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

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

TIMBER HARVESTING PLAN (THP) No:	1-21-00189-DEL
SUBMITTER:	Green Diamond Resource Company
COUNTY:	Del Norte
END OF PUBLIC COMMENT PERIOD:	February 17, 2022
DATE OF RESPONSE AND APPROVAL:	March 18, 2022

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

Sincerely,

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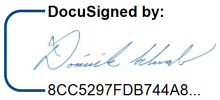
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Dominik Schwab
Forester III, Forest Practice
RPF #2823

cc: RPF, Unit, File; Timber Owner, Timberland Owner and/or Submitter
CP, CDFW, DPR, & RWB (through https://caltreesplans.resources.ca.gov/caltrees/caltrees.aspx)

PUBLIC NOTIFICATION

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

- Notification of the receipt of a timber harvesting plan was sent to the adjacent landowner(s).
- Notice of the receipt of the plan was submitted to the county clerk for posting with other environmental notices.
- Notice of the plan was posted at the Department's local office and also at the regional office in Santa Rosa.
- Notice of the receipt of the THP was sent to those organizations and individuals on the Department's list for notification of plans in the county.
- A “Notice of the Intent to Harvest Timber” was posted near the plan site.

THP REVIEW PROCESS

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

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

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

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

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

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

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

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

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

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

The general means of enforcement of the Forest Practice Act, the rules, and other related regulations range from the use of violation notices, which require corrective action, to criminal proceedings through the court system. Timber operator and Registered Professional Forester licensing action may also be pursued. Most forest practice violations are correctable and the Department's enforcement program assures correction. Where non-correctable violations occur,

criminal action is usually taken. Depending on the outcome of the case and the court in which the case is heard, some sort of environmental corrective work is usually done. This is intended to offset non-correctable adverse impacts.

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

FOREST PRACTICE TERMS

AHCP	Aquatic Habitat Conservation Plan	LTO	Licensed Timber Operator
CAL FIRE	Calif. Dept. of Forestry & Fire Protection	NCRWQCB	North Coast Water Quality Control Board
CCR	California Code of Regulations	PHI	Pre-Harvest Inspection
CDFW	California Department of Fish and Wildlife	PRC	Public Resources Code
CEQA	California Environmental Quality Act	RPF	Registered Professional Forester
CGS	California Geological Survey	SOD	Sudden Oak Death
DBH/dbh	Diameter Breast Height	THP	Timber Harvesting Plan
FHCP	Forest Habitat Conservation Plan	WLPZ	Watercourse & Lake Protection Zone
GDRCo	Green Diamond Resource Company	ZOI	Zone of Infestation

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

SIGNIFICANT ENVIRONMENTAL CONCERNS AND RESPONSES

1. CONCERN: Hardwood Removal and Treatment

RESPONSE:

The concern is that hardwood removal, specifically the removal of tanoaks, could have negative impacts on wildlife and forest ecology. CAL FIRE agrees that hardwoods, and specifically tanoak, provide food and habitat for wildlife, and are an important component of the redwood forest ecosystem.

Due to current market conditions, it is mostly redwood and Douglas-fir that are harvested for commercial purposes. After redwood and Douglas-fir are harvested, hardwoods such as tanoak can quickly take up the growing space created after harvest. THP Section II, Item # 14(f), page 12, indicates that hardwoods need to be reduced to maintain the relative site occupancy of Group A species.

In order to maintain site occupancy of redwood and Douglas-fir (Group A commercial species, see 14 CCR 895.1 def. for Commercial Species), Forest Practice Rule 14 CCR 912.7(d) states that “the percentage of the stocking requirements met with Group A species shall be no less than the percentage of the stand basal area they comprised before harvesting. The site occupancy provided by Group A species shall not be reduced relative to Group B species”. Tanoak is a Group B species in the Coast Forest District. Due to the requirement of 14 CCR 912.7(d), the timberland owner must

ensure that Group A species recapture the site, which may involve reducing the amount of hardwoods in the stand. This does not mean that hardwoods will be completely removed.

Please refer to the stand tables on THP pages 106 and 107. Present species composition of hardwoods in the stands proposed for harvest range between 4% - 15%, indicating that hardwoods are not a substantial component of these stands. For the post-harvest stand in areas designated for clearcutting, THP page 106 states that "species composition at the next rotation should be approximately 60% redwood 35% Douglas-fir and 5% hardwood. Also, THP page 233 includes "Green Tree Retention" tables which show the hardwoods that are being retained, and THP pages 268 provides a description of Hardwood retention areas for wildlife habitat as part of Green Diamond's Terrestrial Retention of Ecosystem Elements (TREE) policy.

