

ITEM #14 – SILVICULTURE

- Check the Silvicultural methods or treatments allowed by the Forest Practice Rules to be applied under this THP.
- If more than one method or treatment will be used identify the boundaries on a map per 14 CCR § 1034(x)(2)
- List the approximate acreage for each method identified.

a.	Evenaged	ACRES	
<input type="checkbox"/>	Clearcutting		EVENAGED REGENERATION METHODS (14 CCR § 913.1 [933.1, 953.1]) (All Districts) NOTE: variation by District in (a)(4)(A) and (d)(3) Shelterwood Removal Step
<input type="checkbox"/>	Seed Tree Seed Step		
<input type="checkbox"/>	Seed Tree Removal Step		
<input type="checkbox"/>	Shelterwood Preparatory Step		
<input type="checkbox"/>	Shelterwood Seed Step		
<input type="checkbox"/>	Shelterwood Removal Step		
	Un-evenaged		
<input checked="" type="checkbox"/>	Selection	145	
<input type="checkbox"/>	Group Selection		
<input type="checkbox"/>	Transition		
	Intermediate Treatments		INTERMEDIATE TREATMENTS (14 CCR § 913.3 [933.3, 953.3])
<input type="checkbox"/>	Commercial Thinning		
<input type="checkbox"/>	Sanitation Salvage		
	Alternative		ALTERNATIVE PRESCRIPTIONS (ALL DISTRICTS) (14 CCR § 913.6 [933.6, 953.6])
<input type="checkbox"/>	Alternative Prescription		
	Special Prescriptions		SPECIAL PRESCRIPTIONS (14 CCR § 913.4 [933.4, 953.4]) RPF is required to include specific information when Restoration or Oak woodland management is selected. The FPR element forms are provided at the end. Indicate the specific acreage for each type of restoration or oak area on these forms.
<input checked="" type="checkbox"/>	Special Treatment Area Prescription	17	
<input type="checkbox"/>	Rehabilitation of Understocked Area Prescription		
<input type="checkbox"/>	Fuel Break / Defensible Space		
<input type="checkbox"/>	Variable Retention		
<input type="checkbox"/>	Restoration – Aspen, Meadow, & Wet Area		
<input type="checkbox"/>	Ca. Black and Oregon White Oak Woodland Management		
	Non-regeneration		NON REGENERATION HARVESTING
<input type="checkbox"/>	Conversion		
<input type="checkbox"/>	Road Right-of-way		
<input checked="" type="checkbox"/>	No Harvest	1	

TOTAL ACREAGE:	163	If acreage is different than acreage listed in the legal description provide explanation:

If Selection, Group Selection, Commercial Thinning, Sanitation Salvage or Alternative methods are selected the post-harvest stocking levels must be stated. If Site class varies then state the post-harvest stocking standard to be met by each applicable Site Class.

NOTE: Location of boundaries of timber-site classes needed for the determination of stocking standards to be applied, down to 20-acres minimum or as specified in district rules shall be mapped per 14 CCR § 1034(x)(12)

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
Selection	II and III	<p>As stated under 14 CCR 913.2(a)(2)(A) 1, 2, 3, and 4:</p> <ul style="list-style-type: none"> - On Site II and III lands at least seventy-five (75) square feet per acre of basal area shall be retained. - Unless the plan submitter demonstrates how the proposed harvest will achieve MSP pursuant to 14 CCR § 913.11 [933.11, 953.11] (a) or (b), the residual stand shall contain sufficient trees to meet at least the basal area, size, and phenotypic quality of tree requirement specified under the Seed Tree methods. <p>As stated under 14 CCR 913.1(c)(1)(a), a minimum of 15 square feet of basal area per acre of trees 18" dbh or greater shall be retained post-harvest.</p> <p>These stands are composed of Douglas-fir, Bishop pine, and coast redwood</p>
Special Treatment Area Prescription (Selection)	II and III	<p>Same as above with the following additional constraints:</p> <p><i>(a) Commercial Thinning or Selection Methods: When the commercial thinning or the selection silvicultural method is used the following standards are required:</i></p> <p><i>(2) For timber stands where more than one age class is present, leave at least 50% by number of those trees over 12 in. d.b.h. leave trees and established conifer regeneration shall amount to 50% of the preexisting tree crown canopy cover. All leave trees shall be thrifty coniferous trees which are free from substantial damage caused by Timber Operations, and leave trees shall have the characteristics of a "countable tree" described in Sec. 4528(b) PRC. No conifer tree shall be cut which is more than 75 ft. from a 3 point countable tree within the logging area.</i></p> <p><i>(3) A report of stocking as described in PRC 4587 shall be filed within six months following completion of work as described in the plan.</i></p>

c. EVENAGED REGENERATION SIZE

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will evenaged regeneration step Units be larger than those specified in the rules?</p> <p><input type="checkbox"/> 20 acres TRACTOR</p> <p><input type="checkbox"/> 30 acres AERIAL or CABLE</p> <p>If YES is the RPF proposing:</p> <p><input type="checkbox"/> An increase to evenaged TRACTOR Units to 30 acres because Erosion Hazards Rating is Low and the slopes are less than 30%</p> <p><input type="checkbox"/> An increase to any evenaged harvest unit up to 40 acres</p>
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c. EVENAGED REGENERATION SIZE

If YES provide substantial evidence that the THP contains measures to accomplish any one of the subsections per 14 CCR § 913.1 [933.1, 953.1](a)(2)(A) – (E) In SECTION III

Operational Instruction to the LTO, needed to meet subsections (A) – (E) above shall be included in SECTION II

NOTE: Oversized Units should be designated on the THP map(s) by size.

Operational instructions to the LTO:

d. TIMBER MARKING

In the table below indicate the area requiring tree marking, the method of marking, who completed the marking and if it was an entire or sample area mark.

Marking completed in (specify Location(s))	Trees Marked (Harvest / Retained)	Completed By (RPF / Designee)	Area Marked (Entire / Sample area)	RPF Explanation if needed (Optional)
Selection Units	Harvest	RPF/Designee	Sample area prior to PHI, Entire area prior to commencement of operations	Trees Selected for harvest will be marked with a solid blue band that is at least 4 feet off the ground and visible on at least 1 faces. A stump mark will be painted on two sides of the tree in a manner that will be visible on the stump once the tree has been felled. Trees with an "x" or "L" are intended for retention
Special Treatment Area(CCCSTA)	Harvest	RPF/Designee	Sample area prior to PHI, Entire area prior to commencement of operations	Same as above. Boundary is delineated with solid yellow flagging
Watercourse and Lake Protection Zones	Harvest	RPF/Designee	Entire prior to PHI	Within any Class I or II WLPZ, trees are marked with a horizontal blue stripe with a corresponding base mark below stump level may be harvested. Unmarked trees may be harvested within such areas for safety purposes or cable clearance. This exception is provided for in the THP (Reviewers, See Section III, Item 270)). No more than 3 trees within a 200 linear feet of WLPZ may be harvested under this exception. Compliance with all other applicable Forest Practice Rules is still required. The slash cleanout requirements of 14 CCR 916.3(b) are still in effect.
Class III ELZ	Harvest	RPF/Designee	Entire prior to commencement of falling operations	Trees in the Class III will be marked with a horizontal blue and two stump marks in a manner consistent with

d. TIMBER MARKING				
				the prior explanation. Sprouting conifer species (I.e Coast Redwood) that do not have boles that overlap the channel zone can be selected for harvest at the discretion of the designee
Wet Area ELZs	Harvest	RPF/Designee	Entire prior to commencement of falling operations	Trees in the Wet Area ELZ will be marked with a horizontal blue and two stump marks in a manner consistent with the prior explanation

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the RPF requesting a waiver of required marking?
	If YES, provide directions explaining how the LTO will determine what trees shall be harvested or retained:
	If more than one silvicultural method or group selection is used, provide instructions to the LTO identifying how boundaries of the different methods or groups have been identified:

e. FOREST PRODUCTS TO BE HARVESTED:					
<input checked="" type="checkbox"/>	Saw Logs	<input checked="" type="checkbox"/>	Poles	<input checked="" type="checkbox"/>	Clean Chips
<input checked="" type="checkbox"/>	Peeler Logs	<input checked="" type="checkbox"/>	Split Wood Products	<input checked="" type="checkbox"/>	Firewood
<input checked="" type="checkbox"/>	Fuel Wood	<input checked="" type="checkbox"/>	Fuel chips	<input type="checkbox"/>	Other
<input checked="" type="checkbox"/>	Burl Wood				

f. GROUP B SPECIES MANAGEMENT	
1. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are group B species proposed for management?
2. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are group B or non-indigenous A species to be used to meet stocking standards?
3. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will group B species need to be reduced to maintain relative site occupancy of group A species?
If any answer is YES, list the species, describe treatment, and provide LTO felling and slash treatment guidance. See table below	

TABLE FOR LTO TREATMENT GROUP B SPECIES MANAGEMENT			
Species	Treatment Method	Felling Instruction	Slash Treatment Instructions

1. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are follow-up treatments expected to maintain relative site occupancy of group A species?
	<input type="checkbox"/> Manual Treatments
	- Describe:

	<input type="checkbox"/> Herbicide Treatments - Describe: - Hack and squirt/ - <input type="checkbox"/> Both
2. <input type="checkbox"/> Yes <input type="checkbox"/> No	Will a Licensed Pest Control Advisor be involved in the process? If YES explain when an advisor will be needed:

g. LTO INSTRUCTIONS PLAN AREA

Within/ adjacent to the harvest area are utility lines, public roads, and water lines it is the LTO responsibility to coordinate with the landowner to safely operate around these features to avoid impacts to public safety or utilities.

After permission from the Plan Submitter, The LTO may utilize cable yarding in areas designated for tractor yarding provided these operations can be conducted in a manner that soil disturbances are less than ground based operations.

Standing Culls: Within any unit where marking is not proposed (clearcuts, units with marking waivers, individual groups) trees falling under the harvest criteria which are obviously standing culls (more than 50% cull based on log volumes) **shall** be left by the LTO unless the trees pose a safety hazard. These trees will serve as snag recruits, future stand structure, and/or nesting/roosting sites for wildlife species. **NOTE TO LTO:** To put this in perspective, a tree with 4 - 16 foot logs has 40% of its' volume in the first log.

Timber fallers and LTO: You are reminded of the requirements of 14 CCR 916.3(b). Accidental depositions shall be removed from Lakes and Class I, II, or IV watercourses, including any material that may require removal by hand, the same day that the deposit occurs, subject to the operational restrictions of the THP. This means that if you do have an accident where a tree is deposited in a watercourse, and equipment is not available to remove it, you need to remove it by hand.

Trading Trees: Harvest conifers to be marked or designated as described in Item #14(d); leave all other conifers. Trading of trees is not allowed in WLPZs. Trading trees may occur outside of WLPZs for safety reasons or the minimum necessary for logging road clearance, cable corridor clearance, and those trees substantially damaged by logging operations as defined below. **Only 10% of trees may be traded in the CCCSTA.**

Trees Substantially Damaged by Logging Operations: These trees may be harvested during the course of timber operations if they meet the following criteria. These are defined as: top knocked out of redwood to a 6 inches or larger top diameter, top knocked out of other conifer species to a 3 inches or larger top diameter, bole skinned up to 1/2 or more of the circumference of a redwood, bole skinned up to 1/3 or more of the circumference of other

g. LTO INSTRUCTIONS PLAN AREA

conifer species. An "X" shall be sawn into the stump of any conifer harvested due to its being substantially damaged during logging operations. Exceptions to this allowance are as follows:

- o Trees substantially damaged within a WLPZ shall be left standing except when they pose a safety hazard.
- o Trees specifically designated for retention with paint, which are substantially damaged, shall be retained except when they pose a safety hazard.

In areas where harvest trees are designated with blue paint as described above in Item #14(d), leave all unmarked trees except as otherwise allowed for in this Plan.

Leave any tree marked "No", and/or marked with yellow or orange paint.

