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: 2-20-00174 SIS

SUBMITTER: Shasta Cascade Timberlands

COUNTY: Siskiyou

END OF PUBLIC COMMENT PERIOD: 2/4/2021

DATE OF OFFICIAL RESPONSE/DATE OF APPROVAL: 2/19/2021

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

John Ramaley, RPF #2504
Forester III
Cascade, Sierra & Southern Regions

cc: Unit Chief
RPF
Plan Submitter
Dept. of Fish & Wildlife, Reg. 1
Water Quality, Reg. 5
Public Comment Writers (please see Appendix A)

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 misspelling or uncommon word usage.
CDFW/DFW	California Dept. of Fish & Wildlife		

AB 32	Assembly Bill 32	ARB	Air Resources Board
NPP	Net Primary Production	BOF	Board of Forestry
NEPA	National Environ. Policy Act	CAPCOA	Calif. Air Pollution Control Officers Assoc.
NEP	Net Ecosystem Production	CCR	Calif. Code of Regulations
NTMP	NonIndust. Timb. Manag. Plan	CESA	Calif. Endangered Species Act
OPR	Govrn's Office of Plan. & Res.		
Pg	Petagram = 10^{15} grams		
PNW	Pacific NorthWest		
CO_2	Carbon Dioxide	PRC	Public Resources Code
CO_2e	Carbon Dioxide equivalent	RPA	Resource Plan. and Assess.
DBH/dbh	Diameter Breast Height	RPF	Registered Professional Forester
DFG	Calif. Department of Fish and Game	SPI	Sierra Pacific Industries
EPA	Environmental Protection Agency	SYP	Sustained Yield Plan
FPA	Forest Practice Act	tC	tonnes of carbon
FPR	Forest Practice Rules	Tg	Teragram = 10^{12} grams
GHG	Greenhouse Gas	THP	Timber Harvesting Plan
ha^{-1}	per hectare	LBM	Live Tree Biomass
LTSY	Long Term Sustained Yield	TPZ	Timber Production Zone
m^{-2}	per square meter	USFWS	U.S. Fish & Wildlife Service
MAI	Mean Annual Increment	WAA	Watershed Assessment Area
MMBF	Million Board Feet	WLPZ	Watercourse. & Lake Prot. Zone
$MMTCO_2E$	Million Metric Tons CO_2 equivalent	yr^{-1}	per 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 Game (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 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

[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.

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 Shasta Cascade Timberlands. 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. Revisions were made to the Wildfire Risk and Hazard Cumulative Impacts Assessment by the RPF. The revised language is located on pages 116-117 of the THP. Within the Impact Assessment, the Plan states the following as it relates to potential impacts:

POTENTIAL IMPACTS

The proposed project will create a small increase in the risk of ignition during the logging operation. The proposed project will modify the fuel profile by creating gaps in the relative homogenous mature forest fuel type while creating a short-term increase in surface fuels. These gaps will be regenerated and create a changing fuel type as they grow. The mix of past and proposed harvest units and their spacing across the landscape will create a diversity of fuel types and their associated hazards.

The continuity of fuel within the harvested areas was evaluated to determine the hazard of this fuel type. Surface fuels after harvesting will be separated by skid roads and yarding corridors. The current forest practice rules have reduced the density of required stocking and the landowner's practice of precommercial thinning will maintain spacing between young tree crowns. These conditions can reduce the potential for rapid fire spread depending on weather conditions and topography. The even age structure of the future stands will reduce the fuel ladders and maintain lower canopy bulk density compared to an uneven age structured forest. Uneven age forests by their definition maintain fuel ladders which increase fire hazard by increasing the spread of surface fires into the crowns. The even age structure of the future stands will reduce the potential for crown fire initiation by minimizing ladder fuels, increasing canopy base height and maintaining crown spacing as the stands grow and are managed.

And the following statement as it relates to Impact Evaluation:

IMPACTS EVALUATION

There are no residential dwellings or communities within the assessment area. The proposed project will create a short-term increase in the risk of ignition during logging operations, but this risk will be mitigated by the required fire protection regulations. The project area is well roaded and proposed road maintenance and construction will maintain and improve access to the area for rapid initial attack efforts. Water drafting locations, equipment turn around areas and safety zones in landings and clearings will all contribute to safer and more effective fire suppression.

The project is not expected to significantly change the fire hazard. Fire fuels management within the ownership was taken into consideration during preparation of the plan. The current condition of relatively uniform mature conifer stands has created a homogenous fuel type subject to rapid fire spread if conditions are favorable for the fuel type. Creating a different fuel type with the young, regenerated stands within the larger matrix may provide the opportunity to control fires that would otherwise burn rapidly through a single type. Long-term, the landowner's planned management of the stocking in the harvest units will maintain a lower density of trees and reduce the fire hazard by separating crowns.

No significant cumulative impacts to fire risk and hazard should result from the proposed project primarily since the project is not near residences or communities but also due to the benefits of the proposed project modifying existing fuel patterns and improvements in infrastructure to allow safer and more efficient fire suppression.

Comments in most of the letters of concern raised the issue of changing the even-aged alternative prescriptions to uneven-aged management. 14 CCR 895.1 defines unevenaged management as:

> ***Unevenaged Management*** *means management of a specific forest, with the goal of establishing a well stocked stand of various age classes and permits the periodic harvest of individual or small groups of trees to realize the yield and continually establish a new crop.*

For many of the forest types in the interior of California, the dominant pine and Douglas-fir forest types are tree species that favor an open environment for optimal growth. Establishing a forest with various age classes, as defined in unevenaged management, means the possibility of developing a stand with ladder fuels that may be more prone to crown fires. Due to these and other reasons, many large landowners utilize even-aged management versus the coastal areas of California, which are dominated by species that are more favorable to unevenaged management, such as redwood. These coastal areas also, in general, have a longer fire return interval – meaning a longer time frame between catastrophic fires, due to a more humid, wet environment than is found in the dryer interior of California.

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

Evenage Management compared to Unevenaged Management.

There is a theme among many of the public comments-which either state or infer-the practice of clearcutting is outdated and/or an invalid prescription. CAL FIRE's role in Timber Harvest Plan review is to ensure proposed practices are in compliance with the current Forest Practice Rules. All silvicultural practices applied to this THP were prescribed as a result of compliance with 14 CCR § 897 (a):

> ***897 Implementation of Act Intent***
> ***(a)*** *RPFs who prepare plans shall consider the range of feasible silvicultural system, operating methods and procedures provided in these rules in seeking to avoid or substantially lessen significant adverse effects on the environment from timber harvesting. RPFs shall use these rules for guidance as to which are the most appropriate feasible silvicultural systems, operating methods and procedures which will carry out the intent of the Act.*
>
> *While giving consideration to measures proposed to reduce or avoid significant adverse impacts of THPs on lands zoned TPZ, the RPF and Director shall include the following legal consideration regarding feasibility:*
>
> *The Timberland Productivity Act restricts use of lands zoned Timberland Production Zone to growing and harvesting timber and compatible uses and establishes a presumption that timber harvesting is expected to and will occur on such lands.*
>
> The Z'Berg-Nejedly Forest Practice Act of 1973 declares under PRC § 4512(c) that *"it is the policy of this state to encourage prudent and responsible forest resource management calculated to serve the public's need for timber and other forest products, while giving consideration to the public's need for watershed protection, fisheries and wildlife, and recreational opportunities alike in this and future generations."* It further states under PRC § 4513 *"Intent of the Legislature"* that *"(a) Where feasible, the productivity of timberlands is restored, enhanced, and maintained" and (b) The goal of maximum sustained production of high-quality timber products is achieved while giving consideration to values relating to recreation, watershed, wildlife, range and forage, fisheries, regional economic vitality, employment, and aesthetic enjoyment".*

This plan complies with the intent of the Forest Practice Act by adhering to the forest practice rules and incorporating additional protections for other forest values when and where necessary as appropriate. The proposed silvicultural prescriptions for the THP are selection, alternative prescription (closest to clearcutting), and road right of way. Pages 66-67 of the approved THP provides a discussion regarding the Alternative Prescription Silviculture.

Addendum Item 14 (b)

Alternative Prescription (closest to Clearcut):

The landowner has elected to install Habitat Retention Areas (HRAs), hence the elected Alternative (ALTE) prescription. Within ALTE prescription units, at least 5% of the total harvest area will be retained within Habitat Retention Areas (HRAs) or as dispersed leave trees. This retention is being done as an enhancement for wildlife. HRAs can preserve habitat features such as green culls, snags, hardwoods, deformed trees, downed logs and woody debris (LWD) and other unique habitat features. Operations are excluded from HRAs to the maximum extent feasible with the exception of where necessary for the re-use of existing infrastructure such as roads, skid trails and cable corridors. There shall be no timber harvested from within HRAs under this project except where needed to ensure operational safety.

Due to past management practices and MSP considerations, the regeneration cut is most appropriate to maintain long-term timber production, in the form of a regulated stand. Dominant species in the plan area cannot be relied upon to naturally regenerate beneath themselves in a timely manner. Consequently, this silviculture will assure prompt, effective regeneration with the best available phenotypes. The proposed method accomplishes the landowner's goals, imitates natural disturbance regimes on a smaller scale, and complies with the Forest Practices Act by achieving an MSP of high quality timber products on a demonstrably sustainable basis. As per 14 CCR 933.1(a)(1) stands proposed for harvest are 50 years of age or greater for Class I lands and 60 years of age or greater for Class II and III lands.

Additionally, THP pages 68-73 provide a project alternatives analysis including a description of the Project Objectives and Purpose as well as a description of Project Alternatives- specifically a discussion concerning the Silvicultural methods that were not chosen.

The Plan provides the following statement concerning the Silviculture that was chosen.

b) **The Silvicultural Methods That Were Chosen:**

Even-aged Silviculture:
Alternative Prescription (closest to clearcutting). The clearcut prescription has been modified to an "alternative prescription" since a significant portion of each individual unit will be retained in aggregate or dispersed retention (See Item #35 in THP Section II). This represents a significant operational and financial burden on the landowner and demonstrates their willingness to go to great lengths to avoid actual or perceived impacts related to clearcutting. Retained areas / trees will mitigate any significant aesthetic impacts. These features also avoid habitat fragmentation and ensure greater canopy cover over units than would be the case in traditional regeneration units, thereby offering viable mitigation of impacts to biological, watershed and soil resources. Given adherence to the corporate Option-A plan, as well as past management practices, much of the project area must receive an evenaged regeneration cut to maintain long-term timber production into the future, in the form of a regulated stand. Stands selected for this prescription are mature relative to their associated site class, i.e., have reached or exceeded culmination of MAI, and exhibit declining rates of individual tree and/or stand growth. Due to past management practices in some of the plan area, and the intolerant nature of the dominant species (ponderosa pine and Douglas-fir), the regeneration cut is most appropriate to maintain long-term timber production in the form of a regulated stand. Although natural regeneration can occur under an existing stand, it does not occur rapidly or reliably enough to provide the desired LTSY. Consequently, this type of harvest, followed by rapid artificial regeneration with the best available phenotypes, is the best alternative to ensure Maximum Sustained Production of High Quality Timber Products (MSP), and will ensure an increase in LTSY. This method not only imitates natural disturbance regimes (on a smaller scale) and provides valuable early seral habitat, it also accomplishes the landowner's goals and complies with the Forest Practices Act by achieving MSP on a demonstrably sustainable basis.

The Alternative Prescription (AP Clearcut) has been reviewed by CAL FIRE, CGS, WQ, and DFW during First Review, the PHI, and Second Review. There were no recommendations during the PHI or first/second review regarding the utilization of the silvicultural prescription.

AP Clearcut is an allowable silvicultural practice in California. The rules pertaining to even-aged management, and then specifically clearcutting, are provided below.

913.1, 933.1, 953.1 Regeneration Methods Used in Evenaged Management [All Districts; Note variation by District in (a)(4)(A) and (d)(3) Shelterwood Removal Step]

The following types of regeneration methods are designed to replace a harvestable stand with well-spaced growing trees of commercial species. Evenaged management systems shall be applied with the limitations described by this rule:

***(a)** Timber stands harvested under an evenaged regeneration method shall meet the following standards:*

***(1)** Where a regeneration step harvest of evenaged management will occur on stands younger than 50 years of age for Class I lands, 60 years of age for Class II and III lands, or 80 years of age for Class IV and V lands, or equivalent age of trees, based on height as determined according to the appropriate site class, the RPF preparing the THP or SYP must demonstrate how the proposed harvest will achieve MSP pursuant to 14 CCR § 913.11 [933.11, 953.11](a) or (b) provided, however, that the Director may grant an exemption from this section based upon hardship.*

***(2)** The regeneration harvest of evenaged management shall be limited to 20 acres for tractor yarding. Aerial or cable yarding may be 30 acres. Tractor yarding may be increased to 30 acres where the EHR is low and the slopes are < 30%. The RPF may propose increasing these acreage limits to a maximum of 40 acres, and the Director may agree where measures contained in the THP provide substantial evidence that the increased acreage limit does any one of the following:*

***(A)** by using additional on-site mitigation measures, reduces the overall detrimental effects of erosion thereby providing better protection of soil, water, fish and/or wildlife resources; or*

***(B)** provides for the inclusion of "long corners"; or*

***(C)** create a more natural logging unit by taking maximum advantage of the topography; or*

***(D)** will increase long-term sustained yield; or*

***(E)** provide feasible off-site mitigation measures that can be incorporated in the plan to restore or enhance previously impacted resource areas or other environmental enhancements that will result in demonstrable net environmental benefits within the planning watershed. These measures may include, but are not limited to, watercourse restoration, soil stabilization, road surface stabilization, road outsloping, road abandonment, road reconstruction, enhancement of wildlife habitats and vegetation management. To qualify for an exemption the plan submitter is not required to demonstrate that other feasible options are not available.*

***(3)** Evenaged regeneration units within an ownership shall be separated by a logical logging unit that is at least as large as the area being harvested or 20 acres, whichever is less, and shall be separated by at least 300 ft. in all directions.*

***(4)** Within ownership boundaries, no logical logging unit contiguous to an evenaged management unit may be harvested using an evenaged regeneration method unless the following are met:*

***(A) [Coast]** The prior evenaged regeneration unit has an approved report of stocking, and the dominant and codominant trees average at least five years of age or average at least five ft. tall and three years of age from the time of establishment on the site, either by the planting or by natural regeneration. If these standards are to be met with trees that were present at the time of the harvest, there shall be an interval of not less than five years following the completion of operations before adjacent evenaged management may occur.*

***(A) [Northern and Southern]** The prior evenaged regeneration unit has an approved report of stocking, and the dominant and codominant trees average at least five feet*

tall, or at least five years of age from the time of establishment on the site, either by the planting or by natural regeneration. If these standards are to be met with trees that were present at the time of the harvest, there shall be an interval of not less than five years following the completion of operations before adjacent evenaged management may occur.

***(5)** Except for the clearcut method, all trees to be harvested or all trees to be retained shall be marked by, or under the supervision of, an RPF prior to felling operations. A sample area shall be marked prior to a preharvest inspection. The sample area shall include at least 10% of the harvest area up to a maximum of 20 acres per stand type, and must be representative of the range of conditions present in the area. The marking requirement may be waived by the Director if the trees to be harvested are easily distinguished from the trees to be retained, when explained and justified by the RPF in the plan.*

***(6)** Special consideration for aesthetic enjoyment shall be given to selection of silvicultural treatments and timber operations within 200 feet of the edge of the traveled surface of any permanent road maintained by the County, or the State.*

***(7)** Special consideration for aesthetic enjoyment and protection of adjacent stand vigor shall be given to the selection of silvicultural methods and timber operations within 200 feet of adjacent non-federal lands not zoned TPZ.*

***(b) Clearcutting** The clearcutting regeneration method involves the removal of a stand in one harvest. Regeneration after harvesting shall be obtained by direct seeding, planting, sprouting, or by natural seed fall. When practical, clearcuts shall be irregularly shaped and variable in size in order to mimic natural patterns and features found in landscapes. Site preparation and slash disposal measures, if necessary for successful regeneration, shall be described in the plan.*

The AP Clearcut method accomplishes the landowner's goals and the goals of the California Forest Practice Act to achieve maximum sustained production (MSP) of high quality timber products. It is a valid silvicultural option to propose, through the different steps of the Review Process, all reviewing agencies determined the proposed application of the AP Clearcut prescription in this THP is appropriate and complies with all rules and regulations.

Greenhouse Gas Sequestration

Another general theme among comment letters is with respect to the weight given to the degree to which a project sequesters or emits greenhouse gasses. There is a strong opinion by the comment writers that carbon sequestration is a preeminent consideration upon which plans must be evaluated. Essentially, if an alternative exists that would result in more carbon sequestration, the plan submitter (and CAL FIRE by extension) are obligated to choose that option. While CAL FIRE understands this position, requiring such an action would be an abuse of power and contrary to the laws and regulations governing timber harvesting in California. Carbon sequestration is one of many competing considerations which must be evaluated as part of a proposed project. CAL FIRE recognizes that there are many potential ways in which a plan submitter may choose to pursue Maximum Sustained Production (MSP) on a land ownership, but we are not permitted to require one method over another.

<u>Forest Practice Regulatory Background</u>

The Z'berg-Nejedley Forest Practice Act (Division 4, Chapter 8, PRC) establishes the necessity for Timber Harvesting Plans to conduct commercial timber operations and establishes the Board of Forestry and Fire Protection as the regulatory authority for promulgation of regulations to, among other things:

> *…encourage prudent and responsible forest resource management calculated to serve the public's need for timber and other forest products, while giving consideration to the public's need for watershed protection, fisheries and wildlife, sequestration of carbon dioxide, and recreational opportunities alike in this and future generations.*

The FPA was initially adopted in 1973. Since that time, the BOF has enacted numerous regulations to support Act intent related to sustained yield and has adopted conservation standards for post-harvest stocking that meet or exceed the minimum resource conservation standards specified in PRC 4561 of the Act. The Board has established rules related to demonstration of Timberland Productivity, Sustained Forestry Planning (14 CCR §933.10), demonstration of Maximum Sustained Productivity (14 CCR §933.11), and has defined sustained yield and Long Term Sustained Yield (14 CCR §895.1). Under these various rule provisions, landowners with more than 50,000 acres of timberland are required to demonstrate long-term sustained yield under the management regime they have selected for the ownership. Under this provision, the Department has received and approved long term sustained yield documents covering approximately 3.2 million acres of timberland. For smaller industrial and nonindustrial landowners, they must comply with minimum retention standards specified in the Rules as established by the BOF, although they may choose a higher standard.

More recently, amendments were made to the FPA to clarify and refine other mandates related to the assessment of Greenhouse Gas (GHG) impacts:

> *4512.5. Sequestration of carbon dioxide; legislative findings and declarations.*
> *The Legislature finds and declares all of the following:*
> *(a) State forests play a critical and unique role in the state's carbon balance by sequestering carbon dioxide from the atmosphere and storing it long term as carbon.*
> *(b) According to the scoping plan adopted by the State Air Resources Board pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code), the state's forests currently are an annual net sequesterer of five million metric tons of carbon dioxide (5MMTCO2). In fact, the forest sector is the only sector included in the scoping plan that provides a net sequestration of Greenhouse Gas emissions.*
> *(c) The scoping plan proposes to maintain the current 5MMTCO2 annual sequestration rate through 2020 by implementing "sustainable management practices," which include potential changes to existing forest practices and land use regulations.*
> *(d) There is increasing evidence that climate change has and will continue to stress forest ecosystems, which underscores the importance of proactively managing forests so that they can adapt to these stressors and remain a net sequesterer of carbon dioxide.*
> (e) *The Board, the Department, and the State Air Resources Board should strive to go beyond the status quo sequestration rate and ensure that their policies and regulations reflect the unique role forests play in combating climate change.*

> *4551. Adoption of district forest practice Rules and regulations; factors considered in Rules and regulations governing harvesting of commercial tree species; funding.*
> *(a) …*
> *(b) (1) The Board shall ensure that its Rules and regulations that govern the harvesting of commercial tree species, where applicable, consider the capacity of forest resources,*

including above ground and below ground biomass and soil, to sequester carbon dioxide emissions sufficient to meet or exceed the state's Greenhouse Gas reduction requirements for the forestry sector, consistent with the scoping plan adopted by the State Air Resources Board pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (commencing with Section 38500) of the Health and Safety Code).

Technical Rule Addendum #2, Item G:

G. GREENHOUSE GAS (GHG) IMPACTS

Forest management activities may affect GHG sequestration and emission rates of forests through changes to forest inventory, growth, yield, and mortality. Timber Operations and subsequent production of wood products, and in some instances energy, can result in the emission, storage, and offset of GHGs. One or more of the following options can be used to assess the potential for significant adverse cumulative GHG Effects:

1. *Incorporation by reference, or tiering from, a programmatic assessment that was certified by the Board, CAL FIRE, or other State Agency, which analyzes the net Effects of GHG associated with forest management activities.*
2. *Application of a model or methodology quantifying an estimate of GHG emissions resulting from the Project. The model or methodology should at a minimum consider the following:*
    a. *Inventory, growth, and harvest over a specified planning horizon*
    b. *Projected forest carbon sequestration over the planning horizon*
    c. *Timber Operation related emissions originating from logging equipment and transportation of logs to manufacturing facility*
    d. *GHG emissions and storage associated with the production and life cycle of manufactured wood products.*
3. *A qualitative assessment describing the extent to which the Project in combination with Past Projects and Reasonably Foreseeable Probable Future Projects may increase or reduce GHG emissions compared to the existing environmental setting. Such assessment should disclose if a known 'threshold of significance' (14 CCR § 15064.7) for the Project type has been identified by the Board, CAL FIRE or other State Agency and if so whether or not the Project's emissions in combination with other forestry Projects are anticipated to exceed this threshold.*

California Legislative and Administrative Background

Over the years, various efforts by the California Legislature and the Governor to quantify greenhouse gas emissions and develop strategies for avoiding potential negative impacts have occurred. A summary relevant to this THP is provided below:

1. Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, was signed into law by Governor Schwarzenegger and represents a comprehensive approach to address climate change. AB32 establishes a statewide goal to reduce greenhouse gas emissions to 1990 levels by 2020. The California Resources Air Board (ARB) is the lead agency for implementing AB32.

   The scoping plan adopted by the ARB in December of 2008 establishes a general roadmap that California will take to achieve the 2020 goals. Targets for the Forestry Sector were established under the "Sustainable Forests" section of the Scoping Plan. The "Sustainable Forest" element was recognized as a carbon sink based on the current carbon inventory

for the Forest Sector and sequestration benefits attributable to forest. Specific recommendations for the sector included:

- Maintaining the current 5 MMTCO$_2$E reduction target through 2020 by ensuring that current carbon stock is not diminished over time.
- Monitoring of carbon sequestered
- Improving greenhouse gas inventories.
- Determining actions needed to meet the 2020 targets.
- Adaptation
- Focusing on sustainable land-use activities.

Wildfire threat and loss to conversions were recognized as potential threats to the Forest Sector in relation to achieving sector goals.

2. AB 1504 (Chapter 534, Statutes of 2010, Skinner): Requires the Board of Forestry and Fire Protection to ensure that its rules and regulations that govern timber harvesting consider the capacity of forest resources to sequester carbon dioxide emissions sufficient to meet or exceed the state's GHG reduction target for the forestry sector, consistent with the AB 32 Climate Change Scoping Plan goal of 5 million metric tons CO2 equivalent sequestered per year. Currently, these reports are principally prepared by Glenn A. Christensen.

3. SB 1122 (Chapter 612, Statutes of 2012, Rubio): This bill requires production of 50 megawatts of biomass energy using byproducts of sustainable forest management from fire threat treatment areas as determined by CAL FIRE.

4. AB 417 (Chapter 182, Statutes of 2015, Dahle): This bill provides the Board of Forestry and Fire Protection with additional flexibility in setting post timber harvest tree stocking standards in order to, in part, contribute to specific forest health and ecological goals as defined by the Board. The 2020 Forest Practice Rules include the Board's revisions to the "Resource Conservation Standards" under 14 CCR §932.7.

5. In 2015, the Governor issued Executive Order B-30-15 establishing a GHG reduction target for California of 40 percent below 1990 levels by 2030 and 80 percent by 2050 to help limit global warming to 2 degrees Celsius or less as identified by the IPCC to avoid potentially catastrophic climate change impacts. In 2016, the California Legislature passed Senate Bill 32 (Chapter 249, Statutes of 2016), which codifies the Governor's Executive Order. CARB updated the AB 32 Scoping Plan in 2017 to reflect the 2030 target.

6. SB 859 (Chapter 368, Statutes of 2016, Committee on Budget and Fiscal Review): Among other things, calls for CARB, in consultation with CNRA and CAL FIRE, to complete a standardized GHG emissions inventory for natural and working lands, including forests by December 31, 2018 (CARB 2018 - An Inventory of Ecosystem Carbon in California's Natural & Working Lands – 2018 Edition).

7. SB 1386 (Chapter 545 Statutes of 2016, Wolk): Declares the policy of the state that the protection and management of natural and working lands, including forests, is an important strategy in meeting the state's greenhouse gas reduction goals, and requires

all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands.

8. (2018) Accompanying release of the Forest Carbon Plan, Governor Brown's Executive Order B-52-18 on forest management emphasizes the importance of implementing the Forest Carbon Plan. Executive Order B-55-18 also calls for California to achieve carbon neutrality no later than 2045, with carbon sequestration targets to be set in the Natural and Working Lands to help achieve this goal.

These Laws, Regulations and Executive Orders form the background under which CAL FIRE reviews plans for impacts to GHG emissions and sequestration.

National and State-Level GHG Assessments
A variety of assessments have been conducted to calculate the GHG emissions and rates of sequestration related to management of natural and working lands. Due to the rapidly evolving science, accounting methods and policy directions from the executive and legislative branches, specific accounting that conforms from study to study has yet to be achieved. The overall trends, however, do provide meaningful insight within which to make assumptions about how an individual THP fits into the overall objectives of assessing and mitigating potential negative impacts from GHG emissions.

USEPA Inventory of U.S. Greenhouse Gas Emissions and Sinks (2019):
Summary: Forest management falls under the "Land Use, Land Use Change, and Forestry" (abbreviated LULUCF) for consistent reporting with other international efforts. Sequestrations at the national level offset approximately 11.3% of total US GHG Emissions annually and this carbon pool remains relatively stable over time.

- *In 2017, total gross U.S. greenhouse gas emissions were 6,456.7 MMT, or million metric tons, of carbon dioxide (CO2) Eq.11 Total U.S. emissions have increased by 1.3 percent from 1990 to 2017, and emissions decreased from 2016 to 2017 by 0.5 percent (35.5 MMT CO2 Eq.). The decrease in total greenhouse gas emissions between 2016 and 2017 was driven in part by a decrease in CO2 emissions from fossil fuel combustion. The decrease in CO2 emissions from fossil fuel combustion was a result of multiple factors, including a continued shift from coal to natural gas and increased use of renewable energy in the electric power sector, and milder weather that contributed to less overall electricity use.*

- *Conversely, U.S. greenhouse gas emissions were partly offset by carbon (C) sequestration in forests, trees in urban areas, agricultural soils, landfilled yard trimmings and food scraps, and coastal wetlands, which, in aggregate, offset 11.3 percent of total emissions in 2017. The following sections contribution to total U.S. greenhouse gas emissions in more detail.*

- *Within the United States, fossil fuel combustion accounted for 93.2 percent of CO2 emissions in 2017. There are 25 additional sources of CO2 emissions included in the Inventory (see Figure ES-5). Although not illustrated in the Figure ES-5, changes in land use and forestry practices can also lead to net CO2 emissions (e.g., through conversion of forest land to agricultural or urban use) or to a net sink for CO2 (e.g., through net additions to forest biomass).*

- *Land Use, Land-Use Change, and Forestry (LULUCF)*
    - *Overall, the Inventory results show that managed land is a net sink for CO_2 (C sequestration) in the United States. The primary drivers of fluxes on managed lands include forest management practices, tree planting in urban areas, the management of agricultural soils, landfilling of yard trimmings and food scraps, and activities that cause changes in C stocks in coastal wetlands. The main drivers for forest C sequestration include forest growth and increasing forest area, as well as a net accumulation of C stocks in harvested wood pools.*
    - *The LULUCF sector in 2017 resulted in a net increase in C stocks (i.e., net CO_2 removals) of 729.6 MMT CO_2 Eq. (Table ES-5).[23] This represents an offset of 11.3 percent of total (i.e., gross) greenhouse gas emissions in 2017.*
    - *Forest fires were the largest source of CH4 emissions from LULUCF in 2017, totaling 4.9 MMT CO2 Eq*
    - *Forest fires were also the largest source of N2O emissions from LULUCF in 2017, totaling 3.2 MMT CO2 Eq.*
    - *In addition to forest regeneration and management, forest harvests and natural disturbance have also affected net C fluxes. Because most of the timber harvested from U.S. forest land is used in wood products, and many discarded wood products are disposed of in SWDS rather than by incineration, significant quantities of C in harvested wood are transferred to these long-term storage pools rather than being released rapidly to the atmosphere (Skog 2008). Maintaining current harvesting practices and regeneration activities on these forested lands, along with continued input of harvested products into the HWP pool, C stocks in the Forest Land Remaining Forest Land category are likely to continue to increase in the near term, though possibly at a lower rate.*
    - *Overall, estimates of average C density in forest ecosystems (including all pools) remained stable at approximately 205 MT C ha-1 from 1990 to 2017.*

CARB AB32 Scoping Plan (2017):

Summary: At the state level, all sectors are cumulatively on track to meet the 2020 targets for GHG reductions and sequestration. The Natural and Working Lands in the state represent a key sector for the long term storage of carbon in vegetation and soils. During the period of 2001-2010, disturbances (primarily in the form of wildfire) caused significant losses to the total stored carbon. Meeting state goals will require multi-owner and jurisdictional cooperation as well as trade-offs between competing interests.