While hardwoods in the plan area may be temporarily reduced, CAL FIRE believes that this THP has included appropriate levels of hardwood retention in the plan area, and will not contribute to a loss of hardwoods. Hardwood treatment and retention as proposed in the plan has been evaluated and is appropriate.

2. CONCERN: Sudden Oak Death not Adequately Addressed in the THP

RESPONSE:

This THP is located in Del Norte County. Per the State Board of Forestry & Fire Protection Website, Del Norte County is not in the Sudden Oak Death Zone of Infestation (SOD ZOI). Please see the map of the SOD ZOI here: https://bof.fire.ca.gov/media/lrac3ork/sod-zoi-final_ada.pdf . Also, per California Department of Food and Agriculture Plant Quarantine Manual Sec. 301.92-3, Del Norte County is not part of the Quarantined Areas. Per 14 CCR 917.9(a), the RPF is only required to identify feasible measures to address SOD when timber operations are proposed in the SOD ZOI, which is not the case with this THP. THP Section II, Item #15(b), page 16, also indicates that no other significant forest disease problems such as SOD are present in the plan area if outside a declared ZOI.

As of the plan approval date, SOD mitigations are not needed in the plan. If SOD is noticed in the Logging Area during timber operations, or the ZOI changes to include Del Norte County, the plan will need to be amended to address SOD [ref. 14 CCR 1034(v)].

3. CONCERN: Ground-based Equipment on Unstable Areas

RESPONSE:

Per THP Section II, Item 19 – 22(g), page 29, no ground-based operations are proposed on unstable areas. Also, per the Operations Maps on pages 98 – 100, no harvesting is proposed on unstable areas.

4. CONCERN: Felling of Unmarked Trees in the WLPZ

RESPONSE:

Felling of unmarked trees in the WLPZ is not proposed in this plan. Per THP Section II, Item #27, pages 83 and 84, no in-lieu practices or alternatives to watercourse and lake protection are proposed in this THP.

5. CONCERN: Alternatives Analysis

RESPONSE:

The Alternatives Analysis for this THP is located in THP Section III, pages 109 – 110. The following alternatives were considered: the THP as proposed, the "No Project" alternative, alternative land uses, alternative timing, alternative location, alternative site, alternative silviculture, and public acquisition of the property. The purpose of the project is stated on page 109, which is to "contribute incremental quantities of high quality timber products to meet the annual operating goals and needs of the company and to insure that an adequate supply of wood is available to our facilities that we may meet our lumber market and customer commitments".

The Analysis of Alternatives has been evaluated by CAL FIRE, and presents a range of alternatives that are reasonable to consider for a THP. The purpose statement for the THP has been evaluated and is consistent with the goals of Green Diamond Resource Company (GDRCo) and the production of high quality timber products.

6. CONCERN: Cumulative Impacts of other THP's within the Watershed Assessment Area

RESPONSE:

The cumulative impacts of past, present, and future THPs has been evaluated in THP Section IV, pages 178 – 195. These pages provide maps and tables that disclose the location of Past Projects and discuss how the implementation of Green Diamond Resource Company's AHCP and FHCP ensure that potential adverse cumulative effects are avoided or mitigated to a level of insignificance. Also, page 195 describes how this plan complies with the waste discharge requirements of the NCRWQCB in the Klamath Basin, which all other GDRCo THPs in the Klamath Basin must also comply with. CAL FIRE believes that potential impacts due to sedimentation have been addressed in the plan, and the plan has evaluated potential cumulative impacts to watershed resources and mitigated these potential impacts to a level that is less than significant.

7. CONCERN: Impacts to the Beneficial Uses of Water

RESPONSE:

The public comment states that the THP has failed to calculate how controllable sediment will be produced by harvest operations. A calculation of controllable sediment is not required by the Forest Practice Rules, but the RPF has considered how the THP's proposed operations could contribute to overall sedimentation of the Klamath River.