Per 14CCR 914.1(d): Felling practices shall conform to requirements of 14 CCR §§ 919.2, 939.2, 959.2 to protect bird Nesting Sites.

Note to LTO:

A Wild and Scenic River-Recreation occurs within a 300 foot buffer of the Mainstem Gualala River. The following applicable provision occur under this THP:

PRC 5093.68. Special Treatment Areas; provisions applicable; Timber Operations stop orders.

(a) Within the boundaries of Special Treatment Areas adjacent to wild, scenic, or recreational river segments, all of the following provisions shall apply, in addition to any other applicable provision under this chapter or generally, whether by statute or regulation:

(1) A Timber Operator, whether licensed or not, is responsible for the actions of his or her employees. The registered professional forester who prepares and signs a timber harvesting plan, a timber management plan, or a notice of Timber Operations is responsible for its contents, but is not responsible for the implementation or execution of the plan or notice unless employed for that purpose.

(2) A registered professional forester preparing a timber harvesting plan shall certify that he or she or a qualified representative has personally inspected the plan area on the ground.

(b) In order to temporarily suspend Timber Operations that are being conducted within Special Treatment Areas adjacent to wild, scenic, or recreational rivers designated pursuant to Section 5093.54, while judicial remedies are pursued pursuant to this section, an inspecting forest officer of the Department of Forestry and Fire Protection may issue a written Timber Operations stop order if, operation is being conducted, or is about to be conducted, in violation of Chapter 8 (commencing with Section 4511) of Part 2 of Division 4, or of Rules and regulations adopted pursuant to those provisions, and that the violation or threatened violation would result in imminent and substantial damage to soil, water, or timber resources or to fish and wildlife habitat. A stop order shall apply only to those acts or omissions that are the proximate cause of the violation or that are reasonably foreseen would be the proximate cause of a violation. The stop order shall be effective immediately and throughout the next day.

(c) A supervising forest officer may, after an onsite investigation, extend a stop order issued pursuant to subdivision (b) for up to five days, excluding Saturday and Sunday, if the forest officer finds that the original stop order was issued upon reasonable cause. A stop order shall not be issued or extended for the same act or omission more than one time.

(d) Each stop order shall identify the specific act or omission that constitutes a violation or that, if foreseen, would constitute a violation, the specific timber operation that is to be stopped, and any corrective or mitigative actions that may be required.

(e) The Department of Forestry and Fire Protection may terminate the stop order if the Timber Operator enters into a written agreement with the department assuring that the Timber Operator will resume operations in

g. LTO INSTRUCTIONS PLAN AREA

compliance with the provisions of Chapter 8 (commencing with Section 4511) of Part 2 of Division 4, and with the Rules and regulations adopted pursuant to those provisions, and will correct any violation. The department may require a reasonable cash deposit or bond payable to the department as a condition of compliance with the agreement.

(f) Notice of the issuance of a stop order or an extension of a stop order shall be deemed to have been made to all persons working on the timber operation when a copy of the written order is delivered to the person in charge of operations at the time that the order is issued or, if no persons are present at that time, by posting a copy of the order conspicuously on the yarder or log loading equipment at a currently active Landing on the Timber Operations site. If no person is present at the site when the order is issued, the issuing forest officer shall deliver a copy of the order to the Timber Operator either in person or to the operator's address of record prior to the commencement of the next working day.

(g) As used in this section, "forest officer" means a registered professional forester employed by the Department of Forestry and Fire Protection in a civil service classification of forester II or higher grade.

(h) (1) Failure of the Timber Operator or an employee of the Timber Operator, after receiving notice pursuant to this section, to comply with a validly issued stop order is a violation of this section and is a misdemeanor punishable by a fine of not less than five hundred dollars (\$500), or by imprisonment for not more than one year in the county jail, or both. The person shall also be subject to civil damages to the state not to exceed ten thousand dollars (\$10,000) for each misdemeanor violation. However, in all cases, the Timber Operator, and not an employee of the operator or any other person, shall be charged with that violation. Each day or portion thereof that the violation continues shall constitute a new and separate offense.

(2) In determining the penalty for a Timber Operator guilty of violating a validly issued stop order, the court shall take into consideration all relevant circumstances, including, but not limited to, the following:

(A) The extent of harm to soil, water, or timber resources or to fish and wildlife habitat.

(B) Corrective action, if any, taken by the defendant.

(i) Nothing in this section prevents a Timber Operator from seeking an alternative writ as prescribed in Chapter 2 (commencing with Section 1084) of Title 1 of Part 3 of the Code of Civil Procedure, or as provided by any other provision of law.

(j) (1) If a Timber Operator believes that a forest officer lacked reasonable cause to issue or extend a stop order pursuant to this section, the Timber Operator may present a claim to the Department of General Services pursuant to Part 3 (commencing with Section 900) of Division 3.6 of Title 1 of the Government Code for compensation and damages resulting from the stopping of Timber Operations.

(2) If the Department of General Services finds that the forest officer lacked reasonable cause to issue or extend the stop order, the board shall award a sum of not less than one hundred dollars (\$100), nor more than one thousand dollars (\$1,000), per day for each day the order was in effect.

h. REGENERATION

Yes No

Will artificial regeneration be required to meet stocking standards?
Describe:

i. SITE PREPARATION

Definition of site preparation per 14 CCR § 895.1: 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.

1 Yes No

Will site preparation be used within the logging area?
If YES, provide site preparation plan per 14 CCR § 915.4 [935.4, 955.4]

2 Yes No

Will site preparation be required to meet stocking?

• General method(s) of site preparation:

i. SITE PREPARATION

	<ul style="list-style-type: none"> • Type of equipment to be used for mechanical site preparation and/or firebreak construction:
3. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<ul style="list-style-type: none"> • Methods to protect desirable residual trees per 14 CCR § 917.7 [937.7, 957.7]:
	<ul style="list-style-type: none"> • Are there any exceptions or alternatives proposed to the standard rules? If YES, provide an explanation and justification for the proposed exceptions:
	<ul style="list-style-type: none"> • Provide a map identifying the boundaries of site preparation areas, if different from the logging area boundaries, and distinguish areas by type of site preparation activity.
	<ul style="list-style-type: none"> • Prior to conducting site preparation activities provide the name of the person responsible for site preparation:
	<ul style="list-style-type: none"> - Name:
	<ul style="list-style-type: none"> - Address:
	<ul style="list-style-type: none"> - Phone #:
	<ul style="list-style-type: none"> • Estimated timing of site preparation activities:

j. REGENERATION PLAN (rehabilitation of understocked areas or variable retention)

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Is a regeneration plan needed per 14 CCR § 913.4 [933.4, 953.4](b) or (d)? If YES, please provide a detailed description for Review Team to evaluate how the proposed management prescription will aid in restoring and enhancing the productivity of commercial timberland.</p> <p>The regeneration plan shall include but not be limited to:</p> <ul style="list-style-type: none"> - <u>Rehabilitation of understocked areas</u>: site preparation, method of regeneration and other information needed to evaluate the proposal by the Review team: - <u>Variable Retention</u>: Trees and elements retained, objectives intended to achieved by retention, distribution and quantity of retained tress, intended time period of retention, and potential future conditions or events the RPF believes would allow harvest of retained trees.
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Regeneration plan:

ITEM #15 – PESTS

PESTS / FOREST DISEASES	
Timber operations shall be conducted so as to minimize the build-up of destructive insect populations or the spread of forest Diseases. 14 CCR 917.9 [937.9, 957.9](a) – (c) (All Districts)	
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>Is this THP within an area that the Board of Forestry and Fire Protection has declared a Zone of:</p> <p>1. <input checked="" type="checkbox"/> Infestation</p> <p>2. <input type="checkbox"/> Infection</p> <p>pursuant to PRC §§ 4712 - 4718?</p> <p>If YES, identify feasible measures being taken to mitigate adverse infestation or infection impacts from the timber operation. 917.9 (937.9, 957.9)(a)</p> <p style="text-align: center;">Reference Board of Forestry Technical Rule Addendum Number 3 for RPF considerations.</p>

Measures to mitigate adverse infestations or infections:

Measures to mitigate adverse infestation: PINE PITCH CANKER (*Fusarium circinatum*)

The THP area is within an area declared a 'Zone of Infestation or Infection' by the Board of Forestry with regard to Pine Pitch Canker. The following measures are required to address the potential presence of Pine Pitch Canker and to address the requirements of 14 CCR 917.9-Technical Rule Addendum No. 3, Brood Material. While the section dealing with brood material is specifically addressed towards beetle outbreaks and infestations in heavy pine areas, it also applies here because beetles may aid in the dispersal of Pine Pitch Canker. Although there is no proposed harvest of pine species on this THP a large quantity of Bishop pine is located in parts of the plan area; should incidental pine trees be felled or knocked over (for safety or operations) they shall be treated as follows concurrently with timber felling or yarding operations, whichever caused the tree to be felled or knocked down:

Pine Slash shall be lopped and scattered. Timing and specifications for lopping are taken from 14 CCR 917.9 and Technical Rule Addendum #3 (B)(2): The following treatment is acceptable, provided it is completed as soon after brood material creation as is practical, but not later than one week.

- Lop all branches from the tops and sides of main stems which are more than 3 inches in diameter.
- Lopped stems may also be cut into short segments to reduce drying time and further reduce hazard.
- Branches shall be scattered so that stems have maximum exposure to solar radiation.
- Do not pile brood material.

Measures to mitigate adverse infestations or infections: SUDDEN OAK DEATH (*Phytophthora ramorum*)

The THP is located in an area designated as a Zone of Infestation with regard to *Phytophthora ramorum*, Sudden Oak Death (SOD). At issue is the movement of potential host species either within or outside of the Zone of Infestation.

The following shall apply:

At this time, infected counties include: 1) Alameda 2) Contra Costa 3) Humboldt 4) Lake 5) Marin 6) Mendocino 7) Monterey 8) Napa 9) San Francisco 10) San Mateo 11) Santa Clara 12) Santa Cruz 13) Solano 14) Sonoma 15) Trinity 16) Del Norte. This area is considered the Zone of Infestation for Sudden Oak Death.

There are both "Regulated Host Species" and "Associated Species".

Plants Proven to be Hosts of *Phytophthora ramorum*

September 2022

Scientific Name	Common Name(s)
<i>Acer macrophyllum</i> *	Bigleaf Maple
<i>Acer pseudoplatanus</i>	Planetree maple
<i>Adiantum aleuticum</i> *	Western maidenhair fern
<i>Adiantum jordanii</i> *	California maidenhair fern
<i>Aesculus californica</i>	California buckeye
<i>Aesculus hippocastanum</i>	Horse chestnut