- *California's natural and working landscapes, like forests and farms, are home to the most diverse sources of food, fiber, and renewable energy in the country. They underpin the state's water supply and support clean air, wildlife habitat, and local and regional economies. They are also the frontiers of climate change. They are often the first to experience the impacts of climate change, and they hold the ultimate solution to addressing climate change and its impacts. In order to stabilize the climate, natural and working lands must play a key role.*

- *Work to better quantify the carbon stored in natural and working lands is continuing, but given the long timelines to change landscapes, action must begin now to restore and conserve these lands. We should aim to manage our natural and working lands in California to reduce GHG emissions from business-as-usual by at least 15-20 million metric tons in 2030, to compliment the measures described in this Plan.*

- *California's forests should be healthy carbon sinks that minimize black carbon emissions where appropriate, supply new markets for woody waste and non-merchantable timber, and provide multiple ecosystem benefits.*

- *AB 32 directs CARB to develop and track GHG emissions and progress toward the 2020 statewide GHG target. California is on track to achieve the target while also reducing criteria pollutants and toxic air contaminants and supporting economic growth. As shown in Figure 1, in 2015, total GHG emissions decreased by 1.5 MMTCO$_2$e compared to 2014, representing an overall decrease of 10 percent since peak levels in 2004. The 2015 GHG Emission Inventory and a description of the methodology updates can be accessed at: www.arb.ca.gov/cc/inventory/inventory .*

FIGURE 1: CALIFORNIA GHG INVENTORY TREND

- *Carbon dioxide is the primary GHG emitted in California, accounting for 84 percent of total GHG emissions in 2015, as shown in Figure 2 below. Figure 3 illustrates that transportation, primarily on-road travel, is the single largest source of CO2 emissions in the State.. When these emissions sources are attributed to the transportation sector, the emissions from that sector amount to approximately half of statewide GHG emissions. In addition to transportation, electricity production, and industrial and residential sources also are important contributors to CO2*

- ***Increasing Carbon Sequestration in Natural and Working Lands***
    - *California's natural and working lands make the State a global leader in agriculture, a U.S. leader in forest products, and a global biodiversity hotspot. These lands support clean air, wildlife and pollinator habitat, rural economies, and are critical components of California's water infrastructure. Keeping these lands and waters intact and at high levels of ecological function (including resilient carbon sequestration) is necessary for the well-being and security of Californians in 2030, 2050, and beyond. Forests, rangelands, farms, wetlands, riparian areas, deserts, coastal areas, and the ocean store substantial carbon in biomass and soils.*

- *Natural and working lands are a key sector in the State's climate change strategy. Storing carbon in trees, other vegetation, soils, and aquatic sediment is an effective way to remove carbon dioxide from the atmosphere. …We must consider important trade-offs in developing the State's climate strategy by understanding the near and long-term impacts of various policy scenarios and actions on our State and local communities.*

- *Recent trends indicate that significant pools of carbon from these landscapes risk reversal: over the period 2001–2010 disturbance caused an estimated 150 MMT C loss, with the majority– approximately 120 MMT C– lost through wildland fire.*

- *California's climate objective for natural and working lands is to maintain them as a carbon sink (i.e., net zero or negative GHG emissions) and, where appropriate, minimize the net GHG and black carbon emissions associated with management, biomass utilization, and wildfire events.*

- *Decades of fire exclusion, coupled with an extended drought and the impacts of climate change, have increased the size and intensity of wildfires and bark beetle infestations; exposed millions of urban and rural residents to unhealthy smoke-laden air from wildfires; and threatened progress toward meeting the state's long-term climate goals. Managing forests in California to be healthy, resilient net sinks of carbon is a vital part of California's climate change policy.*

- *Federally managed lands play an important role in the achievement of the California climate goals established in AB 32 and subsequent related legislation and plans. Over half of the forestland in California is managed by the federal government, primarily by the USDA Forest Service Pacific Southwest Region, and these lands comprise the largest potential forest carbon sink under one ownership in the state... The State of California must continue to work closely and in parallel to the federal government's efforts to resolve these obstacles and achieve forest health and resilience on the lands that federal agencies manage.*

California Forest Carbon Plan (May 2018)

Summary: Current estimated sequestration for the entire forest sector is 32.8 MMT CO2e/year, which is 4.7 times more than the current target of 5 MMT per year. Regional, landscape or watershed level assessments are appropriate scales for examining rates of GHG emissions and sequestration. Wildfire remains the single largest source of carbon loss and remains the largest source of black carbon emissions. Although there are trade-offs with in-forest carbon stores, sustainably managed working forests can further provide climate mitigation benefits.

- *When all forest pools are considered, California's forests are sequestering 34.4 MMT CO2e/year, and when land-use changes and non-CO2 emissions from wildfires are accounted for, the total net sequestration is 32.8 MMT CO2e/year.*

Table 16. Statewide Average Annual Growth, Removals, Mortality, and Net Change for the Above Ground Live Tree Pool by Disturbance, Owner, and Land Status on Plots Initially Measured between 2001-2005 and Re-Measured between 2011-2015 (thousand metric tons carbon dioxide equivalent per year).

	UNRESERVED FORESTLAND			RESERVED FORESTLAND	ALL FORESTLAND[2]
	Private, Corporate	Private, Non-Corporate	USDA Forest Service	USDA Forest Service	Total
	thousand metric tons CO2 equivalent per year				
Gross tree growth	18,554	13,772	25,983	7,188	**73,253**
Removal - harvest	-10,664	-1,476	-1,467	-22	**-13,645**
Mortality – fire killed	-278	-449	-6,077	-4,689	**-12,566**
Mortality – cut and fire[1]	-466	-49	-326	0	**-842**
Mortality – insects and disease	-488	-435	-3,162	-1,039	**-5,728**
Mortality – natural/other	-2,525	-2,988	-6,743	-2,203	**-16,543**
Net live tree	4,133	8,375	8,208	-765	**23,929**
				95% confidence interval	**4,575**

[1]Mortality – Cut and fire: plots where tree mortality has occurred due to both harvest and fire.

[2]Includes other public forestland.

Source: USDA Forest Service FIA.[267]

- *The key findings of the [Forest Carbon Plan] include:*
  - *California's forested landscapes provide a broad range of public and private benefits, including carbon sequestration.*
  - *The long-term impacts of excluding fire in fire-adapted forest ecosystems are being manifested in rapidly deteriorating forest health, including loss of forest cover in some cases.*
  - *Extreme fires and fire suppression costs are increasing significantly, and these fires are a growing threat to public health and safety, to homes, to water supply and water quality, and to a wide range of other forest benefits, including ecosystem services.*
  - *Reducing carbon losses from forests, particularly the extensive carbon losses that occur during and after extreme wildfires in forests and through uncharacteristic tree mortality, is essential to meeting the state's long-term climate goals.*
  - *Fuel reduction in forests, whether through mechanical thinning, use of ecologically beneficial fire, or sustainable commercial timber harvest to achieve forest health goals, involves some immediate loss of forest carbon, but these treatments can increase the stability of the remaining and future stored carbon.*
  - *Current rates of fuel reduction, thinning of overly dense forests, and use of prescribed and managed fire are far below levels needed to restore forest health, prevent extreme fires, and meet the state's long-term climate goals.*
  - *Where forest stands are excessively dense, forest managers may have to conduct a heavy thinning to restore resilient, healthy conditions, which, among other benefits, will subsequently facilitate the reintroduction of prescribed fire as an ecological management tool.*
  - *Sustainable timber harvesting on working forests can substantially improve the economic feasibility of these treatments to achieve forest health goals at the scale necessary to make an ecologically meaningful difference.*
  - *Where forestlands have been diminished due to fires, drought, insects, or disease, they should be reforested with ecologically appropriate tree species from appropriate seed sources.*

- *The scale and combination of needed treatments and their arrangement across the landscape is likely to be highly variable and dependent on the local setting.*
- *The state must work closely with Federal and private landowners to manage forests for forest health, multiple benefits, and resiliency efficiently at a meaningful scale.*

- *The watershed level has proven to be an appropriate organizing unit for analysis and for the coordination and integrated management of the numerous physical, chemical, and biological processes that make up a watershed ecosystem. Similarly, a watershed can serve as an appropriate reference unit for the policies, actions, and processes that affect the biophysical system, and providing a basis for greater integration and collaboration. Forests and related climate mitigation and adaptation issues operate across these same biophysical, institutional, and social gradients.*

  Because of these factors, the Forest Carbon Plan proposes working regionally at the landscape or watershed scale. The appropriate scale of a landscape or watershed to work at will vary greatly depending upon the specific biophysical conditions, land ownership or management patterns, and other social or institutional conditions.

- *Forests are shaped by disturbance and background levels of tree mortality. However, elevated tree mortality from overly dense stand conditions, fire exclusion, lack of or poor forest management practices, and impacts related to drought and climate change can have a substantial effect on the forest carbon balance. Wildfire is the single largest source of carbon storage loss and GHG emissions from forested lands: of the estimated 150 million metric tons of carbon lost from forests from 2001-2010, approximately 120 million metric tons of carbon was lost through wildland fire. Wildfire also is the single biggest source of black carbon emissions. Reducing the intensity and extent of wildland fires through tools such as fuels reduction, prescribed or managed fire, thinning, and sustainable timber management practices is therefore a top priority.*

- *In addition to fuels reduction and prescribed and managed fire treatments, sustainable commercial timber harvesting on private and public lands, where consistent with the goals of owners or with management designations and done to maximize forest health goals, can play a beneficial role, both in thinning dense forests and financing additional treatments. Although there are trade-offs with in-forest carbon stores, sustainably managed working forests can further provide climate mitigation benefits. Commercial timber harvest within a sustainable management regime to maximizing forest health goals also creates revenue opportunities to fund additional forest treatments and should be seen as a tool in the maintenance of our forests as healthy, resilient net sinks of carbon.*

- *In order to support the goals of this Forest Carbon Plan, wood and biomass material generated by timber harvesting, forest health, restoration and hazardous fuels treatments must be either utilized productively or disposed of in a manner that minimizes net GHG and black carbon emissions. Timber and other biomass harvest volumes are expected to increase as a result of the forest management activities outlined above. These volumes will include green and dead trees suitable for timber production, smaller-diameter green and dead trees with little traditional timber value, and tops and limbs.*

- *Specific Rates of Sequestration/Emission by landowner category:*

- *Private Corporate Forestland: Private corporate forestland includes both timberland and other forestland. On private corporate forestland growth is high and exceeds removal and mortality, reflecting the practice of sustained yield as required by California's Forest Practice Act and Rules. These forests are managed to create relatively little annual mortality and the harvested volume is less than forest growth. Rates of removals from harvest and thinning are highest on these lands, but the rate of fire-related mortality is lowest. These forests experience a net gain in carbon at a rate of 0.75 metric tons of CO2e per acre per year, or 4.1 MMT of CO2e per year. In 2012, these lands contributed 70 percent of the total harvest (Figure 16) and are therefore an important contributor to the carbon stored long-term in harvested wood products and reduced emissions from burning wood instead of fossil fuels for energy.*

- *Private Non-Corporate Forestland: This category represents private ownerships for which timber production may or may not be a primary management objective. The rate of gross growth is high on these lands, while the rate of natural, non-fire related mortality is low. The rate of fire-related mortality is also quite low, although it is higher than on private corporate forestland. As these lands exhibit high growth rates, lower harvest per acre than corporate forestland, and have relatively low levels of mortality, these forest lands see the highest net sequestration rates on the order of 1.33 metric tons of CO2e per acre per year, or 8.4 million metric tons of CO2e per year.*

  Private non-corporate forestland has the highest rate of sequestration per acre (Figure 17), and despite making up 10 percent less of the forestland base than USDA Forest Service unreserved forestland, these forests sequester the greatest total amount (Table 16). A net 33 percent increase in carbon stock from private non-corporate forestland came from only 24 percent of the California forestland base (Figure 18, Figure 9). A net 13 percent increase in carbon stock from private corporate forestland came from 15 percent of the forestland base. … Private non-corporate forestlands provided slightly less of a net increase in carbon stocks than all USDA FS forestlands, despite being just half the size.

- *Forest carbon is stored in both forest ecosystems and, to a lesser extent, in harvested wood products. The degree to which California forests operate as a sink or source is influenced by land management, weather, and a range of forest health issues (e.g., growth, tree mortality from drought, pest and disease outbreaks, wildfire severity). In recent years, prolonged drought conditions have resulted in elevated tree mortality that is widespread across the southern Sierra. The combination of drought impacts and extensive wildfires has made forests lose significant capacity for storing carbon. For all forestlands, improving forest health and managing to reduce losses from mortality can greatly increase the carbon balance on forestlands. On commercial and other actively managed forestlands in California, efficient uses of long lasting wood products and residues for energy can yield GHG benefits. Key inventory findings include:*

  - *Based on FIA Program data from 2006-2015, all California forests combined on all ownerships were performing as a net sink and are sequestering carbon at an average rate of 0.79 metric tons of CO2e per acre per year, or 0.22 metric tons of carbon per acre per year.*

- *Based on FIA Program data from 2006 – 2015, California forests have substantial carbon storage; 1,303 MMT above ground and 734 MMT below ground, for a total of 2,037 MMT.*

- *Based on remeasurements taken between 2011 and 2015, carbon sequestration in the live tree pool (in-forest) was estimated at 7.4 MMT of CO2e per year on National Forest System unreserved and reserved forestlands, 4.1 MMT on private corporate forestland, 8.4 MMT on private noncorporate timberlands, and 4.0 MMT on other public lands. The net change in the live tree pool across all forestlands is estimated at 23.9 MMT of CO2e per year.*

- *When other forest pools, soils, non-GHG emissions from wildfire, and changes from land-use are accounted for, the net change is 32.8 MMT CO2e per year, meeting the AB 1504 goal of sequestering 5 MMT CO2e per year, assuming the contribution of flux associated with wood products does not drastically lower rates.*

- *On a per-acre basis, conifer forest types have enormous carbon capture and storage potential.*

- *FIA Program data suggest that on private forestland growth is outpacing losses from harvest and mortality (excluding wood product storage), and exceeds that of National Forest System lands.*

- *FIA Program data show that non-corporate forestland has the greatest net growth (i.e., growth minus mortality and harvest excluding wood product storage).*

- *Based on FIA Program data, tree mortality from forest health-related causes results in substantial declines in forest carbon. These data indicate that tree mortality rates are highest on federal forest lands in reserve (e.g., wilderness), where mortality is slightly outpacing growth.*

CARB California Greenhouse Gas Emissions for 2000 to 2017 (2019)
Summary: This inventory is specific to anthropogenic sources so most of the agriculture category relates to commercial agriculture. Emissions related to logging from trucks and equipment would fall under the transportation sector. The Natural and Working Lands Emission Inventory contains more specific emission and sequestration numbers for Forestry.

- *For the first time since California started to track GHG emissions, in-state and total electricity generation from zero-GHG sources (for purposes of the GHG inventory, these include solar, hydro, wind, and nuclear) exceeded generation from GHG- emitting sources.*

- *The transportation sector remains the largest source of GHG emissions in the state, but saw a 1 percent increase in emissions in 2017, the lowest growth rate over the past 4 years.*

- *Emissions from all other sectors have remained relatively constant in recent years, although emissions from high Global Warming Potential (GWP) gases have continued to increase as they replace Ozone Depleting Substances (ODS) banned under the 1987 Montreal Protocol.*

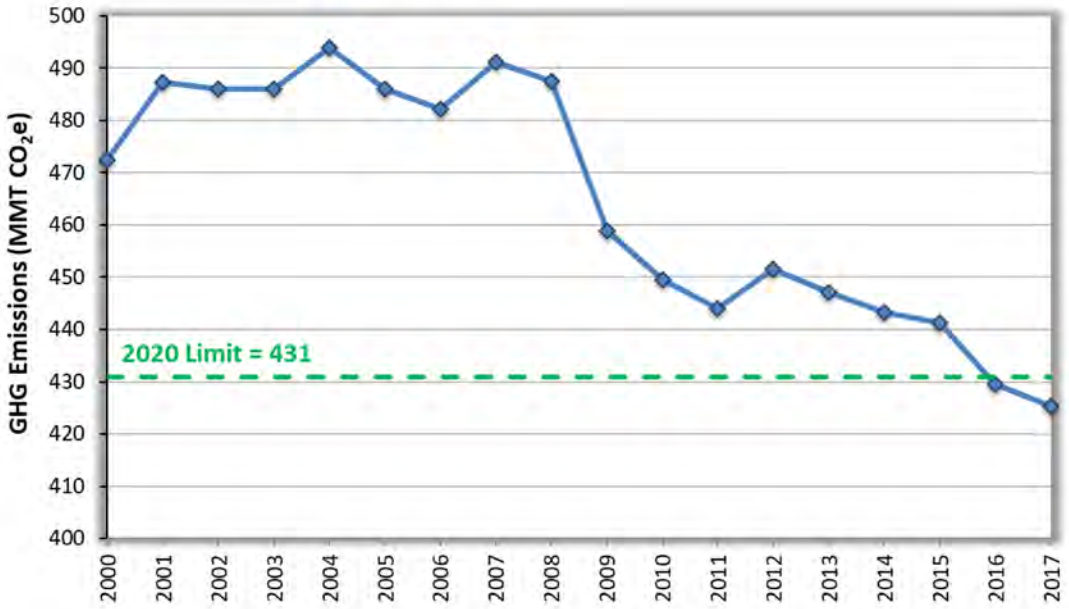

Figure 1. California GHG Emissions Trends. This figure shows the emission trends between 2000 and 2017 as compared to the 2020 statewide GHG limit of 431 $MMTCO_2e$.

- *In 2017, emissions from statewide emitting activities were 424 million metric tons of CO2 equivalent (MMTCO2e), which is 5 MMTCO2e lower than 2016 levels. 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMTCO2e below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 tonnes per person to 10.7 tonnes per person in 2017, a 24 percent decrease.4,19 Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining. From 2000 to 2017, the carbon intensity of California's economy has decreased by 41 percent from 2001 peak emissions while simultaneously increasing GDP by 52 percent. In 2017, GDP grew 3.6 percent while the emissions per GDP declined by 4.5 percent compared to 2016.22 Figures 2(a)-(c) on the next page show California's growth alongside GHG reductions.*

- *California's agricultural sector contributed approximately 8 percent of statewide GHG emissions in 2017, mainly from methane (CH4) and nitrous oxide (N2O) sources.*

An Inventory of Ecosystem Carbon in California's Natural & Working Lands (NWL) (2018)
This inventory tracks carbon within California ecosystems and how it moves between various "pools". This is a snapshot view that provides for valuable long-term comparisons. These inventories are constantly being improved and some tracking categories have higher levels of certainty than others. Soil is the largest estimated pool of carbon and also has the highest error associated with those estimates. The assessment estimates that a majority of soil carbon loss is associated with the Sacramento-San Joaquin Delta region. Forest and shrublands show a 6% decrease, due to loss from wildfire. During the early iterations of these inventories, it appears prudent to only focus on gross trends.

- *The NWL Inventory tracks how much carbon exists in California's ecosystems, where that carbon is located, and estimates how much carbon is moving in and out of the various land types and carbon pools. It provides stored carbon "snapshots" and gives insight into the location and magnitude of NWL carbon stocks at discrete moments in time. NWL plays an important role in the State's climate strategy by contributing to carbon sequestration and GHG reduction, and the NWL Inventory is a key tool for tracking the impacts of these strategies.*

- *The NWL inventory includes:*
    - *Forest and other natural lands (woodland, shrubland, grassland, and other lands with sparse vegetation): live and dead plant materials and their roots*
    - *Urban land: trees in urban area*
    - *Cropland: woody biomass in orchards and vineyards*
    - *Soil Carbon: organic carbon in soils for all land types*
    - *Wetlands: CO2 and CH4 emissions from wetland ecosystem*

- *Current NWL Inventory*
    - *There are approximately 5,340 million metric tons (MMT)[2] of ecosystem carbon in the carbon pools that CARB has quantified.[3] (To put it into context, 5,340 MMT of carbon in land is equivalent to 19,600 MMT of atmospheric CO2 currently existing as carbon in the biosphere and pedosphere as carbon cycles through the Earth's carbon cycle.) Forest and shrubland contain the vast majority of California's carbon stock because they cover the majority of California's landscape and have the highest carbon density of any land cover type. All other land categories combined comprise over 35% of California's total acreage, but only 15% of carbon stocks. Roughly half of the 5,340 MMT of carbon resides in soils and half resides in plant biomass. Figure E-1 shows carbon distribution by land category (inner ring of the pie chart) and by carbon pool (outer ring of the pie chart). Table E-1 summarizes carbon stocks by land category and the fractions of total State land area in each land category.*

    - *Soil is the largest carbon reservoir. Using the IPCC default assumptions, most of the estimated net change in soil carbon was due to microbial oxidation of organic soil on the Sacramento-San Joaquin Delta. Disturbance caused by tillage and other agricultural management practices, land conversion, and land degradation also contributed to the soil carbon loss. Forest and shrubland carbon stocks in 2010 was 6% lower than in 2001 due to a number of large wildfires that occurred during the 2001-2010 period. (Future inventory editions will capture the impacts of large fire events seen in recent years.) Woody crops and urban forest both gained carbon, as these trees are generally well maintained due to their economic and aesthetic values. Part of the carbon gain seen in urban forests came from expansion of the urban footprint over this period of time. Movement of carbon among land types and carbon pools is a dynamic process. Carbon gain in one land type may be a result of carbon loss in another land type, and vice versa.*

    - *Although carbon that leaves the land base is counted as a carbon stock loss in the NWL Inventory, not all carbon stock loss becomes emissions released into the atmosphere. Some of the carbon leaving the land base continue to retain carbon as durable wood products (e.g., furniture and building materials).*

- *Disturbances in Forest and Other Natural Lands*
  Geospatially explicit carbon stock change information can be related to the different types of disturbance on land. During the 2001–2014 period, wildfire accounted for 74% and prescribed fire accounted for 3% of the areas that experienced disturbance. The impact of wildfire can be seen throughout the State, in both rural areas and urbanized areas near shrublands and forest. Harvest and clearcut accounted for 11%, and fuel reduction activities (thinning, mechanical, and mastication) accounted for 14% of the disturbed area.

- *Uncertainty of the Inventory Estimates The science, method, and technique for accounting of ecosystem carbon are relatively new and still rapidly advancing. Although significant progress has been made in the inventory development, more work still needs to be done. The parts of the NWL Inventory that have been in development for more years generally have a reasonably constrained uncertainty (between 15% and 40%), but other parts of the inventory that CARB started to develop more recently contain significant uncertainties.*

AB 1504 California Forest Ecosystem and Harvested Wood Product Carbon Inventory (2019)

Summary: California forests vastly exceed the 5MMT CO2e target, by a factor of over 5 times, even when taking into account losses from fire, drought and timberland conversion. Forests remain a net sink of carbon, even accounting for losses from wildfire and drought.

- *As of the 2017 reporting period, California continues to exceed the 5 MMT CO2e target rate of annual sequestration established by AB 1504. Using recent FIA plot measurements, the 2017 statewide rate of carbon sequestration from all forest ecosystem pools across all ownerships is 29.2 ± 4.9 MMT CO2e per year, excluding net CO2e contributions from other sources such as harvested wood products, land moving to and from a forested condition, and non-CO2 greenhouse gas emissions from wildfire (Table 4.1, 4.3)…Accounting for the additional net sequestration associated with HWP pools of 0.9 MMT CO2e per year (Table 6.6), the 2017 statewide rate of carbon sequestration for all forest land across all ownerships is 27.9 ± 5.0 MMT CO2e per year (excludes confidence interval for HWP C flux; Table 7.1).*

- *The available data on mean carbon storage in recent years in California, and on National Forests in particular, indicates that the forests are still a net sink of carbon from the atmosphere. It is possible that during specific years of severe drought, growth rates are so reduced and mortality so high that decay exceeds new storage.*

- *As of the 2017 reporting period, California's forests remain net sinks, sequestering 27.8MMT CO2e per year. This value includes changes in forest ecosystem pools (29.2 MMT CO2e per year), harvested wood product pools (0.9 MMT CO2e per year), non-CO2 emissions from wildfires (-0.5 MMT CO2e per year), and forest land conversions (-1.7 MMT CO2e per year).*

- *In many forest types current stocking levels reflect over a century of fire suppression and may not represent stand densities that are resilient to disturbances common to California forests such as fire or pest outbreaks. Additionally, as the forests age in unharvested stands, growth rates slow. Older forests tend to store more carbon, but they might not accumulate new carbon as quickly as younger, fast-growing stands. Consequently, the stocks and flux represented in this report may not be sustainable in the future without forest management.*

- *The data are beginning to show changes in the forest carbon flux, but it is unclear whether these will remain long-term trends. The statewide rate of annual carbon sequestration on all forest land remaining as forest land declined by 2.2 MMT CO2e since 2016 (Christensen et al. 2018). This reduction in carbon sequestration is the result of several factors including improvements in inventory methodology but is also being driven by two complementary factors; an increased rate of tree mortality and decreased gross growth rate on live trees during the most recent measurement years. Tree mortality regardless of cause, accounted for an additional 2.5 MMT of CO2e converted to dead wood annually. Gross growth on trees measured 10-years earlier declined 4.3 MMT CO2e annually further reducing the net rate of sequestration.*

THP-Specific Assessment

CEQA requires that individual projects estimate the associated GHG emissions from a proposed project and make a determination of significance.

The plan submitter made changes to the Assessment, the revised site-specific analysis is located on pages 110-115 with calculations of the assessment located on pages 143-154.

These calculations estimate that the THP is capable of releasing a total of 2748.2 metric tonnes of CO_2e. As described in the analysis, many of these releases will occur slowly over time, and are provided in the THP as a conservative, worst case emission estimate. These emissions are estimated to be recouped by trees planted in the THP area within 24 years for the Alternative Prescription Units and within 17 years for the WLPZ Selection Units. The THP concluded that these emissions would not be significant, when combined with other past, present and reasonably foreseeable future projects.

The Department has reviewed the estimates of emissions associated with the pools evaluated by the Plan Submitter as part of the project specific analysis and has determined that the calculations have reasonably accounted for emissions from biologic and production elements of the project and that the sequestration estimates incorporate approaches for estimating carbon sequestration that are consistent with current science.

When this THP is considered within its own context, taking into account the state and national assessments discussed previously, CAL FIRE believes that it meets the requirements of CEQA and is consistent with the broader goals established by AB32 in providing for long-term carbon sequestration while providing for the market needs for forest products.

CEQA Analysis

A CEQA analysis is not required to be perfect, but it must be accurate and adequately describe the proposed project in a manner that allows for informed decision-making. It must include an assessment of impacts based upon information that was "reasonably available before submission of the plan" (Technical Rule Addendum #2)

CEQA clearly establishes that the Lead Agency has a duty to minimize harm to the environment while balancing Competing Public Objectives (14 CCR §15021)[2]. These duties

[2] Duty to Minimize Environmental Damage and Balance Competing Public Objectives
CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible.

are further refined in the Z'berg-Nejedly Forest Practice Act (PRC §4512(c)[3] and PRC §4513(b)[4] for how the mandate to provide "maximum sustained production of high quality timber products" is to be balanced with other environmental considerations. The term "while giving consideration to" is further defined in 14 CCR §895.1 as follows:

> ***While Giving Consideration*** *means the selection of those feasible silvicultural systems, operating methods and procedures which substantially lessen significant adverse Impact on the environment and which best achieve long-term, maximum sustained production of forest products, while protecting soil, air, fish and wildlife, and water resources from unreasonable degradation, and which evaluate and make allowance for values relating to range and forage resources, recreation and aesthetics, and regional economic vitality and employment.*

What is missing from the Act, Rules or CEQA Guidelines is the weight that is to be applied to the evaluation of the other resources specified. Clearly, there are certain legal restrictions on the degradation of specific values (i.e. water quality standards) but many of the elements that must be considered have a qualitative, not quantitative mandate for evaluation. This provides the Plan Submitter and the Lead Agency with a degree of flexibility with how these competing objectives are weighed and evaluated.

What is also evident is that there is confusion as to what the appropriate course of action is or what the feasible alternatives to the project may be. Again, CEQA provides guidance on this topic, with respect to both the adequacy of the record, and on differences of opinion, even between recognized experts:

> ***15151. Standards for Adequacy of an EIR***
> *An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of*

(1) In regulating public or private activities, agencies are required to give major consideration to preventing environmental damage.
(2) A public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment.

(b) In deciding whether changes in a project are feasible, an agency may consider specific economic, environmental, legal, social, and technological factors.

(c) The duty to prevent or minimize environmental damage is implemented through the findings required by Section 15091.

(d) CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment.

Note: Authority cited: Section 21083, Public Resources Code; Reference: Public Resources Code Sections 21000, 21001, 21002, 21002.1, and 21081; San Francisco Ecology Center v. City and County of San Francisco, (1975) 48 Cal. App. 3d 584; Laurel Hills Homeowners Association v. City Council, (1978) 83 Cal. App. 3d 515.

Discussion: Section 15021 brings together the many separate elements that apply to the duty to minimize environmental damage. These duties appear in the policy sections of CEQA, in the findings requirement in Section 21081, and in a number of court decisions that have built up a body of case law that is not immediately reflected in the statutory language. This section is also necessary to provide one place to explain how the ultimate balancing of the merits of the project relates to the search for feasible alternatives or mitigation measures to avoid or reduce the environmental damage.

The placement of this section early in the article on general responsibilities helps highlight this duty to prevent environmental damage. This section is an effort to provide a careful statement of the duty with its limitations and its relationship to other essential public goals.

[3] (c) The Legislature thus declares that it is the policy of this state to encourage prudent and responsible forest resource management calculated to serve the public's need for timber and other forest products, while giving consideration to the public's need for watershed protection, fisheries and wildlife, sequestration of carbon dioxide, and recreational opportunities alike in this and future generations.

[4] (b) The goal of maximum sustained production of high-quality timber products is achieved while giving consideration to values relating to sequestration of carbon dioxide, recreation, watershed, wildlife, range and forage, fisheries, regional economic vitality, employment, and aesthetic enjoyment.

environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

Note: *Authority cited: Section 21083, Public Resources Code; Reference: Sections 21061 and 21100, Public Resources Code; San Francisco Ecology Center v. City and County of San Francisco, (1975) 48 Cal. App. 3d 584.*

Discussion: *This section is a codification of case law dealing with the standards for adequacy of an EIR. In Concerned Citizens of Costa Mesa, Inc. v. 32nd District Agricultural Assoc. (1986) 42 Cal. 3d 929, the court held that "the EIR must contain facts and analysis, not just the agency's bare conclusions or opinions." In Browning-Ferris Industries of California, Inc. v. San Jose (1986) 181 Cal. App. 3d 852, the court reasserted that an EIR is a disclosure document and as such an agency may choose among differing expert opinions when those arguments are correctly identified in a responsive manner. Further, the state Supreme Court in its 1988 Laurel Heights decision held that the purpose of CEQA is to compel government at all levels to make decisions with environmental consequences in mind. CEQA does not, indeed cannot, guarantee that these decisions will always be those which favor environmental considerations, nor does it require absolute perfection in an EIR.*

CAL FIRE has an obligation to explain the rationale for making a decision to approve a plan, this is often done in the presence of contradicting information. A competent CEQA analysis is not required to make the “best” choice, but the choice made must be supported by information contained within the record. This is where Lead Agency discretion comes into play. CAL FIRE ultimately bears the responsibility for making a decision and, when presented with public comments, is expected to provide an answer to significant questions raised.

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.

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.

Concern over Timber Harvesting Activities being conducted "for-profit" and land ownership by a "foreign entity".