THP Section IV, page 202 lists the beneficial uses of water that could be impacted, and pages 203 – 205 provide an analysis of the proposed operations and potential effects of those operations. The analysis describes the current riparian and watercourse conditions of Hunter Creek, and how the THP will protect those habitat elements and the beneficial uses of water. In addition, THP pages 283

- 286 includes a Road Maintenance and Inspection Plan which will be used to monitor roads for any signs of sedimentation. Also, a representative from the NCRWQCB attended the PHI and made no recommendations in their PHI report. CAL FIRE believes that this THP is in compliance with the Klamath River Basin Plan, that potential impacts to the beneficial uses of water have been properly evaluated in the THP, and have been mitigated to a level that is less than significant.

Note: Two public comment letters were received regarding this THP, but the comment letters were identical. The comment letters also contained footnotes referencing pages in the THP, but these footnotes do not appear to reference the correct pages.

From: Morris Emily <anemolie@gmail.com>
Sent: Monday, February 14, 2022 11:43 AM
To: Santa Rosa Review Team@CALFIRE
Subject: THP 1-21-00189-Del " Upper West Fork Hunter Creek"
Attachments: Upper W Fork Hunter Creek THP Comments 2-10.docx

Dear Review Team-

Please see the attached public comments for THP 1-21-00189. The public comment period was listed as ending today so I went to submit my comments online at CalTrees, but was unable to find this plan listed. Please let me know if you're able to consider them.

Thanks so much,

Emily Morris

February 14, 2022

CAL FIRE Santa Rosa Review Team
135 Ridgway Ave
Santa Rosa, CA 95401

Re: THP 1-21-00189-Del "Upper West Fork Hunter Creek"

Dear CAL FIRE Santa Rosa Review Team,

On behalf of the Environmental Protection Information Center, please accept these comments on THP 1-21-00189-Del "Upper West Fork Hunter Creek". The THP preparation and approval process is the functional equivalent of the preparation of an environmental impact report (EIR) contemplated by CEQA.[1] The purpose of a THP is "to identify the proposed harvest plan, provide public and governmental decision makers with detailed information on the project's likely effect on the environment, describe ways of minimizing any significant impacts, point out mitigation measures, and identify any alternatives that are less environmentally destructive."[2] CAL FIRE's approval of timber operations is subject to CEQA's standard of judicial review.[3] "If an EIR fails to include relevant information and precludes informed decision-making and public participation, the goals of CEQA are thwarted and a prejudicial abuse of discretion has occurred."[4] EPIC is concerned about several issues which have not been adequately addressed within the THP and which we believe constitute prejudicial abuses of discretion.

I. Hardwood Removal and Treatment is Unnecessary and Dangerous

The plan calls for a reduction of hardwoods through mechanical and manual treatments.[5] This is done to reduce competition with conifers post-harvest. Hardwoods like tanoak provide essential ecosystem services and should not be removed wantonly. This is particularly true given the current Sudden Oak Death (SOD) epidemic which is ravaging hardwoods along the north coast.

Killing a large percentage of the hardwoods in the THP area will have negative effects on local wildlife as tanoaks are a vital part of the California Coastal ecosystem. A mature tanoak can produce more than 200 pounds of nuts per year with estimates ranging as high as 1000

[1] Environmental Protection Information Center, Inc. v. Johnson 170 Cal. App. 3d 604, 61 (1985).
[2] County of Santa Cruz v. State Bd. of Forestry 64 Cal.App.4th 826, 830 (1998).
[3] Pub. Res. Code §§ 21168, 21168.5; *Sierra Club v. State Bd. of Forestry*, 876 P.2d 505, 7 Cal. 4th 1215 (1994).
[4] Save Our Peninsula Committee v. Monterey County Board of Supervisors, 87 Cal.App.4th 99, 128 (2001)
[5] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 2, p.12

pounds per year for old growth trees.[6] Researchers have described tanoak as having an "ecological impact out of proportion to their representation" and as "the principal (or only) nut-producing species" in the California Coastal ecosystem.[7] Their acorns are an irreplaceable food source for mammals and birds.[8] The following quote from Ramage et al. (2011) exemplifies the importance of Tanoak to coast redwood wildlife including the northern spotted owl:

> Tanoak regularly produces large nutritious acorns that are utilized by many wildlife species (e.g. bear, deer, and several rodent and bird species), in contrast to redwood's unpredictable crops of small and light seeds with limited wildlife value. If tanoak is not replaced by one or more functionally similar tree species (e.g. a true oak species), its loss could result in serious cascading impacts. For instance, acorns are a primary food source for the dusky footed woodrat (*Neotoma fuscipes Baird*), which is in turn a primary food source for the northern spotted owl.[9]