PESTS / FOREST DISEASES

<i>Arbutus menziesii</i> *	Madrone
<i>Arctostaphylos manzanita</i> *	Manzanita
<i>Calluna vulgaris</i> *	Scotch heather
<i>Camellia</i> spp.*	Camellia - all species, hybrids and cultivars
<i>Castanea sativa</i> *	Sweet chestnut
<i>Cinnamomum camphora</i> *	Camphor tree
<i>Fagus sylvatica</i>	European beech
<i>Frangula californica</i>	California coffeeberry
<i>Frangula purshiana</i>	Cascara
<i>Fraxinus excelsior</i>	European ash
<i>Gaultheria procumbens</i> *	Eastern teaberry
<i>Griselinia littoralis</i> *	Griselinia
<i>Hamamelis virginiana</i> *	Witch hazel
<i>Heteromeles arbutifolia</i> *	Toyon
<i>Kalmia</i> spp.*	Mountain laurel - all species, hybrids and cultivars
<i>Laurus nobilis</i> *	Bay laurel
<i>Lithocarpus densiflorus</i> (<i>Notholithocarpus densiflorus</i> ²)	Tanoak
<i>Lonicera hispidula</i> *	California honeysuckle
<i>Maianthemum racemosum</i> (= <i>Smilacina racemosa</i>)*	False Solomon's seal
<i>Michelia doltsopa</i> * (<i>Magnolia doltsopa</i> ²)	Michelia
<i>Parrotia persica</i> *	Persian ironwood
<i>Photinia fraseri</i> *	Red tip photinia
<i>Pieris</i> spp.*	Andromeda, Pieris - all species, hybrids and cultivars
<i>Pseudotsuga menziesii</i> var.	Douglas fir
<i>Quercus agrifolia</i>	Coast live oak
<i>Quercus cerris</i>	European turkey oak
<i>Quercus chrysolepis</i>	Canyon live oak
<i>Quercus falcata</i>	Southern red oak
<i>Quercus ilex</i> *	Holm oak
<i>Quercus kelloggii</i>	California black oak
<i>Quercus parvula</i> var. <i>shrevei</i>	Shreve's oak
<i>Rhododendron</i> spp.*	Rhododendron (including azalea) - all species, hybrids and cultivars
<i>Rosa gymnocarpa</i> *	Wood rose
<i>Salix caprea</i> *	Goat willow
<i>Sequoia sempervirens</i> *	Coast redwood
<i>Syringa vulgaris</i> *	Lilac
<i>Taxus baccata</i> *	European yew
<i>Trientalis latifolia</i> *	Western starflower
<i>Umbellularia californica</i> *	California bay laurel, pepperwood, Oregon myrtle
<i>Vaccinium ovatum</i> *	Evergreen huckleberry
<i>Viburnum</i> Spp	All Viburnum

***Unprocessed wood and wood products, including firewood, logs, lumber, and bark chips or mulch of species listed above and marked with an asterisk(*) are not regulated**

PESTS / FOREST DISEASES

Note: Website <https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/phytophthora-ramorum/sod>. Last accessed June 17, 2024

Of these species the following are known to occur in the THP area: big leaf maple, western maidenhair fern, madrone, toyon, tanoak, California honeysuckle, false Solomon's seal, Douglas-fir, canyon live oak, rhododendron, coast redwood, wood rose, western starflower, California bay laurel and huckleberry

a) Host material permitted for removal:

- ▶ Firewood may be harvested from the THP area, so long as such wood is not smaller than four inches in diameter and does not leave the existing Zone of Infestation.
 - ▶ The only *host material* that may be harvested for commercial purposes are tanoak/madrone logs and redwood basal burls. They may be harvested and shipped to destinations within the existing Zone of Infestation, subject to the requirements of the Compliance Agreement. If debarked, they may be harvested and shipped to any destination without restriction.

b) Except as permitted above, Host material shall not be moved outside of the existing Zone of Infestation.

c) This THP shall serve as the Compliance Agreement for removal of commercial host material from the THP area, within the Zone of Infestation. This Compliance Agreement is only valid for 1 year.

d) Should such activities continue during subsequent years, the plan shall be amended with current information and mitigations to meet compliance. No commercial host material shall be removed from the THP area, following this initial 1-year period, until the THP is satisfactorily amended and updated as necessary to serve as the Compliance Agreement.

g) Information regarding Compliance:

(1) The potential destination(s) of commercial host material is unknown at this time. Prior to removal of the above noted commercial host materials from the THP area, the plan shall be amended to clarify the specific destination for these materials.

(2) Basal trunk/burl sprouts, small branches (less than 1 inch in diameter), and leaves (needles) of coast redwood and Douglas-fir are considered host materials. These host materials shall not be removed from the THP area except as provided for above in c.

(3) Chips or other host material, less than 4 inches in diameter, shall not be removed from the THP area.

(4) Movement of host material greater than 4 inches in diameter (as described in (c), above) does not require a closed container.

(5) Host debris (not actual logs - just leaves, twigs, and branches of host species, listed in item (b), above) shall be inspected for, and substantially removed from, equipment/vehicles prior to departure from the plan area. The usual inspection shall consist of walking around each vehicle/piece of heavy equipment, including any load, and visually scanning for the presence of host debris, prior to movement from the THP area. This is the responsibility of the LTO responsible for hauling operations.

h) The RPF responsible for providing professional advice to the licensed timber operator pursuant to 14 CCR 1035.1(e), shall inform the LTO regarding regulations pertaining to SOD, current SOD hosts, extent of the regulated area, and operational requirements pertaining to the Compliance Agreement (this THP), prior to start-up of initial timber operations and throughout active timber operations as necessary regarding plan amendments to such.

PESTS / FOREST DISEASES

b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Are there any other significant insect or forest disease problems within the THP area if outside a declared zone?</p> <p>1. <input type="checkbox"/> Insect(s)</p> <p>2. <input type="checkbox"/> Disease(s)</p> <p>3. <input type="checkbox"/> Pest problems</p> <p>4. <input type="checkbox"/> Other (provide description of the forest problem)</p> <p>If YES, describe proposed measures to improve the health, vigor, and productivity of the stand(s).</p>
Proposed measures:	

ITEM #16 – HARVESTING PRACTICES

YARDING SYSTEM AND EQUIPMENT TO BE USED					
	GROUND BASED (Tractor, skidder, Forwarder)		CABLE		OTHER (Special)
<input checked="" type="checkbox"/>	Tractor, including end/long lining	<input type="checkbox"/>	Cable, ground lead	<input type="checkbox"/>	Helicopter
<input checked="" type="checkbox"/>	Rubber tire skidder, forwarder	<input type="checkbox"/>	Cable, High lead	<input type="checkbox"/>	Animal
<input checked="" type="checkbox"/>	Feller buncher	<input type="checkbox"/>	Cable, skyline	<input type="checkbox"/>	Other (describe below)
<input checked="" type="checkbox"/>	Shovel yarding				

** All Tractor operations restrictions apply to ground based equipment Reference 14 CCR 914.2 [934.2, 954.2] (All Districts)

ITEM #17 – EROSION HAZARD RATING

EROSION HAZARD RATING (EHR)					
		Per 14 CCR 914.6 [934.6, 954.6](c) Waterbreaks Road and/or Trail Gradients Waterbreak Spacing by trail/road gradient			
		10 or less	11-25	26-50	>50
<input checked="" type="checkbox"/>	LOW	300	200	150	100
<input checked="" type="checkbox"/>	MODERATE	200	150	100	75
<input type="checkbox"/>	HIGH	150	100	75	50
<input checked="" type="checkbox"/>	EXTREME	100	75	50	50
NOTE:					
<ul style="list-style-type: none"> • If more than one rating is checked, areas must be identified on a THP map down to 20 acres in size. • COASTAL DISTRICT with a High or extreme EHR(s) must be mapped to 10 acres. • If ratings checked do not match the EHR Worksheet clarify the discrepancy: 					
EHR rating discrepancy:					

ITEM #18 – SOIL STABILIZATION

ITEM #18 SOIL STABILIZATION / EROSION CONTROL	
<p>Per 14 CCR 923.5, 943.5, 963.5 – Erosion Control for Logging Roads and Landings [All Districts] – All logging road and landing surfaces shall be adequately drained, through the use of logging road and landing surface shaping in combination with the installation of drainage structures or facilities and shall be hydrologically disconnected from watercourses and lakes to the extent feasible.</p> <p>Per 14 CCR 914, 934, 954 – Harvesting practice and erosion control [All Districts] – Timber operations shall be conducted to: Meet the goal... to prevent degradation of the quality and beneficial uses of water and maintain site productivity by minimizing soil loss</p> <p>Guidance on methods for hydrologic disconnection may be found in “Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk Crossings” (1st Edition, revised 10/27/14)</p> <p>14 CCR 923.5, 943.5, 963.5(b), (c), (d), (e), (f), (g), (h), (j), (k), (p) contain standard Forest Practice Operational rules pertaining to the timing and specifics for the installation of erosion control structures for Roads and Landings.</p> <p>14 CCR 914.6, 934.6, 954.6(a) (1-2), (b), (c), (d), (e), (f), (g), additional Coast areas (h), (i) contain standard Forest Practice Operational rules pertaining to the timing and specifics for the installation of erosion control structures for harvesting practices, tractor and cable operations.</p> <p style="text-align: center;">THE LTO SHALL BE FAMILIAR WITH THESE STANDARD OPERATIONAL REQUIREMENTS, PRIOR TO OPERATIONS.</p>	
a. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Are there any exceptions proposed to the above listed standard operational requirements? If YES, please provide the specific operational instruction to the LTO.</p>
<input checked="" type="checkbox"/>	<p>Methods of stabilization to be used: (check all that apply)</p> <p>STRAW Mulch Depth (inches): <u>2-4</u> Percent coverage: <u>90%</u></p>
<input checked="" type="checkbox"/>	<p>SLASH Mulch <input type="checkbox"/> Scattered Depth (inches): _____ Percent coverage: _____ <input checked="" type="checkbox"/> Packed Depth (inches): <u>2-4</u> Percent coverage <u>75%</u></p>
<input checked="" type="checkbox"/>	<p>Grass Seeding LTO Instructions: See Item d. below for application rates.</p>
<input checked="" type="checkbox"/>	<p>Rock Armoring Size: <u>Varies, See Map Point Table</u> Installation instructions:</p>
<input type="checkbox"/>	<p>Replanting</p>

ITEM #18 SOIL STABILIZATION / EROSION CONTROL	
	LTO instructions if needed
<input type="checkbox"/>	Installation of commercial erosion devices Describe commercial devise and provide instructions to the LTO:
<input type="checkbox"/>	Other Describe method and provide LTO instructions:

Per 14 CCR 914.9[934.9, 954.9] the RPF may develop on a site-specific basis alternative practices that will achieve environmental protection at least equal to the standards set forth in 914.1-914.8 [934.1-934.8, 954.1-954.8]	
b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there any alternative practices to the standard harvesting or erosion control rules proposed? If YES, the information as required per 914.9 [934.9, 954.9] shall be provided in SECTION III. Provide instructions to the LTO in SECTION II.

<p>All WATERSHEDS Logging roads / Landings</p>	<p>N/A</p>	<p>Description of Treatments / Protection Measures</p>	<p>Timing</p>
<p>c. 923.5[943.5, 963.5](i): treatments to prevent significant discharge where features cannot be hydrologically disconnected.</p>	<p>N/A</p>		
<p>d.923.5[943.5, 963.5](l) & (m): treatments for sidecast or fill; cuts and fills associated w/ approaches to watercourse crossings; bare areas w/in WLPZ.</p>		<p>Bare soil on logging road or landing cuts, fills, transported spoils, or sidecast that is created or exposed by timber operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Sites to be stabilized include, but are not limited to:</p> <ol style="list-style-type: none"> 1. Sidecast or fill exceeding 20 feet in slope distance from the outside edge of the logging road or a landing that has access to a watercourse or lake. 2. Cut and fills associated with approaches to logging road watercourse crossing of Class I or II waters or Class III waters where an ELZ, EEZ, or a WLPZ is required. <p>Treatment shall consist of seeding the exposed area with grass seed applied at a rate of 25 pounds per acre and mulching with straw to a depth of 2 inches. Do not use annual rye grass. Straw mulching should utilize clean straw (such as rice, barley, wheat, or weed-free straw). Slash may be substituted for straw, if the material is lopped and arranged to make adequate contact and coverage of the soil, to prevent or control erosion. Slash may not be used on the traveled surfaces of roads and landings unless the road or landing is designated for abandonment. Furthermore, slash shall not be used anywhere that will impede drainage, such as the edge of outsloped roads, above culvert inlets, in ditches, and in the channel zone portion of temporary tractor crossings.</p>	<p>For areas disturbed from May 1 to October 15, treatment shall be completed prior to the end of operations for the year or prior to the start of any rain that causes overland flow across or along the disturbed surface that could deliver sediment into a Watercourse or lake in quantities deleterious to the beneficial uses of water.</p> <p>For areas disturbed from October 15 to May 1, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days of the creation of</p>