It is the intent of the Board of Forestry and Fire Protection and the California Legislature to provide for the protection of public resources, while preserving the landowner's right to manage their land in an environmentally responsible manner. The steady supply of timber resources from private timberlands to local manufacturing facilities provides a substantial contribution to the economic base of the county, as well as the state. The acquisition and maintenance of productive private timberlands require a substantial investment on the part of the landowner. Commercial harvests are expected to provide a marginal profit to the plan proponent in order to realize a return on investment. As with any resource use (farming, fishing, logging, etc.) it is expected the activities proposed will result in a profit for the landowner. No distinction of ownership origin is provided for in the Act or Rules – as a legitimate timberland owner in the state of California, Shasta Cascade Timberlands is afforded the same rights as any other landowner in the state. In relation to concerns that the landowner of the THP is a "foreign group", as stated above, CAL FIRE is tasked with providing for the protection of public

resources while preserving the landowner's right to manage their land. This task is undertaken and enforced regardless of whom the landowner is. CAL FIRE reviews each THP and makes a determination based upon the Rules and the information provided, the landowner's entity status or citizenship is not a factor in CAL FIRE's Plan Approval determination.

Presumed Competency

The THP review process is built upon the fundamental presumption that a plan filed by CAL FIRE is "accurate, complete and in proper order" (14 CCR §1033) and that the individuals who prepared the plan are competent to submit the work product to CAL FIRE (see also PRC §752). Without this base assumption, the review of THPs would take as long, or perhaps longer, than the THP took to be developed. Such a process, taking months or years for agency staff to complete, is entirely contrary to the intent of the FPA and FPRs. Instead, the THP and the work completed by the RPF is presumed to be correct, unless information casts doubt on that assessment. Administrative and field review of Plans is designed to validate the information provided by the RPF to the extent feasible, within the time constraints provided in the Act and Rules. Field review, in particular, can only visit a portion of the plan area unless problems are discovered that would require more extensive review. In those circumstances, it is more likely that CAL FIRE would recommend a plan for denial, due to the presence of extensive issues requiring detailed assessment.

Another mitigating factor that impacts the time needed for field review is the level of familiarity the CAL FIRE inspector has with the plan area and their own level of experience. In this case, the Inspector has been working in this area reviewing proposed plans and conducting active inspections for several years. All of this past experience is brought to bear when reviewing new plans and cannot be easily quantified.

Public Comment

Public comment for this plan came in the form of numerous emails. These have been included in Appendix A. The discussion preceding this section provides responses to broader questions received through public comment, and information below provides specific responses to individual questions responded to separately.

CAL FIRE received two emails of public comment after the official close of public comment. These letters are comment numbers 49 and 50 (addressed below). All concerns stated in the additional comments had been previously stated in earlier letters.

Good Faith Statements: Some of the concern emails included information and statements not associated with a specific questions or concern. CAL FIRE has made a good faith attempt to filter out specific concerns and statements relating to the THP in question. Below are the responses to these concerns.

Concern #s: 8-21, 23-32, 34-40, and 42-50.
Response: The above Concern #s are very similar in nature and are addressed within specific concern responses to other concern #s (below) as well as within the introduction (above).

Concern #1

I request that you reject both the Pawn THP, 2-20-00145-SIS, and the Soda Springs THP, 2-20-00174-SIS. The proponent appears to be attempting to "piecemeal" these THPs together to avoid addressing the full impacts of these projects. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' " (Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html

These two THPs are adjacent to each other. The Biological Assessment Areas (BAAs) overlap. The Watershed Assessment Areas (WAAs) are adjacent, but about 5 acres of one of the Pawn units (2204) is within the WAA for Soda Springs. The closest units in these two THPs are only about 1700 feet apart. Some of the Pawn units share the same road system with the Soda Springs units.

Please note that I was unable to locate a WAA map in the Pawn THP, though it is referred to on p. 103.

The cumulative impacts section of the Pawn THP makes passing reference to an unnamed THP within the Upper Soda Springs PW, which is presumably the Soda Springs THP (p. 103). The Soda Springs THP refers to another, nearby unnamed third THP (Soda Springs THP, p. 84). Mere mention is not sufficient to address the full cumulative impacts of the three projects. While there may indeed be minimal cumulative impacts among these three projects, it is not at all clear that this is the case, especially as the location of the third, unnamed project is not specifically identified. Are there more projects in the planning stages?

Response #1 The Pawn THP referenced in the Letter of Concern was withdrawn by the landowner. It is expected that the Pawn THP will be re-submitted to CAL FIRE in the future. The Pawn THP, and two other THP's that are being developed, are described on page 83. Maps of these three proposed future plans are displayed on pages 87-88.2 (one map shows the 2-20-00174 Soda Springs THP). As noted in the description on page 83, all future plans have been taken into consideration for the cumulative impacts assessment. Large timberland ownerships, such as Shasta Cascade Timberlands, are typically developing harvest plans throughout their ownership on an annual basis. Technical Rule Addendum 2 defines that a project proponent assess "reasonably foreseeable future projects". These projects are defined in the Forest Practice Rules as:

Reasonably Foreseeable Probable Future Projects *means Projects with activities that may add to or lessen Impact(s) of the proposed THP including but not limited to: 1) if the project is a THP on land which is controlled by the THP submitter, the THP is currently expected to commence within but not limited to 5 years, or 2) if the project is a THP on land which is not under the control of the THP submitter, the THP has been submitted or on-the-ground work including THP preparation has materially commenced, or 3) if the project is not a THP, and a permit is required from a public agency, and the project is under environmental review by the public agency, or 4) if the project is one which is*

under-taken by a public agency, the agency has made a public announcement of the intent to carry out the project.

The project proponent has disclosed projects that are being developed, and has provided a brief description through both text and mapping that meets the intent of the FPR's. All of these proposed future projects are discretionary projects that will go through the same review process as 2-20-00174SIS. As these projects are developed, they will be submitted to the Department for approval, and will be subject to all of the regulations of the Soda Springs THP, allowing for public comment. Due to the complex nature of the timber harvest plan review period, and the length of time it can take to prepare a plan both in the field and in the office, landowners typically try to limit the amount of acreage in their THP's to allow for plans to continually be reviewed and approved without impacts to their operations. The plan submitter has demonstrated that all plans being currently developed have been adequately disclosed and assessed within the cumulative impacts assessment, and this is not a case of piecemealing.

Concern #2

The description of cumulative effects from wildfire risk and hazard (p. 136) is particularly insufficient. The claim is simply made that since "Timber harvesting inherently decreases fuels on the landscape…", there will thus be "…no cumulative increase in wildfire risk and hazard…." This claim is absurd. It gives absolutely no consideration to change in the resulting even-aged stands over time. It is clear from recent fire history in the Siskiyou Mountains (and much of the rest of the west) that plantations are extremely fire prone, much more so than uneven-aged stands, and are often consumed by fire before they become old enough to be commercially harvested (which, by the way, negates the argument that even-aged management satisfies the LTSY rule). These fire-prone plantations present an unacceptable risk to local communities; converting uneven-aged stands to even-aged stands could be considered an irresponsible act that will certainly increase the likelihood of catastrophic wildfires in the future. This is obvious and is well documented. See, for example, C.P. Weatherspoon and C. N. Skinner. 1995: "An assessment of factors associated with damage to tree crowns from the 1987 wildfires in northern California." Forest Science 41(3): 430-451. Also see, "A Review of SPI's study: 'Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds' " by Peter Miller, NRDC, May 5, 2008, from which I quote:

> **The SPI analysis completely ignores the issue of fire. The authors reject any data from forest stands that have burned and make no mention of potential differences in vulnerability to fire across management scenarios. However, the intensive management scenarios proposed by SPI would create dense stands of uniform, young, even-aged trees which are particularly vulnerable to catastrophic fire. The increase in vulnerability to fire puts at risk the purported carbon benefits and could threaten nearby communities.**

This critique of Sierra Pacific Industries' even-aged management policy also applies to what is proposed by Shasta Cascade Timberlands (SCT) in the Pawn THP, as the result will be the same. Ignoring the big picture of wildfire hazard and risk may have been appropriate 50 years ago, but in today's world of climate change, drought and the resulting megafires, it no longer reflects reality.

Response #2 Though this concern speaks primarily to the Pawn THP (see Response #1), during the Review process, the RPF made revisions to the Soda Springs THP Wildfire Risk and Hazard Cumulative Impacts Assessment, on page 116-117 of the THP. Please refer to the "Evenage Management and Impacts to Fire Hazard" discussion in the introduction.

Through the references, CAL FIRE has determined through the totality of Rules, Regulations, and literature references (both within the THP and within the comment) that the plan as proposed will not result in a significant negative effect on fuel hazards within the assessment area.

Concern #3

I am a resident of Earth, A Brother of all fellow men, who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to kindly review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Response #3 Please refer to the "Evenage Management and Impacts to Fire Hazard", "Evenage Management compared to Unevenaged Management", "Greenhouse Gas Sequestration", and "About Agency Activism" discussions in the introduction.

With regards to the portion of the concern as it relates to residents' limited access to outdoor recreation, please see the Recreational Cumulative Impacts Assessment of the THP, page 108.

The Recreational Assessment Area (RAA) is established per technical rule addendum No.2 that states:

> ***D. RECREATIONAL RESOURCES**: The recreational assessment area is generally the area that includes the logging area plus 300 feet.*
>
> *To assess recreational cumulative impacts:*
>
> 1. *Identify the recreational activities involving significant numbers of people in and within 300 ft. of logging area (e.g., fishing, hunting, hiking, picnicking, camping).*
> 2. *Identify any recreational Special Treatment Areas described in the Board rules on the plan area or contiguous to the area.*

The RPF has identified and provided an analysis of the recreational activities within 300' of the logging area. As the entire project area is located on private land which is blocked from public access, CALFIRE is unable to anticipate a discernable impact on local recreation.

In relation to concerns specific to economic impact, specifically tourism: the purpose of the Forest Practice Rules is to implement the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 in a manner consistent with other laws, including but not limited to, the Timberland Productivity Act of 1982, the California Environmental Quality Act (CEQA) of 1970, the Porter Cologne Water Quality Act, and the California Endangered Species Act. The Department's enabling legislation has at its purpose the enhancement of timberland productivity and the prevention of environmental degradation. So long as a plan complies with this legislation, rules and regulations adopted under the authority of the legislation, and related laws, the plan must be approved. The timberlands associated with the 2-20-00174SIS THP have been utilized for forest products for over 100 years, and the forestlands in the area are comprised of second and third growth trees. As previously discussed, a timber harvest plan must weigh the various public trust benefits with the landowners objectives for long term forest management. The plan adequately describes the recreational assessment area and the rationale for addressing the impacts meets the requirements of the rules.

Concern #4

If approved, the planned logging by Shasta-Cascade Timberlands (owned by an Australian multinational) will remove 128 acres of mature, older trees along with their superior ability to both sequester carbon and manufacture oxygen, functions that are of inestimable value in this age of climate crisis (See "Importance of large-diameter trees", Lutz, et. al, pages 1-41, Global Ecology and Biogeography, 2018).

As required by law, the harvested trees will be replaced with an unnatural even-aged tree farm. Preparation of the ground for the planting will require bulldozing of the land, followed by treatment with herbicides to prevent any competition for the young saplings. This process will degrade the soil, cause erosion and result in contamination of adjacent water sources with both sediment and toxins. This immediate post-logging activity will also put the area at increased risk of landslides, will destroy habitat and biodiversity and increase the potential for pests and disease (See "Stream Ecosystems in a Changing Environment", L.A. Kaplan, R.M. Cory, 2016).

Equally important to highlight, and especially in view of the historic conflagrations that we have endured in California this year, this project will increase the potential for wildfires in the area. Loss of tree canopy will expose the area to increased sunlight, rendering it hotter and drier. Temperatures will rise and humidity fall in adjacent forest areas, creating a significant fire hazard. Moreover, the plantation trees, if ignited, will burn more explosively than the mature trees replaced. Should a fire erupt, lives and property in nearby Dunsmuir, Mt. Shasta and Castella will be at risk and the threat will be not only directly from flames but also from embers, particularly if our increasingly common strong winds are a factor (See "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape", Harold S.J. Zald and Christopher J. Dunn, Ecological Applications, 0(0), 2018, pp. 1-13, 2018, by the Ecological Society of America and "A Reporter's Guide to Wildland Fire" By Ingalsbee. Timothy Ph.D. Published by the Firefighters United for Safety, Ethics, and Ecology (FUSE), January 2005).

Lastly, the clearcut proposed will affect the aesthetic qualities of an area that, to a great extent, relies on tourism and a recreation economy.

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Calfire should only authorize timber harvest plans that utilize selective logging and timber harvest projects should have the goal of preserving at least 60% of the tree canopy. Such a policy would ensure maintenance of a diversified tree structure, retention of more moisture in the soil, and lower temperatures. Wildfire risk would be mitigated. Habitat and water supplies would be protected. Adjacent communities would not be put in jeopardy.

Response #4 Please refer to Wildfire Risk, even-aged management and the greenhouse gas discussion at the beginning. Please also refer to Response #3.

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

Lutz et al study: Upon review of the publication, CAL FIRE has determined that the THP, as revised, meets the intent of the Rules and Act, and no further adjustments to the current plan are necessary. The Lutz study provides an informative global scale perspective on carbon sequestration. One of the main conclusions Department Staff were able to take away from the study was the theme of importance on keeping lands that are capable of growing woody biomass available for growing woody biomass. The study suggests that to promote retention of aboveground biomass globally, policies should be supported which conserve tree species whose individuals can develop into large, old trees. The Forest Practice Act in concert with the application of the Forest Practice Rules are tangible evidence of California's intention to retain lands that are capable of growing timber, to continue to grow timber. As discussed in the Alternative Prescription, a minimum of 5% of the harvest area will be left as a "Habitat Retention Area". These individual areas scattered throughout the even-aged units allow for a percentage of trees to become larger, while providing for habitat elements not normally found within normal clearcut harvest areas.

Kaplan and Cory Book: This book provides an overview of ecological processes and nutrient cycling. As the reference made in the comment letter is to the entire book, not a specific research study which provides new or differing information than described/referenced in the Plan-CAL FIRE determined the book did not specifically indicate any of the assessments within the THP are false or inaccurate. The book appears to be in a textbook form intended to provide a broader overview of many of the topics associated with forest management.

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.

Concern #5

As a California resident, I have previously voiced concerns regarding the Pawn Timber Harvest Plan, which has recently been withdrawn. I am now writing to respectfully ask that the Soda Springs Timber Harvest Plan, 2-20-00174-SIS, be withdrawn also. The two plans are basically one and the same. They would increase the wildfire risk for the communities of Dunsmuir, Mt. Shasta and Catella. Of the three communities, Dunsmuir is already listed as "endangered" of wildfires. As California is still fighting wildfires to this day and with the hot temperatures not letting up, year after year due to human-induced climate change, it's irresponsible to allow this Timber Harvest Plan, which doubts the reality of climate change.

It is a known scientific fact that climate change is real. Not only is it real, it's an existential crisis that we must deal with urgently. When temperatures get hotter and drier year after year, making wildfire season more and more deadly, it defies logic to clear-cut the trees in our forests, especially the old-growth ones. As these mature trees are clear-cutted and replaced by younger tree plantations, not only do we lose these tree's carbon-sequestering capability, we are losing these older trees' ability to resist wildfires. Additionally, clearcutting and the resulting plantations would reduce the biodiversity in our forests and reduce residents' access to outdoor recreation, possibly causing local tourist economies to plummet. During pandemic times when our communities' economies are already weakened, we want to be taking actions to booster them, not inflict further damage.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Response #5 These concerns are addressed in the Wildfire Risk and Greenhouse Gas, Evenage Management and Impacts to Fire Hazard, Evenage Management compared to Unevenaged Management and Agency Activism discussions above, and within Response #3 above. As previously discussed, all THPs are required to assess the potential for impacts associated with both Wildfire Risk and Greenhouse Gas emissions. The plan has been revised, in part due to public comments, and the revised plan meets the intent of the Rules and the Act.

Concern #6

20PC-0000000476

PC #6

We Advocate Thorough Environmental Review
P.O. Box 673, Mount Shasta, California 96067 • (530) 918-8805 • mountshastawater@gmail.com • www.cawater.net

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002

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SODA SPRINGS THP "2-20-00174 SIS" Public Comment

To Whom it May Concern:

We Advocate Thorough Environmental Review (W.A.T.E.R.) is a California 501(c)(3) non-profit corporation that was incorporated to promote quality local and regional planning, land use and development, as well as to preserve a healthy human and natural environment within Siskiyou County and Northern California.

Introduction:
We take issue with the way the Timber Harvest Plan (THP) harvests 128 of the 140 proposed acres by using the "even-age" process. We are concerned with the increase of wildfires in our area due to climate change and given the proximity to Dunsmuir, we find this to be an unnecessary risk when other ways to harvest could be helpful to our area during this era of climate change. We will discuss other options for harvest and why a larger 'retention' is crucial.

General Plan Comments:
While careful forest thinning is important during this era in our Nation's history, this THP proposes to essentially clear-cut 128 acres of second-growth trees. As you know, these 60-120 year, second-growth trees are almost as rare as old-growth and should be saved not harvested.

Clear-cutting creates plantation style harvesting and planting. As is well known, this increases the likelihood of disease and pests, and wildfire affecting entire areas. It also requires the "restocked" tree stand (a proposed 128 acres) to be sprayed with herbicides that are used with some frequency to slow or stop competitive vegetation. This plan includes plantation style replanting, but we are recommending using a "Selective Cut" program from the beginning.

1

Given the new awareness and sensitivity around increased fire danger, we should take special precautions regarding fire risks for adjacent landowners and the town of Dunsmuir with this proposed THP. In addition to this THP, there are at least two more THPs from the same timberland owner planned for the Dunsmuir area.

The "selection harvesting" model should be used in the harvest of the proposed acreage. The project description states, "The goal of this project is to implement these prescriptions in a manner that produces profit" (p. 68). This by itself should never be allowed. We must not allow companies to maintain or change land to the detriment of the ecosystem. Forest lands, be they public or private, can be carefully thinned and lumber can be harvested for use but if profit is the ultimate motivation, then of course clear cutting or near clear-cutting will always be the case. We object to this manner of thinking and way of being in our world. It is literally killing us, causing climate change and bringing our species closer to its own extinction.

Plantations are now commonly mislabeled as "forests" for the convenience and advantage of the Timber Harvest Industry for future profit, not for the health or re-creation of true forests. Just two examples show this to be a significant issue that needs to be addressed. In February 2017 there were large protests and information that came to light about the issues of real forests vs. plantations. The international environmental action organization Terra Nuova has reported on this issue of forests vs plantations:

"In September 2015, during the XIV World Forestry Congress, thousands of people took to the streets in Durban, South Africa, to protest against the problematic way in which the UN Food and Agriculture Organization (FAO), insists on defining forests (1). The FAO definition considers forests to be basically just "a bunch of trees", while ignoring other fundamental aspects of forests, including their many other life-forms such as other types of plants, as well as animals, and forest-dependent human communities. Equally, it ignores the vital contribution of forests to natural processes that provide soil, water and oxygen. Besides, by defining 'forests' as only being a minimum area of land covered by a minimum number of trees of a minimum height and canopy percentage, FAO has actively promoted the establishment of many millions of hectares of industrial tree plantations, of mainly alien species, especially in the global South. As a consequence, only one particular sector has benefitted: the tree plantation industry. Industrial tree plantations have been the direct cause of many negative impacts on local communities and their forests; which have been well-documented (2).

But the influence of the FAO's forest definition goes beyond just determining national forest definitions. In these times of climate change, the FAO's definition has been the main point of reference to define what a forest is under the UN climate change convention (UNFCCC). By adopting the FAO's narrow wood-based definition, the UNFCCC has also promoted a view of forests being an area of land containing only trees. For the UNFCCC, it's mainly the trees in a forest that matter because of their capacity to store carbon as they grow, and not forest-dependent communities. Such affected communities are most negatively impacted by restrictions placed on their use of forest resources by "forest carbon offset projects", also often referred to as REDD+ projects (3). A forest definition only focused on trees opens the door to including "planted forests" – read: industrial tree plantations – a completely false way of "reducing deforestation and forest degradation", as an option under the climate change convention through which carbon can supposedly be sequestered from the atmosphere and permanently stored. In practice this is just another money-making opportunity for the tree plantation industry, and a major threat to communities affected by the trend of expanding "carbon sink" tree plantations."

[http://www.terranuova.org/news-en/how-does-the-fao-forest-definition-harm-people-and-forests]

Notes:
1 – "Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 hectares (ha). The trees should be able to reach a minimum height of 5 meters (m) at maturity in situ."
2 – See more in http://wrm.org.uy/browse-by-subject/tree-plantations/

3 – See more in http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/

And on June 2, 2020 the Global Forest Coalition stated "…'planted forests' is a deliberate mislabeling that not only allows the tree plantations industry to tap into badly needed and terribly limited climate funds, but also makes it easier to compensate for deforestation with plantation expansion…"

[https://twitter.com/gfc123/status/1267742969333010434]

There is current information in this 2020 fire season that the Creek and Bear Fires have shown how forest plantations, logging and habitat clearance have allowed fires in these areas to rapidly expand. Please notice in the link below, in the "before" logging photos and the area that just burned. If you read the THP you would be led to believe that heavy logging, clear-cutting and removing underbrush lowers the fire danger. This information shows otherwise.

https://forestpolicypub.com/2020/09/10/again-past-logging-makes-a-fire-worse-guest-post-from-ca-chaparral-institute/

Comments on Plan Specifics:

Section I:
Item 13 b. Proponent states that the project "will not have a significant adverse impact on the environment."

We object to this finding. One cannot simply state "it will not have a significant adverse impact." The land and animals that live there will be killed or driven out. Drag lines from clearing will leave raw soil, dust and piles of slash. This is not insignificant. Careful selection of trees and brush mastication would be much less significant, but likely less profitable and so does not fit the THP "plan" for maximum profit.

Section II:
The project will include 128 acres of 'even-age,' 1 acre of road right-of-way and only 11 acres of 'selection.'

How can virtually clearcutting 128 acres of 60-120 year old regenerative forested land not have a significant impact on the environment and the animals that live in the forest? In the plan's own admission, it will affect the regeneration of this forest land in the future. While this "ALTE" prescription is described as a 'superior prescription for the environment,' there is essentially no difference in the outcome from clear-cutting. The land will still need to have "artificial regeneration" which creates

plantation stands that are more prone to disease, are fire-prone, and it also requires multiple applications of herbicides.

"Even-age" harvesting results in dangerous fuel sources for wildfires because it requires plantation style restocking afterwards. In "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape" by Zald and Dunn, they report some interesting findings but for this comment letter, we will report on two things. They asked two questions. "(1) What is the relative importance of different variables driving fire severity and, (2) is intensive planation forestry associated with higher fire severity?" They found "daily fire weather was the most important predictor of fire severity, followed by stand age and ownership followed by topographic features. Estimates of pre-forest biomass were not an important predictor of fire severity."

Their "findings suggest intensive planation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity" are important in determining whether or not harvesting using 'even-age' should be allowed.

[https://www.researchgate.net/publication/324786837_Severe_fire_weather_and_intensive_forest_management_increase_fire_severity_in_a_multi-ownership_landscape]

Overstory trees are crucial for a healthy forest, soil retention, slowing snow melt and heavy water runoff and more of them should be saved in the plan. The amount of retention of these older trees needs to be higher to try to manage the species found in the area and for those known to travel through.

When talking about retention, 60% appears to be the tipping point to maintain "cooler" forest conditions, which is crucial in slowing warmer temperatures in the area; you plan on taking 95%. This 60% rate also is helpful to avoid adversely effecting "ectomycorrhizal (EMC) fungi, as they are associated with the roots of living trees. Retention forestry is a way of reducing logging impacts and enhancing biodiversity conservation. Increasing the proportion of trees retained at harvest may improve EMC fungal diversity."

[https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.13363]

For retention, we ask that you save the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops) to be prioritized in retention. We also request you increase the amount of retention at the 60% rate for the health of the ecosystem.

Lastly for this section, in the Dunsmuir Community Wildfire Protection Plan, the community of Dunsmuir is considered a Community at Risk (CAR): "The California Department of Forestry and Fire Protection (CAL FIRE) led the effort to identify all CARs in California. With California's extensive WUI situation the list of communities extends beyond those on Federal lands. CAL FIRE used three main factors to determine which communities were at risk and their level of fire threat, defining these factors as: 1) high fuel hazard, 2) probability of a fire, and 3) proximity of intermingled wildland fuels with urban environments. Currently, Dunsmuir is one of 1,327 communities in California identified as a CAR."

[https://static1.squarespace.com/static/54c9a764e4b0ee5502d31f04/t/5a559c430d92974f913bc5f3/1515560025354/Dunsmuir_CWPP_Signed-Final.pdf]

CalFire's special care of how the trees in this THP (and other THPs in the surrounding area) are harvested is crucial. To remove the higher risk of wildfire, use selective harvesting and not ALTE for these THPs.

Item #14 Silviculture:
Restocking: To stop brush growth, increased fire danger, and soil run off into local waterways, restocking should happen within a two-year period, not five. And we ask that you insist that the company restock a variety of trees to combat disease potential.

i: Site preparation

We would like to see cull logs used for firewood for the community. Piles could be left in easy to access areas so that our community, which is designated a "severely disadvantaged community" could have access to free firewood.

Section IV:
II, Cumulative Impacts
G, GHG Impacts: Removing 95% of the basal area from 128 acres of timberland (approximately 18mbf/acre) has measurable and immediate impacts to greenhouse gasses as it is removing carbon sequestration that is in place and future potential for more carbon sequestration. The plan also says that the change will not be noticeable on a global scale. CalFire should consider the totality of plans every year in the State, Nation and World. By doing so, you can see how it adds up to a significant impact on a global scale.

The Climate Change in General section (page 110) is seriously in error. As written, the THP authors question whether (a) unprecedented global warming actually exists ("...not a universally accepted fact among scientists..."); and (b) even if it exists, human activity may not be the cause ("solar activity and variability in the earth's electromagnetic field" may be the cause). The THP's questioning on both points is ill-informed and obsolete from the point of view of science. Of course, any scientific view can be and is still questioned - from whether the earth is round, to biological evolution, to Newton's Laws, to relativity. The percentage of scientists who say climate change and global warming are not happening is very small, and they usually have links to the fossil fuel industries. The existence of anthropogenic global warming has now been supported by an overwhelming amount of data and theory and scientists in the field, all over the world. The scientific evidence is easily strong enough to base public policy on it. To continue to question anthropogenic global warming in official documents, such as the THP does here, serves only to excuse inadequate action, or worse, to excuse willful ignorance, and to serve as a cover for quick profiteering.

On page 111, the following paragraph appears:

"Under a static view of carbon sequestration in forest management, there is a misconception that more carbon is sequestered by growing older trees rather than repeated cycles of growth and harvest. When forest products are taken into account unmanaged forests sequester less carbon (Eckert 2007)".

This view, like the THP's view of global warming, is also obsolete. According to a more recent paper in the prestigious journal Nature [Stephanson et al, *Nature* 2014:**507**, 90–93]:

"...for most species mass growth rate increases continuously with tree size. Thus, large, old trees do not act simply as senescent carbon reservoirs but actively fix large amounts of carbon compared to smaller

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trees; at the extreme, a single big tree can add the same amount of carbon to the forest within a year as is contained in an entire mid-sized tree. The apparent paradoxes of individual tree growth increasing with tree size despite declining leaf-level and stand-level productivity can be explained, respectively, by increases in a tree's total leaf area that outpace declines in productivity per unit of leaf area and, among other factors, age-related reductions in population density. Our results resolve conflicting assumptions about the nature of tree growth, inform efforts to understand and model forest carbon dynamics, and have additional implications for theories of resource allocation[11] and plant senescence".

Unlike the anthropogenic global warming question, which, through evidence, is now clearly resolved in the world of science, the carbon sequestration question is still a matter of debate and further investigation. The THP should not state the older, more self-serving, view as if it was a fact.

Wildfire potential needs to be addressed. Wildfire experts assert that wildfires spread MORE rapidly through recently clearcut areas than through mature forests. This is because the post-clearcut land soon becomes covered with highly flammable low-lying brush, and fires are further fed by the huge stacks of highly flammable slash left behind in the clearcut operations. Even if the brush and slash are treated, even-aged plantations are still much more flammable than uneven-aged stands.

We know that climate change is also causing an increase in diseases. "Forest tree diseases are often caused by infectious pathogens such as fungi and bacteria. Changing climate conditions can influence the spread of infectious diseases and their carriers, and add stresses to trees, making them more susceptible to diseases."

[https://www.fs.usda.gov/ccrc/topics/forest-tree-diseases-and-climate-change]

Biological Mitigation: We do not believe 5% retention with ALTE units is enough for the care of wildlife. This prescription is basically clearcutting with a different name. We would like to see the 60% retention for the health of the forest and ecosystem, including wildlife. We request more than just a tiny island where they can run to amongst the clear-cut or even-aged sections but places to live. And we request that the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops) to be prioritized in retention.

In conclusion, we find it very interesting that the PAWN THP and the Soda Springs THP are so close to one another and have been chosen to be submitted as two separate THP's. And there is a third "unnamed THP (page 83-84.) This is likely to look like it is a smaller impact than what it really is. Put these three plans together and one can see that the devastating impacts are significantly multiplied. CEQA would define this as piecemealing or "segmentation" and we object to it. The case Topange Beach renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html
states that the requirements of CEQA cannot be avoided by piecemealing. All three of these THPs must be considered as one project to adequately determine the cumulative impacts.

We ask CalFire to review the plan insisting upon using a Selective Cut program for the reasons listed above. Please increase the retention rates for the 128 acres of even-age from 5% to 60% and save the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops). We want the definitions of forest to be real, natural forests and not plantations as these plantations create a real wildfire risk.

We ask that the cumulative effects of climate change be part of the equation due to the current state of our fire seasons. We want a two-year restocking plan with various trees planted to stop disease potential and to retain logs for firewood for our local community's benefit.

It is time to do better, require more and protect the environment we have left. We would like a response and to be notified of any changes or adaptations to the plan.

Respectfully Submitted,

Raven Stevens
Board of Directors
We Advocate Thorough Environmental Review

Response #6 These concerns are in part addressed in the Wildfire Risk and Greenhouse Gas, Evenage Management and Impacts to Fire Hazard, Evenage Management compared to Unevenaged Management and Agency Activism discussions above.

The FAO designation of "forests" are not applicable to the California Forest Practice Act and Rules. The THP will be harvested and replanted with tree species that are naturally present on the landscape and there is no intent to replace the current forested area with non-native species. Profit motivation for continued forest management is entirely reasonable for landowners that pay the taxes on the property and employ the people to manage the lands. These are not public lands, and the proposed timber harvest is not publicly funded.

The comment writer utilizes a blog post comment by the California Chaparral Institute on the forestpolicypub.com website to state that the 2020 fire season indicated that forest plantations, logging and habitat clearance have allowed fires to rapidly expand. The main take away from the post utilizes the Zald et al study to support their claim that logging and forest plantation forestry is a contributor to increased fire spread and fire severity.

The Zald study has been discussed above in the Response to Concern #4.