Tanoak also "help to create forests with multi-layered tree canopies favorable to northern spotted owls."[10] Other predators that prey on tanoak-reliant herbivores include the coyote, the mountain lion, and the pacific fisher.[11]

Tanoak roots also support a diverse community of fungi which provide crucial ecological benefits.[12] In coast redwood forests, tanoak is the dominant ectomycorrhizal host.[13] Researchers have predicted that the current loss of tanoak, due to sudden oak death, will cause a correlational

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[6] Bowcutt, Frederica. *The tanoak tree: An environmental history of a Pacific Coast Hardwood*. University of Washington Press, 2015. At p.21

[7] McPherson, Brice A., et al. "Sudden oak death in California: disease progression in oaks and tanoaks." *Forest Ecology and Management* 213.1-3 (2005): 71-89.

[8] IMMEL, D. L. 2006. Plant Guide: tanoak Lithocarpus densiflorus (Hook. & Arn.) Rehd. USDA, NRCS, National Plant Data Center.

[9] Ramage, Benjamin S., Kevin L. O'Hara, and Alison B. Forrestel. "Forest transformation resulting from an exotic pathogen: regeneration and tanoak mortality in coast redwood stands affected by sudden oak death." *Canadian Journal of Forest Research* 41.4 (2011): 763-772.

[10] Bowcutt, Frederica. *The tanoak tree: An environmental history of a Pacific Coast Hardwood*. University of Washington Press, 2015. At p.14

[11] Bowcutt, Frederica. *The tanoak tree: An environmental history of a Pacific Coast Hardwood*. University of Washington Press, 2015. At p.14

[12] BERGEMANN, S. E. AND M. GARBELOTTO. 2006. High diversity of fungi recovered from the roots of mature tanoak (Lithocarpus densiflorus) in northern California. Canadian Journal of Botany 84:1380–1394.

[13] Bergemann, S. E., and M. Garbelotto. "High diversity of fungi recovered from the roots of mature tanoak (Lithocarpus densiflorus) in northern California." *Botany* 84.9 (2006): 1380-1394.

decline in beneficial ectomycorrhizal fungi which "will likely disrupt the function and structure of these forests."[14] These fungi allow all woody plants, including redwoods, to gather nutrients from the soil and their decline will negatively impact the health of the entire ecosystem.[15] Research has also recently discovered that Tanoak have their own insect pollination pathway that certain species may be dependent on.[16] This newly discovered pathway highlights how much we are still learning about the importance of this species which has been neglected by researchers until recently.

The THP fails to take the threat of hardwood loss seriously. The cumulative impacts assessment does not consider the impact of tanoak loss on wildlife species. In addition, the cumulative impacts assessment has failed to account for the impacts of SOD on the overall availability of tanoak at a landscape level. Given that current research suggests that tanoak is already seriously threatened in Redwood forests due to SOD, the assumption that wildlife dependent on hardwoods will simply be able to find a different place to live is unsupported.[17] Moreover, the cumulative impacts assessment is deeply flawed because it fails to consider how killing a large number of hardwoods within the context of a forest already struggling with the SOD epidemic will impact species dependent on hardwoods. Without considering the direct impact of removing hardwoods and the cumulative impact of removing hardwoods in an area impacted by SOD, the THP has entirely failed to consider a significant environmental impact.

II. Risk of Spreading Sudden Oak Death Not Adequately Addressed

Sudden Oak Death (SOD) is a serious pandemic impacting hardwoods throughout California and into Southern Oregon. Although there are no known infestation sites within the THP area, there are many cases of infection within Jedidiah Smith Redwoods State Park to the north and around Orick to the south of the THP area. [18] The lack of SOD detection may be due to

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[14] Bergemann, Sarah E., et al. "Implications of tanoak decline in forests impacted by Phytophthora ramorum: girdling decreases the soil hyphal abundance of ectomycorrhizal fungi associated with Notholithocarpus densiflorus." *Madroño* 60.2 (2013): 95-106.

[15] Molina, Randy. "The Role Mycorrhizal Symbioses in the Health of Giant Redwoods and Other Forest Ecosystems." USDA Forest Service Gen. Tech. Rep. PSW-151. 1994

[16] Wright, Jessica W., and Richard S. Dodd. "Could tanoak mortality affect insect biodiversity? Evidence for insect pollination in tanoaks." *Madroño* 60.2 (2013): 87-94.