			bare soil, whichever is earlier.
e. 923.5[943.5,963.5](n): When the natural ability of ground cover in WLPZ is inadequate to filter sediment.	N/A		
f. 923.5[943.5,963.5](o): Exceptions to soil stabilization treatment timing.	N/A		
Watercourse crossings on logging roads			
g. 923.9[943.9,963.9] (t)(1)-(3): Bare soil on fills, sidecast, timing of treatment.		<p>Soil stabilization is required at logging road watercourse crossings where: Bare soil on fills or sidecast associated with Logging Road Watercourse crossings that are created or exposed by Timber Operations shall be stabilized to the extent necessary to minimize soil erosion and sediment transport and to prevent significant sediment discharge. Erosion control measures for the traveled surface of roads and landing surfaces are specified in 14 CCR§923.5 and 923. 7. Sites to be stabilized include, but are not limited to, sidecast or fill exceeding 20 feet in slope distance from the outside edge of the road surface at the Logging Road Watercourse crossing.</p> <p>Should any of the conditions described to the left under "Description of Treatments" occur these areas will be stabilized one or a combination of the following:</p> <ul style="list-style-type: none"> • Where straw mulch is used, the minimum straw coverage shall be 90 percent (2 inches deep at the time of application) and any treated area that has been reused or has less than 90 percent surface cover shall be treated again by the end of Timber Operations. • Where slash mulch is used, bare surface shall be covered with at least 4" of slash covering at least 75 percent of exposed surface. • Where rock armoring is used, aggregate ranging from 1-8" D50 shall be utilized. For slopes less than 30%, small rock (1"-4" 050) shall be used to cover exposed soil. For slopes greater than 30% slopes, larger aggregate (4-8" 050) shall be used to cover exposed soil. Minimum of 75% of exposed bare soil shall be covered. • Where alternatives (including but not limited to: jute netting, silt fence, chemical stabilizers) are utilized, products will be installed in a fashion to prevent significant sediment discharge in line with their use labels. 	<p>For areas disturbed from May 1 to October 15, treatment shall be completed prior to the end of operations for the year or prior to the start of any rain that causes overland flow across or along the disturbed surface that could deliver sediment into a Watercourse or lake in quantities deleterious to the beneficial uses of water.</p> <p>For areas disturbed from October 15 to May 1, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the</p>

			National Weather Service or within 10 days of the creation of bare soil, whichever is earlier.

Forest Practice Rules (FPR) require Specific Erosion Control / Soil Stabilization measures to be addressed within the proposed THP addressing WLPZ & Protected ELZ & EEZs within a Non ASP and exempt ASP watersheds. Please address the following table and the specific rule. If not applicable, so state.

Non ASP & Exempt ASP watersheds WLPZ & Protected ELZ & EEZ	N/A	Description of Treatments	Protection Measures	Timing
h. 916.7[936.7,956.7] Stabilization measures for WLPZ of CI & C II.	N/A			

Forest Practice Rules (FPR) require Specific Erosion Control / Soil Stabilization measures to be addressed within the proposed THP addressing WLPZ & Protected ELZ & EEZ, Roads and Landings and Watercourse Crossings, within an ASP Watershed or Immediately upstream of an ASP Watershed. Please address the following table and the specific rule. If not applicable, so state.

ASP WATERSHEDS Logging roads / Landings	N/A	Description of Treatments / Protection Measures	Timing
i. 916.9[936.9,956.9](n)(1)-(7): WLPZ, & protected ELZ & EEZs.		<p>(1)Soil stabilization is required for the following areas:</p> <ul style="list-style-type: none"> a) Areas exceeding 100 contiguous square feet where Timber Operations have exposed bare soil. b) Approaches to tractor road watercourse crossing between the drainage facilities closest to the crossing. c) Any other area of disturbed soil that threatens to discharge sediment into waters in amounts that would result in a significant sediment discharge. d) Where the natural ability of ground cover is inadequate to protect beneficial uses of water by minimizing soil erosion or by filtering sediment, the plan shall specify protection measures to retain and improve the natural ability of the ground cover to filter sediment and minimize soil erosion. <p>(2)Soil stabilization treatment measures may include, but need not be limited to: removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical soil stabilizers.</p> <p>(3) Where straw or slash mulch is used, the minimum straw coverage shall be 90 percent, and any treated area that has been reused or has less than 90 percent surface cover shall be treated again by the end of timber operations.</p> <p>(4) Where slash mulch is packed into the ground surface through the use of a tractor or equivalent piece of heavy equipment the minimum slash coverage shall be 75 percent.</p>	<p>For areas disturbed from May 1 to October 15, treatment shall be completed prior to the end of operations for the year or prior or prior to the start of any rain that causes overland flow across or along the disturbed surface that could deliver sediment into a Watercourse or lake in quantities deleterious to the beneficial uses of water.</p> <p>For areas disturbed from October 15 to</p>

Forest Practice Rules (FPR) require Specific Erosion Control / Soil Stabilization measures to be addressed within the proposed THP addressing WLPZ & Protected ELZ & EEZ, Roads and Landings and Watercourse Crossings, within an ASP Watershed or Immediately upstream of an ASP Watershed. Please address the following table and the specific rule. If not applicable, so state.

			<p>May 1, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days of the creation of bare soil, whichever is earlier</p>
<p>j. 923.5[943.5,963.5](q)(3): as it pertains to roads, landings, etc.</p>		<p>(1)Soil stabilization is required for the following areas: a) Areas exceeding 100 contiguous square feet where Timber Operations have exposed bare soil. b) Approaches to tractor road watercourse crossing between the drainage facilities closest to the crossing. c) Any other area of disturbed soil that threatens to discharge sediment into waters in amounts that would result in a significant sediment discharge. d) Where the natural ability of ground cover is inadequate to protect beneficial uses of water by minimizing soil erosion or by filtering sediment, the plan shall specify protection measures to retain and improve the natural ability of the ground cover to filter sediment and minimize soil erosion. (2)Soil stabilization treatment measures may include, but need not be limited to: removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical soil stabilizers. (3) Where straw or slash mulch is used, the minimum straw coverage shall be 90 percent, and any treated area that has been reused or has less than 90 percent surface cover shall be treated again by the end of timber operations. (4) Where slash mulch is packed into the ground surface through the use of a tractor or equivalent piece of heavy equipment the minimum slash coverage shall be 75 percent.</p>	<p>For areas disturbed from May 1 to October 15, treatment shall be completed prior to the end of operations for the year or prior to the start of any rain that causes overland flow across or along the disturbed surface that could deliver sediment into a Watercourse or lake in quantities deleterious to the beneficial uses of water. For areas disturbed from October 15 to May 1, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10</p>

Forest Practice Rules (FPR) require Specific Erosion Control / Soil Stabilization measures to be addressed within the proposed THP addressing WLPZ & Protected ELZ & EEZ, Roads and Landings and Watercourse Crossings, within an ASP Watershed or Immediately upstream of an ASP Watershed. Please address the following table and the specific rule. If not applicable, so state.

			<p>days of the creation of bare soil, whichever is earlier</p>
<p>k. 923.9[943.9,963.9](t)(4): as it pertains to watercourse crossings.</p>		<p>(1)Soil stabilization is required for the following areas: a) Areas exceeding 100 contiguous square feet where Timber Operations have exposed bare soil. b) Approaches to tractor road watercourse crossing between the drainage facilities closest to the crossing. c) Any other area of disturbed soil that threatens to discharge sediment into waters in amounts that would result in a significant sediment discharge. d) Where the natural ability of ground cover is inadequate to protect beneficial uses of water by minimizing soil erosion or by filtering sediment, the plan shall specify protection measures to retain and improve the natural ability of the ground cover to filter sediment and minimize soil erosion. (2)Soil stabilization treatment measures may include, but need not be limited to: removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical soil stabilizers. (3) Where straw or slash mulch is used, the minimum straw coverage shall be 90 percent, and any treated area that has been reused or has less than 90 percent surface cover shall be treated again by the end of timber operations. (4) Where slash mulch is packed into the ground surface through the use of a tractor or equivalent piece of heavy equipment the minimum slash coverage shall be 75 percent.</p>	<p>For areas disturbed from May 1 to October 15, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface that could deliver sediment into a Watercourse or lake in quantities deleterious to the beneficial uses of water.</p> <p>For areas disturbed from October 15 to May 1, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days of the creation of bare soil, whichever is earlier</p>

ITEM #19 – 21: GROUND BASED EQUIPMENT

GROUND BASED EQUIPMENT	
a. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Per 14 CCR 895.1 a layout is a prepared bed in which a tree is felled, generally constructed by a tractor or other ground based equipment.</p> <p>Are tractor or skidder constructed layouts to be constructed?</p> <p>If YES, specify the location (consider mapping) and the extent of use. NOTE: winter operations and soil stabilization measures apply to tractor or skidder constructed layouts.</p>
<p>Per 14 CCR 914.3 [943.3, 954.3](e) Tractors shall not be used in areas designated for cable yarding except:</p> <ul style="list-style-type: none"> • To pull trees away from streams • To yard logs in areas where deflection is low • Where swing yarding is advantageous • To construct firebreaks and/or layouts • To provide tail-holds <p>Such exception(s) shall be explained and justified in the THP, and require Director's approved</p>	
b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will ground based equipment be used within area(s) designated for cable yarding: (CHECK all that apply)</p>
<input type="checkbox"/>	Pulling trees away from watercourses
<input type="checkbox"/>	Yarding logs from areas with low deflection
<input type="checkbox"/>	Swing yarding
<input type="checkbox"/>	Construct fire breaks
<input type="checkbox"/>	Construct layouts
<input type="checkbox"/>	Providing tail-holds
<input type="checkbox"/>	Other Describe:
<p>If YES, specify the location (consider mapping) and provide LTO instructions</p>	
c. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Are any exceptions proposed for ground based operations within cable areas outside of the exceptions listed above?</p> <p>If YES, provide the required explanation and justification in SECTION III of the THP and provide operations instructions for the LTO in SECTION II below.</p>

Per 14 CCR § 914.9 [934.9, 954.9](a) Alternatives to Standard Rules:

- (a) Alternative practices may be developed by the RPF on a site-specific basis provided the following conditions are complied with and the alternative practices will achieve environmental protection at least equal to that which would result from using measures stated in 14 CCR §§ 914.1-914.8 ,934.1-934.8, 954.1-954.8.
- (1) Environmental impacts with potential for significant adverse effects on the beneficial uses of water, on the residual timber, and on the soil productivity are identified and measures proposed to mitigate such impacts are included in an approved THP. The THP shall also contain a clear statement as to why alternative harvesting and erosion control measures are needed.
 - (2) The alternative practice(s) must be explained in sufficient detail and standards provided in the THP so that they can be adequately evaluated and enforced by the Director and implemented by the licensed timber operator.
 - (3) On a THP in which alternatives covering harvesting and erosion control measures have been incorporated, the timber operator shall agree to the alternative specifications by signing and filing with the Director a copy of the plan, the amended plan or a facsimile thereof, prior to beginning or continuing operations on the portion of the plan to which the alternatives apply.
- (b) The Director shall not accept for inclusion in a THP alternative harvesting and erosion control measures proposed under this section which do not meet the standard of subsection (a) of this section. In the event that there is more than one written negative position showing that the alternative practice(s) does (do) not meet the standard of subsection (a) received from among the agencies listed in 14 CCR 1037.3 and the Department which participated in the review of the plan including on-the-ground inspection, the Director shall reject the proposed alternative.
- (c) Alternative practices stated in an approved THP shall have the same force and authority as those practices required by the standard rule.

d. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the RPF proposing any Alternative Practices to the standard rule on a site-specific basis? If “YES” provide clear instruction to the LTO in Section II advising LTO how the Alternative is to be implemented to maintain equal protection of the standard rule. In Section III explain how the alternative practice proposed achieves environmental protection at least equal to that what which would result from using measures stated in 14 CCR §§ 914.1-914.8 ,934.1-934.8, 954.1-954.8.
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LTO Instructions:

14 CCR 914.2 [934.2, 954.2](a-k) Identifies the Forest Practice Rule requirements for the use of ground based equipment within the harvesting area.