Comments on Specific Sections of the Plan
Section 1 Item 13(b)- CAL FIRE as the lead agency, through a multi-agency review (please refer to the introductory description of the THP Review process) of the plan has determined that no significant unmitigated impacts were identified and that the Plan is in conformance with the Act and the Rules of the Board of Forestry. Section II concern with 128 acres of even-age management- CAL FIRE believes this concern is addressed within the introduction sections as well as the Zald and Dunn study review provided above.

With regards to the concern as it relates to ectomycorrhizal fungi, CAL FIRE reviewed the journal article and did not find information that would change the determination that no significant unmitigated cumulative impacts are identified. The examples listed within the study area are where existing native forests were replaced with non-native species. This is in contrast to California where native tree species are replanted after harvest. It stands to reason that the impacts would be decidedly different when native species are maintained on site. Since no declines of species have been documented, there is insufficient evidence to conclude that any one species is declining across a significant portion of its range. As a result, there is no substantial evidence available to lead CAL FIRE to conclude that a significant adverse impact is occurring to EMF species. Large industrial landowners operate under a landscape level management plan (option "a") which demonstrates sustainable timber harvesting. The natural result of the regulatory process is the production of a landscape that is diverse, with a variety of stand types. Modern evenage management strategies include retention (both aggregated and dispersed) along with other areas where harvesting is limited, further increasing the ability for belowground fungal species to persist and recolonize the landscape.

Item 14 Restocking timeframes- The plan utilizes current required time frames for the statements on restocking. These are maximum allowable timeframes. Often, restocking is complete prior to the end of the timeframe. Please refer to the "About Agency Activist" section in the introduction.

Site Preparation- statement requesting cull logs be made available as firewood to the community- CAL FIRE is limited to the enforcement of the Forest Practice Act and the Forest Practice Rules as adopted by the Board of Forestry. Department review of timber harvesting plans determines if they are in conformance with the rules and regulations of the Board of Forestry. CAL FIRE has no jurisdiction over individual or group requests of products from the Land Owner. These matters are outside of CAL FIRE jurisdiction.

Section IV Cumulative Impacts Assessment concerns. Numerous revisions to the Cumulative Impacts Assessment were completed by the RPF during the Review Process, please refer to the "Greenhouse Gas Sequestration" section in the introduction and Section IV of the approved THP.

It appears the link to the Forest Service article forest-tree-diseases-and-climate-change is no longer valid. Review Team members searched for Forest Service publications with these key words and identified what they believed to be the referenced article

Sturrock, R. N.; Frankel, S. J. ; Brown, A. V. ; Hennon, P. E. ; Kliejunas, J. T.; Lewis, K. J.; Worrall, J. J. ; Woods, A. J. 2011. Climate change and forest diseases. Plant Pathology. 60: 133–149.

The conclusions stated in the journal article appear to be consistent with the revised GHG impacts Assessment within the THP as well as the Forest Pests and Diseases requirements of the FPRs- 14 CCR 937.9 Prevention Practices.

> *"Timber Operations shall be conducted so as to minimize the build-up of destructive insect populations or the spread of forest diseases. To achieve this goal the following shall occur:*
>
> > *(a) Where THPs are in areas where the Board of Forestry has declared a zone of infestation or infection pursuant to PRC sections 4712 - 4718, the RPF shall*

identify feasible measures being taken to mitigate adverse infestation or infection Impacts from the timber operation.
(b) Where significant adverse insect or disease build-ups are identified by the RPF preparing the plan or the Director on an area to be harvested under a THP, the plan shall include feasible measures to address the problem.
(c) The Board of Forestry has determined that insects breeding in pine logging Slash can be a significant problem if they are not managed. Board of Forestry Technical Rule Addendum Number 3 describes the considerations that the RPF preparing a THP shall use in developing alternatives for treating pine brood material. The addendum also describes methods of treating pine brood material that may be used to meet the objectives of this rule. The RPF may propose or the Director may require hazard reduction treatments to mitigate significant adverse Impacts of insects breeding in pine brood material at any time during the life of a THP."

CAL FIRE believes the THP complies with all required pest and disease rules in the FPRs and concurs with the RPFs assessment of no significant insect or forest disease problems within the THP area.

Concerns related to piecemealing- please refer to the "CEQA Analysis" section in the introduction. The Pawn THP has been withdrawn by the landowner. Technical Rule Addendum #2 specifies that the assessment of cumulative effects must be based upon the defined assessment areas. The RPF developed appropriately sized assessment areas for each of the Resources Subjects. Impact assessments are described to include the THP and any past, present, or reasonable future projects which fall within each of the resource subject impact assessment areas. CAL FIRE has determined the impact assessments are adequate and does not believe piecemealing as described in CEQA is occurring or is expected to occur.

CAL FIRE's role is to determine if the plan as proposed complies with all current rules and regulations. CAL FIRE has determined the plan is in conformance with the Act and Rules of the Board of Forestry.

Concern #7

20 PC- 0000000477

PC #7

Jeff Stone
909 Bennett Drive
Yreka, CA 96097
stonepitts2@gmail.com

November 15, 2020

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002
Submitted electronically via CalTrees

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Re: Soda Springs THP, 2-20-00174-SIS

The following are my comments on the Soda Springs THP.

Comments on THP Sufficiency and Review Convenience

This THP is difficult to navigate because it was scanned as an image. Instead, conversion from a document to a pdf would allow reviewers to more easily locate what is being sought by using the "Find" function. I am not suggesting that CalFire staff perform the tedious process of converting submitted image documents to a searchable form; rather, the documents should be required to be posted to CalTrees by the submitter in a searchable form (except of course for pages in documents that require signatures, such as the NOI). These documents are long and complicated, and if CalFire desires intelligent comments, efficient navigation is critical.

I was not able to locate a summary table of the individual units that showed acreages, slope ranges, and treatment types. It is difficult to get an understanding of the general features of the project without such a summary table. I was not able to locate any information at all on the sizes of the individual units.

Project features were not made available in .gpx or .kml format. These formats are very user friendly, are easy to generate, and providing them would make the review process much easier using commonly available software such as Google Earth and GaiaGPS (as opposed to ESRI software, which requires an expensive license).

Item 30g (p. 45) states that piling and burning will not be used for hazard reduction; however, Item 14i2 (p.15) states the opposite. Please clarify.

The discussion in Section V, "Past, Present and Reasonably Foreseeable Projects" (pp. 84-85), is awkward. The transitions between the discussions of the various assessment areas are not

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clearly visible and the assessment areas themselves are not clearly defined, sometimes using the name and at other times using the area dimensions.

The two "Past and Present Activities" maps (pp. 85-86) would be clearer if combined into a single map.

The last sentence in Section E1, Visual Resource Inventory (p. 108) erroneously refers to traffic impacts.

Alternative Prescription ALTE

Shasta Cascade Timberlands (SCT) would treat 128 acres in 7 units under Alternative Prescription ALTE, which is a modified even-aged cut with artificial regeneration. While I appreciate the intention to protect biological, soil, and visual resources, the descriptions of the prescription in Section 3 and Item 35 do not reveal much difference from a traditional clearcut. The descriptions state that "at least 5%" of the harvest area will be retained within HRAs or as leave trees (p. 51), and that an average of 5% (1/19 MBF/acre) of the existing volume will be retained (assuming an average stand volume of 19mbf [p. 64] and an average harvest of 95% of the basal area [p. 66]). I'm not sure that this is a significant difference visually, biologically, or pedologically.

While an attempt is being made to describe this as an environmentally superior prescription to a traditional clearcut, artificial regeneration will still need to occur. Artificial regeneration introduces new problems to the stand, including the use of herbicides, visual impacts, a higher probability of erosion, a lack of ecological diversity, and the fire-prone nature of plantations.

While it is true that even-aged management removes most of the fuel from the unit, post-harvest plantations are extremely flammable, even if thinned and underburned at appropriate intervals (which often does not happen). Plantations in California have a very low survival rate because they tend to burn up before they reach a mature, more fire-resistant state. When properly managed, uneven-aged stands are more fire resistant, and so from a fire management perspective, uneven-aged management is more sustainable.

The City of Dunsmuir has been designated as a community at risk from wildland fire. During the creation of the Dunsmuir Community Wildfire Protection Plan (published 2016), one of the stakeholders asked, "Can we work into the plan, requirements or assurances for timber stand/ forest owners to design their logging efforts in a way that enhances our planning efforts?" The answer given was, "Yes, this is part of the collaboration process and would be incorporated at the project level planning stage." This proposed timber harvest project is just one mile from Dunsmuir and given today's reality of landscape level wildfires, converting 128 acres to a more flammable condition through even-aged management is not desirable. During the past few years, the Sacramento River canyon downstream from the project area has been ravaged by

wildfire. This year's wildfires have driven home the reality of climate change, which will only make wildfires more destructive. We need to make our managed timber stands less fire prone through thinning and uneven-aged management, not more so by converting them to plantations. The fact that the THP's assessment area definition for Wildfire Risk and Hazard (p. 77) encompasses a distance of only one quarter (¼) mile radius from the project reflects an outdated and irresponsible methodology. Limiting the assessment area to such an extreme extent relieves the proponent from any responsibility for analyzing wildfire risk to nearby communities that will very likely be caused by the project.

Once an even-aged stand is established, herbicides are often needed in perpetuity to reduce competition with undesirable (from a timber management perspective) vegetation. The proposed conversion to even-aged stands locks in the necessity to spray over and over again, through multiple harvest cycles. Additionally, clearcuts tend to be reservoirs for noxious weeds, which require even more herbicides to control (if the attempt is even made). The sustainability of this repeated need for herbicides is questionable. It is also a political flash point, especially for the local communities that still remember the Cantara spill of 1991. I didn't see where public notice is required prior to herbicide application.

In regard to climate change, Governor Brown of Oregon recently put it well: "I think there's no question that the changing climate is exacerbating what we are seeing on the ground," she said, referring to the recent wildland fires. "I think it's incumbent upon all of us to be aware that climate change is going to impact how we live, our economy, our culture and that we all need to be making changes accordingly. It is going to continue to challenge Oregon, the country, and the world." Despite dismissive remarks in the THP's "Greenhouse Gas (GHG) Impacts" discussion, the horrendous fires of the 2020 fire season demonstrate that climate change is real and that warming and drying is going to further increase fire danger. It is imperative that public policy reflect this if we are going to have a chance to mitigate this trend. Clearly, even-aged management increases fire danger in the medium- to long- term and it should be relegated to the trash heap of history.

Visual mitigations applied to this project as described in Section 4 are deemed necessary based on unit visibility from "a vehicle on a public road, or from a stationary public viewing point to significant numbers of people who are no further than three miles from the operation" (p. 108). Only "certain" ALTE units are identified as being "partly visible" from the community of Dunsmuir (p. 77), which is less than 1 mile away from the project. These vague and restrictive statements make it difficult to determine how well the mitigations will perform on the ground. I would suggest that an arbitrary limit of three miles is not appropriate. Recreation is a very important component of local economies. Possible vantage points in the area include Mount Bradley Lookout, Castle Crags Wilderness, Mt. Shasta Wilderness, the Pacific Crest Trail, Castle Crags State Park, Interstate 5, and the towns of Castella and Dunsmuir. Justifying degradation of visual resources with the excuse that the area is zoned TPZ (p. 108) ignores the fact that there are alternatives to clearcutting that are visually superior and, if anything goes, it begs the question of why we are bothering to consider visual resource management at all.

To summarize, conversion to even-aged management will likely result in a less sustainable ecosystem (not to mention a lower timber yield) due to the fire-prone nature of plantations and the repeated herbicide spraying that will be necessary. An alternative to even-aged management should be more fully considered, as, in the long run, will be more sustainable for timber harvest, more visually pleasing, less fire prone, and safer for surrounding communities.

Piecemealing

The cumulative impacts section makes passing reference to the neighboring Pawn THP (recently withdrawn) and an unnamed third THP which is in the same planning watershed as Soda Springs (pp. 83 and 84). Mere mention is not sufficient to address the full cumulative impacts of these projects. The THP doesn't provide enough information to asses cumulative impacts among these three projects, especially since the location of the third, unnamed project is not specifically identified. Will Pawn be resubmitted? Are there more adjacent projects in the planning stages? The proponent appears to be attempting to "piecemeal" these THPs together to avoid addressing the full impacts of these projects. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' " (Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html

Cumulative Effects from Wildfire Risk and Hazard

The description of cumulative effects from wildfire risk and hazard (p. 117) is particularly insufficient. Most significantly, the ¼ mile assessment area is much too small for a cumulative assessment, given the fact that recent megafires in northern California (including several in the Sacramento River Canyon) have covered much larger areas and have been extremely resistant to control. The assessment states that the project area is in a Very High Hazard Severity Zone but does not build on this fact by analyzing any consequences of this classification.

The most important criterion when considering options for timber harvest should be reduction of fire hazard, in both the short term and long term. If this is not taken into account, all the talk about LTSY is futile, as it's all going to burn. Look at the fires that burned this year in the west and look at the continuous devastation that has occurred recently in the lower Sacramento River Canyon. This scenario is coming to a forest near us; it's only a matter of time.

The claims are simply made that "The project is not expected to significantly change the fire risk. Long-term, this project will decrease the fuel loading by lowering the density of trees and reduce the fire hazard by separating crowns and surface fuels." "No significant cumulative

impacts to fire risk and hazard should result from the proposed project." These claims are absurd. It gives absolutely no consideration to change in the resulting even-aged stands over time. It is clear from recent fire history in the Siskiyou Mountains (and much of the rest of the west) that plantations are extremely fire prone, much more so than uneven-aged stands, and are often consumed by fire before they become old enough to be commercially harvested (which, by the way, negates the argument that even-aged management satisfies the LTSY rule). These fire-prone plantations present an unacceptable risk to local communities; converting uneven-aged stands to even-aged stands should be considered an irresponsible act that will certainly increase the likelihood of catastrophic wildfires in the future. This is obvious and is well documented. See, for example, C.P. Weatherspoon and C. N. Skinner. 1995: "An assessment of factors associated with damage to tree crowns from the 1987 wildfires in northern California." Forest Science 41(3): 430-451. Also see, "A Review of SPI's study: 'Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds'" by Peter Miller, NRDC, May 5, 2008, from which I quote:

> The SPI analysis completely ignores the issue of fire. The authors reject any data from forest stands that have burned and make no mention of potential differences in vulnerability to fire across management scenarios. However, the intensive management scenarios proposed by SPI would create dense stands of uniform, young, even-aged trees which are particularly vulnerable to catastrophic fire. The increase in vulnerability to fire puts at risk the purported carbon benefits and could threaten nearby communities.

This critique of Sierra Pacific Industries' even-aged management policy also applies to what is proposed by SCT in the Soda Springs THP, as the result will be the same. Ignoring the big picture of wildfire hazard and risk may have been appropriate 50 years ago, but in today's world of climate change, drought and the resulting megafires, it no longer reflects reality.

More recent studies have come to similar conclusions regarding fire hazard in intensively managed even-aged stands. Daniel Gavin, professor of geography specializing in forest ecosystems and environmental change at the University of Oregon, recently wrote, "In Oregon's 2020 fires, highly managed forests burned the most," affirming a 2018 study from Oregon State University, "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape," that suggests that "intensive plantation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity." Preliminary analyses of this year's Bear Fire on the Plumas National Forest indicate that there was a dramatic acceleration of that wind-driven fire when it reached the intensively logged area between Little Grass Valley Reservoir and Feather Falls, an area of about 70,000 acres owned primarily by Sierra Pacific and Soper-Wheeler. The Bear Fire incinerated the town of Berry Creek and killed 15 people.

Conclusions

Please reject this THP and require that the proponent resubmit a single THP that includes a realistic and complete cumulative effects analysis of all SCT's past and pending harvest plans within the immediate geographical area of Dunsmuir, Castella, and Mt. Shasta City, which should include 1) the Pawn THP, 2) the unnamed plan mentioned in the Soda Springs THP, 3) any others that may be in the planning process, and 4) the thousands of acres in this area already converted to even-aged management by SCT. Certainly, from the wildfire risk and hazard perspective, these past, present and future THPs are connected actions that must be addressed in a single document.

Dunsmuir is already a community at risk of wildfire. SCT owns over 24,000 acres adjacent to the towns of Dunsmuir, Mt. Shasta City, and Castella. The residents of these towns deserve to see a thorough cumulative effects analysis to determine whether SCT's management of its lands will pose an existential threat to them.

Thank you for this opportunity to comment.

Jeff Stone

Jeff Stone

Response #7 CAL FIRE believes most of the concerns raised in this Letter of Concern are addressed within Responses to Concerns #1, #4, #6 and within the introduction sections above.

Concern #7 brings up a few points that are more stylistic observations/suggestions and formatting concerns. These types of issues are outside of CAL FIRE's jurisdiction to change or respond to in regards to the 2-20-00174SIS THP.

Acreage of each treatment type can be located on page 10, post-harvest stocking standards for each treatment type can be located on page 11.

b. POST-HARVEST STOCKING TO BE MET AT THE COMPLETION OF OPERATIONS		
Silvicultural Prescription	Site Class (I, II, III, IV, V)	Post-harvest stocking standard
Alternative Prescription	I, II, III	125 point count within 5 years post-harvest
Selection	I, II, III	Site Class I: • 100 square feet of basal area per acre • At least 15 square feet of basal area per acre of seed trees which are 18 inches dbh or greater shall be retained. • Up to 15 square feet of basal area may be met with snags and decadent or deformed trees of value to wildlife. These trees or snags must be at least 30" DBH and 50' or greater in height. Site Class II: • 75 square feet of basal area per acre • At least 15 square feet of basal area per acre of seed trees which are 18 inches dbh or greater shall be retained. • Up to 15 square feet of basal area may be met with snags and decadent or deformed trees of value to wildlife. These trees or snags must be at least 30" DBH and 50' or greater in height. Site Class III: • 75 square feet of basal area per acre • At least 15 square feet of basal area per acre of seed trees which are 18 inches dbh or greater shall be retained. • Up to 15 square feet of basal area may be met with snags and decadent or deformed trees of value to wildlife. These trees or snags must be at least 24" DBH and 30' or greater in height

A longer more narrative description of the Alternative Prescription can be viewed on pages 66-67. Mapped locations depicting silviculture, slope, site class, EHR, and location of watercourses for each unit can be viewed on the Section II Maps, pages 61- 63. Additional information on the physical description of the THP area can be found on pages 64-65 of the THP. The FPRs require acreage to be listed for each silvicultural prescription. Individual unit acreage is only required to be mapped if even-age regeneration units are proposed to be larger than allowed in the rules (20 acres tractor, 30 acres cable). Item 14(c) on page 11 of the Plan states that all even-age units will be within the allowed acreage, CAL FIRE's GIS review of the Plan concurs with this statement.

Item 30(g) on page 45 refers to the use of pile burning to remove qualifying materials in Hazard Reduction Zones, as there are no Hazard Reduction Zones (specifically within a certain number of feet of a home or residence or within a certain distance of a public road or a private road with public access, as Timber Operations are not proposed in any areas qualifying as Hazard Reduction Zones- the Item 30(g) question is selected "No". Item 14(i)(2) on page 15 is about site preparation activities. These activities take place within logging units-usually a larger area than areas that may qualify as a Hazard Reduction Zone. Pile burning has been identified as a proposed option to deal with materials that may be generated during Site Preparation Activities

14 CCR 895.1 Definition of Site Preparation is
"Site Preparation means any activity involving mechanical disturbance of soils or burning of vegetation which is performed during or after completion of timber harvesting and is associated with preparation of any portion of a logging area for artificial or natural regeneration."

"Fire Protection Zone (For the Northern Forest District:) means that portion of the logging area within 100 ft. (30.48 m), as measured along the surface of the ground, from the edge of the traveled surface of all public roads and railroads, and 50 ft. (15.24 m) as measured along the surface of the ground from the traveled surface of all private roads, and within 100 ft. (30.48 m), as measured along the surface of

the ground, from permanently located structures currently maintained for human habitation (Ref. Sec. [4562], PRC)."

The reference to traffic impacts within the visual impacts section on page 108 was revised to state visual resources by the RPF.

As discussed on pages 117 through 128, within "Other" – Herbicide Use, the actual use of herbicide is speculative at the time of submittal. This is due to the unknowns of whether additional measures will be necessary to insure the survival of planted trees. Nonetheless – a CEQA discussion on herbicides and adjuvants has been prepared for the THP. While the California Department of Pesticide Regulation is responsible for certifying chemicals for usage within the State, a CEQA discussion on the impacts of such usage within a Timber Harvest Plan has been determined by the Department to be necessary. The plan provides this CEQA discussion, and the Department finds this discussion adequate.

The Visual Impacts Assessment: please refer to portions of Response #3 as they relate to Recreation and Tourism as well as the "CEQA Analysis" section in the introduction. A multi-agency Review Team assessed the potential for Visual Impacts as well as the adequacy of the Visual Impacts Assessment during 1st Review, on the Pre-Harvest Inspection, and during 2nd Review of the Plan. The Visual Impacts Assessment provided was determined to abide by all Rules and Regulations of the Board of Forestry. The Final Determination for the Plan, was that no Significant Unmitigated Impacts are proposed or expected, this includes Visual Impacts.

Piecemealing: please refer to the introduction and Response to Concerns #1 and #6 as it relates to piecemealing.

Please refer to Response #3 and #6 information concerning Wildfire Risk and Hazard as well as the "Evenage Management and Impacts to Fire Hazard" and "CEQA Analysis" sections in the Introduction.

Please refer to the Greenhouse Gas discussion in the introduction. The belief of individuals to the validity of global climate change does not impact the fact that an assessment of greenhouse gas emissions is a necessary component of a Timber Harvest Plan and is mandated by Technical Rule Addendum 2. CAL FIRE does not weigh in on a landowners personal belief system, but reviews the necessary components for their accuracy and completeness. In that regards, the revised THP meets the intent of the Rules and Act in regards to greenhouse gas and climate change assessments.

Concern #22

11/24/2020
Soda Springs THP, 2-20-00174-SIS Public comment

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To Whom it May Concern:

Since the THP is the logging equivalent of an EIR, I'm addressing it as such.

I'm very concerned about the adverse environmental consequences that would occur if this proposal were carried out. The logging specified is similar to clearcutting for most of the acreage, including destroying many old and large second growth trees.

Fire - It would significantly increase in chance of Fire to a large area surrounding the THP. It would also result in more devastating wild fires that are hotter, more destructive, bigger and faster moving. In recent California wildfires, areas that burned hotter, faster, etc. were in areas previously logged.
Matthias Gafni and Michael Williams Sep. 17, 2020 Updated: Sep. 17, 2020 7:55 p.m.

Proximity – The proposed logging area is within the immediate geographical area of Dunsmuir, Castella, and Mt Shasta City. As are 2 other proposed THP's.

Climate devastation – It would cause the loss of the large amount of carbon sequestered in these large and old trees in the THP area. Climate remediation planning assumes and relies on the forests continuing the current level of carbon sequestration. This THP represents a significant harmful component toward increasing the harmful effects of climate warming.

Loss of Support Services – It would cause permanent loss of the multitude of benefits and supports from a mature, mixed species forest with large old trees: water gathering, creeks, habitat, wildlife, shade, snow, diversity of species, etc. As acknowledged in the THP, many 60 - 120 year old trees would be removed.. These old trees provide the most services for the forest. They are irreplaceable and the overall losses would be permanent. Unlike a natural mixed forest, the clearcut areas would be unable to adapt and recover, let alone the big second growth trees which would be lost forever.

Future of the THP Area – Once clearcut, the forest can never repair itself. If instead, the THP were limited to careful selective limited logging leaving mixed forest species and the large old trees intact, recovery might be possible (depending on logging practices, chemicals used, excess damage, etc.etc.)

Long Term Future of Whole Area – Clearcutting and extreme logging are very harmful for the long-term future of the area logged, the community, the local logging industry, employment, and the ability of the forested area to recover. The logging company plan appears to be: profit now with no effort to leave a viable, sustainable, productive forest and community for those who come after.

1

Proximity – This proposed clearcut area is way too close to the communities in the area. There is much tourist activity, and tourists and locals want to see beautiful views from nearby campgrounds, trails, and scenic drives. It's also close to 2 other THP's for the same area, one recent THP and a prospective THP.

Deception - several THP statements concern me – Statements that, it's still unclear about whether climate change is a problem (which is long past debatable), no acknowledgeable of the added fire danger caused by logging (as noted in several recent California fires), leaving tree borders around clearcuts/plantations, and submitting individual THP's when you intend to submit 3 in the same area. These are all examples of misrepresentation to deceive the public for profit.

Thank you for your attention . The times are changing, and clearcuts can no longer be acceptable given our already damaged and endangered forests, grave fire dangers, and high level of need to preserve forest carbon.

Sincerely,
Jan Cecil

Response #22 During the Review process, revisions were submitted by the RPF to both the Greenhouse Gas and Wildfire Risk and Hazard Impacts Assessments. These concerns are addressed in the introduction and with Response #3 and #7 above.

Concern #33

Dear Cal Fire Representatives:

We are property owners on Riverside Road near the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. This Harvest Plan bothers us for several reasons. This logging site is close to other previous logging sites in this section of the Sacramento canyon, and the previous sites have left horrible scarring. The roads carved in to allow the logging are equally bad.

Our property is below Girard Ridge Road, where some of the past logging occurred. Our well water and spring water quality diminished soon after the logging. Our spring water flow has decreased and the turbidity has increased.

The tourism economies of the small towns nearby (Dunsmuir, Castella, Mount Shasta, etc.) have already been damaged by the unattractive scenery this logging has caused. We don't need more economic damage! Also, any logging that removes older, carbon-sequestering trees is a bad idea.

We are asking that CalFire review the Soda Springs Timber Harvest Plan as follows:

1) See that they only use selective logging techniques, leaving at least 2/3 of the trees.
2) Make sure that the logging debris is chipped and spread on site rather than burned.
3) Please see that the access roads be worked such that erosion and silt runoff is eliminated.
4) Require that the disturbed areas be re-planted with native species and maintained to insure rapid re-growth.

Our property had some selective harvesting done 10 years ago and we used these techniques. This harvest returned a nice income, and the property has recovered great. We don't see a reason to harvest more intensely, other than greed.

We can no longer afford clearcutting. It is too damaging to our health, our climate, our scenery. Those days are over and only selective harvests should now be allowed.

Please enact these changes and please keep us updated on the Plan.

Thank you for your time with this.

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JAN 25 2021
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FOREST PRACTICE

Response #33 These concerns are mostly addressed in the introduction and Response #3 above. Additionally, please refer to the “Concern over Timber Harvesting Activities being conducted ‘for-profit’ and land ownership by a ‘foreign entity’” discussion in the introduction.

The Forest Practice Rules have a robust set of measures for road construction, road reconstruction and road maintenance. The primary theme of the road rules are to prevent sedimentation into waters of the state, and focus on modern road construction and

maintenance techniques and proper road placement on the landscape. A 1550 foot long road is proposed to allow access for modern cable logging. This cable logging will replace the yarding method in Unit 2301 from tractor logging, which was how the area was logged in the past, to cable logging which results in less soil displacement.

Tree planting of native species, with seed from local sources, is the proposed method of reforestation.

While chipping may occur in places, there is no requirement to chip all logging related slash and debris.

Concern #41

Dear CalFire:
As a retired USFS who has been in this area since 1981, and been on the very slopes you intend to harvest, I must protest your plan for some specific reasons:

1. The petroglyph site here is bigger than the acheo report says it is. I submitted a report but the ranger ignored it (?). The slopes east of the creek have rocks that include a Spanish Maltese Cross as well as the zigzag and cow head previously seen, there are more there as well in the units across the creek. I can take you there. Check the files first.

2. I was actually chasing peregrines in this area. Don't you know there is a second nest on the point above the proposed units as well as the main one on the south slope above the PCT? I also reported that one and put it on the official biology report which I submitted to the ranger.

3. Not to mention this is still the Crags and this is a scenic area. The original request made by 90% of the MSRD staff and myself said the boundary of the wilderness should be the CREEK, not the section lines. However, this was not followed and you have a very screwy boundary now. I recommend NOT crossing the creek and allowing a buffer zone, as all the petroglyphs I found were west of the creek. I don't know if the area was further searched, but they are rather remarkable chisel jobs, rather than paints. I suspect the white men loaned the Indians a chisel they had.

4. This are is notorious for slope instability. Expect some mudslides from roads and harvest areas...how big, I don't know, but the town is down below. Looks like a stupid risk to me for rather poor quality timber.

5. This area has had spotted owls, but present status unknown. Was it properly called?

I therefore recommend the project be cancelled immediately.

Francis Mangels, 736 pine ridge, Mt Shasta CA 96067 ph 530-926-0311

Response #41 In response to this comment, CAL FIRE Review Team Staff reviewed all Archaeological Reports/Information Request Responses. After thorough review, CAL FIRE staff concluded the referenced potential site was not located within or near the proposed Plan. Within the concerns stated in the email, there are several statements which led Review Staff to infer the individual writing the email believed the project was proposed on State Park or National Forest lands. The plan is proposed on private timberland.

Section II Info on nests and Northern Spotted Owls is located on pages 46- 50. A Valid Take Avoidance Determination letter was provided with the plan as well as all required information and analysis. CAL FIRE concurs that impacts to the NSO are not expected from this Plan. In addition to the species-specific protection measure provided within Section 32 of the Plan, there is an additional statement of protection on page 50 of the THP for non-listed raptors.

If an occupied nest of a non-listed raptor is discovered during operations the LTO shall suspend all vegetation disturbing activities within 375' of the nest until an RRC biologist or forester has designated the nest tree, perch tree(s), screening tree(s) and replacement trees which shall be left standing and unharmed. The CAL FIRE inspector and local DFG representative shall be notified of the nest location within 5 days of discovery. No amendment to the THP is necessary for these actions.

With respect to the concerns specific to slope instability: The Plan was reviewed and inspected by a Geologist from CGS to identify any geologic concerns. CGS made (2) recommendations to the RPF as a result of the Pre-Harvest Inspection. The RPF agreed to both and made edits to the plan. With the incorporation of both PHI recommendations into the Plan as well as the Plan abiding by all Rules and Regulations related to Geologic issues, CAL FIRE does not believe the Plan will result in any Geologic issues.

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.