[17] Ramage, Benjamin S., and Kevin L. O'Hara. "Sudden oak death-induced tanoak mortality in coast redwood forests: current and predicted impacts to stand structure." *Forests* 1.3 (2010): 114-130.

[18] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 2, p.14

limited sampling sites along the Klamath River[19]. Since SOD has not yet been detected in the proposed THP area, it does not list any actions to prevent transfer of SOD into or out of the plan area. It is well understood that timber harvesting is one of the main vectors of the transfer of SOD. Timber workers and timber equipment that has been operating in areas infected by SOD can easily track SOD into previously unimpacted areas. The THP should be revised to include procedures to prevent transfer of SOD into the plan area. These procedures could include thoroughly cleaning equipment before it enters the plan area, cleaning work boots, and substantially limiting the areas that workers and equipment can enter. Best Management Practices for preventing the spread of SOD during forestry have been developed by California's Sudden Oak Death Taskforce.[20] These include inspecting and sanitizing equipment vehicles before they enter a new area and making sure workers are sanitizing their boots before entering a new area. We believe that such precautions are both sensible and necessary particularly given the fact that the project intends to decimate the tanoak population. The THP is incomplete without these additional mitigation measures.

The plan also currently calls for the creation of new tractor roads.[21] This includes 4775 feet of new seasonal roads and 785 feet of new temporary roads.[22] These new roads are another potential vector for the transfer of SOD. Areas that have been stressed by new tractor roads are more likely to be susceptible to SOD outbreaks because they make parts of the forest that were previously inaccessible more accessible. Please consider how the creation of new tractor roads could further increase the risk of SOD spreading through the plan area and include further mitigation measures in the plan.

III. Ground Based Equipment on Unstable Area

The plan calls for the use of Ground Based Equipment on unstable areas.[23] Using ground-based equipment on unstable areas is highly discouraged because it can lead to landsliding and sedimentation of watercourses. This THP lies within an ASP watershed that is already 303(d)

[19] California Plant Pest website. https://www.calflora.org/entry/pathogen.html?id=pth1 Accessed 2/7/22.
[20] California Oak Mortality Taskforce, Sudden Oak Death Guidelines for Forestry
[21] Upper West Fork Hunter Creek THP 1-21-00130-Del , sec. 2, p.25
[22] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 2, p.34
[23] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 2, p.25

listed (the Klamath River). It is therefore imperative that all possible measures be taken to minimize the amount of further sedimentation caused by THP activities.

IV. Felling of Unmarked Trees Within the WLPZ Risks Harming Protected Watercourses

The THP contains an alternative WLPZ practice which will delay environmental analysis and mitigation. The standard rule, 14 CCR 916.5(e), requires marking all harvest trees within the WLPZ prior to the preharvest inspection.[24] One of the purposes of this rule is to prevent LTOs from harvesting large numbers of trees within the WLPZ which provide crucial shade for streams. Without that shade, the streams can become too warm and result in the taking of endangered coho salmon and threatened steelhead and chinook.[25] This is relevant here because the Klamath River contains endangered coho and is already listed as 303(d) impaired for sediment and temperature. The rule also protects the WLPZ from the impacts associated with the harvest itself on watercourses, such as sedimentation. By requiring the marking of all harvest trees within the WLPZ, the standard rule ensures that during the PHI the interagency inspection team can fully understand the extent of canopy removal and potential sedimentation that will occur during timber operations. Like many forest practice rules, this procedural rule serves an important function as it allows the inspection team to make a fully informed decision regarding impacts the timber operations will have on water courses and anadromous fish populations. The proposed alternative permits the incidental harvest of unmarked trees within the WLPZ where "safety necessitates"[26] This vague alternative would allow the LTO to harvest as many trees as they deemed necessary within the WLPZ without any opportunity for the PHI team to comment or object.