- (b) Tractor, or other heavy equipment equipped with a blade, SHALL NOT operate on skid roads or slopes that are so steep as to require the blade to be used for breaking.
- (c) Tractor roads SHALL be limited in number and width to the minimum necessary for removal of logs.
 - When less damage to the resources specified in 14 CCR 914[934, 945] will result, existing tractor roads shall be used instead of constructing new tractor roads.
 - [NORTHERN only] RPF may propose exceptions for silvicultural reasons when explained and justified within the plan.
- (e) Slash and debris from timber operations SHALL not be bunched adjacent to residual trees required for silvicultural or wildlife purposes, or placed in a location where they could discharge into a Class I or II watercourse, or Lake.
- (g) where tractor roads are constructed only those roads shall be used for the skidding of logs to landings
- (h) Desirable residual trees and seedlings will not be damaged or destroyed by tractor operations.
- (i) where water breaks cannot effectively disperse surface runoff, other erosion controls shall be installed as needed.
- Slope restriction are identified in subsection (d), (f) [Coastal, Northern], (j) [Southern]

The LTO shall be aware of these rule requirements prior to operations

e. Yes No Will new tractor roads be constructed?

f. Yes No Will tractor road use be limited to existing tractor roads?

ASP NOTE: per 14 CCR 916.9 (k)(1) – Year-around tractor road limitations, Tractor roads shall not be used when operations may result in significant sediment discharge and (m) Tractor Road Drainage Facility Installation - All tractor roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following yarding and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within a WLPZ or within any ELZ or EEZ designated for watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

Will ground based equipment be used on:

g. Yes No Unstable areas? (only allowed if unavoidable)
If YES, the RPF SHALL develop specific measures to minimize the effect of operations on slope stability.
Provide the required justification and explanation in SECTION III and operational instructions to the LTO in SECTION II.

Note to Reviewer: A skid trail is proposed for utilization within the flagged STZ for Slide 9(Refer to Sec II, Item 38, Map Point Map for location). This 70' skid trail segment is a portion of an existing stable skid trail that does not require any reconstruction to utilize. The skid trail is located along the perimeter of the 25' STZ and is not located on the slide feature . Alternative skidding patterns were assessed but given the topography, watercourse protection buffers, and past skidding patterns it was determined that this skid trail was appropriate to use. Consultation with a CEG occurred regarding the utilization of this trail.

Note to LTO: The Skid Trail portion that is within the flagged STZ shall be slash packed IF UTILIZED. If not utilized, no treatment.

h. Yes No Slopes steeper than 65%

- 14 CCR 914.2 [934.2, 954.2](a-k) Identifies the Forest Practice Rule requirements for the use of ground based equipment within the harvesting area.
- (b) Tractor, or other heavy equipment equipped with a blade, SHALL NOT operate on skid roads or slopes that are so steep as to require the blade to be used for breaking.
 - (c) Tractor roads SHALL be limited in number and width to the minimum necessary for removal of logs.
 - When less damage to the resources specified in 14 CCR 914[934, 945] will result, existing tractor roads shall be used instead of constructing new tractor roads.
 - [NORTHERN only] RPF may propose exceptions for silvicultural reasons when explained and justified within the plan.
 - (e) Slash and debris from timber operations SHALL not be bunched adjacent to residual trees required for silvicultural or wildlife purposes, or placed in a location where they could discharge into a Class I or II watercourse, or Lake.
 - (g) where tractor roads are constructed only those roads shall be used for the skidding of logs to landings
 - (h) Desirable residual trees and seedlings will not be damaged or destroyed by tractor operations.
 - (i) where water breaks cannot effectively disperse surface runoff, other erosion controls shall be installed as needed.
 - Slope restriction are identified in subsection (d), (f) [Coastal, Northern], (j) [Southern]

The LTO shall be aware of these rule requirements prior to operations

	<p>if YES, provide site specific instructions to the LTO in SECTION II below and provide the required explanation and justification in SECTION III.</p> <p>Note to LTO: Operations are restricted to a preflagged and mapped skid trail. This situation occurs on Extreme EHR Soils. If utilized, this skid trail shall be slash packed after operations and prior to the winter period. If not utilized, no treatment necessary.</p> <p>Note to Reviewer: Refer to Section III for more information.</p>
<p>i. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Slopes steeper than 50% where the erosion hazard rating (EHR) is HIGH or EXTREME.</p> <p>if YES, provide site specific instructions to the LTO in SECTION II below and provide the required explanation and justification in SECTION III.</p> <p>Note to LTO: Operations are restricted to pre-flagged skid trails. If utilized, skid trail shall be slash packed. If not utilized, no treatment.</p> <p>Note to Reviewer: Refer to Section III for more information.</p>

Will ground based equipment be used on:

<p>j. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Slopes between 50% and 65% with a MODERATE EHR at: (percentage based on average slope on sample areas of 20 acres)</p> <p>Existing tractor roads that do not require reconstruction.</p> <p>[NORTHERN and SOUTHERN only] New tractor roads that have been flagged by an RPF or supervised designee prior to use.</p> <p>[COASTAL only] New tractor roads at a location that has been shown on the THP map, flagged by an RPF or supervised designee prior to the pre-harvest inspection, or prior to the start of timber operations if a PHI was not required.</p> <p>if YES, provide site specific instructions to the LTO in SECTION II below.</p>
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Will ground based equipment be used on:	
	Note to LTO: Where this scenario occurs operations are limited to pre-flagged stable skid trails. After operations skid trails in these areas shall be waterbarred to the Extreme EHR Standard.
k. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake? if YES, provide site specific instructions to the LTO in SECTION II below and provide the required explanation and justification in SECTION III.
NOTE: - Per 14 CCR 1034(x)(15) all exceptions must be located on a map. - If any question above is answered YES then tractor road locations must be flagged on the ground prior to the PHI or the start of timber operations if a PHI is not required.	

Additional Information on CCCSTA skid trails:

921.5 Logging Practices [Coast, Special Treatment Area]

The following logging practices shall be adhered to:

(a) Tractor Logging: Tractor logging and tractor preparation of tree layouts shall not be permitted on slopes averaging over 50% where the Erosion Hazard Rating is high or extreme and 60% where the Erosion Hazard Rating is low or moderate, unless it can be shown from past experience on the ground that tractor logging or other types of Skidding equipment will cause less disturbance than would result from a feasible alternative method.

The RPF has walked and mapped mainline skid trails proposed for utilization in areas where this situation occurs. The plan proposes the reuse of existing stable skid trails previously utilized for tractor-based logging operations.

No skid trails proposed for utilization in the CCCSTA will require substantial soil displacement(14 CCR 921.1(2))

ITEM # 23 – WINTER OPERATIONS

Per 14 CCR 895.1:

- **“Winter period”** means the period between November 15 and April 1, Except under special County Rules per 14 CCR:
 - 925.1 (Santa Clara)
 - 926.18 (Santa Cruz)
 - 927.1 (Marin)
 - 965.5 (Monterey)

- **“Extended wet weather period”** means the period from October 15 to May 1.

- **Tractor roads (except as otherwise provided in the rules):**
 - All waterbreaks shall be installed no later than the beginning of the winter period of the current year of timber operations.
 - Installation of drainage facilities and structures is required from October 15 to November 15 and April 1 to May 1 on all constructed skid trails and tractor roads prior to sunset if the National Weather Service forecast is a “chance” (30% or more) of rain within the next 24 hours per 14 CCR 914.6[934.6, 954.6](a).
- **Logging roads and landings used for timber operations shall have adequate drainage:**
 - Upon completion of use for the year or by October 15, whichever is earlier.
 - An exception is that drainage facilities and drainage structures do not need to be constructed on logging roads and landings in use during the extended wet weather period provided that all such drainage facilities and drainage structures are installed prior to the start of rain that generates overland flow. 923.5[943.5, 963.5](j).

- When the term **“WPOP”** (Winter Period Operating Plan) is used below, all the requirements per 14 CCR 914.7[934.7, 954.7] (b) must be addressed.

ITEM #23 WINTER OPERATIONS	
If timber operations are proposed within the winter period the RPF may propose to operate under a:	
<ul style="list-style-type: none"> • Winter Period Operating Plan (WPOP) per 14 CCR 914.7, 934.7, 954.7(b) • In-lieu winter operating plan per 14 CCR 914.7 [934.7, 954.7](c) 	
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will timber operations occur during the winter period?
WINTER PERIOD OPERATING PLAN (WPOP)	
A Winter Period Operating Plan (WPOP) is required when winter operations will occur under the following conditions:	
<ul style="list-style-type: none"> • Site preparation • Road and landing construction • Temporary logging road watercourse crossings will not be removed • At tractor watercourse crossings • Temporary logging roads or landings • Roads to be abandoned or deactivated • Operations are proposed in an ASP watershed or immediately upstream 	
b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will mechanical site preparation be conducted during the winter period? If YES, then a WPOP is required per 14 CCR 914.7 [934.7, 954.7](b)

Copper Top THP ITEM #23 – WINTER OPERATIONS

ITEM #23 WINTER OPERATIONS	
c. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will roads be constructed during the winter period? If YES, a WPOP is required per 14 CCR 914.7 [934.7, 954.7] addressing logging road and landing construction and reconstruction per 14 CCR 923.4 [943.4, 963.4](l). Provide operational instructions to the LTO in SECTION II
d. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will landings be constructed during the winter period? If YES, a WPOP is required per 14 CCR 914.7 [934.7, 954.7] addressing logging road and landing construction and reconstruction per 14 CCR 923.4 [943.4, 963.4](l). Provide operational instructions to the LTO in SECTION II
e. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will temporary logging road watercourse crossings be left in place during the winter period? If YES, a WPOP is required per 14 CCR 923.9 [943.9, 963.9](r). Provide specific measures to be taken during operations by the LTO in SECTION II
f. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will tractor watercourse crossings be used during the winter period? If YES, a WPOP is required per 14 CCR 914.8 [934.8, 954.8](d). Provide operational instructions and stabilization measures in SECTION II. If an exception is proposed provide an explanation and justification in SECTION III.
g. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will temporary logging roads be used during the winter period? If YES, a WPOP is required per 14 CCR 923.6 [943.6, 963.6](f) and 923.8 [943.8, 963.8](d). Provide specific measures to be taken during operations for the LTO in SECTION II.
h. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will temporary landings be used during the winter period? If YES, a WPOP is required per 14 CCR 923.6 [943.6, 963.6](f) and 923.8 [943.8, 963.8](d). Provide specific measures to be taken during operations for the LTO in SECTION II.
i. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will logging roads to be abandoned or deactivated, be open (not blocked) during the winter period? If YES, a WPOP is required per 14 CCR 923.6 [943.6, 963.6](f) and 923.8 [943.8, 963.8](d). Provide specific measures to be taken during operations for the LTO in SECTION II.
ASP WATERSHEDS OR IMMEDIATELY UPSTREAM	
Extended Wet Weather Period:	
j. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are timber operations proposed during the extended wet weather period – October 15 to May 1? If YES, then a WPOP is required per 14 CCR 916.9 [936.9, 963.9](l) and (l)(1)
k. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will <u>logging roads construction or reconstruction</u> occur within the extended wet weather period? If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II
l. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will <u>logging road use</u> occur within the extended wet weather period? If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II
m. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will <u>landing construction or reconstruction</u> occur within the extended wet weather period? If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II

