIRE
6105 Airport Road
Redding, California 96002

RECEIVED

MAY 0 6 2021

FOREST PRACTICE



Dear Program Manager,

The following comments concern the Cumulative Effects from Wildfire Risk and Hazard regarding the 2-20-00211 PLU, RIM THP.

RIM THP consists of 1,228-acre timber harvest of which mostly is alternative prescription harvest. The alternative prescription harvest described is for all intent and purposes are clearcuts harvested in 20-to-30-acre groupings. The Rim THP area is located 2 miles north and east of Chester, California in Plumas County. Should a wildfire occur as a result of this timber harvesting, the town of Chester would be immediately threatened, and has the potential of creating another Camp Fire, Paradise, California tragedy.

Sections IV, page 132 of the THP (Wildfire Risk and Hazard) describes the THP as being in a very high fire hazard zone. However, aside from discussing the current fuel condition and post-operation fuel condition, the only conclusion identified in the THP is there will be a reduction in overall forest fuel loading over the assessment area. Additionally, the RPF states that there will be no cumulative significant negative impacts for Wildfire Risk and Hazard resulting from this project. Disappointingly, this entire discussion concerning wildfire risk and hazard in this THP consists of only a single page.

Given the extensive clearcutting and harvesting operations that have taken place in this area alone in the past 10 to 20 years, there are significant wildfire risk and hazard caused by the proposed project. There are a number of forest fire studies that show clearcut harvesting and subsequent evenage tree plantations leads directly to increase in the intensity and spread of wildfires.

Zald and Dunn 2018 found intensive plantation forestry characterized by young forests and spatially homogenized fuels (evenage management), rather than pre-fire biomass, were significant drivers of wildfire severity.

DellaSala, et.al., 2018 Examined the severity of 1,500 forest fires across the West over a four-decade period to determine if wilderness, roadless areas and national monuments burned more severely than logged areas. The studies found the forests with the most logging burned in the highest severities. It also determined logging slash that is often left strewn across the landscape and small trees densely planted (evenage management) both act like kindling for fires.

Thompson, Spies and Ganio, 2007. Fire severity studies in plantations and naturally regenerated vegetation of similar ages show that site history influences fire severity and have found an association of high-severity fire with conifer plantations.

Given this THP's inadequate analysis of the fire impacts, I highly recommend that this THP be disapproved or at a minimum delayed until further fire impacts can be studied.

\$5

#6

Currently, the State of California is facing and severe fire season. Should another Camp Fire occur here and destroy the town of Chester, the responsibility of such a fire will fall directly on the shoulders of Calfire and their failure to adequately address and review these fire risks and issues.

Sincerely,

Perry Metzger 3001 Tanya Court Sacramento, California 95826 21PC-000000370

May 4, 2021

CAL FIRE Review Team Forest Practice Program Manager CAL FIRE 6105 Airport Road Redding, California 96002 RECEIVED

MAY 0 6 2021

REDDING FOREST PRACTICE Reviewed b GAO Dist. by:

Reviewed	
Dist. by:_	
Dist. Date	:
(RU.)	(PS)
FG	. 10
WQ	TLO
ARCH	LTO
(RPF	DMG
INSP	BOE
OTHER:_	
FPS	
Status:	\propto

Dear Program Manager,

The following comments concern the Cumulative Effects from Wildfire Risk and Hazard regarding the 2-20-00211 PLU, RIM THP.

RIM THP consists of 1,228-acre timber harvest of which mostly is alternative prescription harvest. The alternative prescription harvest described is for all intent and purposes are clearcuts harvested in 20-to-30-acre groupings. The Rim THP area is located 2 miles north and east of Chester, California in Plumas County. Should a wildfire occur as a result of this timber harvesting, the town of Chester would be immediately threatened, and has the potential of creating another Camp Fire, Paradise, California tragedy.

Sections IV, page 132 of the THP (Wildfire Risk and Hazard) describes the THP as being in a very high fire hazard zone. However, aside from discussing the current fuel condition and post-operation fuel condition, the only conclusion identified in the THP is there will be a reduction in overall forest fuel loading over the assessment area. Additionally, the RPF states that there will be no cumulative significant negative impacts for Wildfire Risk and Hazard resulting from this project. Disappointingly, this entire discussion concerning wildfire risk and hazard in this THP consists of only a single page.

Given the extensive clearcutting and harvesting operations that have taken place in this area alone in the past 10 to 20 years, there are significant wildfire risk and hazard caused by the proposed project. There are a number of forest fire studies that show clearcut harvesting and subsequent evenage tree plantations leads directly to increase in the intensity and spread of wildfires.

Zald and Dunn 2018 found intensive plantation forestry characterized by young forests and spatially homogenized fuels (evenage management), rather than pre-fire biomass, were significant drivers of wildfire severity.

DellaSala, et.al., 2018 Examined the severity of 1,500 forest fires across the West over a four-decade period to determine if wilderness, roadless areas and national monuments burned more severely than logged areas. The studies found the forests with the most logging burned in the highest severities. It also determined logging slash that is often left strewn across the landscape and small trees densely planted (evenage management) both act like kindling for fires.

Thompson, Spies and Ganio, 2007. Fire severity studies in plantations and naturally regenerated vegetation of similar ages show that site history influences fire severity and have found an association of high-severity fire with conifer plantations.

Given this THP's inadequate analysis of the fire impacts, I highly recommend that this THP be disapproved or at a minimum delayed until further fire impacts can be studied.

\$

[

Currently, the State of California is facing and severe fire season. Should another Camp Fire occur here and destroy the town of Chester, the responsibility of such a fire will fall directly on the shoulders of Calfire and their failure to adequately address and review these fire risks and issues.

Sincerely,

Perry Metzger

3001 Tanya Court

Sacramento, California 95826