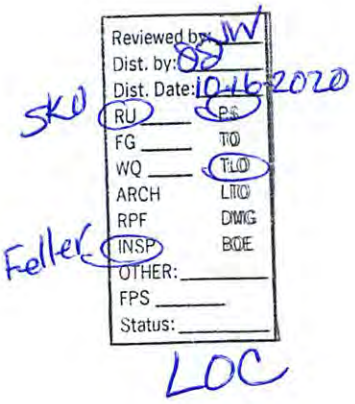
ALL CONCERNS RAISED WERE REVIEWED AND ADDRESSED. ALONG WITH THE FRAMEWORK PROVIDED BY THE FOREST PRACTICE ACT AND THE RULES OF THE BOARD OF FORESTRY, AND THE ADDITION OF THE MITIGATION MEASURES SPECIFIC TO THIS THP, THE DEPARTMENT HAS DETERMINED THAT THERE WILL BE NO SIGNIFICANT ADVERSE IMPACTS RESULTING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

Appendix A

20PC-00000423

PC #1

Jeff Stone
909 Bennett Drive
Yreka, CA 96097
stonepitts2@gmail.com



SKO

Feller

LOC

October 15, 2020

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002
Submitted electronically via CalTrees

2-20-00174SIS
concerns

Re: Pawn THP, 2-20-00145-SIS

The following are my additional comments on the Pawn THP.

I request that you reject both the Pawn THP, 2-20-00145-SIS, and the Soda Springs THP, 2-20-00174-SIS. The proponent appears to be attempting to "piecemeal" these THPs together to avoid addressing the full impacts of these projects. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' " (Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html

These two THPs are adjacent to each other. The Biological Assessment Areas (BAAs) overlap. The Watershed Assessment Areas (WAAs) are adjacent, but about 5 acres of one of the Pawn units (2204) is within the WAA for Soda Springs. The closest units in these two THPs are only about 1700 feet apart. Some of the Pawn units share the same road system with the Soda Springs units.

Please note that I was unable to locate a WAA map in the Pawn THP, though it is referred to on p. 103.

The cumulative impacts section of the Pawn THP makes passing reference to an unnamed THP within the Upper Soda Springs PW, which is presumably the Soda Springs THP (p. 103). The Soda Springs THP refers to another, nearby unnamed third THP (Soda Springs THP, p. 84). Mere mention is not sufficient to address the full cumulative impacts of the three projects. While there may indeed be minimal cumulative impacts among these three projects, it is not at all clear that this is the case, especially as the location of the third, unnamed project is not specifically identified. Are there more projects in the planning stages?

The description of cumulative effects from wildfire risk and hazard (p. 136) is particularly insufficient. The claim is simply made that since "Timber harvesting inherently decreases fuels on the landscape...", there will thus be "...no cumulative increase in wildfire risk and hazard...." This claim is absurd. It gives absolutely no consideration to change in the resulting even-aged stands over time. It is clear from recent fire history in the Siskiyou Mountains (and much of the rest of the west) that plantations are extremely fire prone, much more so than uneven-aged stands, and are often consumed by fire before they become old enough to be commercially harvested (which, by the way, negates the argument that even-aged management satisfies the LTSY rule). These fire-prone plantations present an unacceptable risk to local communities; converting uneven-aged stands to even-aged stands could be considered an irresponsible act that will certainly increase the likelihood of catastrophic wildfires in the future. This is obvious and is well documented. See, for example, C.P. Weatherspoon and C. N. Skinner. 1995: "An assessment of factors associated with damage to tree crowns from the 1987 wildfires in northern California." Forest Science 41(3): 430-451. Also see, "A Review of SPI's study: 'Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds' " by Peter Miller, NRDC, May 5, 2008, from which I quote:

> The SPI analysis completely ignores the issue of fire. The authors reject any data from forest stands that have burned and make no mention of potential differences in vulnerability to fire across management scenarios. However, the intensive management scenarios proposed by SPI would create dense stands of uniform, young, even-aged trees which are particularly vulnerable to catastrophic fire. The increase in vulnerability to fire puts at risk the purported carbon benefits and could threaten nearby communities.

This critique of Sierra Pacific Industries' even-aged management policy also applies to what is proposed by Shasta Cascade Timberlands (SCT) in the Pawn THP, as the result will be the same. Ignoring the big picture of wildfire hazard and risk may have been appropriate 50 years ago, but in today's world of climate change, drought and the resulting megafires, it no longer reflects reality.

Please reject these two THPs and require that the proponent resubmit a single THP that covers the cumulative effects of all their pending harvest plans within the immediate geographical area of Dunsmuir, which includes the unnamed plan mentioned in the Soda Springs THP (and any others that may be in the planning process), and which also includes a realistic cumulative effects analysis of wildfire risk and hazard. Certainly, at least from the wildfire risk and hazard perspective, these THPs are connected actions that must be addressed in a single document.

Additionally, a cumulative effects analysis of wildfire risk must include the effects of the thousands of acres already converted to even-aged management by SCT in the Dunsmuir area.

Dunsmuir is a community at risk of wildfire. SCT owns over 24,000 acres adjacent to the towns of Dunsmuir, Mt. Shasta City, and Castella. The residents of these towns deserve to see a

thorough cumulative effects analysis to determine whether SCT's management of its lands will pose an existential threat to them.

Thank you for this opportunity to comment.

Jeff Stone

Jeff Stone

Japp, Jeannie@CALFIRE

From: CALTREES-NoReply@resources.ca.gov
Sent: Thursday, October 15, 2020 7:10 PM
To: Redding Public Comment@CALFIRE
Subject: New Public Comment Record 20PC-000000422 on 2-20-00145-SIS

Follow Up Flag: Follow up
Flag Status: Flagged

New Public Comment Record 20PC-000000422. Added to Plan ID 2-20-00145-SIS. IMPORTANT: This was submitted Online in CalTREES, please login and confirm the public comment is valid and update the workflow appropriately to make visible online..

To further review this document please login to CalTREES and search by Document ID.

This is an automated email from CalTREES, if you have received this in error please contact CalTREES.support@fire.ca.gov and reference communication ID: CALTREES_INTERNAL_EMAILS

20PC-0000000457

PC #2

Ramaley, John@CALFIRE

From: Devan Hess <dpuff11@gmail.com>
Sent: Friday, October 23, 2020 1:00 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Do the right thing. Now.

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

Hello,

I am a resident of Earth, A Brother of all fellow men, who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to kindly review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Devan Hess.
--
-Devan Hess

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PC #3

20 PC-00000458

Reviewed by: GAC
Dist. by: OG
Dist. Date 10-28-20
RU PS
FG TO
WQ TLO
ARCH LTO
RPF DMG
NSP BOE
OTHER:
FPS
Status: LOC

SCU Feller

This is written to express my many concerns about the Soda Springs Timber Harvest Plan, 2-20-00174-SIS.

If approved, the planned logging by Shasta-Cascade Timberlands (owned by an Australian multinational) will remove 128 acres of mature, older trees along with their superior ability to both sequester carbon and manufacture oxygen, functions that are of inestimable value in this age of climate crisis (See "Importance of large-diameter trees", Lutz, et. al, pages 1-41, Global Ecology and Biogeography, 2018).

As required by law, the harvested trees will be replaced with an unnatural even-aged tree farm. Preparation of the ground for the planting will require bulldozing of the land, followed by treatment with herbicides to prevent any competition for the young saplings. This process will degrade the soil, cause erosion and result in contamination of adjacent water sources with both sediment and toxins. This immediate post-logging activity will also put the area at increased risk of landslides, will destroy habitat and biodiversity and increase the potential for pests and disease (See "Stream Ecosystems in a Changing Environment", L.A. Kaplan, R.M. Cory, 2016).

Equally important to highlight, and especially in view of the historic conflagrations that we have endured in California this year, this project will increase the potential for wildfires in the area. Loss of tree canopy will expose the area to increased sunlight, rendering it hotter and drier. Temperatures will rise and humidity fall in adjacent forest areas, creating a significant fire hazard. Moreover, the plantation trees, if ignited, will burn more explosively than the mature trees replaced. Should a fire erupt, lives and property in nearby Dunsmuir, Mt. Shasta and Castella will be at risk and the threat will be not only directly from flames but also from embers, particularly if our increasingly common strong winds are a factor (See "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape", Harold S.J. Zald and Christopher J. Dunn, Ecological Applications, 0(0), 2018, pp. 1-13, 2018, by the Ecological Society of America and "A Reporter's Guide to Wildland Fire" By Ingalsbee, Timothy Ph.D. Published by the Firefighters United for Safety, Ethics, and Ecology (FUSE), January 2005).

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FOREST PRACTICE

Lastly, the clearcut proposed will affect the aesthetic qualities of an area that, to a great extent, relies on tourism and a recreation economy.

Calfire should only authorize timber harvest plans that utilize selective logging and timber harvest projects should have the goal of preserving at least 60% of the tree canopy. Such a policy would ensure maintenance of a diversified tree structure, retention of more moisture in the soil, and lower temperatures. Wildfire risk would be mitigated. Habitat and water supplies would be protected. Adjacent communities would not be put in jeopardy.

The Soda Springs Timber Harvest Plan fails on these criteria and should not be permitted to proceed. All California residents deserve better environmental protection for our forests, truly

one of our state's treasures and of critical importance in the battle against climate breakdown, and the residents of Dunsmuir, Mt. Shasta and Castella deserve better protection of their communities and their livelihoods.

Multinationals should not be allowed to demolish our woodlands, increase our wildfire risk, pollute our waters, destroy our biodiversity and endanger our citizens, all in the name of profit.

Thank you for your time and attention,

Jennifer Normoyle, Troubled Citizen of California and Environmental Activist

Japp, Jeannie@CALFIRE

From: Jennifer Normoyle <jennifernormoyle123@gmail.com>
Sent: Wednesday, October 28, 2020 12:54 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan
Attachments: Soda Springs Timber Harvest Plan.docx

Sent from Mail for Windows 10

20PC-000000460

PC #4

Japp, Jeannie@CALFIRE

Reviewed by: CJO
Dist. by: DG
Dist. Date: 10-30-2020
RU ___ FS
FG ___ TO
WQ ___ TLO
ARCH LTO
RPF DMG
INSP BOE
OTHER: ___
FPS ___
Status: LOC

SKU

Feller

From: Demitri Fierro <agentofchange.demitri@gmail.com>
Sent: Thursday, October 29, 2020 3:07 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Harvest Plan Response

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Furthermore, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Demitri Fierro

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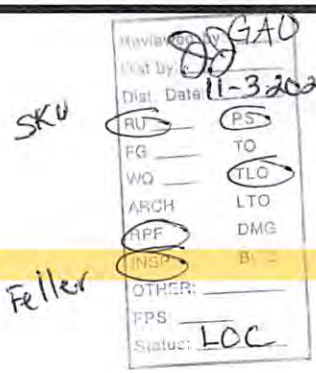
20PC-00000463 PC #5

Ozard, Gwyndolyn@CALFIRE

From:	Terrisa Tran <terrisa.tt@gmail.com>
Sent:	Saturday, October 31, 2020 5:55 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Opposing the Soda Springs Timber Harvest Plan



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

Dear CalFire Decision-Makers,

As a California resident, I have previously voiced concerns regarding the Pawn Timber Harvest Plan, which has recently been withdrawn. I am now writing to respectfully ask that the Soda Springs Timber Harvest Plan, 2-20-00174-SIS, be withdrawn also. The two plans are basically one and the same. They would increase the wildfire risk for the communities of Dunsmuir, Mt. Shasta and Catella. Of the three communities, Dunsmuir is already listed as "endangered" of wildfires. As California is still fighting wildfires to this day and with the hot temperatures not letting up, year after year due to human-induced climate change, it's irresponsible to allow this Timber Harvest Plan, which doubts the reality of climate change.

It is a known scientific fact that climate change is real. Not only is it real, it's an existential crisis that we must deal with urgently. When temperatures get hotter and drier year after year, making wildfire season more and more deadly, it defies logic to clear-cut the trees in our forests, especially the old-growth ones. As these mature trees are clear-cutted and replaced by younger tree plantations, not only do we lose these tree's carbon-sequestering capability, we are losing these older trees' ability to resist wildfires. Additionally, clearcutting and the resulting plantations would reduce the biodiversity in our forests and reduce residents' access to outdoor recreation, possibly causing local tourist economies to plummet. During pandemic times when our communities' economies are already weakened, we want to be taking actions to booster them, not inflict further damage.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Terrisa Tran

11391 Mountain View Dr. Apt. #36
Rancho Cucamonga, CA 91730
Tel: 626.825.1646

PC #6

We Advocate Thorough Environmental Review
P.O. Box 873, Mount Shasta, California 96067 ❄ (530) 918-8805 ❄ mountshastawater@gmail.com ❄ www.cawater.net

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002

11/11/20

SODA SPRINGS THP "2-20-00174 SIS" Public Comment

To Whom it May Concern:

We Advocate Thorough Environmental Review (W.A.T.E.R.) is a California 501(c)(3) non-profit corporation that was incorporated to promote quality local and regional planning, land use and development, as well as to preserve a healthy human and natural environment within Siskiyou County and Northern California.

Introduction:
We take issue with the way the Timber Harvest Plan (THP) harvests 128 of the 140 proposed acres by using the "even-age" process. We are concerned with the increase of wildfires in our area due to climate change and given the proximity to Dunsmuir, we find this to be an unnecessary risk when other ways to harvest could be helpful to our area during this era of climate change. We will discuss other options for harvest and why a larger 'retention' is crucial.

General Plan Comments:
While careful forest thinning is important during this era in our Nation's history, this THP proposes to essentially clear-cut 128 acres of second-growth trees. As you know, these 60-120 year, second-growth trees are almost as rare as old-growth and should be saved not harvested.

Clear-cutting creates plantation style harvesting and planting. As is well known, this increases the likelihood of disease and pests, and wildfire affecting entire areas. It also requires the "restocked" tree stand (a proposed 128 acres) to be sprayed with herbicides that are used with some frequency to slow or stop competitive vegetation. This plan includes plantation style replanting, but we are recommending using a "Selective Cut" program from the beginning.

Given the new awareness and sensitivity around increased fire danger, we should take special precautions regarding fire risks for adjacent landowners and the town of Dunsmuir with this proposed THP. In addition to this THP, there are at least two more THPs from the same timberland owner planned for the Dunsmuir area.

The "selection harvesting" model should be used in the harvest of the proposed acreage. The project description states, "The goal of this project is to implement these prescriptions in a manner that produces profit" (p. 68). This by itself should never be allowed. We must not allow companies to maintain or change land to the detriment of the ecosystem. Forest lands, be they public or private, can be carefully thinned and lumber can be harvested for use but if profit is the ultimate motivation, then of course clear cutting or near clear-cutting will always be the case. We object to this manner of thinking and way of being in our world. It is literally killing us, causing climate change and bringing our species closer to its own extinction.

Plantations are now commonly mislabeled as "forests" for the convenience and advantage of the Timber Harvest Industry for future profit, not for the health or re-creation of true forests. Just two examples show this to be a significant issue that needs to be addressed. In February 2017 there were large protests and information that came to light about the issues of real forests vs. plantations. The international environmental action organization Terra Nuova has reported on this issue of forests vs plantations:

"In September 2015, during the XIV World Forestry Congress, thousands of people took to the streets in Durban, South Africa, to protest against the problematic way in which the UN Food and Agriculture Organization (FAO), insists on defining forests (1). The FAO definition considers forests to be basically just "a bunch of trees", while ignoring other fundamental aspects of forests, including their many other life-forms such as other types of plants, as well as animals, and forest-dependent human communities. Equally, it ignores the vital contribution of forests to natural processes that provide soil, water and oxygen. Besides, by defining 'forests' as only being a minimum area of land covered by a minimum number of trees of a minimum height and canopy percentage, FAO has actively promoted the establishment of many millions of hectares of industrial tree plantations, of mainly alien species, especially in the global South. As a consequence, only one particular sector has benefitted: the tree plantation industry. Industrial tree plantations have been the direct cause of many negative impacts on local communities and their forests; which have been well-documented (2).

But the influence of the FAO's forest definition goes beyond just determining national forest definitions. In these times of climate change, the FAO's definition has been the main point of reference to define what a forest is under the UN climate change convention (UNFCCC). By adopting the FAO's narrow wood-based definition, the UNFCCC has also promoted a view of forests being an area of land containing only trees. For the UNFCCC, it's mainly the trees in a forest that matter because of their capacity to store carbon as they grow, and not forest-dependent communities. Such affected communities are most negatively impacted by restrictions placed on their use of forest resources by "forest carbon offset projects", also often referred to as REDD+ projects (3). A forest definition only focused on trees opens the door to including "planted forests" – read: industrial tree plantations – a completely false way of "reducing deforestation and forest degradation", as an option under the climate change convention through which carbon can supposedly be sequestered from the atmosphere and permanently stored. In practice this is just another money-making opportunity for the tree plantation industry, and a major threat to communities affected by the trend of expanding "carbon sink" tree plantations."

[http://www.terranuova.org/news-en/how-does-the-fao-forest-definition-harm-people-and-forests]

Notes:
1 – "Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 hectares (ha). The trees should be able to reach a minimum height of 5 meters (m) at maturity in situ."
2 – See more in http://wrm.org.uy/browse-by-subject/tree-plantations/

3 – See more in http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/

And on June 2, 2020 the Global Forest Coalition stated "…'planted forests' is a deliberate mislabeling that not only allows the tree plantations industry to tap into badly needed and terribly limited climate funds, but also makes it easier to compensate for deforestation with plantation expansion…"

[https://twitter.com/gfc123/status/1267742969333010434]

There is current information in this 2020 fire season that the Creek and Bear Fires have shown how forest plantations, logging and habitat clearance have allowed fires in these areas to rapidly expand. Please notice in the link below, in the "before" logging photos and the area that just burned. If you read the THP you would be led to believe that heavy logging, clear-cutting and removing underbrush lowers the fire danger. This information shows otherwise.

https://forestpolicypub.com/2020/09/10/again-past-logging-makes-a-fire-worse-guest-post-from-ca-chaparral-institute/

Comments on Plan Specifics:

Section I:
Item 13 b. Proponent states that the project "will not have a significant adverse impact on the environment."

We object to this finding. One cannot simply state "it will not have a significant adverse impact." The land and animals that live there will be killed or driven out. Drag lines from clearing will leave raw soil, dust and piles of slash. This is not insignificant. Careful selection of trees and brush mastication would be much less significant, but likely less profitable and so does not fit the THP "plan" for maximum profit.

Section II:
The project will include 128 acres of 'even-age,' 1 acre of road right-of-way and only 11 acres of 'selection.'

How can virtually clearcutting 128 acres of 60-120 year old regenerative forested land not have a significant impact on the environment and the animals that live in the forest? In the plan's own admission, it will affect the regeneration of this forest land in the future. While this "ALTE" prescription is described as a 'superior prescription for the environment,' there is essentially no difference in the outcome from clear-cutting. The land will still need to have "artificial regeneration" which creates

plantation stands that are more prone to disease, are fire-prone, and it also requires multiple applications of herbicides.

"Even-age" harvesting results in dangerous fuel sources for wildfires because it requires plantation style restocking afterwards. In "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape" by Zald and Dunn, they report some interesting findings but for this comment letter, we will report on two things. They asked two questions. "(1) What is the relative importance of different variables driving fire severity and, (2) is intensive planation forestry associated with higher fire severity?" They found "daily fire weather was the most important predictor of fire severity, followed by stand age and ownership followed by topographic features. Estimates of pre-forest biomass were not an important predictor of fire severity."

Their "findings suggest intensive planation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity" are important in determining whether or not harvesting using 'even-age' should be allowed.

[https://www.researchgate.net/publication/324786837_Severe_fire_weather_and_intensive_forest_management_increase_fire_severity_in_a_multi-ownership_landscape]

Overstory trees are crucial for a healthy forest, soil retention, slowing snow melt and heavy water runoff and more of them should be saved in the plan. The amount of retention of these older trees needs to be higher to try to manage the species found in the area and for those known to travel through.

When talking about retention, 60% appears to be the tipping point to maintain "cooler" forest conditions, which is crucial in slowing warmer temperatures in the area; you plan on taking 95%. This 60% rate also is helpful to avoid adversely effecting "ectomycorrhizal (EMC) fungi, as they are associated with the roots of living trees. Retention forestry is a way of reducing logging impacts and enhancing biodiversity conservation. Increasing the proportion of trees retained at harvest may improve EMC fungal diversity."

[https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.13363]

For retention, we ask that you save the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops) to be prioritized in retention. We also request you increase the amount of retention at the 60% rate for the health of the ecosystem.

Lastly for this section, in the Dunsmuir Community Wildfire Protection Plan, the community of Dunsmuir is considered a Community at Risk (CAR): "The California Department of Forestry and Fire Protection (CAL FIRE) led the effort to identify all CARs in California. With California's extensive WUI situation the list of communities extends beyond those on Federal lands. CAL FIRE used three main factors to determine which communities were at risk and their level of fire threat, defining these factors as: 1) high fuel hazard, 2) probability of a fire, and 3) proximity of intermingled wildland fuels with urban environments. Currently, Dunsmuir is one of 1,327 communities in California identified as a CAR."

[https://static1.squarespace.com/static/54c9a764e4b0ee5502d31f04/t/5a559c430d92974f913bc5f3/1515560025354/Dunsmuir_CWPP_Signed-Final.pdf]

CalFire's special care of how the trees in this THP (and other THPs in the surrounding area) are harvested is crucial. To remove the higher risk of wildfire, use selective harvesting and not ALTE for these THPs.

Item #14 Silviculture:
Restocking: To stop brush growth, increased fire danger, and soil run off into local waterways, restocking should happen within a two-year period, not five. And we ask that you insist that the company restock a variety of trees to combat disease potential.

i: Site preparation

We would like to see cull logs used for firewood for the community. Piles could be left in easy to access areas so that our community, which is designated a "severely disadvantaged community" could have access to free firewood.

Section IV:
II, Cumulative Impacts
G, GHG Impacts: Removing 95% of the basal area from 128 acres of timberland (approximately 18mbf/acre) has measurable and immediate impacts to greenhouse gasses as it is removing carbon sequestration that is in place and future potential for more carbon sequestration. The plan also says that the change will not be noticeable on a global scale. CalFire should consider the totality of plans every year in the State, Nation and World. By doing so, you can see how it adds up to a significant impact on a global scale.

The Climate Change in General section (page 110) is seriously in error. As written, the THP authors question whether (a) unprecedented global warming actually exists ("...not a universally accepted fact among scientists..."); and (b) even if it exists, human activity may not be the cause ("solar activity and variability in the earth's electromagnetic field" may be the cause). The THP's questioning on both points is ill-informed and obsolete from the point of view of science. Of course, any scientific view can be and is still questioned - from whether the earth is round, to biological evolution, to Newton's Laws, to relativity. The percentage of scientists who say climate change and global warming are not happening is very small, and they usually have links to the fossil fuel industries. The existence of anthropogenic global warming has now been supported by an overwhelming amount of data and theory and scientists in the field, all over the world. The scientific evidence is easily strong enough to base public policy on it. To continue to question anthropogenic global warming in official documents, such as the THP does here, serves only to excuse inadequate action, or worse, to excuse willful ignorance, and to serve as a cover for quick profiteering.

On page 111, the following paragraph appears:

"Under a static view of carbon sequestration in forest management, there is a misconception that more carbon is sequestered by growing older trees rather than repeated cycles of growth and harvest. When forest products are taken into account unmanaged forests sequester less carbon (Eckert 2007)".

This view, like the THP's view of global warming, is also obsolete. According to a more recent paper in the prestigious journal Nature [Stephanson et al, *Nature* 2014:**507**, 90–93]:

"...for most species mass growth rate increases continuously with tree size. Thus, large, old trees do not act simply as senescent carbon reservoirs but actively fix large amounts of carbon compared to smaller

trees; at the extreme, a single big tree can add the same amount of carbon to the forest within a year as is contained in an entire mid-sized tree. The apparent paradoxes of individual tree growth increasing with tree size despite declining leaf-level and stand-level productivity can be explained, respectively, by increases in a tree's total leaf area that outpace declines in productivity per unit of leaf area and, among other factors, age-related reductions in population density. Our results resolve conflicting assumptions about the nature of tree growth, inform efforts to understand and model forest carbon dynamics, and have additional implications for theories of resource allocation[11] and plant senescence".

Unlike the anthropogenic global warming question, which, through evidence, is now clearly resolved in the world of science, the carbon sequestration question is still a matter of debate and further investigation. The THP should not state the older, more self-serving, view as if it was a fact.

Wildfire potential needs to be addressed. Wildfire experts assert that wildfires spread MORE rapidly through recently clearcut areas than through mature forests. This is because the post-clearcut land soon becomes covered with highly flammable low-lying brush, and fires are further fed by the huge stacks of highly flammable slash left behind in the clearcut operations. Even if the brush and slash are treated, even-aged plantations are still much more flammable than uneven-aged stands.

We know that climate change is also causing an increase in diseases. "Forest tree diseases are often caused by infectious pathogens such as fungi and bacteria. Changing climate conditions can influence the spread of infectious diseases and their carriers, and add stresses to trees, making them more susceptible to diseases."

[https://www.fs.usda.gov/ccrc/topics/forest-tree-diseases-and-climate-change]

Biological Mitigation: We do not believe 5% retention with ALTE units is enough for the care of wildlife. This prescription is basically clearcutting with a different name. We would like to see the 60% retention for the health of the forest and ecosystem, including wildlife. We request more than just a tiny island where they can run to amongst the clear-cut or even-aged sections but places to live. And we request that the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops) to be prioritized in retention.

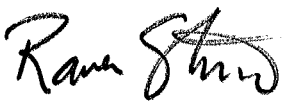
In conclusion, we find it very interesting that the PAWN THP and the Soda Springs THP are so close to one another and have been chosen to be submitted as two separate THP's. And there is a third "unnamed THP (page 83-84.) This is likely to look like it is a smaller impact than what it really is. Put these three plans together and one can see that the devastating impacts are significantly multiplied. CEQA would define this as piecemealing or "segmentation" and we object to it. The case Topange Beach renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].) https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html
states that the requirements of CEQA cannot be avoided by piecemealing. All three of these THPs must be considered as one project to adequately determine the cumulative impacts.

We ask CalFire to review the plan insisting upon using a Selective Cut program for the reasons listed above. Please increase the retention rates for the 128 acres of even-age from 5% to 60% and save the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops). We want the definitions of forest to be real, natural forests and not plantations as these plantations create a real wildfire risk.

We ask that the cumulative effects of climate change be part of the equation due to the current state of our fire seasons. We want a two-year restocking plan with various trees planted to stop disease potential and to retain logs for firewood for our local community's benefit.

It is time to do better, require more and protect the environment we have left. We would like a response and to be notified of any changes or adaptations to the plan.

Respectfully Submitted,



Raven Stevens
Board of Directors
We Advocate Thorough Environmental Review

Ramaley, John@CALFIRE

From: Raven Stevens <flyraven@sbcglobal.net>
Sent: Thursday, November 12, 2020 8:02 PM
To: Redding Public Comment@CALFIRE
Subject: Public Comment WATER Soda Springs Final.pdf (2-20-00174 SIS).
Attachments: WATER Soda Springs Final.pdf

CalFire,
Please let me know you have received our comments for the Soda Springs THP (2-20-00174 SIS).
Sincerely,

Raven Stevens
We Advocate Thorough Environmental Review (W.A.T.E.R.)

20 PC- 0000000477

PC #7

Jeff Stone
909 Bennett Drive
Yreka, CA 96097
stonepitts2@gmail.com

Reviewed by: SKU
Dist. by:
Dist. Date:
RU PS
FG TO
WQ TLO
ARCH LTO
RPF Feller DMG
~~HHSR~~ BOE
OTHER:
FPS
Status:

November 15, 2020

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002
Submitted electronically via CalTrees

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NOV 16 2020
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FOREST PRACTICE

Re: Soda Springs THP, 2-20-00174-SIS

The following are my comments on the Soda Springs THP.

Comments on THP Sufficiency and Review Convenience

This THP is difficult to navigate because it was scanned as an image. Instead, conversion from a document to a pdf would allow reviewers to more easily locate what is being sought by using the "Find" function. I am not suggesting that CalFire staff perform the tedious process of converting submitted image documents to a searchable form; rather, the documents should be required to be posted to CalTrees by the submitter in a searchable form (except of course for pages in documents that require signatures, such as the NOI). These documents are long and complicated, and if CalFire desires intelligent comments, efficient navigation is critical.

I was not able to locate a summary table of the individual units that showed acreages, slope ranges, and treatment types. It is difficult to get an understanding of the general features of the project without such a summary table. I was not able to locate any information at all on the sizes of the individual units.

Project features were not made available in .gpx or .kml format. These formats are very user friendly, are easy to generate, and providing them would make the review process much easier using commonly available software such as Google Earth and GaiaGPS (as opposed to ESRI software, which requires an expensive license).

Item 30g (p. 45) states that piling and burning will not be used for hazard reduction; however, Item 14i2 (p.15) states the opposite. Please clarify.

The discussion in Section V, "Past, Present and Reasonably Foreseeable Projects" (pp. 84-85), is awkward. The transitions between the discussions of the various assessment areas are not

clearly visible and the assessment areas themselves are not clearly defined, sometimes using the name and at other times using the area dimensions.

The two "Past and Present Activities" maps (pp. 85-86) would be clearer if combined into a single map.

The last sentence in Section E1, Visual Resource Inventory (p. 108) erroneously refers to traffic impacts.

Alternative Prescription ALTE

Shasta Cascade Timberlands (SCT) would treat 128 acres in 7 units under Alternative Prescription ALTE, which is a modified even-aged cut with artificial regeneration. While I appreciate the intention to protect biological, soil, and visual resources, the descriptions of the prescription in Section 3 and Item 35 do not reveal much difference from a traditional clearcut. The descriptions state that "at least 5%" of the harvest area will be retained within HRAs or as leave trees (p. 51), and that an average of 5% (1/19 MBF/acre) of the existing volume will be retained (assuming an average stand volume of 19mbf [p. 64] and an average harvest of 95% of the basal area [p. 66]). I'm not sure that this is a significant difference visually, biologically, or pedologically.

While an attempt is being made to describe this as an environmentally superior prescription to a traditional clearcut, artificial regeneration will still need to occur. Artificial regeneration introduces new problems to the stand, including the use of herbicides, visual impacts, a higher probability of erosion, a lack of ecological diversity, and the fire-prone nature of plantations.

While it is true that even-aged management removes most of the fuel from the unit, post-harvest plantations are extremely flammable, even if thinned and underburned at appropriate intervals (which often does not happen). Plantations in California have a very low survival rate because they tend to burn up before they reach a mature, more fire-resistant state. When properly managed, uneven-aged stands are more fire resistant, and so from a fire management perspective, uneven-aged management is more sustainable.

The City of Dunsmuir has been designated as a community at risk from wildland fire. During the creation of the Dunsmuir Community Wildfire Protection Plan (published 2016), one of the stakeholders asked, "Can we work into the plan, requirements or assurances for timber stand/ forest owners to design their logging efforts in a way that enhances our planning efforts?" The answer given was, "Yes, this is part of the collaboration process and would be incorporated at the project level planning stage." This proposed timber harvest project is just one mile from Dunsmuir and given today's reality of landscape level wildfires, converting 128 acres to a more flammable condition through even-aged management is not desirable. During the past few years, the Sacramento River canyon downstream from the project area has been ravaged by

wildfire. This year's wildfires have driven home the reality of climate change, which will only make wildfires more destructive. We need to make our managed timber stands less fire prone through thinning and uneven-aged management, not more so by converting them to plantations. The fact that the THP's assessment area definition for Wildfire Risk and Hazard (p. 77) encompasses a distance of only one quarter (¼) mile radius from the project reflects an outdated and irresponsible methodology. Limiting the assessment area to such an extreme extent relieves the proponent from any responsibility for analyzing wildfire risk to nearby communities that will very likely be caused by the project.