Copper Top THP ITEM #23 – WINTER OPERATIONS

ITEM #23 WINTER OPERATIONS	
	This may occur during periods of unsaturated soils. Refer to WPOP box 4 below for more information.
n. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will landing use occur within the extended wet weather period? If YES, provide specific measures to be taken during operations per 14 CCR 923.6 [943.6, 963.6] (h)(6) and 923.4 [943.4, 963.4](s)(2) In SECTION II
o. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will any watercourse crossing drainage structures be CONSTRUCTED during the extended wet weather period? If YES, provide specific measures to be taken during operations per 14 CCR 923.9 [943.9, 963.9](s) In SECTION II This may occur during periods of unsaturated soils. Refer to WPOP box 4 below for more information. Additionally, this may be subjected to restrictions from the project LSAA.
p. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will any watercourse crossing drainage structures be RECONSTRUCTED during the extended wet weather period? If YES, provide specific measures to be taken during operations per 14 CCR 923.9 [943.9, 963.9](s) In SECTION II This may occur during periods of unsaturated soils. Refer to WPOP box 4 below for more information. Additionally, this may be subjected to restrictions from the project LSAA.
q. <input checked="" type="checkbox"/>	If any of the questions above are answered YES then WPOP is required: RPF chooses to prepare a WPOP per 14 CCR 914.7 [934.7, 954.7](b)(1-12)

IF A WINTER OPERATING PLAN (WPOP) IS NOT BEING PROPOSED THEN THIS PAGE MAY BE REMOVED

ITEM FF

WINTER PERIOD OPERATING PLAN (WPOP)	
Per 14 CCR 914.7 [934.7, 954.7](b) the WPOP shall include the specific measures to be taken during the winter period to avoid or substantially lessen erosion, soil movement into watercourses and soil compaction from timber operations. The winter period operating plan shall address the following subjects:	
1) Erosion Hazard Rating:	Low, Moderate, and Extreme
2) Mechanical Site preparation methods:	None proposed
3) Yarding system: <i>(Constructed skid trails and tractor road watercourse crossings)</i>	Ground based.
4) Operating Period:	a.) Timber falling: Timber falling may be conducted during the winter period. The felling of trees that have a chance of accidentally entering a Class I or II watercourse shall be deferred until such time when equipment is available on-site to remove such trees from the watercourse. b.) Ground-based yarding: Ground based yarding shall be done only during dry

Copper Top THP ITEM #23 – WINTER OPERATIONS

WINTER PERIOD OPERATING PLAN (WPOP)

rainless periods and shall not be conducted when saturated soil conditions that may produce significant sediment discharge are present. Significant Sediment Discharge (14 CCR 895.1) means soil erosion that is currently, or may be in the future, discharge to watercourses or lake in quantities that violate Water Quality requirements or result in significant individual or cumulative adverse impacts to the beneficial uses of water. Ground based operations that produce a Significant Sediment Discharge which causes a visible increase in turbidity to receiving Class I, II, III, or IV water is prohibited. Saturated soil conditions (14 CCR 895.1) means:

WINTER PERIOD OPERATING PLAN (WPOP)

“soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators or saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during timber operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.” Use of tractor roads and watercourse crossings within any WLPZ/ELZ will be prohibited during the winter period.

- c.) Cable yarding: No limitations specific to the winter period except those limitations pertaining to roads and landings.

Indicators or saturated soil conditions:

In yarding areas, condition may be evidenced by:

Reduced traction by equipment indicated by spinning or churning of wheels or tracks in excess of normal performance,
Inadequate traction without blading wet soil,
Soil displacement in amounts that cause visible increase in turbidity of downstream waters in a receiving I, II, III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, or
Creation of ruts greater than would be normal following a light rainfall.

On LOGGING ROADS AND LANDING SURFACES, saturated soil conditions may be evidenced by:

Reduced traction by equipment as indicated by spinning or churning of wheels or tracks in excess or normal performance,
Inadequate traction without blading wet soil,
Soil displacement in amounts that cause visible increase in turbidity of the downstream waters in receiving Class I, II, III, or IV waters, or in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, or creation of ruts greater than would be created by traffic following normal road watering, which transports surface material to a drainage facility that discharges directly into a watercourse.
Soils or road and landing surfaces that are hard frozen are excluded from this definition.

- d.) **Road and Landing Use:** Use of logging roads and landings shall not take place at any location where saturated soil conditions exist, where a stable logging road or landing operating surface does not exist, where a stable logging road or landing operating surface does not exist, or when visibly turbid water from the road or landing surface, or inside ditch may reach a time of year when operations may result in significant sediment discharge to watercourse(s), except in emergencies to protect the road, to reduce erosion, to protect water quality, or in response to public safety needs (14 CCR 923.6(b)).

WINTER PERIOD OPERATING PLAN (WPOP)

	<p>e.) Road construction and reconstruction (defined in 14 CCR 895.1) may only occur during the between Oct. 15 – Nov. 14 and April 2 – May 1 in periods of low antecedent soil moisture. This also includes the construction or reconstruction of watercourse crossings.</p> <p>f.) Road upgrades (upgrading seasonal roads to permanent roads) may be conducted during the Winter Period when soils are not “saturated”. Saturated soil conditions (14 CCR 895.1) means: “soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during timber operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.”</p> <p>g.) Road maintenance (grading) may occur during the Winter Period as long as the road system is dry. A dry road is one in which moisture is less or equal to that found during normal road watering (dust abatement) treatments or light rainfall. Further, equipment is not rutting a road surface or pumping fines causing visibly increased turbidity in any drainage facility which drains directly to a Class I, II, III, or IV waters.</p>
<p>5) Erosion Control facilities timing:</p>	<p>During the Winter Period, erosion control structures shall be installed on all tractor roads prior to the end of the day if the U.S. Weather Service forecast is a “chance” (30% or more) of rain before the next day, and prior to weekend or other shutdown periods (14 CCR 914.7 (c)(2)). Additionally, to ensure compliance with 14 CCR 914.7(c)(2), the amount of tractor roads open, at any given time during the winter period, will be limited to the amount that can be winterized in one single day. Upgraded permanent roads will have drainage facilities and structures installed prior to the winter period at intervals along the road that are no greater than the guidelines in Table 19 (Handbook for Forest and Ranch Roads, Weaver and Hagans, Rev 2015) and frequent enough to disperse road surface runoff so as to avoid gully formation and minimize erosion of the road surface, erosion of the inside ditches and other drainage facilities, and erosion at the outfalls of drainage facilities and structures.</p>
<p>6) Consideration of form of precipitation: (rain or snow)</p>	<p>The dominant forms of precipitation are expected to be rain and fog. Hail and snow are rare occurrences.</p>
<p>7) Ground conditions: (soil moisture conditions, frozen)</p>	<p>Use of logging roads and landings shall not occur when saturated soil conditions exist on the logging road, or when a stable operating surfaces does not exist on the logging road. No use of seasonal roads during the defined Winter Period, except for emergency logging road maintenance and for ATV traffic, unless such roads are upgraded to permanent logging road status, or as outlined herein. Due to the climate of the area, soil conditions are not expected to become hard frozen. See other restrictions on operations after rainfall events elsewhere in this Item.</p>
<p>8) Silvicultural system ground cover:</p>	<p>The following Silvicultures are proposed: Selection, CCCSTA-Selection, and No Harvest.</p> <p>All areas of the plan are expected to retain a vegetative cover in the form of</p>

WINTER PERIOD OPERATING PLAN (WPOP)	
	overstory/understory vegetation, slash, and associated logging debris.
9) Operations within the WLPZ:	<p>Operations within the WLPZ/ELZ during the winter period will be limited to:</p> <ul style="list-style-type: none"> a) The felling of trees. Trees shall be felled away from watercourse, in such a manner as to facilitate the removal of logs from the WLPZ/ELZ with minimized disturbance to vegetation and ground cover. b) Long-lining of logs. c) Cable Yarding d) Road maintenance as defined in Item 4 above.
10) Equipment limitations:	See THP Section II, Item 23, FF (4)(b-g), 7, and 9(b-d) above.
11) Known Unstable Areas:	<p>This situation occurs within Landslide 9, Refer to Sec II, Item 38 Operators Map and Sec II Item 38, Geology Maps for location of skid trail and unstable feature.</p> <p><u>Ground-based equipment use on unstable areas is not permitted during the Winter Period.</u> Timber operations conducted on unstable areas during saturated conditions shall be limited to timber felling and cable yarding where deflection is sufficient to avoid unnecessary ground disturbance.</p>
12) Logging roads and landings:	See Item 4 above

IN-LIEU WINTER PERIOD OPERATION PLAN	
r. <input type="checkbox"/>	<p>RPF chooses the in-lieu winter operating plan option as allowed per 14 CCR 914.7 [934.7, 954.7](c)(1-3)</p> <p>Specify the procedures listed in subsections (1) and (2), and list the site specific measures for operations in the WLPZ and unstable areas as required by subsection (3).</p>
s. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will the in-lieu winter operating plan include operations within WLPZ(s) or unstable area(s) during the winter period?</p> <p>If YES, provide site specific measures per 14 CCR 914 [934, 954] to protect the beneficial uses of water in SECTION II as instructions to the LTO.</p>
Hauling and heavy equipment use roads and landings	
t. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will <u>ROADS</u> be used for log hauling and heavy equipment use during the winter period where there will not be a stable operating surface or surfaced with rock to a depth and quantity sufficient to maintain a stable operating surface?</p> <p>If YES, the required explanation and justification should be provided in SECTION III per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].</p>
u. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will <u>LANDINGS</u> be used for log hauling and heavy equipment use during the winter period where there will not be a stable operating surface or surfaced with rock to a depth and quantity sufficient to maintain a stable operating surface?</p> <p>If YES, the required explanation and justification should be provided in SECTION III per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].</p>
Hauling and heavy equipment use on hydrologically disconnected or saturated soils.	
v. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will <u>ROADS</u> be used for log hauling and heavy equipment use during the winter period on roads that are NOT hydrologically disconnected and exhibit saturated soil conditions?</p> <p>If YES, provide a required explanation and justification in SECTION III. per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].</p>
w. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will <u>LANDINGS</u> be used for log hauling and heavy equipment use during the winter period on roads that are NOT hydrologically disconnected and exhibit saturated soil conditions?</p> <p>If YES, provide a required explanation and justification in SECTION III. per 14 CCR 923.6 [943.6, 963.6](g) and 914.7[934.7,954.7].</p>
Watercourse crossing removal	
x. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will any logging road watercourse crossing proposed for removal and/or stabilization be left in place during the winter period?</p> <p>If YES, provide operational instructions to the LTO addressing the specifics of the applicable CDFW 1600 agreement, Lake and Streambed alteration agreement or otherwise specify in the plan. Per 14 CCR 923.9[943.9, 963.9](p)(4) In SECTION II</p>

ITEM # 24 – ROADS AND LANDINGS

ITEM #24 ROAD CONSTRUCTION	
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>Will any road(s) be CONSTRUCTED?</p> <p>PROVIDE: The classification and approximate length of each of the following logging road segment categories: 1034(o)</p> <p>Road classification:</p> <p><input type="checkbox"/> Permanent Approximate Length Feet: _____</p> <p><input checked="" type="checkbox"/> Seasonal Approximate Length Feet: <u>260</u></p> <p><input type="checkbox"/> Temporary Approximate Length Feet: _____</p> <p>Proposed road construction will be a through cut road that falls an existing skid trail prism on relatively flat terrain. Minimal excavation is expected to necessary to establish this proposed road.</p>
b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will new road construction be wider than single lane with turnouts?</p> <p style="text-align: center;">If YES, address pursuant to 14 CCR 923 [943, 963](c) & 923.2 [943.2, 963.2](d)(1)</p>
c. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will any Logging road(s) cross?</p> <p><input type="checkbox"/> Unstable areas</p> <p><input type="checkbox"/> Connected headwall swales (14 CCR 895.1 "Connected Headwall Swale")</p> <p><input type="checkbox"/> Both</p> <p style="text-align: center;">If YES, address pursuant to 14 CCR 923.1 [943.1, 963.1](d)</p>
d. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will any new roads?</p> <p><input type="checkbox"/> Exceed a grade of 15%</p> <p><input type="checkbox"/> Have grades greater than 15% for distances greater than 500 feet</p> <p><input type="checkbox"/> Both</p> <p>NOTE: per 14 CCR 1034(x)(5)(A) new road construction or reconstruction segments exceeding 15% for 200 feet shall be mapped.</p> <p style="text-align: center;">If YES, address pursuant to 14 CCR 923.2 [943.2, 963.2](d)(2). See 923 [943, 963](c).</p>
e. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will any logging roads be constructed within?</p> <p><input type="checkbox"/> 150 feet of a Class I Watercourse and Lake Transition Line (WLTL)</p> <p><input type="checkbox"/> 100 feet of a class II WLTL on slopes greater than 30%</p> <p><input type="checkbox"/> Class I Watercourse or Lake</p> <p><input type="checkbox"/> Class II Watercourse or Lake</p> <p><input type="checkbox"/> Class III Watercourse or Lake</p> <p><input type="checkbox"/> Class IV Watercourse or Lake</p> <p><input type="checkbox"/> A Watercourse and Lake Production Zone (WLPZ)</p> <p><input type="checkbox"/> Other (Examples; marshes, wet meadows, wet areas)</p> <p>If "OTHER" is selected describe the type of feature referenced below.</p> <p>NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at:</p> <ul style="list-style-type: none"> - Existing logging road crossing(s) - Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) - Logging road watercourse crossings of class III watercourses that are dry at the time of use. <p style="text-align: center;">If YES, address per 14 CCR 923 [943, 963](c)</p>
f. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Will any constructed road be located across 100 feet or more lineal distance on?</p> <p><input type="checkbox"/> Slopes over 65%</p> <p><input type="checkbox"/> Slopes over 50% which are within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake</p>