14 CCR 916.6 does allow RPFs to propose alternative prescriptions for the protection of watercourses and lakes but only if certain criteria are met.[27] 14 CCR 916.6(a)(1)(B) requires "[a]n identification of any Beneficial Uses of water or other features listed in 14 CCR § 916.4(b), which may be adversely affected by the replaced standard prescription and the alternative

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[24] Cal. Code. Regs. tit. 14, § 916.5(e) (2017).
[25] Hines, D.H. and J.M. Ambrose. Evaluation of Stream Temperatures Based on Observations of Juvenile Coho Salmon in Northern California Streams (1998) at 14, Appendices.
[26] Upper West Fork Hunter Creek THP 1-21-00189-Del, sec. 2, p.56
[27] Cal. Code. Regs. tit. 14, § 916.6 (2017).

practice."[28] Despite this requirement, the THP merely states that "[t]he LTO is directed to comply with any other applicable Forest Practice Rules, and therefore none of the features or beneficial uses listed in 916.4 should be adversely affected."[29] This explanation is not sufficient to meet the requirements of 14 CCR 916.6(a)(1)(B). The protections for WLPZ contained in 14 CCR 916.5(e) are designed to go above and beyond the typical forest practice rule protections and thus replacing them with the standard protections does not adequately fulfill the mandate of 14 CCR 919.6(a)(1)(B). If the typical Forest Practice rules were sufficient to ensure the protection of the WLPZ, then 14 CCR 916.5(e) would be redundant and unnecessary. Clearly, in creating the additional protective measures for WLPZs found in 14 CCR 916.5(e) the Board of Forestry intended for those additional protective measures to not be so easily cast aside as they are within this THP. This conclusion is supported by the fact that the USFS Handbook states that "Designation by description should not be used… [w]hen individual trees are important to other resources… for example… in riparian zones."[30] The handbook also states that "designation by description should not be used… [w]hen the National Environmental Policy Act document identifies a high degree of complexity in the vegetation prescription."[31] Given that this is a situation where the RPF has asked to not mark harvest trees in a riparian zone and there will be a high degree of complexity in the vegetation prescription, the USFS handbook is persuasive evidence that the RPF should have to mark the trees in the WLPZ prior to the PHI. EPIC is concerned that doing otherwise will allow the LTO to commit significant environmental harm the full extent of which has not been analyzed by the RPF or the PHI team.

Another requirement for an RPF to propose to an alternative water course protection method is that there be "[a] plan for evaluating the results of the proposed alternative practice by either the plan submitter or the Director" which "include[s] the criteria and procedures for evaluating and inspecting each approved alternative practice."[32] The description of this alternative WLPZ practice with the THP contains no such plan.[33] The alternative claims that the

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[28] Cal. Code. Regs. tit. 14, § 916.6(a)(1)(B) (2017).
[29] Upper West Fork Hunter Creek THP 1-21-00189-Del, sec. 3, p.130
[30] Forest Service Handbook 2409.12, Timber Cruising Handbook Chapter 70 Principles of Measuring 71.4 10-12, Trees Supplement No.:R5 2409.12-2016-3, available at https://www.fs.fed.us/im/directives/field/r5/fsh/2409.12/r5-2409-12-70-2016-3-1a.pdf
[31] Id.
[32] Cal. Code. Regs. tit. 14, § 916.6(a)(1)(E) (2017).
[33] Upper West Fork Hunter Creek THP 1-21-00189-Del, sec. 3, p.130

proposed rule will "may be evaluated by either party at any time" but without any criteria or procedures for evaluation, this promise rings hollow.[34] In a case such as this, where the standard Forest Practice Rule is clearly designed to ensure that all trees which will be harvested in the WLPZ are marked well in advance for the purposes of allowing the impacts to be fully considered during the PHI, it is not adequate for the THP to promise to do better without any plan to evaluate that result. This conclusion is supported by the fact that CAL FIRE has determined that the standard WLPZ width is not always wide enough to protect riparian resources.[35] That report concluded that "[t]imber management in flood prone areas may be appropriate, but must be planned and executed with proper care, and supported by proper analysis."[36] Not marking harvest trees prior to the PHI and then allowing the LTO to harvest whatever trees they deem necessary does not constitute proper planning and analysis.