Once an even-aged stand is established, herbicides are often needed in perpetuity to reduce competition with undesirable (from a timber management perspective) vegetation. The proposed conversion to even-aged stands locks in the necessity to spray over and over again, through multiple harvest cycles. Additionally, clearcuts tend to be reservoirs for noxious weeds, which require even more herbicides to control (if the attempt is even made). The sustainability of this repeated need for herbicides is questionable. It is also a political flash point, especially for the local communities that still remember the Cantara spill of 1991. I didn't see where public notice is required prior to herbicide application.

In regard to climate change, Governor Brown of Oregon recently put it well: "I think there's no question that the changing climate is exacerbating what we are seeing on the ground," she said, referring to the recent wildland fires. "I think it's incumbent upon all of us to be aware that climate change is going to impact how we live, our economy, our culture and that we all need to be making changes accordingly. It is going to continue to challenge Oregon, the country, and the world." Despite dismissive remarks in the THP's "Greenhouse Gas (GHG) Impacts" discussion, the horrendous fires of the 2020 fire season demonstrate that climate change is real and that warming and drying is going to further increase fire danger. It is imperative that public policy reflect this if we are going to have a chance to mitigate this trend. Clearly, even-aged management increases fire danger in the medium- to long- term and it should be relegated to the trash heap of history.

Visual mitigations applied to this project as described in Section 4 are deemed necessary based on unit visibility from "a vehicle on a public road, or from a stationary public viewing point to significant numbers of people who are no further than three miles from the operation" (p. 108). Only "certain" ALTE units are identified as being "partly visible" from the community of Dunsmuir (p. 77), which is less than 1 mile away from the project. These vague and restrictive statements make it difficult to determine how well the mitigations will perform on the ground. I would suggest that an arbitrary limit of three miles is not appropriate. Recreation is a very important component of local economies. Possible vantage points in the area include Mount Bradley Lookout, Castle Crags Wilderness, Mt. Shasta Wilderness, the Pacific Crest Trail, Castle Crags State Park, Interstate 5, and the towns of Castella and Dunsmuir. Justifying degradation of visual resources with the excuse that the area is zoned TPZ (p. 108) ignores the fact that there are alternatives to clearcutting that are visually superior and, if anything goes, it begs the question of why we are bothering to consider visual resource management at all.

To summarize, conversion to even-aged management will likely result in a less sustainable ecosystem (not to mention a lower timber yield) due to the fire-prone nature of plantations and the repeated herbicide spraying that will be necessary. An alternative to even-aged management should be more fully considered, as, in the long run, will be more sustainable for timber harvest, more visually pleasing, less fire prone, and safer for surrounding communities.

Piecemealing

The cumulative impacts section makes passing reference to the neighboring Pawn THP (recently withdrawn) and an unnamed third THP which is in the same planning watershed as Soda Springs (pp. 83 and 84). Mere mention is not sufficient to address the full cumulative impacts of these projects. The THP doesn't provide enough information to asses cumulative impacts among these three projects, especially since the location of the third, unnamed project is not specifically identified. Will Pawn be resubmitted? Are there more adjacent projects in the planning stages? The proponent appears to be attempting to "piecemeal" these THPs together to avoid addressing the full impacts of these projects. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' " (Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html

Cumulative Effects from Wildfire Risk and Hazard

The description of cumulative effects from wildfire risk and hazard (p. 117) is particularly insufficient. Most significantly, the ¼ mile assessment area is much too small for a cumulative assessment, given the fact that recent megafires in northern California (including several in the Sacramento River Canyon) have covered much larger areas and have been extremely resistant to control. The assessment states that the project area is in a Very High Hazard Severity Zone but does not build on this fact by analyzing any consequences of this classification.

The most important criterion when considering options for timber harvest should be reduction of fire hazard, in both the short term and long term. If this is not taken into account, all the talk about LTSY is futile, as it's all going to burn. Look at the fires that burned this year in the west and look at the continuous devastation that has occurred recently in the lower Sacramento River Canyon. This scenario is coming to a forest near us; it's only a matter of time.

The claims are simply made that "The project is not expected to significantly change the fire risk. Long-term, this project will decrease the fuel loading by lowering the density of trees and reduce the fire hazard by separating crowns and surface fuels." "No significant cumulative

impacts to fire risk and hazard should result from the proposed project." These claims are absurd. It gives absolutely no consideration to change in the resulting even-aged stands over time. It is clear from recent fire history in the Siskiyou Mountains (and much of the rest of the west) that plantations are extremely fire prone, much more so than uneven-aged stands, and are often consumed by fire before they become old enough to be commercially harvested (which, by the way, negates the argument that even-aged management satisfies the LTSY rule). These fire-prone plantations present an unacceptable risk to local communities; converting uneven-aged stands to even-aged stands should be considered an irresponsible act that will certainly increase the likelihood of catastrophic wildfires in the future. This is obvious and is well documented. See, for example, C.P. Weatherspoon and C. N. Skinner. 1995: "An assessment of factors associated with damage to tree crowns from the 1987 wildfires in northern California." Forest Science 41(3): 430-451. Also see, "A Review of SPI's study: 'Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds'" by Peter Miller, NRDC, May 5, 2008, from which I quote:

> The SPI analysis completely ignores the issue of fire. The authors reject any data from forest stands that have burned and make no mention of potential differences in vulnerability to fire across management scenarios. However, the intensive management scenarios proposed by SPI would create dense stands of uniform, young, even-aged trees which are particularly vulnerable to catastrophic fire. The increase in vulnerability to fire puts at risk the purported carbon benefits and could threaten nearby communities.

This critique of Sierra Pacific Industries' even-aged management policy also applies to what is proposed by SCT in the Soda Springs THP, as the result will be the same. Ignoring the big picture of wildfire hazard and risk may have been appropriate 50 years ago, but in today's world of climate change, drought and the resulting megafires, it no longer reflects reality.

More recent studies have come to similar conclusions regarding fire hazard in intensively managed even-aged stands. Daniel Gavin, professor of geography specializing in forest ecosystems and environmental change at the University of Oregon, recently wrote, "In Oregon's 2020 fires, highly managed forests burned the most," affirming a 2018 study from Oregon State University, "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape," that suggests that "intensive plantation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity." Preliminary analyses of this year's Bear Fire on the Plumas National Forest indicate that there was a dramatic acceleration of that wind-driven fire when it reached the intensively logged area between Little Grass Valley Reservoir and Feather Falls, an area of about 70,000 acres owned primarily by Sierra Pacific and Soper-Wheeler. The Bear Fire incinerated the town of Berry Creek and killed 15 people.

Conclusions

Please reject this THP and require that the proponent resubmit a single THP that includes a realistic and complete cumulative effects analysis of all SCT's past and pending harvest plans within the immediate geographical area of Dunsmuir, Castella, and Mt. Shasta City, which should include 1) the Pawn THP, 2) the unnamed plan mentioned in the Soda Springs THP, 3) any others that may be in the planning process, and 4) the thousands of acres in this area already converted to even-aged management by SCT. Certainly, from the wildfire risk and hazard perspective, these past, present and future THPs are connected actions that must be addressed in a single document.

Dunsmuir is already a community at risk of wildfire. SCT owns over 24,000 acres adjacent to the towns of Dunsmuir, Mt. Shasta City, and Castella. The residents of these towns deserve to see a thorough cumulative effects analysis to determine whether SCT's management of its lands will pose an existential threat to them.

Thank you for this opportunity to comment.

Jeff Stone

Jeff Stone

Japp, Jeannie@CALFIRE

From: CALTREES-NoReply@resources.ca.gov
Sent: Sunday, November 15, 2020 5:55 PM
To: Redding Public Comment@CALFIRE
Subject: New Public Comment Record 20PC-000000477 on 2-20-00174-SIS

New Public Comment Record 20PC-000000477. Added to Plan ID 2-20-00174-SIS. IMPORTANT: This was submitted Online in CalTREES, please login and confirm the public comment is valid and update the workflow appropriately to make visible online..

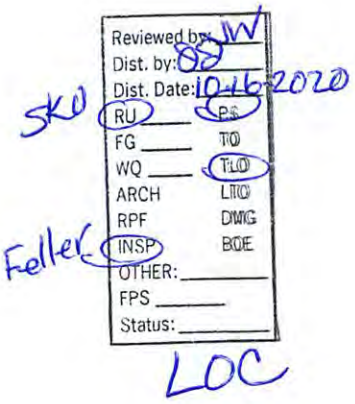
To further review this document please login to CalTREES and search by Document ID.

This is an automated email from CalTREES, if you have received this in error please contact CalTREES.support@fire.ca.gov and reference communication ID: CALTREES_INTERNAL_EMAILS

20PC-00000423

PC #1

Jeff Stone
909 Bennett Drive
Yreka, CA 96097
stonepitts2@gmail.com



SKO

Feller

LOC

October 15, 2020

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002
Submitted electronically via CalTrees

2-20-00174SIS
concerns

Re: Pawn THP, 2-20-00145-SIS

The following are my additional comments on the Pawn THP.

I request that you reject both the Pawn THP, 2-20-00145-SIS, and the Soda Springs THP, 2-20-00174-SIS. The proponent appears to be attempting to "piecemeal" these THPs together to avoid addressing the full impacts of these projects. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' " (Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html

These two THPs are adjacent to each other. The Biological Assessment Areas (BAAs) overlap. The Watershed Assessment Areas (WAAs) are adjacent, but about 5 acres of one of the Pawn units (2204) is within the WAA for Soda Springs. The closest units in these two THPs are only about 1700 feet apart. Some of the Pawn units share the same road system with the Soda Springs units.

Please note that I was unable to locate a WAA map in the Pawn THP, though it is referred to on p. 103.

The cumulative impacts section of the Pawn THP makes passing reference to an unnamed THP within the Upper Soda Springs PW, which is presumably the Soda Springs THP (p. 103). The Soda Springs THP refers to another, nearby unnamed third THP (Soda Springs THP, p. 84). Mere mention is not sufficient to address the full cumulative impacts of the three projects. While there may indeed be minimal cumulative impacts among these three projects, it is not at all clear that this is the case, especially as the location of the third, unnamed project is not specifically identified. Are there more projects in the planning stages?

The description of cumulative effects from wildfire risk and hazard (p. 136) is particularly insufficient. The claim is simply made that since "Timber harvesting inherently decreases fuels on the landscape...", there will thus be "...no cumulative increase in wildfire risk and hazard...." This claim is absurd. It gives absolutely no consideration to change in the resulting even-aged stands over time. It is clear from recent fire history in the Siskiyou Mountains (and much of the rest of the west) that plantations are extremely fire prone, much more so than uneven-aged stands, and are often consumed by fire before they become old enough to be commercially harvested (which, by the way, negates the argument that even-aged management satisfies the LTSY rule). These fire-prone plantations present an unacceptable risk to local communities; converting uneven-aged stands to even-aged stands could be considered an irresponsible act that will certainly increase the likelihood of catastrophic wildfires in the future. This is obvious and is well documented. See, for example, C.P. Weatherspoon and C. N. Skinner. 1995: "An assessment of factors associated with damage to tree crowns from the 1987 wildfires in northern California." Forest Science 41(3): 430-451. Also see, "A Review of SPI's study: 'Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds' " by Peter Miller, NRDC, May 5, 2008, from which I quote:

> The SPI analysis completely ignores the issue of fire. The authors reject any data from forest stands that have burned and make no mention of potential differences in vulnerability to fire across management scenarios. However, the intensive management scenarios proposed by SPI would create dense stands of uniform, young, even-aged trees which are particularly vulnerable to catastrophic fire. The increase in vulnerability to fire puts at risk the purported carbon benefits and could threaten nearby communities.

This critique of Sierra Pacific Industries' even-aged management policy also applies to what is proposed by Shasta Cascade Timberlands (SCT) in the Pawn THP, as the result will be the same. Ignoring the big picture of wildfire hazard and risk may have been appropriate 50 years ago, but in today's world of climate change, drought and the resulting megafires, it no longer reflects reality.

Please reject these two THPs and require that the proponent resubmit a single THP that covers the cumulative effects of all their pending harvest plans within the immediate geographical area of Dunsmuir, which includes the unnamed plan mentioned in the Soda Springs THP (and any others that may be in the planning process), and which also includes a realistic cumulative effects analysis of wildfire risk and hazard. Certainly, at least from the wildfire risk and hazard perspective, these THPs are connected actions that must be addressed in a single document.

Additionally, a cumulative effects analysis of wildfire risk must include the effects of the thousands of acres already converted to even-aged management by SCT in the Dunsmuir area.

Dunsmuir is a community at risk of wildfire. SCT owns over 24,000 acres adjacent to the towns of Dunsmuir, Mt. Shasta City, and Castella. The residents of these towns deserve to see a

thorough cumulative effects analysis to determine whether SCT's management of its lands will pose an existential threat to them.

Thank you for this opportunity to comment.

Jeff Stone

Jeff Stone

Japp, Jeannie@CALFIRE

From: CALTREES-NoReply@resources.ca.gov
Sent: Thursday, October 15, 2020 7:10 PM
To: Redding Public Comment@CALFIRE
Subject: New Public Comment Record 20PC-000000422 on 2-20-00145-SIS

Follow Up Flag: Follow up
Flag Status: Flagged

New Public Comment Record 20PC-000000422. Added to Plan ID 2-20-00145-SIS. IMPORTANT: This was submitted Online in CalTREES, please login and confirm the public comment is valid and update the workflow appropriately to make visible online..

To further review this document please login to CalTREES and search by Document ID.

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20PC-0000000457

PC #2

Ramaley, John@CALFIRE

From: Devan Hess <dpuff11@gmail.com>
Sent: Friday, October 23, 2020 1:00 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Do the right thing. Now.

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

Hello,

I am a resident of Earth, A Brother of all fellow men, who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to kindly review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Devan Hess.
--
-Devan Hess

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OCT 2 3 2020
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PC #3

20 PC-000000458

Reviewed by: GAC
Dist. by: BJ
Dist. Date 10-28-20
RU SCU PS
FG TO
WQ TLO
ARCH LTO
RPF Feller DMG
NSP BOE
OTHER:
FPS
Status: LOC

This is written to express my many concerns about the Soda Springs Timber Harvest Plan, 2-20-00174-SIS.

If approved, the planned logging by Shasta-Cascade Timberlands (owned by an Australian multinational) will remove 128 acres of mature, older trees along with their superior ability to both sequester carbon and manufacture oxygen, functions that are of inestimable value in this age of climate crisis (See "Importance of large-diameter trees", Lutz, et. al, pages 1-41, Global Ecology and Biogeography, 2018).

As required by law, the harvested trees will be replaced with an unnatural even-aged tree farm. Preparation of the ground for the planting will require bulldozing of the land, followed by treatment with herbicides to prevent any competition for the young saplings. This process will degrade the soil, cause erosion and result in contamination of adjacent water sources with both sediment and toxins. This immediate post-logging activity will also put the area at increased risk of landslides, will destroy habitat and biodiversity and increase the potential for pests and disease (See "Stream Ecosystems in a Changing Environment", L.A. Kaplan, R.M. Cory, 2016).

Equally important to highlight, and especially in view of the historic conflagrations that we have endured in California this year, this project will increase the potential for wildfires in the area. Loss of tree canopy will expose the area to increased sunlight, rendering it hotter and drier. Temperatures will rise and humidity fall in adjacent forest areas, creating a significant fire hazard. Moreover, the plantation trees, if ignited, will burn more explosively than the mature trees replaced. Should a fire erupt, lives and property in nearby Dunsmuir, Mt. Shasta and Castella will be at risk and the threat will be not only directly from flames but also from embers, particularly if our increasingly common strong winds are a factor (See "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape", Harold S.J. Zald and Christopher J. Dunn, Ecological Applications, 0(0), 2018, pp. 1-13, 2018, by the Ecological Society of America and "A Reporter's Guide to Wildland Fire" By Ingalsbee, Timothy Ph.D. Published by the Firefighters United for Safety, Ethics, and Ecology (FUSE), January 2005).

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OCT 28 2020
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Lastly, the clearcut proposed will affect the aesthetic qualities of an area that, to a great extent, relies on tourism and a recreation economy.

Calfire should only authorize timber harvest plans that utilize selective logging and timber harvest projects should have the goal of preserving at least 60% of the tree canopy. Such a policy would ensure maintenance of a diversified tree structure, retention of more moisture in the soil, and lower temperatures. Wildfire risk would be mitigated. Habitat and water supplies would be protected. Adjacent communities would not be put in jeopardy.

The Soda Springs Timber Harvest Plan fails on these criteria and should not be permitted to proceed. All California residents deserve better environmental protection for our forests, truly

one of our state's treasures and of critical importance in the battle against climate breakdown, and the residents of Dunsmuir, Mt. Shasta and Castella deserve better protection of their communities and their livelihoods.

Multinationals should not be allowed to demolish our woodlands, increase our wildfire risk, pollute our waters, destroy our biodiversity and endanger our citizens, all in the name of profit.

Thank you for your time and attention,

Jennifer Normoyle, Troubled Citizen of California and Environmental Activist

Japp, Jeannie@CALFIRE

From: Jennifer Normoyle <jennifernormoyle123@gmail.com>
Sent: Wednesday, October 28, 2020 12:54 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan
Attachments: Soda Springs Timber Harvest Plan.docx

Sent from Mail for Windows 10

20PC-000000460

PC #4

Japp, Jeannie@CALFIRE

Reviewed by: CJO
Dist. by: DG
Dist. Date: 10-30-2020
RU ___ FS
FG ___ TO
WQ ___ TLO
ARCH LTO
RPF DMG
INSP BOE
OTHER: ___
FPS ___
Status: LOC

SKU

Feller

From: Demitri Fierro <agentofchange.demitri@gmail.com>
Sent: Thursday, October 29, 2020 3:07 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Harvest Plan Response

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Furthermore, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Demitri Fierro

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OCT 2 9 2020
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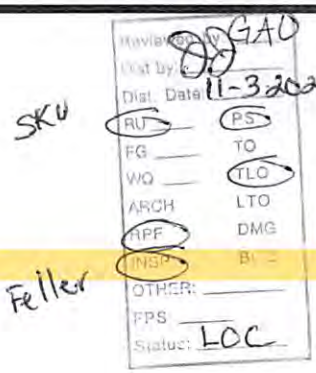
20PC-00000463 PC #5

Ozard, Gwyndolyn@CALFIRE

From:	Terrisa Tran <terrisa.tt@gmail.com>
Sent:	Saturday, October 31, 2020 5:55 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Opposing the Soda Springs Timber Harvest Plan



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

Dear CalFire Decision-Makers,

As a California resident, I have previously voiced concerns regarding the Pawn Timber Harvest Plan, which has recently been withdrawn. I am now writing to respectfully ask that the Soda Springs Timber Harvest Plan, 2-20-00174-SIS, be withdrawn also. The two plans are basically one and the same. They would increase the wildfire risk for the communities of Dunsmuir, Mt. Shasta and Catella. Of the three communities, Dunsmuir is already listed as "endangered" of wildfires. As California is still fighting wildfires to this day and with the hot temperatures not letting up, year after year due to human-induced climate change, it's irresponsible to allow this Timber Harvest Plan, which doubts the reality of climate change.

It is a known scientific fact that climate change is real. Not only is it real, it's an existential crisis that we must deal with urgently. When temperatures get hotter and drier year after year, making wildfire season more and more deadly, it defies logic to clear-cut the trees in our forests, especially the old-growth ones. As these mature trees are clear-cutted and replaced by younger tree plantations, not only do we lose these tree's carbon-sequestering capability, we are losing these older trees' ability to resist wildfires. Additionally, clearcutting and the resulting plantations would reduce the biodiversity in our forests and reduce residents' access to outdoor recreation, possibly causing local tourist economies to plummet. During pandemic times when our communities' economies are already weakened, we want to be taking actions to booster them, not inflict further damage.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Terrisa Tran

11391 Mountain View Dr. Apt. #36
Rancho Cucamonga, CA 91730
Tel: 626.825.1646

PC #6

We Advocate Thorough Environmental Review
P.O. Box 873, Mount Shasta, California 96067 ❄ (530) 918-8805 ❄ mountshastawater@gmail.com ❄ www.cawater.net

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002

11/11/20

SODA SPRINGS THP "2-20-00174 SIS" Public Comment

To Whom it May Concern:

We Advocate Thorough Environmental Review (W.A.T.E.R.) is a California 501(c)(3) non-profit corporation that was incorporated to promote quality local and regional planning, land use and development, as well as to preserve a healthy human and natural environment within Siskiyou County and Northern California.

Introduction:
We take issue with the way the Timber Harvest Plan (THP) harvests 128 of the 140 proposed acres by using the "even-age" process. We are concerned with the increase of wildfires in our area due to climate change and given the proximity to Dunsmuir, we find this to be an unnecessary risk when other ways to harvest could be helpful to our area during this era of climate change. We will discuss other options for harvest and why a larger 'retention' is crucial.

General Plan Comments:
While careful forest thinning is important during this era in our Nation's history, this THP proposes to essentially clear-cut 128 acres of second-growth trees. As you know, these 60-120 year, second-growth trees are almost as rare as old-growth and should be saved not harvested.

Clear-cutting creates plantation style harvesting and planting. As is well known, this increases the likelihood of disease and pests, and wildfire affecting entire areas. It also requires the "restocked" tree stand (a proposed 128 acres) to be sprayed with herbicides that are used with some frequency to slow or stop competitive vegetation. This plan includes plantation style replanting, but we are recommending using a "Selective Cut" program from the beginning.

Given the new awareness and sensitivity around increased fire danger, we should take special precautions regarding fire risks for adjacent landowners and the town of Dunsmuir with this proposed THP. In addition to this THP, there are at least two more THPs from the same timberland owner planned for the Dunsmuir area.

The "selection harvesting" model should be used in the harvest of the proposed acreage. The project description states, "The goal of this project is to implement these prescriptions in a manner that produces profit" (p. 68). This by itself should never be allowed. We must not allow companies to maintain or change land to the detriment of the ecosystem. Forest lands, be they public or private, can be carefully thinned and lumber can be harvested for use but if profit is the ultimate motivation, then of course clear cutting or near clear-cutting will always be the case. We object to this manner of thinking and way of being in our world. It is literally killing us, causing climate change and bringing our species closer to its own extinction.

Plantations are now commonly mislabeled as "forests" for the convenience and advantage of the Timber Harvest Industry for future profit, not for the health or re-creation of true forests. Just two examples show this to be a significant issue that needs to be addressed. In February 2017 there were large protests and information that came to light about the issues of real forests vs. plantations. The international environmental action organization Terra Nuova has reported on this issue of forests vs plantations:

"In September 2015, during the XIV World Forestry Congress, thousands of people took to the streets in Durban, South Africa, to protest against the problematic way in which the UN Food and Agriculture Organization (FAO), insists on defining forests (1). The FAO definition considers forests to be basically just "a bunch of trees", while ignoring other fundamental aspects of forests, including their many other life-forms such as other types of plants, as well as animals, and forest-dependent human communities. Equally, it ignores the vital contribution of forests to natural processes that provide soil, water and oxygen. Besides, by defining 'forests' as only being a minimum area of land covered by a minimum number of trees of a minimum height and canopy percentage, FAO has actively promoted the establishment of many millions of hectares of industrial tree plantations, of mainly alien species, especially in the global South. As a consequence, only one particular sector has benefitted: the tree plantation industry. Industrial tree plantations have been the direct cause of many negative impacts on local communities and their forests; which have been well-documented (2).

But the influence of the FAO's forest definition goes beyond just determining national forest definitions. In these times of climate change, the FAO's definition has been the main point of reference to define what a forest is under the UN climate change convention (UNFCCC). By adopting the FAO's narrow wood-based definition, the UNFCCC has also promoted a view of forests being an area of land containing only trees. For the UNFCCC, it's mainly the trees in a forest that matter because of their capacity to store carbon as they grow, and not forest-dependent communities. Such affected communities are most negatively impacted by restrictions placed on their use of forest resources by "forest carbon offset projects", also often referred to as REDD+ projects (3). A forest definition only focused on trees opens the door to including "planted forests" – read: industrial tree plantations – a completely false way of "reducing deforestation and forest degradation", as an option under the climate change convention through which carbon can supposedly be sequestered from the atmosphere and permanently stored. In practice this is just another money-making opportunity for the tree plantation industry, and a major threat to communities affected by the trend of expanding "carbon sink" tree plantations."

[http://www.terranuova.org/news-en/how-does-the-fao-forest-definition-harm-people-and-forests]

Notes:
1 – "Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 0.5 hectares (ha). The trees should be able to reach a minimum height of 5 meters (m) at maturity in situ."
2 – See more in http://wrm.org.uy/browse-by-subject/tree-plantations/

3 – See more in http://wrm.org.uy/books-and-briefings/redd-a-collection-of-conflicts-contradictions-and-lies/

And on June 2, 2020 the Global Forest Coalition stated "…'planted forests' is a deliberate mislabeling that not only allows the tree plantations industry to tap into badly needed and terribly limited climate funds, but also makes it easier to compensate for deforestation with plantation expansion…"

[https://twitter.com/gfc123/status/1267742969333010434]

There is current information in this 2020 fire season that the Creek and Bear Fires have shown how forest plantations, logging and habitat clearance have allowed fires in these areas to rapidly expand. Please notice in the link below, in the "before" logging photos and the area that just burned. If you read the THP you would be led to believe that heavy logging, clear-cutting and removing underbrush lowers the fire danger. This information shows otherwise.

https://forestpolicypub.com/2020/09/10/again-past-logging-makes-a-fire-worse-guest-post-from-ca-chaparral-institute/

Comments on Plan Specifics:

Section I:
Item 13 b. Proponent states that the project "will not have a significant adverse impact on the environment."

We object to this finding. One cannot simply state "it will not have a significant adverse impact." The land and animals that live there will be killed or driven out. Drag lines from clearing will leave raw soil, dust and piles of slash. This is not insignificant. Careful selection of trees and brush mastication would be much less significant, but likely less profitable and so does not fit the THP "plan" for maximum profit.

Section II:
The project will include 128 acres of 'even-age,' 1 acre of road right-of-way and only 11 acres of 'selection.'

How can virtually clearcutting 128 acres of 60-120 year old regenerative forested land not have a significant impact on the environment and the animals that live in the forest? In the plan's own admission, it will affect the regeneration of this forest land in the future. While this "ALTE" prescription is described as a 'superior prescription for the environment,' there is essentially no difference in the outcome from clear-cutting. The land will still need to have "artificial regeneration" which creates

plantation stands that are more prone to disease, are fire-prone, and it also requires multiple applications of herbicides.

"Even-age" harvesting results in dangerous fuel sources for wildfires because it requires plantation style restocking afterwards. In "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape" by Zald and Dunn, they report some interesting findings but for this comment letter, we will report on two things. They asked two questions. "(1) What is the relative importance of different variables driving fire severity and, (2) is intensive planation forestry associated with higher fire severity?" They found "daily fire weather was the most important predictor of fire severity, followed by stand age and ownership followed by topographic features. Estimates of pre-forest biomass were not an important predictor of fire severity."

Their "findings suggest intensive planation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity" are important in determining whether or not harvesting using 'even-age' should be allowed.

[https://www.researchgate.net/publication/324786837_Severe_fire_weather_and_intensive_forest_management_increase_fire_severity_in_a_multi-ownership_landscape]

Overstory trees are crucial for a healthy forest, soil retention, slowing snow melt and heavy water runoff and more of them should be saved in the plan. The amount of retention of these older trees needs to be higher to try to manage the species found in the area and for those known to travel through.

When talking about retention, 60% appears to be the tipping point to maintain "cooler" forest conditions, which is crucial in slowing warmer temperatures in the area; you plan on taking 95%. This 60% rate also is helpful to avoid adversely effecting "ectomycorrhizal (EMC) fungi, as they are associated with the roots of living trees. Retention forestry is a way of reducing logging impacts and enhancing biodiversity conservation. Increasing the proportion of trees retained at harvest may improve EMC fungal diversity."

[https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.13363]

For retention, we ask that you save the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops) to be prioritized in retention. We also request you increase the amount of retention at the 60% rate for the health of the ecosystem.

Lastly for this section, in the Dunsmuir Community Wildfire Protection Plan, the community of Dunsmuir is considered a Community at Risk (CAR): "The California Department of Forestry and Fire Protection (CAL FIRE) led the effort to identify all CARs in California. With California's extensive WUI situation the list of communities extends beyond those on Federal lands. CAL FIRE used three main factors to determine which communities were at risk and their level of fire threat, defining these factors as: 1) high fuel hazard, 2) probability of a fire, and 3) proximity of intermingled wildland fuels with urban environments. Currently, Dunsmuir is one of 1,327 communities in California identified as a CAR."

[https://static1.squarespace.com/static/54c9a764e4b0ee5502d31f04/t/5a559c430d92974f913bc5f3/1515560025354/Dunsmuir_CWPP_Signed-Final.pdf]

CalFire's special care of how the trees in this THP (and other THPs in the surrounding area) are harvested is crucial. To remove the higher risk of wildfire, use selective harvesting and not ALTE for these THPs.

Item #14 Silviculture:
Restocking: To stop brush growth, increased fire danger, and soil run off into local waterways, restocking should happen within a two-year period, not five. And we ask that you insist that the company restock a variety of trees to combat disease potential.

i: Site preparation

We would like to see cull logs used for firewood for the community. Piles could be left in easy to access areas so that our community, which is designated a "severely disadvantaged community" could have access to free firewood.

Section IV:
II, Cumulative Impacts
G, GHG Impacts: Removing 95% of the basal area from 128 acres of timberland (approximately 18mbf/acre) has measurable and immediate impacts to greenhouse gasses as it is removing carbon sequestration that is in place and future potential for more carbon sequestration. The plan also says that the change will not be noticeable on a global scale. CalFire should consider the totality of plans every year in the State, Nation and World. By doing so, you can see how it adds up to a significant impact on a global scale.

The Climate Change in General section (page 110) is seriously in error. As written, the THP authors question whether (a) unprecedented global warming actually exists ("...not a universally accepted fact among scientists..."); and (b) even if it exists, human activity may not be the cause ("solar activity and variability in the earth's electromagnetic field" may be the cause). The THP's questioning on both points is ill-informed and obsolete from the point of view of science. Of course, any scientific view can be and is still questioned - from whether the earth is round, to biological evolution, to Newton's Laws, to relativity. The percentage of scientists who say climate change and global warming are not happening is very small, and they usually have links to the fossil fuel industries. The existence of anthropogenic global warming has now been supported by an overwhelming amount of data and theory and scientists in the field, all over the world. The scientific evidence is easily strong enough to base public policy on it. To continue to question anthropogenic global warming in official documents, such as the THP does here, serves only to excuse inadequate action, or worse, to excuse willful ignorance, and to serve as a cover for quick profiteering.