ITEM #24 ROAD CONSTRUCTION	
	If YES, address per 14 CCR 923.2 [943.2, 963.2](a)(7) and 923.4 [943.4, 963.4](n)
g. 1. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any road(s) be deactivated?
2. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any road(s) be abandoned? Road classification: <input type="checkbox"/> Permanent Approximate Length Feet: _____ <input type="checkbox"/> Seasonal Approximate Length Feet: _____ <input type="checkbox"/> Temporary Approximate Length Feet: _____
3. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will any watercourse crossing(s) be deactivated? Note to reviewer/LTO: refer to Sec II, Item 38 Map Point Table and Map Point Map for description and location.
4. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any watercourse crossing(s) be abandoned? If YES, describe specific measures to prevent significant sediment discharge. per 14 CCR 923.8 [943.8, 963.8] et seq. and 923.9 [943.9, 963.9](e) and (p) If Logging road(s) are to be abandoned provide the blockage design Per 14 CCR 923.8 [943.8, 963.8](d)
h. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is there any exception to flagging or otherwise identifying the location of any road(s) to be constructed? If YES, address per 14 CCR 923.3 [943.3, 963.3](c)

ROAD RECONSTRUCTION	
i. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any roads be RECONSTRUCTED? PROVIDE: The classification and approximate length of each of the following logging road segment categories: 1034(o) Road classification: <input type="checkbox"/> Permanent Approximate Length Feet: _____ <input type="checkbox"/> Seasonal Approximate Length Feet: _____ <input type="checkbox"/> Temporary Approximate Length Feet: _____
j. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will new road reconstruction be wider than single lane with turnouts? If YES, address pursuant to 14 CCR 923 [943, 963](c) & 923.2 [943.2, 963.2](d)(1)
k. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any logging roads be reconstructed within? <input type="checkbox"/> Class I Watercourse or Lake <input type="checkbox"/> Class II Watercourse or Lake <input type="checkbox"/> Class III Watercourse or Lake <input type="checkbox"/> Class IV Watercourse or Lake <input type="checkbox"/> A Watercourse and Lake Zone (WLPZ) <input type="checkbox"/> Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: - Existing logging road crossing(s) - Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) - Logging road watercourse crossings of class III watercourses that are dry at the time of

ROAD RECONSTRUCTION	
	use. If YES, address per 14 CCR 923 [943, 963](c)
I. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any reconstructed road be located across 100 feet or more lineal distance on? <input type="checkbox"/> slopes over 65% <input type="checkbox"/> Slopes over 50% which are within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake. If YES, address per 14 CCR 923.2 [943.2, 963.2](a)(7) and 923.4 [943.4, 963.4](n)
m. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is there any exception to flagging or otherwise identifying the location of any road(s) to be reconstructed? If YES, address per 14 CCR 923.3 [943.3, 963.3](c)
LANDING CONSTRUCTION	
n. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will any Landing(s) be CONSTRUCTED?
o. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any landing(s) be constructed within? <input type="checkbox"/> 150 feet of a Class I Watercourse and Lake Transition Line (WLTL) <input type="checkbox"/> 100 feet of a class II WLTL on slopes greater than 30% <input type="checkbox"/> Class I Watercourse or Lake <input type="checkbox"/> Class II Watercourse or Lake <input type="checkbox"/> Class III Watercourse or Lake <input type="checkbox"/> Class IV Watercourse or Lake <input type="checkbox"/> A Watercourse and Lake Protection Zone (WLPZ) <input type="checkbox"/> Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: - Existing crossing(s) - Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) - Logging road watercourse crossings of class III watercourses that are dry at the time of use. If YES, address per 14 CCR 923 [943, 963](c)
p. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any landing(s) exceed one half acre in size? NOTE: per 14 CCR 1034(x)(5)(D) if any landing exceeds ¼ acre in size or requires substantial excavation, the location shall be mapped. If YES, address per 14 CCR 923 [943, 963](c) and 923.2 [943.2, 963.2](e)(2)
q. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any Landing(s) be located on? <input type="checkbox"/> Unstable areas <input type="checkbox"/> Connected headwall swales (14 CCR 895.1 "Connected Headwall Swale") <input type="checkbox"/> Both If YES, address pursuant to 14 CCR 923.1 [943.1, 963.1](d) REFER TO SEC III FOR MORE INFORMATION.
r. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any landing construction be located across 100 feet or more lineal distance on? <input type="checkbox"/> Slopes over 65%

ROAD RECONSTRUCTION	
	<input type="checkbox"/> Slopes over 50% which are within 100 feet of the boundary of a WLPZ that drains toward the zoned watercourse or lake. If YES, address per 14 CCR 923.2 [943.2, 963.2](a)(7) and 923.4 [943.4, 963.4](n)
s. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any Landing(s) be deactivated?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any Landing(s) be abandoned? If YES, describe specific measures to prevent significant sediment discharge. per 14 CCR 923.8 [943.8, 963.8] et seq. and 923.9 [943.9, 963.9](e) and (p)

LANDING RECONSTRUCTION	
t. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any Landing(s) be RECONSTRUCTED?
u. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will any landings be reconstructed within? <input type="checkbox"/> Class I Watercourse or Lake <input type="checkbox"/> Class II Watercourse or Lake <input type="checkbox"/> Class III Watercourse or Lake <input type="checkbox"/> Class IV Watercourse or Lake <input type="checkbox"/> A Watercourse and Lake Protection Zone (WLPZ) <input type="checkbox"/> Other (Examples; marshes, wet meadows, wet areas) If "OTHER" is selected describe the type of feature referenced below. NOTE: Exceptions are permitted per 14 CCR 923.1 [943.1, 963.1](b)(1) – (3) at: - Existing logging roads crossing(s) - Logging road watercourse crossing(s) to be constructed that are approved as part of a Fish and Game Code process (F&GC 1600 et seq.) - Logging road watercourse crossings of class III watercourses that are dry at the time of use. If YES, address per 14 CCR 923 [943, 963](c)

SIGNIFICANT EROSION SITE(S)	
v. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any significant erosion sites? <input type="checkbox"/> Existing <input type="checkbox"/> Potential <input checked="" type="checkbox"/> Both Associated within the logging area at? <input type="checkbox"/> Logging road(s) <input type="checkbox"/> Landing(s) <input checked="" type="checkbox"/> Watercourse crossing(s) in the logging area? Per 14 CCR 923.1 [943.1, 963.1](e)(1) – (5). Also see 923.9 [943.9, 963.9](a) Note to Review/LTO: refer to Section II item 38, Map Point Table for description.

ITEM #25

NOTE: If any item listed above is checked "YES" Provide:

- **Operations Instructions to the LTO**, in accordance with the respective rule requirement(s) in **SECTION II** of the THP.
- Any required **explanation and justification** should be included in **SECTION III**

Operation instructions to the LTO:

Refer to Sec II, Item 38, Typical and Sec II, Item 38, Map Point Table for more information.

Logging road use rules and considerations for new construction of seasonal logging roads.

- Newly constructed logging roads with grades over 15% will have the extreme EHR waterbar spacing.
- New and reconstructed logging roads shall be outsloped where feasible or drained with water breaks or rolling dips (where the logging road grade is inclined at 7% or less), in conformance with other applicable forest practice rules.
- On slopes greater than 35%, the organic layer of the soil shall be substantially disturbed or removed prior to fill placement.
- Alternate landing locations where substantial excavation is not required and where size will remain less than or equal ¼ acre are allowed outside WLPZs and ELZs with prior approval from the Plan Submitter identified in THP Item 5.
- Through fills shall be constructed and compacted in approximately one-foot lifts.
- Fills, including through fills across watercourses shall be constructed in a manner to minimize erosion of fill slopes using techniques such as insloping through-fill approaches, waterbars, berms, rock armoring of fill slopes, or other suitable methods.
- Excess material from logging road construction and reconstruction shall be deposited and stabilized in a manner or in areas where downstream beneficial uses of water will not be adversely affected. Such materials shall be compacted.
- Waste organic material, such as uprooted stumps, cull logs, accumulations of limbs and branches, and unmerchantable trees, shall not be buried in logging road fills. Wood debris or cull logs and chunks may be placed and stabilized at the toe of fills to restrain excavated soil from moving downslope.
- Logging roads shall be constructed without overhanging banks.
- Any tree greater than or equal 12 inches dbh with more than 25% of the root surface exposed by logging road construction, shall be felled concurrently with the timber operations.
- Sidecast or fill material extending more than 20 feet in slope distance from the outside edge of the roadbed which has access to a watercourse which is protected by a WLPZ shall be mulched as specified in Item 18 of the THP.
- Drainage structures and drainage facilities on logging roads shall not discharge on erodible fill or other erodible material unless suitable energy dissipaters are used.
- No logging road construction shall occur under saturated soil conditions, except that construction may occur on isolated wet spots arising from localized ground water such as seeps, provided measures are taken to prevent material from significantly damaging water quality.
- Slash and other debris from logging road construction shall not be bunched against residual trees which are required for silvicultural or wildlife purposes, nor shall it be placed in locations where it could be discharged into Class I or II watercourses.
- Temporary watercourse crossings located on THP and Appurtenant Road Maps, either by symbology or map point, are to be removed as per 914.8(d) and/or 923.9(p) and as described under THP Section II Item 38.

ASP WATERSHEDS	
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>Will hauling on roads and landings be limited to those which are Hydrologically disconnected from watercourses to the extent feasible, and exhibit a stable operating surface? If NO, address the exception pursuant to 923.6 [943.6,963.6] (h)(3).</p>
ADDRESS THE FOLLOWING AS IT APPLIES TO ASP WATERSHEDS OR IMMEDIATELY UPSTREAM AND CONTIGUOUS TO, ANY WATERSHED WITH LISTED ANADROMOUS SALMONIDS	
<ul style="list-style-type: none"> • When logging road(s) or landing(s) construction or reconstruction is proposed identify: <ol style="list-style-type: none"> 1) How the proposed operations will fit into the systematic layout pattern. Per 14 CCR 923.1 [943.1. 963.1](g) The proposed road will facilitate access to a landowner’s parcel that is currently inaccessible. The parcel is currently inaccessible because a segment of the existing road crosses into an adjacent landowner parcel. GRT has no deeded access to utilize the off-property portion of the road. The new road construction will tie the existing road network into Old Stage Road to insure that the landowner can utilize these lands for timber production under this project and future project. The proposed road fits into the existing road network of the landowner and will be constructed to facilitate logging and transportation of forest products as required by the parcels TPZ designation. 2) What, if any, offsetting mitigation measures (including but not limited to, abandonment of logging road(s) and landing(s)) are need to minimize potential adverse impacts to watersheds from the road system. Per 14 CCR 923.1 [943.1. 963.1](g) No mitigations are proposed. • Provide specific provisions for the protection of salmonid habitat for all logging road(s) construction: <ol style="list-style-type: none"> 3) On slopes, greater than 50% with access to a watercourse or lake. Per 14 CCR 923.4 [943.4, 963.4](s)(1) Situation does not occur. • Provide specific erosion control measures for all permanent and seasonal roads: <ol style="list-style-type: none"> 4) With a grade of 15% or greater which extends 500 feet or more. Per 14 CCR 923.5 [943.5, 963.5](q)(2) Situation does not occur. 	