The purpose of a THP is to inform the public and other trust agencies about the significant environmental impacts of a timber operation. Given the fact that Hunter Creek and the Klamath River are anadromous salmonid bearing watercourses and contain some of the last remaining coho, Steelhead, and Chinook habitat within California, it is imperative that the THP not cut corners when it comes to following the Forest Practice Rules concerning maintaining salmonid habitat.[37] It is therefore unacceptable that the RPF would seek an alternative that allows the LTO to harvest whichever trees they choose at a later date outside of the structure of the preparation of the THP. It is also the case that well accepted forestry practices, including the USFS Forest Handbook, forbid harvesting in riparian zones without marking trees prior to the inspection.[38] This is because harvesting in flood prone areas without causing serious environmental damage requires planning, analysis, and care.[39] Therefore, the RPF should follow 14 CCR 916.5(e) and mark every harvest tree within the WLPZ. Then the RPF should have another PHI so that the inspection team can assess the extent of canopy loss and potential

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[34] Upper West Fork Hunter Creek THP 1-21-00189-Del, sec. 3, p.131
[35] Riparian Protection Committee, Flood Prone Area Considerations in the Coast Redwood Zone (Nov. 2005)
[36] Riparian Protection Committee, Flood Prone Area Considerations in the Coast Redwood Zone (Nov. 2005)
[37] THP sec. 3, p. 104.
[38] Forest Service Handbook 2409.12, Timber Cruising Handbook Chapter 70 Principles of Measuring 71.4 10-12, Trees Supplement No.:R5 2409.12-2016-3, available at https://www.fs.fed.us/im/directives/field/r5/fsh/2409.12/r5-2409-12-70-2016-3-1a.pdf
[39] Riparian Protection Committee, Flood Prone Area Considerations in the Coast Redwood Zone (Nov. 2005)

sedimentation within the WLPZ and ensure that any harvest will be performed with the requisite level of planning and care.

Fish & Game Code Section 1602 states "[a]An an entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" without notice.[40] As you know, Fish & Game Code Section 1611 allows RPFs to use their THPs as notice for purposes of Fish & Game Code Section 1602 if the following information is included in the plan:

> "(1) The volume, type, and equipment to be used in removing or displacing any one or combination of soil, sand, gravel, or boulders. (2) The volume of water, intended use, and equipment to be used in any water diversion or impoundment, if applicable. (3) The equipment to be used in road or bridge construction. (4) The type and density of vegetation to be affected and an estimate of the area involved. (5) A diagram or sketch of the location of the operation that clearly indicates the stream or other water and access from a named public road. Locked gates shall be indicated and the compass direction shall be shown. (6) A description of the period of time in which operations will be carried out."[41]

With the current lack of information about harvest trees in the WLPZ, the THP currently violates item number 4. This is because without preharvest marking of trees within the WLPZ, it is impossible for CDFW to know "the type and density of vegetation to be affected."[42] As such, this provision violates Fish and Game Code section 1602 and the THP cannot be approved.

V: The Proposed THP Fails to Consider Reasonable Range of Alternatives

All THPs are required to have a "purpose and need statement," "[a] statement of the objectives sought by the proposed project."[43] The purpose and need statement is then used as the

[40] Fish & Game Code, Div. 2, Sec. 6, § 1602
[41] Fish & Game Code, Div. 2, Sec. 6, § 1611
[42] Fish & Game Code, Div. 2, Sec. 6, § 1611
[43] Cal. Code. Regs. tit. 14, § 15124(b) (2018).

basis for the required alternatives analysis.[44] CAL FIRE is required to evaluate and compare the environmental impacts of alternatives to the proposed project in THP.[45] "[CAL FIRE] is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives" but "[t]he range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects."[46] CAL FIRE must consider alternatives in enough detail to allow a comparative analysis of the alternatives against the proposed project.[47] The THP is not required to consider "every conceivable alternative to a project" but it must consider "a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation."[48]

The proposed THP fails existing requirements for alternatives analysis in several ways. First, the purpose and need statement is too narrowly written, constricting the range of alternatives that CAL FIRE is obligated to consider. Second, even with the narrow purpose and need statement, CAL FIRE has failed to examine a reasonable range of alternatives.

VI. The Project fails to adequately consider the cumulative impacts of other timber harvests within the watershed assessment areas

The Watershed Assessment Area (WAA) for this THP is Upper West Fork Hunter Creek.[49] This watershed drains into the Klamath River. As such, the sediment that is delivered into both watersheds will accumulate in the Klamath River with each additional load of sediment delivered contributing to the overall impairment of the Klamath River. This situation is therefore exactly the kind of situation where quantifying the cumulative adverse sediment effects of past, present, and future THPs in the WAAs is the most warranted. However, the THP has not adequately considered these cumulative impacts.