On page 111, the following paragraph appears:

"Under a static view of carbon sequestration in forest management, there is a misconception that more carbon is sequestered by growing older trees rather than repeated cycles of growth and harvest. When forest products are taken into account unmanaged forests sequester less carbon (Eckert 2007)".

This view, like the THP's view of global warming, is also obsolete. According to a more recent paper in the prestigious journal Nature [Stephanson et al, *Nature* 2014:**507**, 90–93]:

"...for most species mass growth rate increases continuously with tree size. Thus, large, old trees do not act simply as senescent carbon reservoirs but actively fix large amounts of carbon compared to smaller

trees; at the extreme, a single big tree can add the same amount of carbon to the forest within a year as is contained in an entire mid-sized tree. The apparent paradoxes of individual tree growth increasing with tree size despite declining leaf-level and stand-level productivity can be explained, respectively, by increases in a tree's total leaf area that outpace declines in productivity per unit of leaf area and, among other factors, age-related reductions in population density. Our results resolve conflicting assumptions about the nature of tree growth, inform efforts to understand and model forest carbon dynamics, and have additional implications for theories of resource allocation[11] and plant senescence".

Unlike the anthropogenic global warming question, which, through evidence, is now clearly resolved in the world of science, the carbon sequestration question is still a matter of debate and further investigation. The THP should not state the older, more self-serving, view as if it was a fact.

Wildfire potential needs to be addressed. Wildfire experts assert that wildfires spread MORE rapidly through recently clearcut areas than through mature forests. This is because the post-clearcut land soon becomes covered with highly flammable low-lying brush, and fires are further fed by the huge stacks of highly flammable slash left behind in the clearcut operations. Even if the brush and slash are treated, even-aged plantations are still much more flammable than uneven-aged stands.

We know that climate change is also causing an increase in diseases. "Forest tree diseases are often caused by infectious pathogens such as fungi and bacteria. Changing climate conditions can influence the spread of infectious diseases and their carriers, and add stresses to trees, making them more susceptible to diseases."

[https://www.fs.usda.gov/ccrc/topics/forest-tree-diseases-and-climate-change]

Biological Mitigation: We do not believe 5% retention with ALTE units is enough for the care of wildlife. This prescription is basically clearcutting with a different name. We would like to see the 60% retention for the health of the forest and ecosystem, including wildlife. We request more than just a tiny island where they can run to amongst the clear-cut or even-aged sections but places to live. And we request that the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops) to be prioritized in retention.

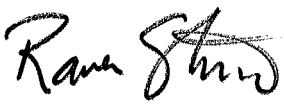
In conclusion, we find it very interesting that the PAWN THP and the Soda Springs THP are so close to one another and have been chosen to be submitted as two separate THP's. And there is a third "unnamed THP (page 83-84.) This is likely to look like it is a smaller impact than what it really is. Put these three plans together and one can see that the devastating impacts are significantly multiplied. CEQA would define this as piecemealing or "segmentation" and we object to it. The case Topange Beach renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].) https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html
states that the requirements of CEQA cannot be avoided by piecemealing. All three of these THPs must be considered as one project to adequately determine the cumulative impacts.

We ask CalFire to review the plan insisting upon using a Selective Cut program for the reasons listed above. Please increase the retention rates for the 128 acres of even-age from 5% to 60% and save the older, large-diameter trees and "wildlife" trees (those with decadent deformities, like broken tops). We want the definitions of forest to be real, natural forests and not plantations as these plantations create a real wildfire risk.

We ask that the cumulative effects of climate change be part of the equation due to the current state of our fire seasons. We want a two-year restocking plan with various trees planted to stop disease potential and to retain logs for firewood for our local community's benefit.

It is time to do better, require more and protect the environment we have left. We would like a response and to be notified of any changes or adaptations to the plan.

Respectfully Submitted,



Raven Stevens
Board of Directors
We Advocate Thorough Environmental Review

Ramaley, John@CALFIRE

From: Raven Stevens <flyraven@sbcglobal.net>
Sent: Thursday, November 12, 2020 8:02 PM
To: Redding Public Comment@CALFIRE
Subject: Public Comment WATER Soda Springs Final.pdf (2-20-00174 SIS).
Attachments: WATER Soda Springs Final.pdf

CalFire,
Please let me know you have received our comments for the Soda Springs THP (2-20-00174 SIS).
Sincerely,

Raven Stevens
We Advocate Thorough Environmental Review (W.A.T.E.R.)

20 PC- 0000000477

PC #7

Jeff Stone
909 Bennett Drive
Yreka, CA 96097
stonepitts2@gmail.com

Reviewed by: SKU
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Dist. Date:
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ARCH LTO
RPF Feller DMG
~~HHSR~~ BOE
OTHER:
FPS
Status:

November 15, 2020

Forest Practice Program Manager
CALFIRE
6105 Airport Road
Redding, CA 96002
Submitted electronically via CalTrees

RECEIVED
NOV 16 2020
REDDING
FOREST PRACTICE

Re: Soda Springs THP, 2-20-00174-SIS

The following are my comments on the Soda Springs THP.

Comments on THP Sufficiency and Review Convenience

This THP is difficult to navigate because it was scanned as an image. Instead, conversion from a document to a pdf would allow reviewers to more easily locate what is being sought by using the "Find" function. I am not suggesting that CalFire staff perform the tedious process of converting submitted image documents to a searchable form; rather, the documents should be required to be posted to CalTrees by the submitter in a searchable form (except of course for pages in documents that require signatures, such as the NOI). These documents are long and complicated, and if CalFire desires intelligent comments, efficient navigation is critical.

I was not able to locate a summary table of the individual units that showed acreages, slope ranges, and treatment types. It is difficult to get an understanding of the general features of the project without such a summary table. I was not able to locate any information at all on the sizes of the individual units.

Project features were not made available in .gpx or .kml format. These formats are very user friendly, are easy to generate, and providing them would make the review process much easier using commonly available software such as Google Earth and GaiaGPS (as opposed to ESRI software, which requires an expensive license).

Item 30g (p. 45) states that piling and burning will not be used for hazard reduction; however, Item 14i2 (p.15) states the opposite. Please clarify.

The discussion in Section V, "Past, Present and Reasonably Foreseeable Projects" (pp. 84-85), is awkward. The transitions between the discussions of the various assessment areas are not

clearly visible and the assessment areas themselves are not clearly defined, sometimes using the name and at other times using the area dimensions.

The two "Past and Present Activities" maps (pp. 85-86) would be clearer if combined into a single map.

The last sentence in Section E1, Visual Resource Inventory (p. 108) erroneously refers to traffic impacts.

Alternative Prescription ALTE

Shasta Cascade Timberlands (SCT) would treat 128 acres in 7 units under Alternative Prescription ALTE, which is a modified even-aged cut with artificial regeneration. While I appreciate the intention to protect biological, soil, and visual resources, the descriptions of the prescription in Section 3 and Item 35 do not reveal much difference from a traditional clearcut. The descriptions state that "at least 5%" of the harvest area will be retained within HRAs or as leave trees (p. 51), and that an average of 5% (1/19 MBF/acre) of the existing volume will be retained (assuming an average stand volume of 19mbf [p. 64] and an average harvest of 95% of the basal area [p. 66]). I'm not sure that this is a significant difference visually, biologically, or pedologically.

While an attempt is being made to describe this as an environmentally superior prescription to a traditional clearcut, artificial regeneration will still need to occur. Artificial regeneration introduces new problems to the stand, including the use of herbicides, visual impacts, a higher probability of erosion, a lack of ecological diversity, and the fire-prone nature of plantations.

While it is true that even-aged management removes most of the fuel from the unit, post-harvest plantations are extremely flammable, even if thinned and underburned at appropriate intervals (which often does not happen). Plantations in California have a very low survival rate because they tend to burn up before they reach a mature, more fire-resistant state. When properly managed, uneven-aged stands are more fire resistant, and so from a fire management perspective, uneven-aged management is more sustainable.

The City of Dunsmuir has been designated as a community at risk from wildland fire. During the creation of the Dunsmuir Community Wildfire Protection Plan (published 2016), one of the stakeholders asked, "Can we work into the plan, requirements or assurances for timber stand/ forest owners to design their logging efforts in a way that enhances our planning efforts?" The answer given was, "Yes, this is part of the collaboration process and would be incorporated at the project level planning stage." This proposed timber harvest project is just one mile from Dunsmuir and given today's reality of landscape level wildfires, converting 128 acres to a more flammable condition through even-aged management is not desirable. During the past few years, the Sacramento River canyon downstream from the project area has been ravaged by

wildfire. This year's wildfires have driven home the reality of climate change, which will only make wildfires more destructive. We need to make our managed timber stands less fire prone through thinning and uneven-aged management, not more so by converting them to plantations. The fact that the THP's assessment area definition for Wildfire Risk and Hazard (p. 77) encompasses a distance of only one quarter (¼) mile radius from the project reflects an outdated and irresponsible methodology. Limiting the assessment area to such an extreme extent relieves the proponent from any responsibility for analyzing wildfire risk to nearby communities that will very likely be caused by the project.

Once an even-aged stand is established, herbicides are often needed in perpetuity to reduce competition with undesirable (from a timber management perspective) vegetation. The proposed conversion to even-aged stands locks in the necessity to spray over and over again, through multiple harvest cycles. Additionally, clearcuts tend to be reservoirs for noxious weeds, which require even more herbicides to control (if the attempt is even made). The sustainability of this repeated need for herbicides is questionable. It is also a political flash point, especially for the local communities that still remember the Cantara spill of 1991. I didn't see where public notice is required prior to herbicide application.

In regard to climate change, Governor Brown of Oregon recently put it well: "I think there's no question that the changing climate is exacerbating what we are seeing on the ground," she said, referring to the recent wildland fires. "I think it's incumbent upon all of us to be aware that climate change is going to impact how we live, our economy, our culture and that we all need to be making changes accordingly. It is going to continue to challenge Oregon, the country, and the world." Despite dismissive remarks in the THP's "Greenhouse Gas (GHG) Impacts" discussion, the horrendous fires of the 2020 fire season demonstrate that climate change is real and that warming and drying is going to further increase fire danger. It is imperative that public policy reflect this if we are going to have a chance to mitigate this trend. Clearly, even-aged management increases fire danger in the medium- to long- term and it should be relegated to the trash heap of history.

Visual mitigations applied to this project as described in Section 4 are deemed necessary based on unit visibility from "a vehicle on a public road, or from a stationary public viewing point to significant numbers of people who are no further than three miles from the operation" (p. 108). Only "certain" ALTE units are identified as being "partly visible" from the community of Dunsmuir (p. 77), which is less than 1 mile away from the project. These vague and restrictive statements make it difficult to determine how well the mitigations will perform on the ground. I would suggest that an arbitrary limit of three miles is not appropriate. Recreation is a very important component of local economies. Possible vantage points in the area include Mount Bradley Lookout, Castle Crags Wilderness, Mt. Shasta Wilderness, the Pacific Crest Trail, Castle Crags State Park, Interstate 5, and the towns of Castella and Dunsmuir. Justifying degradation of visual resources with the excuse that the area is zoned TPZ (p. 108) ignores the fact that there are alternatives to clearcutting that are visually superior and, if anything goes, it begs the question of why we are bothering to consider visual resource management at all.

To summarize, conversion to even-aged management will likely result in a less sustainable ecosystem (not to mention a lower timber yield) due to the fire-prone nature of plantations and the repeated herbicide spraying that will be necessary. An alternative to even-aged management should be more fully considered, as, in the long run, will be more sustainable for timber harvest, more visually pleasing, less fire prone, and safer for surrounding communities.

Piecemealing

The cumulative impacts section makes passing reference to the neighboring Pawn THP (recently withdrawn) and an unnamed third THP which is in the same planning watershed as Soda Springs (pp. 83 and 84). Mere mention is not sufficient to address the full cumulative impacts of these projects. The THP doesn't provide enough information to asses cumulative impacts among these three projects, especially since the location of the third, unnamed project is not specifically identified. Will Pawn be resubmitted? Are there more adjacent projects in the planning stages? The proponent appears to be attempting to "piecemeal" these THPs together to avoid addressing the full impacts of these projects. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' " (Topanga Beach Renters Assn. v. Department of General Services (1976) 58 Cal. App. 3d 188, 195-196 [129 Cal. Rptr. 739].)
https://law.justia.com/cases/california/court-of-appeal/3d/182/1145.html

Cumulative Effects from Wildfire Risk and Hazard

The description of cumulative effects from wildfire risk and hazard (p. 117) is particularly insufficient. Most significantly, the ¼ mile assessment area is much too small for a cumulative assessment, given the fact that recent megafires in northern California (including several in the Sacramento River Canyon) have covered much larger areas and have been extremely resistant to control. The assessment states that the project area is in a Very High Hazard Severity Zone but does not build on this fact by analyzing any consequences of this classification.

The most important criterion when considering options for timber harvest should be reduction of fire hazard, in both the short term and long term. If this is not taken into account, all the talk about LTSY is futile, as it's all going to burn. Look at the fires that burned this year in the west and look at the continuous devastation that has occurred recently in the lower Sacramento River Canyon. This scenario is coming to a forest near us; it's only a matter of time.

The claims are simply made that "The project is not expected to significantly change the fire risk. Long-term, this project will decrease the fuel loading by lowering the density of trees and reduce the fire hazard by separating crowns and surface fuels." "No significant cumulative

impacts to fire risk and hazard should result from the proposed project." These claims are absurd. It gives absolutely no consideration to change in the resulting even-aged stands over time. It is clear from recent fire history in the Siskiyou Mountains (and much of the rest of the west) that plantations are extremely fire prone, much more so than uneven-aged stands, and are often consumed by fire before they become old enough to be commercially harvested (which, by the way, negates the argument that even-aged management satisfies the LTSY rule). These fire-prone plantations present an unacceptable risk to local communities; converting uneven-aged stands to even-aged stands should be considered an irresponsible act that will certainly increase the likelihood of catastrophic wildfires in the future. This is obvious and is well documented. See, for example, C.P. Weatherspoon and C. N. Skinner. 1995: "An assessment of factors associated with damage to tree crowns from the 1987 wildfires in northern California." Forest Science 41(3): 430-451. Also see, "A Review of SPI's study: 'Carbon Sequestration in Californian Forests; Two Case Studies in Managed Watersheds'" by Peter Miller, NRDC, May 5, 2008, from which I quote:

> The SPI analysis completely ignores the issue of fire. The authors reject any data from forest stands that have burned and make no mention of potential differences in vulnerability to fire across management scenarios. However, the intensive management scenarios proposed by SPI would create dense stands of uniform, young, even-aged trees which are particularly vulnerable to catastrophic fire. The increase in vulnerability to fire puts at risk the purported carbon benefits and could threaten nearby communities.

This critique of Sierra Pacific Industries' even-aged management policy also applies to what is proposed by SCT in the Soda Springs THP, as the result will be the same. Ignoring the big picture of wildfire hazard and risk may have been appropriate 50 years ago, but in today's world of climate change, drought and the resulting megafires, it no longer reflects reality.

More recent studies have come to similar conclusions regarding fire hazard in intensively managed even-aged stands. Daniel Gavin, professor of geography specializing in forest ecosystems and environmental change at the University of Oregon, recently wrote, "In Oregon's 2020 fires, highly managed forests burned the most," affirming a 2018 study from Oregon State University, "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape," that suggests that "intensive plantation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity." Preliminary analyses of this year's Bear Fire on the Plumas National Forest indicate that there was a dramatic acceleration of that wind-driven fire when it reached the intensively logged area between Little Grass Valley Reservoir and Feather Falls, an area of about 70,000 acres owned primarily by Sierra Pacific and Soper-Wheeler. The Bear Fire incinerated the town of Berry Creek and killed 15 people.

Conclusions

Please reject this THP and require that the proponent resubmit a single THP that includes a realistic and complete cumulative effects analysis of all SCT's past and pending harvest plans within the immediate geographical area of Dunsmuir, Castella, and Mt. Shasta City, which should include 1) the Pawn THP, 2) the unnamed plan mentioned in the Soda Springs THP, 3) any others that may be in the planning process, and 4) the thousands of acres in this area already converted to even-aged management by SCT. Certainly, from the wildfire risk and hazard perspective, these past, present and future THPs are connected actions that must be addressed in a single document.

Dunsmuir is already a community at risk of wildfire. SCT owns over 24,000 acres adjacent to the towns of Dunsmuir, Mt. Shasta City, and Castella. The residents of these towns deserve to see a thorough cumulative effects analysis to determine whether SCT's management of its lands will pose an existential threat to them.

Thank you for this opportunity to comment.

Jeff Stone

Jeff Stone

Japp, Jeannie@CALFIRE

From: CALTREES-NoReply@resources.ca.gov
Sent: Sunday, November 15, 2020 5:55 PM
To: Redding Public Comment@CALFIRE
Subject: New Public Comment Record 20PC-000000477 on 2-20-00174-SIS

New Public Comment Record 20PC-000000477. Added to Plan ID 2-20-00174-SIS. IMPORTANT: This was submitted Online in CalTREES, please login and confirm the public comment is valid and update the workflow appropriately to make visible online..

To further review this document please login to CalTREES and search by Document ID.

This is an automated email from CalTREES, if you have received this in error please contact CalTREES.support@fire.ca.gov and reference communication ID: CALTREES_INTERNAL_EMAILS

Ramaley, John@CALFIRE 20PC-00000498 PC #8

From: Diane Krell-Bates <diane_krellbates@yahoo.com>
Sent: Monday, November 23, 2020 10:01 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan, 2-20-00174-SIS

To CalFire,

As a California resident, I am extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is only one mile from the town of Dunsmuir and close to both Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Now is the time to do everything possible to mitigate the causes of climate change. Alarmingly, the planned logging would instead exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Diane Krell-Bates

Ramaley, John@CALFIRE 20 PC - 000000 500 PC #9

From: B Dass <bndass@yahoo.com>
Sent: Monday, November 23, 2020 2:00 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan, 2-20-00174-SIS

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

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. I am therefore submitting this comment in the words suggested by environmental advocates. I entirely endorse this comment:

The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Jorge De Cecco
Ukiah, CA

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NOV 24 2020
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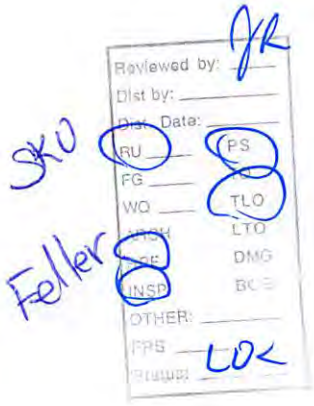


Ramaley, John@CALFIRE 20 PC- 00000501 PC #10

From: Demitri Fierro <demitri.fierro@sierraclub.org>
Sent: Monday, November 23, 2020 1:49 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan (Personal Response)

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

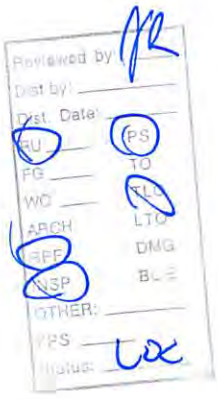
In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Demitri

SIERRA CLUB
Stop Clearcutting CA Campaign
Sierra Club California
Demitri Fierro
Communications Intern
E: demitri.fierro@sierraclub.org
Visit Sierra Club's website



Ramaley, John@CALFIRE 20 PC - 0000000502 PC #11

From: Steffy Reader <steffyreader@gmail.com>
Sent: Monday, November 23, 2020 12:02 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan

Hello,

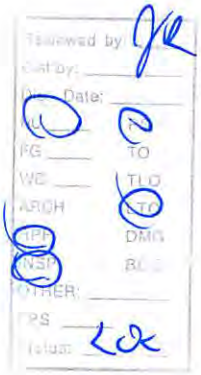
I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Stephanie Reader
Los Altos, C



Ramaley, John@CALFIRE 20PC-0000000503 PC #12

From: Larry L <llamrtment@hotmail.com>
Sent: Monday, November 23, 2020 6:19 AM
To: Review Team Redding Inbox@CALFIRE
Subject: Do not use clear cuts for the Soda Springs Timber Harvest Plan

CalFire Administration:

I am a California native who is extremely concerned by and opposed to the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is in reality a clear cut, would be destructive and increase the wildfire risk for these already vulnerable communities. Young plantation trees (especially conifers) are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

I believe the planned logging would accelerate climate change by removing older, carbon-sequestering trees. Clearcutting and the proposed plantations would also alter habitat, adversely impact wildlife, reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

I am asking CalFire to modify the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained. This is especially important for wildlife, habitat preservation and forest health.

Clearcutting in California must no longer be tolerated! I am asking CalFire to improve your scientific management of our precious natural resources. Please stop using the old harmful timber harvest plans such as these. California citizens recognize the destruction from clear cuts and demand and deserve better environmental protection. I am eager to hear of your revisions to the plan.

Sincerely,

Larry Lambeth

Ramaley, John@CALFIRE 20-PC-000000504 PC #13

From: Stan Zeavin <margstan@sbcglobal.net>
Sent: Sunday, November 22, 2020 6:03 PM
To: Review Team Redding Inbox@CALFIRE
Subject: SODA SPRINGS LOGGING PLAN 2-20-00174-SIS

Hello CALFIRE,

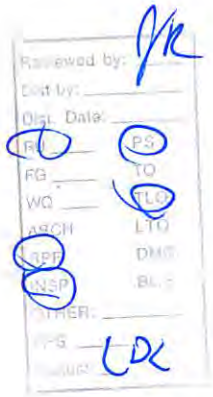
I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and burn faster and hotter than old-growth trees once ignited.

Alarmingly, the planned logging would exacerbate climate change by removing older, carbon-sequestering trees. The 95% harvest and the resulting plantations would also reduce residents' access to outdoor recreation and most likely cause local economies to plummet as tourists such as myself find the area sadly scoured. Leaving merely 5% of the existing volume of trees will have a drastic effect on the wildlife in the area that currently enjoy the tree cover and the people who enjoy them.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained. Managing the area sustainably as uneven-aged trees can reduce the wildfire risk and support the ecological communities.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Margaret Goodale
1135 Palou DR.
PAcifica CA 94044



Ramaley, John@CALFIRE 20 PC - 000000505 PC #14

From: Joanne Gunther <jgunther11@gmail.com>
Sent: Sunday, November 22, 2020 3:09 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THP, 2-20-00174-SIS

To Whom it May Concern,

I believe that all of us in California agree that the decisions we make now in forest management are crucial to improving the health of our forests and mitigating the dangers of extreme fires. The situation is extremely complex, and there is no one right solution. Forests in different areas of California are each unique and have their own individual challenges and strengths. Any decisions to be made should be deliberate and thoughtful and include the input of all stakeholders, including indigenous peoples, local residents, regulatory agencies, nonprofits like the California Native Plant Society, scientists expert in the issues to be examined, and forestry companies. In addition, forests are our legacy to future generations, so all Californians have a stake in the future health of our forests and their voices should be heard and listened to.

In regards to Soda Springs THP, 2-20-00174-SIS, I ask that you reject the near clearcutting of the second-growth forest and instead use selection logging, which current scientific studies of forests indicate is the better choice to ensure the long-term health of the forest.

This morning I was reading The Hidden Life of Trees by Peter Wohlleben and came across the following passage on page 243 of the English edition, which I believe expresses in a nutshell what should be the guiding principle in forest management:

"That means it is okay to use wood as long as trees are allowed to live in a way that is appropriate to their species. And that means that they should be allowed to fulfill their social needs, to grow in a true forest environment on undisturbed ground, and to pass their knowledge on to the next generation. And at least some of them should be allowed to grow old with dignity and finally die a natural death."

I am not asking you to forego logging completely, just to follow a plan that science shows will be best for the long-term health of the forest and all the interconnected life around it, from the smallest microorganism to the people living nearby.

Thank you for allowing me to submit my comments on your plan.

Very truly yours,

Joanne Gunther
3365 Panorama Dr.
Redding, CA 96003

Ramaley, John@CALFIRE 20 PC- 0000000507 PC #15

From: Perry Metzger <pmetzger2005@yahoo.com>
Sent: Sunday, November 22, 2020 11:53 AM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan, 2-20-00174-SIS

Dear CalFire,

The Soda Springs Timber Harvest Plan (THP), 2-20-00174-SIS has recently been submitted for your approval. Approval of this THP is especially concerning since the siteis located only one mile from the town of Dunsmuir. The scope of the work in this THP submittal largely describes clearcut harvesting methods. Recent studies have shown that clearcut areas contribute significantly towards climate change and an increase in the severity of wildfire risk. This type of harvesting should not be allowed near vulnerable communities. Accordingly, subsequent evenage plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

I would appreciate if you would keep me updated regarding the approval status of this THP. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Sincerely,

Perry Metzger, Sacramento, California

Ramaley, John@CALFIRE 20PC-0000000508 PC #16

From: Nina Adarkar <nina.adarkar@gmail.com>
Sent: Saturday, November 21, 2020 8:10 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs - Urgent

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Nina Adarkar

Ramaley, John@CALFIRE 20 PC 000000509 PC # 17

From: Denise T <nihaodt@gmail.com>
Sent: Saturday, November 21, 2020 4:28 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THP 2-20-00174-SIS

Hello,

I am a California resident who is extremely concerned about the Soda Springs Timber Harvest Plans, 2-20-00174-SIS. These logging projects would increase the wildfire risk for already vulnerable communities in the Dunsmuir area.

The planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plans and adjust them to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Denise Thompson

Ramaley, John@CALFIRE 20 PC-0000000510 PC #18

From: Ayesha Sheikh <ayesha.sheikh218@gmail.com>
Sent: Saturday, November 21, 2020 3:34 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Timber Harvest Plan

Hello,

I am a California resident and UCLA student who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Ayesha Sheikh
--
Ayesha Sheikh
Biology B.S. and Environmental Science B.S. | UCLA 2021
Environmental Systems and Society Concentration

Ramaley, John@CALFIRE 20 PC- 00000511 PC #19

From: Kara Portier <karaportier@gmail.com>
Sent: Saturday, November 21, 2020 12:16 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Timber Harvest Plan Increase Wildfire Risk for Communities Near Mt. Shasta

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Kara Portier
Cognitive Science B.S., Global Health Minor
UC Los Angeles, Class of 2021
(805)729-6098 | karaportier@gmail.com
http://www.linkedin.com/in/kara-portier

Ramaley, John@CALFIRE 20 PC-0000005/2 PC #20

From: Jesse Woche <jwoche4@gmail.com>
Sent: Saturday, November 21, 2020 11:40 AM
To: Review Team Redding Inbox@CALFIRE
Subject: CA Resident in OPPOSITION to Soda Springs THP, 2-20-00174-SI

Hello,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Jessica Woche

20 PC - 000000515

PC #21

Ramaley, John@CALFIRE

From: Gary Bailey <tigergary@earthlink.net>
Sent: Tuesday, November 24, 2020 9:10 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan, 2-20-00174-SIS

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

Gary Bailey

941 W. Cardinal

Sunnyvale, CA 94087

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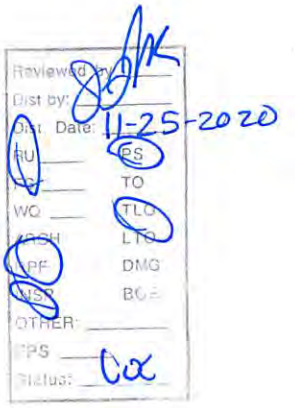

Forest Practice Program Manager

CALFIRE

6105 Airport Rd.

Redding, CA 96002

Soda Springs THP 2-20-00174-SIS comments:

Dear Program Manager:

The Soda Springs Timber Harvest Plan, 2-20-00174-SIS is problematic for several reasons. With California's recent catastrophic and tragic fire history, fire risk should be paramount in considering how to log. As you surely know, even age tree plantations create high fire risk with young trees that burn easily and are the same height so fire will race through their canopies. Creating this fire risk so close to towns is immoral.

Furthermore, this plan would make it more difficult for California to meet its green house gas emission goals by causing unnecessary green house gas emissions, and by removing mature trees so they cannot continue to sequester carbon dioxide from the atmosphere. This is not acceptable.

Please revise this plan to only include selective logging that maintains 60% canopy cover.

Thank you for your consideration,

Gary Bailey

20 PC- 000000518 PC # 22

Japp, Jeannie@CALFIRE

From:	Jan Cecil <jancecil8@gmail.com>
Sent:	Wednesday, November 25, 2020 3:32 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Soda Springs THP, 2-20-00174-SIS Public comment, Jan Cecil

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

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11/24/2020
Soda Springs THP, 2-20-00174-SIS Public comment

To Whom it May Concern:

Since the THP is the logging equivalent of an EIR, I'm addressing it as such.

I'm very concerned about the adverse environmental consequences that would occur if this proposal were carried out. The logging specified is similar to clearcutting for most of the acreage, including destroying many old and large second growth trees.

Fire - It would significantly increase in chance of Fire to a large area surrounding the THP. It would also result in more devastating wild fires that are hotter, more destructive, bigger and faster moving. In recent California wildfires, areas that burned hotter, faster, etc. were in areas previously logged.
Matthias Gafni and Michael Williams Sep. 17, 2020 Updated: Sep. 17, 2020 7:55 p.m.

Proximity – The proposed logging area is within the immediate geographical area of Dunsmuir, Castella, and Mt Shasta City. As are 2 other proposed THP's.

Climate devastation – It would cause the loss of the large amount of carbon sequestered in these large and old trees in the THP area. Climate remediation planning assumes and relies on the forests continuing the current level of carbon sequestration. This THP represents a significant harmful component toward increasing the harmful effects of climate warming.

Loss of Support Services – It would cause permanent loss of the multitude of benefits and supports from a mature, mixed species forest with large old trees: water gathering, creeks, habitat, wildlife, shade, snow, diversity of species, etc. As acknowledged in the THP, many 60 - 120 year old trees would be removed.. These old trees provide the most services for the forest. They are irreplaceable and the overall losses would be permanent. Unlike a natural mixed forest, the clearcut areas would be unable to adapt and recover, let alone the big second growth trees which would be lost forever.

Future of the THP Area – Once clearcut, the forest can never repair itself. If instead, the THP were limited to careful selective limited logging leaving mixed forest species and the large old trees intact, recovery might be possible (depending on logging practices, chemicals used, excess damage, etc.etc.)

Long Term Future of Whole Area – Clearcutting and extreme logging are very harmful for the long-term future of the area logged, the community, the local logging industry, employment, and the ability of the forested area to recover. The logging company plan appears to be: profit now with no effort to leave a viable, sustainable, productive forest and community for those who come after.