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[44] Cal. Code. Regs. tit. 14, § 15124(b) (2018).
[45] Cal. Code. Regs. tit. 14, § 15126.6(a) (2005).
[46] Cal. Code. Regs. tit. 14, § 15126.6(a-c) (2005).
[47] *Residents Ad Hoc Stadium Com. v. Board of Trustees*, 89 Cal. App. 3d 274, 152 Cal. Rptr. 585 (Ct. App. 1979).
[48] Cal. Code. Regs. tit. 14, § 15126.6(a) (2005).
[49] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 4, p. 137

The THP lists the THPs that have occured in the WAAs in the last 10 years.[50] The list describes the number of acres harvested in the prior plans and the type of silviculture method used.[51] Nowhere does the THP actually analyze the cumulative impact of this harvesting on the WAA. Merely relaying the total acreage and the harvesting method for the THPs conducted in the past 10 years does not quantify the amount of sediment produced by these other THPs. As the RPF would certainly agree, the amount of sediment delivered into a watercourse by a timber harvest is dependent on many factors and not simply the size of the harvest and the type of harvest method employed. Factors such as the proximity of harvest activities to watercourses, the steepness of slopes, and the stability of the soil, vary considerably from THP to THP and cause different THPs to deliver different levels of sediment. By failing to consider these factors, the RPF has failed to conduct a satisfactory cumulative impacts analysis for past sedimentation of the Klamath River by other THPs.

A. The THP relies on conclusory statements to explain that the project will not have adverse cumulative impacts to on-site and downstream beneficial uses of water.

With regards to cumulative sediment impacts, the THP currently states the following:

> "Past road construction and timber operations in the assessment area (particularly prior to the 1973 Z'berg-Nejedly Forest Act) were a major source of sediment and created a legacy of accumulated channel deposits, road conditions, and erosion sites that continue to contribute sediment to streams in the assessment area. Combining these legacy effects from past projects with natural sediment sources and future sediment production from proposed operations could create new or add to existing significant adverse cumulative impacts to on-site and downstream beneficial uses of water."[52]

Despite this, the THP claims that "[w]ith the application of mitigation measures for the proposed and future projects within the WAA, significant or cumulative adverse sediment effects are not expected to occur."[53] Given this reliance on mitigation measures to avoid significant or

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[50] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 4, p. 143
[51] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 4, p. 137
[52] Upper West Fork Hunter Creek THP 1-21-00189-Del, sec. 4, p. 145
[53] Upper West Fork Hunter Creek THP 1-21-00189-Del , sec. 4, p. 145

cumulative adverse sediment effects, it is imperative that these mitigation measures be supported by substantial evidence that they will actually succeed in mitigating the adverse impacts of the harvest. However, the THP relies on conclusory statements which prevent the public from knowing whether the adverse sediment impacts will actually be mitigated.

The THP has failed to calculate how much controllable sediment will be produced by harvest operations. Nowhere in the THP is there a quantification or even an estimate of the total amount of sediment that will be produced by timber harvesting activities. Given the fact that the Klamath River is currently listed as 303(d) impaired for sediment downstream of the Trinity River,[54] proper environmental analysis requires that the RPF meaningfully consider how their actions will contribute to the overall sedimentation of the Klamath River. To merely state that "[w]ith the application of mitigation measures for the proposed and future projects within the WAA, significant or cumulative adverse sediment effects are not expected to occur" without calculating how much sediment will be produced by the THP assumes too much.[55] Just because the amount of sediment delivered will be mitigated by following the forest practice rules does not mean that timber harvest activities will not have a cumulative impact on sedimentation. Mitigation measures cannot be used to avoid assessing whether a project's impacts will be significant.[56] Nor can embedding mitigation measures in the project description obviate the need for a complete impact assessment.[57] The THP neither calculates the amount of sediment that the harvest will produce nor calculates the amount of sediment that could be produced without generating a significant adverse impact. As such, the THP does not meet the information disclosure requirements of CEQA which requires that project planners show their work in order to explain how they determined whether a project would have a significant environmental impact. The public is expected to take the RPF at their word that the project will not produce adverse sediment impacts without being able to examine any calculation or threshold analysis conducted by the RPF that demonstrates this assertion.

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[54] Upper West Fork Hunter Creek THP 1-21-00189-Del, sec. 4, p. 195

[55] ibid

[56] *San Joaquin Raptor Rescue Center v. County of Merced*, 149 Cal.App.4th 645, 663 *(*2007)

[57] *Lotus v. Department of Transportation*, 223 Cal. App. 4th 645, 656 *(*2014)