Proximity – This proposed clearcut area is way too close to the communities in the area. There is much tourist activity, and tourists and locals want to see beautiful views from nearby campgrounds, trails, and scenic drives. It's also close to 2 other THP's for the same area, one recent THP and a prospective THP.

Deception - several THP statements concern me – Statements that, it's still unclear about whether climate change is a problem (which is long past debatable), no acknowledgeable of the added fire danger caused by logging (as noted in several recent California fires), leaving tree borders around clearcuts/plantations, and submitting individual THP's when you intend to submit 3 in the same area. These are all examples of misrepresentation to deceive the public for profit.

Thank you for your attention . The times are changing, and clearcuts can no longer be acceptable given our already damaged and endangered forests, grave fire dangers, and high level of need to preserve forest carbon.

Sincerely,
Jan Cecil

Ramaley, John@CALFIRE 20PC-00000519 PC #23

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NOV 30 2020
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FOREST PRACTICE

From: Mason Inumerable <mashuni10@gmail.com>
Sent: Wednesday, November 25, 2020 5:16 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Public Comment on Soda Springs THP

To whom it may concern,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The site of this THP is within a mile of Dunsmuir and close to Mt. Shasta City and Castella as well. These communities are already vulnerable to wildfire. You can not allow a logging project that is almost like a clearcut to pass as it will increase wildfire risk. Aggressive even aged management ends up in same aged tree plantations which are less resilient to fire as the trees they replace.

There is also the issue of climate change. The removal of older, carbon-sequestering trees would exacerbate the climate crisis at a time when we are already feeling its effects.

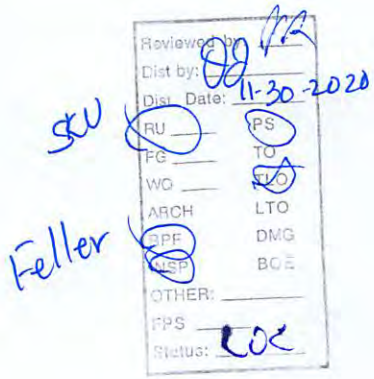
Because it is so close to these communities, we should also consider the effects this THP will have on the residents' access to outdoor recreation and to the local tourist economy.

CalFIRE needs to review the Soda Springs Timber Harvest Plan and adjust it to only use uneven aged management such as selective logging. We must save at least 60% of the tree canopy in order to still continue to mitigate climate change and to protect these local communities from wildfire.

It is time to end destructive logging practices such as clearcutting in California altogether. This work starts with making sure that timber harvest plans such as these are stopped. Please notify me of any revisions to the plan. At a time when the climate crisis is rearing its head on California through increasingly more dangerous wildfire seasons, California residents demand and deserve better environmental protection.

Best,

Mason Daigdigan Inumerable
Borgen Project Ambassador
B.A. in Political Science from UC Riverside



20PC-6000005S20 PC #24

Ramaley, John@CALFIRE

From:	Pamela Padula <lateday@att.net>
Sent:	Monday, November 30, 2020 7:00 AM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Soda Springs THP, 2-20-00174-SIS

Hello CalFire,

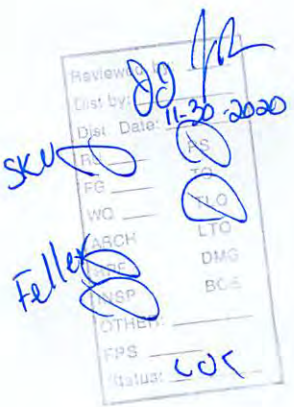
I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

P.S. Padula
Dunsmuir, CA.



20 PC - 0000000540

PC #25

Ramaley, John@CALFIRE

From: Pacific Door <pacific.door@yahoo.com>
Sent: Wednesday, December 2, 2020 6:00 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Fire Risk - Soda Springs Timber Harvest Plan - 2-20-00174-SIS

To Whom it May Concern:

As a California resident who cares about the health of our environment, I am extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is one mile from the town of Dunsmuir and close to Mt. Shasta City and Castella. This logging project, which is almost a clearcut, would **increase the wildfire risk** for these already vulnerable communities. **Young plantation trees are easily ignited, and once ignited they burn faster and hotter than old-growth trees.**

Alarmingly, the planned logging would only **exacerbate climate change** by removing older, carbon-sequestering trees. Clearcutting and the resulting plantations would also reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

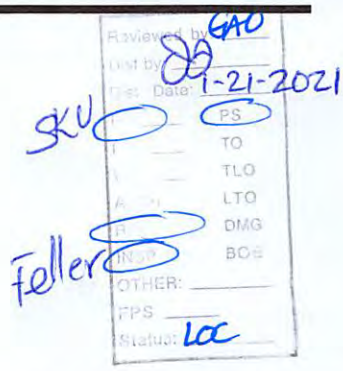
It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you,
Philip Purpuri
401 Happy Valley Rd
Santa Cruz, CA 95061

21PC - 0000000127

PC #26

Japp, Jeannie@CALFIRE



SKU

Feller

From:	Scott Tift <tiftscott@yahoo.com>
Sent:	Thursday, January 21, 2021 8:30 AM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Proposed Soda Springs T.H. Plan

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

Attention Cal Fire Timber harvest planning administration;

As a resident of Siskiyou County & Mount Shasta, I am writing to oppose the current Soda Springs Timber Harvest Plan as it is currently written. Studies and data show that clear cutting greatly increases fire danger, negatively impacts eco-diversity and is old school methodology.
Instead, selection logging must be used, retaining a canopy of 60% or more. Catastrophic fire danger increases each season as climate change continues to alter weather patterns.
As a resident & landowner I worry enough each fire season and feel that improper decisions by our government would add to this.
Do the right thing. Use selection logging.

Respectfully
Scott Tift

21PC-0000000128

PC#27

Japp, Jeannie@CALFIRE

From: Anita Lee <lee.anita1984@gmail.com>
Sent: Thursday, January 21, 2021 12:37 PM
To: Review Team Redding Inbox@CALFIRE
Subject: SODA SPRINGS Timber Harvest Plan

Please deny the Soda Springs Timber Harvest Plan, The state of California should not allow ANY clear cutting or "Even Aged" timber management. Only uneven-aged timber management should be allowed both as a protection against fires and to protect wildlife.

Thanks for your consideration
Anita Lee
619-929-1257

Japp, Jeannie@CALFIRE 21PC-0000001129 PC #28

From: Richard Sexton <mr.richard.sexton@gmail.com>
Sent: Thursday, January 21, 2021 1:10 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Uneven versus even (clear) cut in our forest

As a resident of the old, quaint village of Mt. Shasta City, I implore you to reconsider and ban even-cut in all California forest. The ferocity of fires crossing even-cut forest in our state has made an unequivocal argument in favor of uneven-cut harvesting of our local woodlands. Fires are more easily contained and controlled and losses of product, homes, and lives are greatly reduced.

Sincerely
Richard Sexton
619-929-1258

PC #29

Ramaley, John@CALFIRE

From: Karen Brown <krnbrwn@gmail.com>
Sent: Thursday, January 21, 2021 4:04 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan

Hello,

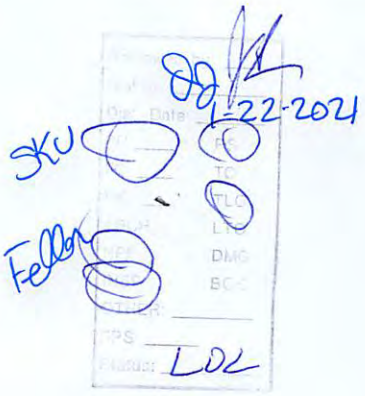
I am a resident of Fort Jones and am extremely concerned by the SSTHP, 2-20-00174-SIS. The logging site is close to the towns of Dunsuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities.

Alarmingly, the planned logging would only exacerbate the fire danger by removing older, more fire resistant trees. Younger, smaller trees will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations are more easily ignited and they burn fast and hot.

Homeowners are being asked to change where they build and how they build and even so, still face the possibility of having to pay triple amounts of homeowners insurance or even losing their policy. The timber industry should take some responsibility for not putting the public and other forest owners at risk.

I know you always have public safety uppermost in your minds so please carefully consider the public's safety when reviewing this timber plan.

--
Sincerely,
Karen Brown



21PC-0000000132

PC #30

Japp, Jeannie@CALFIRE

From: Molly Brown <mollyybrown@gmail.com>
Sent: Friday, January 22, 2021 9:49 AM
To: Review Team Redding Inbox@CALFIRE
Subject: Deny the Soda Springs THP

To CalFire officials,

As an informed California resident living in Mt Shasta, I am extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate climate change by removing **older, carbon-sequestering trees.** Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California.

In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet. This is a dangerous and fool-hardy plan designed only to increase the profits of the logging companies.

I strongly request that CalFire review the Soda Springs Timber Harvest Plan and adjust it to only utilize *selective logging*, whereby a **60% tree canopy will be maintained.**

Please read the quotation below. It is relevant!

Sincerely

Molly Brown
--
"The eyes of the future are looking back at us and they are praying for us to see beyond our own time...that we might act with restraint, that we might leave room for the life that is destined to come... Perhaps the wildness we fear is the pause between our own heartbeats, the silent space that says we live only by grace. Wilderness lives by this same grace. ~ Terry Tempest Williams, *Red,* p. 215.

Molly Young Brown, M.A., M.Div
722 Meadow Ave, Mount Shasta CA 96067
MollyYBrown@gmail.com
MollyYoungBrown.com

20PC-0000000133

PC #31

Japp, Jeannie@CALFIRE

Dist by: SK
Dist. Date: 1-22-2021
RU PS
FG TO
WC PLG
ARCH LTO
PE DMG
INSP BOE
OTHER:
TPS
Status: LOC

SKW

Feller

From:	Ellen Sweeney <truckin2day@gmail.com>
Sent:	Friday, January 22, 2021 11:24 AM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Soda Springs Timber Harvest Plan 2-20-00174-SIS

Good day,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site, which is close to Dunsmuir, Mt. Shasta, and Castella, would increase the wildfire risk for these vulnerable communities. Fires in this area also threaten more closures of I-5.

Ironically, the planned logging would actually exacerbate climate change by removing older, carbon-sequestering, more fire resistant trees. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Please review the Soda Springs Timber Harvest Plan. It should utilize selective logging, whereby a 60% tree canopy will be maintained.

Clear cutting forests must end in California, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents deserve better environmental protection.

Thank you,
Ellen Sweeney, Redding

RECEIVED
JAN 22 2021
REDDING
FOREST PRACTICE

408-314-7241

Until he extends his circle of compassion to include all living things, man will not himself find peace. - Albert Schweitzer

Japp, Jeannie@CALFIRE 20 PC - 0000000134 PC #32

From: Julia Lynn Rose <juliaswatercolorwonders@gmail.com>
Sent: Friday, January 22, 2021 11:55 AM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THP

Dear Cal Fire,

I am a Mt. Shasta resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and all future harvest plans in my area, and adjust it to only utilize logging practices that most reduce wildfire risks, such as selective logging, whereby a 60% tree canopy will be maintained.

Thank you for your time and consideration,
Sincerely,
Julia Lynn Rose

PC #33

Japp, Jeannie@CALFIRE

From: Jim Miller <jardinway@yahoo.com>
Sent: Saturday, January 23, 2021 12:44 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan

Dear Cal Fire Representatives:

We are property owners on Riverside Road near the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. This Harvest Plan bothers us for several reasons. This logging site is close to other previous logging sites in this section of the Sacramento canyon, and the previous sites have left horrible scarring. The roads carved in to allow the logging are equally bad.

Our property is below Girard Ridge Road, where some of the past logging occurred. Our well water and spring water quality diminished soon after the logging. Our spring water flow has decreased and the turbidity has increased.

The tourism economies of the small towns nearby (Dunsmuir, Castella, Mount Shasta, etc.) have already been damaged by the unattractive scenery this logging has caused. We don't need more economic damage! Also, any logging that removes older, carbon-sequestering trees is a bad idea.

We are asking that CalFire review the Soda Springs Timber Harvest Plan as follows:

1) See that they only use selective logging techniques, leaving at least 2/3 of the trees.
2) Make sure that the logging debris is chipped and spread on site rather than burned.
3) Please see that the access roads be worked such that erosion and silt runoff is eliminated.
4) Require that the disturbed areas be re-planted with native species and maintained to insure rapid re-growth.

Our property had some selective harvesting done 10 years ago and we used these techniques. This harvest returned a nice income, and the property has recovered great. We don't see a reason to harvest more intensely, other than greed.

We can no longer afford clearcutting. It is too damaging to our health, our climate, our scenery. Those days are over and only selective harvests should now be allowed.

Please enact these changes and please keep us updated on the Plan.

Thank you for your time with this,

Jim Miller and Family
Castella, CA
530-925-1151
jardinway@yahoo.com

PC #34

Japp, Jeannie@CALFIRE

From: Nancy Buck <nancebuck70@yahoo.com>
Sent: Friday, January 22, 2021 7:23 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs Timber Harvest Plan

Hello,

What is everyone thinking! Certainly, with all the fires in California clear cut logging is known to make the fires worse and yet it's permitted?

I am a Mount Shasta resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate climate changes wwe are experiencing by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce the beauty and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is way past time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans and replanting one variety of trees.. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,

Nancy Buck

Japp, Jeannie@CALFIRE 21PC-0000000144 PC # 35

From: Tara Gardner <tarajoygardner@icloud.com>
Sent: Friday, January 22, 2021 5:57 PM
To: Review Team Redding Inbox@CALFIRE; matthewbryan.ch@gmail.com; jstackfleth@mtshastaca.gov
Subject: Soda Springs Timber Harvest Plan, 2-20-00174-SIS

Hello all,

I live in Siskiyou County and I am extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities. Remembering the fear regarding fast approaching fires in this area has inspired me to write to you.

Alarmingly, the planned logging would only exacerbate climate change by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained. **More so I would like to see a pause on the practice of plantations. I would like a new approach to be created and designed collaboratively with you all, the indigenous wisdom of this area, and the local community organizations. I feel it is time for a big picture view and a new plan of action.**

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thanks!
Tara Gardner
Mount Shasta area

PC #36

Japp, Jeannie@CALFIRE

GAD
Dist by: DB
Dist. Date: 1-25-2021
SKU
Feller

From:	Ana Holub <info@anaholub.com>
Sent:	Friday, January 22, 2021 4:46 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Soda Springs Timber Harvest Plan

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

To whom it may concern,

I am a Weed landowner who is very concerned about the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella and would increase the wildfire risk for these already vulnerable communities.

The planned logging would only worsen climate change by removing older, carbon-sequestering trees. Younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

I ask CalFire to review the Soda Springs Timber Harvest Plan and to *utilize only selective logging*, where at least 60% tree canopy will be retained for land, animals and plants.

We must end the practice of clearcutting in California altogether. Please notify me of any revisions to the plan.

Thank you,
Ana Holub
--
Ana Holub, M.A.
Clear Path to Peace
www.anaholub.com
Author of the book, ***Forgive and Be Free***, and ***Addiction Recovery and Complete Healing*** online course.

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JAN 25 2021
REDDING
FOREST PRACTICE

21PC-000000146

PC #37

Japp, Jeannie@CALFIRE

From:	Ana Holub <info@anaholub.com>
Sent:	Friday, January 22, 2021 4:38 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Soda Springs Timber Harvest Plan

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

To Whom It May Concern,

I am a landowner in Weed. I'm very concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS.

The proposed site is very close to the towns of Dunsmuir, Mount Shasta and Castella, and would increase the wildfire risk for these already vulnerable communities.

The logging proposed by the Soda Springs plan will only exacerbate climate change by removing older, carbon-sequestering trees. Younger forests are more vulnerable to wildfires, which have already devastated much of Northern California. Young plantation trees are easily ignited; once ignited, they burn fast and hot.

Clearcutting and the resulting plantations would reduce residents' access to outdoor recreation and possibly cause local tourist economies to plummet.

I ask CalFire to review the Soda Springs Timber Harvest Plan and to *utilize only selective logging*, whereby at least 60% of the tree canopy will remain.

We need to end the practice of clearcutting in California altogether. Please notify me of any revisions to the plan.

Thank you,
Ana Holub

RECEIVED
JAN 25 2021
REDDING
FOREST PRACTICE

--

Ana Holub, M.A.
Clear Path to Peace
www.anaholub.com
Author of the book, ***Forgive and Be Free***, and ***Addiction Recovery and Complete Healing*** online course.

21PC-000000147

PC # 38

Japp, Jeannie@CALFIRE

From: Charlie Lloyd <cwlloyd49@gmail.com>
Sent: Sunday, January 24, 2021 9:49 AM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THP

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

Please do not clear-cut the Soda Springs THP. It is too close to local towns and could make fire suppression impossible. Using selective logging would allow a more diverse and healthy forest to thrive. The timber industry should not be allowed to log forests without sound environmental objectives.
Thanks for your time.
Sincerely,
Laurie Guinther
Mount Shasta, Ca. 96067

Sent from my iPad

RECEIVED
JAN 25 2021
REDDING
FOREST PRACTICE

PC #39

Japp, Jeannie@CALFIRE

From: Michelle MacKenzie <michellehmackenzie@gmail.com>
Sent: Saturday, January 23, 2021 8:06 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Oppose Soda Springs Project

I write as a lifelong California resident worried about the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. Because the logging site is close to the towns of Dunsmuir, Mt. Shasta, and Castella, it is likely that it would increase the wildfire risk for these already vulnerable communities. It is established that young plantation trees are easily ignited, and once ignited they burn fast and hot.

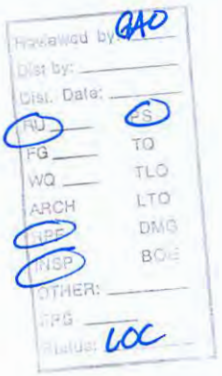
Further, the planned logging would exacerbate climate change as it would remove older, carbon-sequestering trees. Indeed, younger forests are more vulnerable to wildfires. In addition, clearcutting and the resulting plantations would reduce residents' access to outdoor recreation as well as potentially damage local tourist economies.

In light of the foregoing, I request that CalFire to review the Soda Springs Timber Harvest Plan and adjust it to utilize selective logging, whereby a 60% tree canopy will be maintained.

We need to eliminate clearcutting in California, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Sincerely,

Michelle MacKenzie



21PC-000000149

PC #40

Japp, Jeannie@CALFIRE

Reviewed by: GAB
Dist by: DB
Dist. Date: 1-25-2021
SKU U PS
FG TO
WQ TLO
ARCH LTO
FE DMG
NSO BOF
Fedlbr
OTHER:
TPS
Status: lec

From:	Dennis Sweeney <sweeney.djs@gmail.com>
Sent:	Saturday, January 23, 2021 1:50 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Soda Springs THP

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

Good day,

I am a California resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site, which is close to Dunsmuir, Mt. Shasta, and Castella, would increase the wildfire risk for these already vulnerable communities. Fires in this area also threaten more closures of I-5.

Ironically, the planned logging would actually exacerbate climate change by removing older, carbon-sequestering, more fire resistant trees. Young plantation trees are easily ignited, and once ignited they burn fast and hot.

Please review the Soda Springs Timber Harvest Plan. It should utilize selective logging, whereby a 60% tree canopy will be maintained.

Clear cutting forests must end in California, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents deserve better environmental protection.

Sincerely,
Dennis Sweeney
Redding, CA

Dennis Sweeney
sweeney.djs@gmail.com | 408-314-7176

RECEIVED
JAN 25 2021
REDDING
FOREST PRACTICE

PC # 41

Japp, Jeannie@CALFIRE

From: Francis Mangels <bioguy0311@sbcglobal.net>
Sent: Friday, January 22, 2021 6:30 PM
To: Review Team Redding Inbox@CALFIRE
Subject: soda springs timber harvest plan

Dear CalFire:
As a retired USFS who has been in this area since 1981, and been on the very slopes you intend to harvest, I must protest your plan for some specific reasons:

1. The petroglyph site here is bigger than the acheo report says it is. I submitted a report but the ranger ignored it (?). The slopes east of the creek have rocks that include a Spanish Maltese Cross as well as the zigzag and cow head previously seen, there are more there as well in the units across the creek. I can take you there. Check the files first.

2, I was actually chasing peregrines in this area. Don't you know there is a second nest on the point above the proposed units as well as the main one on the south slope above the PCT? I also reported that one and put it on the official biology report which I submitted to the ranger.

3. Not to mention this is still the Crags and this is a scenic area. The original request made by 90% of the MSRD staff and myself said the boundary of the wilderness should be the CREEK, not the section lines. However, this was not followed and you have a very screwy boundary now. I recommend NOT crossing the creek and allowing a buffer zone, as all the petroglyphs I found were west of the creek. I don't know if the area was further searched, but they are rather remarkable chisel jobs, rather than paints. I suspect the white men loaned the Indians a chisel they had.

4. This are is notorious for slope instability. Expect some mudslides from roads and harvest areas...how big, I don't know, but the town is down below. Looks like a stupid risk to me for rather poor quality timber.

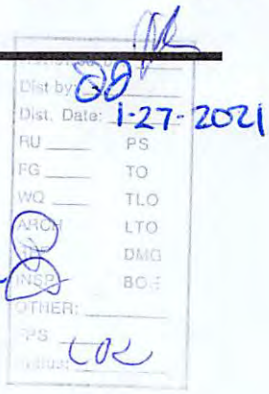
5. This area has had spotted owls, but present status unknown. Was it properly called?

I therefore recommend the project be cancelled immediately.

Francis Mangels, 736 pine ridge, Mt Shasta CA 96067 ph 530-926-0311

PC # 42

Japp, Jeannie@CALFIRE



SKU

Tdler

From: Kathy Zavada <zavada@snowcrest.net>
Sent: Tuesday, January 26, 2021 11:49 PM
To: Review Team Redding Inbox@CALFIRE
Subject: deny the Soda Springs THP

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

Greetings,

Having survived the Camp fire in Paradise, and living near Dunsmuir and this potential timber harvest I feel strongly that this plan should be denied. The even aged plan for harvest creates more fire danger. I would be more open to an uneven harvest plan as it is healthier in every way.
Thank you for considering my voice.
Kathy Zavada
Mt. Shasta, CA

This message was sent using SnowCrest WebMail.
https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.snowcrest.net%2F&data=04%7C01%7Creddingreviewinbox%40fire.ca.gov%7C9be5c88841904ea0167c08d8c298093f%7C447a4ca05405454dad68c98a520261f8%7C1%7C0%7C637473306150108329%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=mNvyW3fsEm1djcw4s%2BBdZz4hiCv%2FN6k%2B%2FEqNf4WBJS0%3D&reserved=0

21PC-0000000156

PC #43.

Japp, Jeannie@CALFIRE

From: Laraine Lewis <lainejlewis@gmail.com>
Sent: Wednesday, January 27, 2021 12:26 PM
To: Review Team Redding Inbox@CALFIRE
Subject: SODA SPRINGS THP

Clear cutting - really you got to be joking. I am saddened, furious and shocked! Is there no evolution on this planet particularly when it comes to nature, and this proposal will use an Australian company - no way. This is not fire prevention, this even logging approach is threatening to Dunsmuir, Mt. Shasta, Castella and McCloud. The only thing this will achieve is destruction and further elimination of critter habitat. In the day, logging at least left the grandfather and older stands. A foreign company doesn't care about this land - it's just money = the driving force of all this societies problems and eventual downfall. We have a symbiotic relationship with our gorgeous trees - they receive our carbon and give us O2. no wonder more and more are having respiratory problems

I've lived in Moumt Shasta 30 years and have seen the destructive progression to logging approaches. You are making our forests completely vulnerable to fire not the reverse. Rethink this before it's too late. thank you.

Sincerely, Laraine Lewis, Mount Shasta. .

21PC- 00000162

PC #44

Ramaley, John@CALFIRE

From:	Cheryl Weiden <weidenc@gmail.com>
Sent:	Saturday, January 30, 2021 2:59 PM
To:	Review Team Redding Inbox@CALFIRE
Subject:	Please deny the Soda Springs THP

I live near San Jose and was appalled by the air quality last August. However, it was not only bad near San Francisco, but throughout much of the state. We must do everything we can to prevent such appalling fires in the future.

Please deny the Soda Springs THP.

Cheryl Weiden

https://www.sfchronicle.com/opinion/openforum/article/California-must-make-fire-prevention-a-priority-15907153.php

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Reviewed by: JK
Dist by: SKU
Dist. Date: 2-2-2021
RU PS
FG TO
WQ TLO
ARCH LTO
RPF DMG
INSP BOE
OTHER:
FPS
Status: tor

21PC-0000001163 PC#45

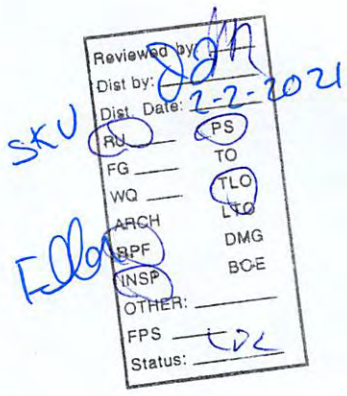
Ramaley, John@CALFIRE

From: Pat Nicholson <patnicho@gmail.com>
Sent: Saturday, January 30, 2021 12:17 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Fire danger is no joke!

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

Please deny the Soda Springs DHP.

Pat Nicholson
patnicho@gmail.com



PC#46

Ramaley, John@CALFIRE

From: Michael Lerner <michael.lerner.9@gmail.com>
Sent: Monday, February 1, 2021 6:07 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Denying the Soda Springs THP

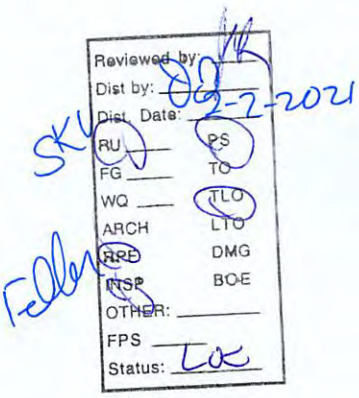
Dear Cal Fire,

After reading the January 29th op-ed "California must make fire prevention a priority in logging approvals" by Karen Maki, Raven Stevens and Jeff Stone in the San Francisco Chronicle, I urge you to reject the Soda Springs THP. As a relatively recent transplant to California, I was saddened to see the devastation of the wildfires this past summer. Rather than the even-aged logging proposed in the aforementioned plan, uneven-aged management with selection logging would reduce the intensity and harm of a potential fire. The public and our brave firefighters should not bear the brunt of additional risk just so Shasta Cascade Timberlands could earn more revenue in the short term. So please reject the Soda Springs THP until such revisions are made.

Thank you.

Kind regards,
Michael Lerner

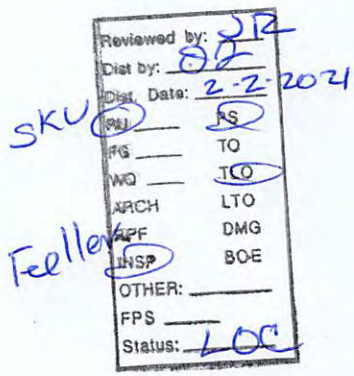
Lafayette, CA



Japp, Jeannie@CALFIRE 21PC-0000000172 PC #47

From: robert kehr <robkehr@hotmail.com>
Sent: Tuesday, February 2, 2021 10:51 AM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THGP

I am concerned about our continued use of a failed forest management method. i.e. clearcutting large blocks of mature trees. It has been shown that even age forests are more susceptible to wildfire then more diverse forests. Yes, I know the arguments that selective cutting is not economically doable. But the destruction by massive wildfires is not economical or sustainable either . Please consider withholding support for this THP until there is a sustainable forest management plan proposed that does not increase the likelihood of more massive wildfires. Which requires more selective harvest of trees.
Thank you
Robert Kehr Mt. Shasta CA.



SKU
Feller

21PC-000000203

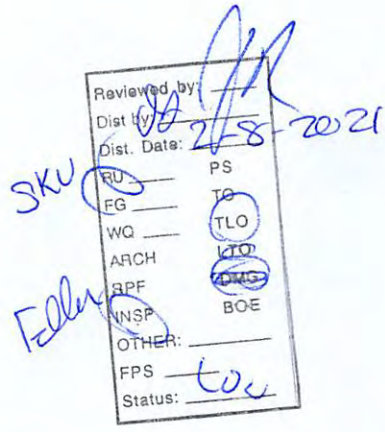
PC #48

Ramaley, John@CALFIRE

From: Margot Lowe <margotlowe1@gmail.com>
Sent: Saturday, February 6, 2021 8:03 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THP

The Soda Springs Timber Harvest Plan (THP) should not be approved. The methods proposed would exacerbate wildfires, not prevent them.

Margot LOwe



21 PC - 00000205

Japp, Jeannie@CALFIRE

From: C Sachs <cscasa@gmail.com>
Sent: Monday, February 8, 2021 11:19 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Soda Springs THP 2-20-00174 SIS

Reviewed by: JJ
Dist. by: JJ 2-9-2020
Dist. Date:
RU ____ PS
FG ____ TO
WQ ____ TLO
ARCH LTO
RPF DMG
INSP BOE
OTHER: ____
FPS ____
Status: LOC

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

I hope it's not too late to express my concern on this subject.
I sincerely hope that approval for the current plan of clear cutting will be denied.
Selective logging is a much wiser plan considering the risk of wildfires in our area.
I am a senior living in Dunsmuir for over 30 years.
Fire season is stressful for us all.
Let's not make it any worse than it already is.
Thank you
Carrie Sachs

Recieved after close of Public comment

RECEIVED
FEB 09 2021
REDDING
FOREST PRACTICE

Ramaley, John@CALFIRE 21PC-000000209 PC #50

From: M Sanchez <mch.sanchez11@gmail.com>
Sent: Tuesday, February 9, 2021 9:37 PM
To: Review Team Redding Inbox@CALFIRE
Subject: Do Not approve Soda Springs Timber Harvest Plan

Hello,

I am a Dunsmuir resident who is extremely concerned by the Soda Springs Timber Harvest Plan, 2-20-00174-SIS. The logging site is close to my town that my family and I call home and where I was raised. Dunsmuir, Mt. Shasta, and Castella would also experience increased wildfire risk for these already vulnerable communities. As you hopefully kow, young plantation trees are easily ignited, and once ignited they burn fast and hot.

Alarmingly, the planned logging would only exacerbate the issue climate change by removing older, carbon-sequestering trees. Lastly, younger forests will be more vulnerable to wildfires that have already devastated much of Northern California. In addition, clearcutting and the resulting plantations would reduce residents' access to clean air and environment and will likely damage tourist economies on which many of our community members rely.

In conclusion, I am asking CalFire to review the Soda Springs Timber Harvest Plan and adjust it to only utilize selective logging, whereby a 60% tree canopy will be maintained.

It is time we end the practice of clearcutting in California altogether, beginning with stopping harmful timber harvest plans such as these. Please notify me of any revisions to the plan. California residents demand and deserve better environmental protection.

Thank you for your time,
Michael Sanchez