Copper Top THP ITEMS 26 – WATERCOURSES

ITEM #26– WATERCOURSE LAKE PROTECTION ZONE (WLPZ) PROTECTION MEASURES

ITEM #26	WATERCOURSES		
<p>Per 14 CCR 916, 936, 956 – Intent of Watercourse and lake Protection [ALL DISTRICTS] – The purpose of this article is to ensure that timber operations do not potentially cause significant adverse site-specific and cumulative impacts to the beneficial uses of water, native aquatic and riparian-associated species, and the beneficial functions of riparian zones; or result in an unauthorized take of listed aquatic species; or threaten to cause violation of any applicable legal requirements. This article also provides protection measures for application in watersheds with listed anadromous salmonids and watersheds listed as water quality limited under Section 303(d) of the Federal Clean Water Act.</p> <p>It is the intent of the Board to restore, enhance, and maintain the productivity of timberlands while providing appropriate levels of consideration for the quality and beneficial uses of water relative to that productivity.... Further, it is the intent of the Board that the evaluations that are made, and the measures that are taken or prescribed, be documented in a manner that clearly and accurately represents those existing conditions and those measures.</p>			
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any watercourses or lakes classified as a CLASS I through CLASS IV within or adjacent to the plan area? <i>(Check all that apply)</i>		
		<u>Within plan area</u>	<u>Adjacent to plan area</u>
	<input type="checkbox"/> Class I:	<input type="checkbox"/>	<input type="checkbox"/> (Gualala River located >100' slope distance from plan)
	<input checked="" type="checkbox"/> Class II:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> Class III:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/> Class IV:	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Lakes:	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Other (Wet Areas, Seeps)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

If YES, to above question list:

- Class of the water feature
- Associated WLPZ or ELZ and width
- Protection measures; determined from 14 CCR 916.5[936.5, 956.5], Table I. and/or 14 CCR 916.9[936.9, 956.9] et seq.
- Specify if Class III or IV watercourses will have a WLPZ or ELZ

b. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will Class III or IV watercourses be protected with a WLPZ or ELZ? If YES, describe below
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LTO instructions:
No even aged silviculture is proposed therefore no outer zone protections apply.

Slope Class	Class I with confine channel Zone Width Core/Inner	Class-III WLPZ Zone Width Core/Inner	Class-IIIs WLPZ Zone Width Core/Inner	Class III ELZ Width	Wet Areas/Seep ELZ Width
<10%	30/70	30/70	15/35	30	25
10-30%	30/70	30/70	15/35	30	25
30-50%	30/70	30/70	15/60	50	25
>50%	30/70	30/70	15/85	50	25

Class I watercourses:

If YES, to above question list:

- Class of the water feature
- Associated WLPZ or ELZ and width
- Protection measures; determined from 14 CCR 916.5[936.5, 956.5], Table I. and/or 14 CCR 916.9[936.9, 956.9] et seq.
- Specify if Class III or IV watercourses will have a WLPZ or ELZ

No Class I WLPZ occurs within the plan. The Gualala River and associated WLPZ is located over 100' from THP boundary.

Class II Watercourses:

- Multiple unnamed Class II watercourses within or adjacent to the proposed Plan area. Current shade canopy levels along Class II watercourses range from near 60% to >90%.

Class II-L Watercourse Protections

- No Class II watercourses occur within or adjacent to the plan boundary.

Class II-S Watercourse Protection

- The enforceable standard for shade canopy retention for Class II-S watercourses is:
- Core Zone is from 0 to 15 feet from the watercourse transition line, no timber operations except for those listed in {14 CCR 916.9(e)(I)(A)-(F)}. No timber operations are proposed within any channel zone of a Class II except for work at map points, watercourse crossings and full suspension cable yarding when necessary to transport logs through the channel zone as allowed pursuant to {14 CCR 916.9(e)(I)(A)-(F)}.
- Inner Zone is variable width, slope dependent, ranging from 35 to 85 feet from the core zone, a minimum 50% multi-story canopy shall be retained within this zone.
- The WLPZ is flagged at a slope dependent width of 50, 75 or 100 feet with blue/white striped "Lake and Watercourse Protection Zone" flagging.
- The overstory canopy must be composed of at least 25% overstory conifer canopy post-harvest. If the above noted canopy levels are lacking in any given area timber is not marked for removal in that area, however it may be marked elsewhere in the zone.
- WLPZ identification, flagging, and timber marking shall be completed prior to the PHI.

Class III Watercourses:

- There are multiple unnamed Class III watercourses within or adjacent to the proposed Plan area. The centerlines of Class III watercourses are flagged with solid blue flagging. The Boundaries of the ELZ will not be flagged. Class III watercourses are generally described as tributaries to Class I or Class II watercourses. These Class III watercourses are shown on the Operators Maps. The Class III watercourses within the project range in characteristics from well defined channels which only flow in response to precipitation events, to poorly defined channels which have storm flows which are so low that resulting channels are difficult to observe or follow.
- The following are the minimum requirements for timber operations in Class III watercourses per 14ccr 916.9(h):
 - (1) Establish a 30 foot wide ELZ on both sides of the watercourse for slopes less than 30% and an additional 20 foot ELZ where sideslopes are >30%. The ELZ is measured from the WTL. Within the ELZ:
 - (A) no new construction of tractor roads permitted;
 - (B) no ground based equipment on slopes >50%; and
 - (C) ground-based operations are limited to existing stable tractor roads that show no visible evidence of sediment deposition being transported into the adjacent watercourse or to the use of feller-bunchers or shovel yarding.

If YES, to above question list:

- Class of the water feature
- Associated WLPZ or ELZ and width
- Protection measures; determined from 14 CCR 916.5[936.5, 956.5], Table I. and/or 14 CCR 916.9[936.9, 956.9] et seq.
- Specify if Class III or IV watercourses will have a WLPZ or ELZ

- (2) Retain all pre-existing large wood on the ground within the ELZ that is stabilizing sediment and is necessary to prevent potential discharge into the watercourse.
- (3) Retain all pre-existing down wood and debris in the channel zone.
- (4) Retain hardwoods, where feasible, within the ELZ.
- (5) Retain all snags (except as required for safety) within the ELZ.
- (6) Retain all countable trees needed to achieve resource conservation standards in 14 CCR 912.7 within the ELZ.
- (7) Retain all trees in the channel zone which show visible indicators of providing bank or bed stability, excluding sprouting conifers that do not have boles overlapping the channel zone. Visible indicators of stability include roots that permeate the bank or provide channel grade control.
- (8) Exceptions pursuant to 14 CCR§ 916.9 [936.9, 956.9], subsections (e)(I)(A)-(F) are permitted in any ELZ and channel zone. No timber operations are proposed within any channel zone of a Class III except for work at map points, watercourse crossings, harvesting of spouting conifers with boles that do no overlap the channel zone, channel trees full suspension cable yarding when necessary to transport logs through the channel zone as allowed pursuant to {14 CCR 916.9(e)(I)(A)-(F)}.
 - Soil deposited into Class III watercourses shall be removed prior to the completion of operations or October 15th, whichever comes first, except as noted in the winter operating plan.
 - Per 916.4(c)(3) - Slash deposited into Class III watercourses shall be removed or stabilized prior to the completion of operations or October 15th, whichever comes first, except as noted in the winter operating plan. If slash is stabilized it shall be stabilized (such that the debris does not create the potential for diversion of the watercourse or the potential build up of excess sediment in amounts greater than found in the watercourse where there is no logging associated debris).

Non-linear Aquatic Features:

Wet Areas:

For specific locations of wet areas please refer to the Operators Maps located at the end of Section II. If a stable logging road or tractor road surface cannot be maintained at any of these locations during hauling or skidding operations overflow can be drained with a small temporary pipe or simply ditched to prevent rutting of the logging road or tractor road surface. When these logging road or tractor road segments are winterized the existing drainage patterns shall be maintained or re-established.

Wet areas outside of Class I or II WLPZs and Class III channel zones shall be given an ELZ flagged identified with SOLID RED flagging. Within this ELZ 50% total canopy shall be retained. . The 50% total canopy shall be comprised of at least 25% of the pre-existing overstory conifers. The marking of trees shall conform to the local surrounding method (i.e. blue for harvest, orange for retention). Class II Wet Areas will be protected utilizing Class II WLPZ Protections

A wet area that contained ponded water after July 15,2023 was observed adjacent to the plan area, it is mapped as Class II Wet Area. This feature will be afforded standard Class II-S protections as measured from the perimeter of this feature. No skid trails are proposed for use inside this protection buffer.

Tractor operations in the ELZs for wet areas/ are limited to the existing flagged tractor roads.

If YES, to above question list:

- Class of the water feature
- Associated WLPZ or ELZ and width
- Protection measures; determined from 14 CCR 916.5[936.5, 956.5], Table I. and/or 14 CCR 916.9[936.9, 956.9] et seq.
- Specify if Class III or IV watercourses will have a WLPZ or ELZ

Seeps:

A seep is a feature created by anthropogenic structures (e.g. truck road, tractor road, landing) which intercepts subsurface flow and may create wet ditches, possibly including pools, that may support hydrophytic vegetation. No protection is afforded to seeps. Typically, they may be drained to ensure continued functionality and use of infrastructure of the ownership. Instances where a feature associated with the inside ditch of a road is substantial in size or habitat value, and its presence does not threaten the continued use and existence of the road, the feature may be called a wet area and afforded the appropriate protection.

Ponds:

An artificial retention pond is located within the plan area. This feature is manmade and seasonally dry. No protection measures are proposed.

Watercourse description and protection measures to be applied: (14 CCR 916.5)

See Instructions listed above.

c. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is there any tractor road watercourse crossings that require mapping per 14 CCR 1034(x)(7) Note to LTO/Reviewer: Refer to Sec II, Item 38, Map Point map for locations
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will TRACTOR road watercourse crossings involve the use of a culvert? If YES, per 14 CCR 914.8[934.8, 954.8](e) state the minimum diameter and length for each culvert. <u>NOTE TO LTO: All tractor crossings with culverts must have a culvert that extends a minimum of 1-foot past tractor road width.</u> Note to LTO/Reviewer: Refer to Sec II, Item 38, Map Point map for locations.

Map Reference Points (MRP)	Culvert Diameter	Culvert Length
<p>d. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Is there a Master Agreement for Timber Operations (MATO) for Streambed Alteration Agreement (SAA) approved by the Department of Fish and Wildlife for any portion of this plan? MATO or SSA Number: _____</p> <p>If YES, provide a list of the crossings, water drafting sites, or other water features to be used during operations and provide the conditions to be utilized and or consider from the MATO or SAA as operational instruction to the LTO in SECTION II.</p>	
MATO or SAA INSTRUCTIONS TO LTO		
<p>Specific water feature under MATO or SAA (crossings, drafting sites, etc.)</p>	<p>Conditions of MATO or SAA to be utilized at each specific feature</p>	
<p>e. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Is this THP Review Process to be used to meet Department of Fish and Wildlife CEQA review requirements?</p> <p>If YES, attach the required 1611 Addendum at the end of SECTION II and include any supporting information and analysis in SECTION III.</p> <p>List instructions to the LTO in SECTION II for installation, protection measures, and mitigation measures, per THP from instructions or CDF Mass Mailing (07/02/1999) "Fish and Game Code 1611 Agreements and THP Documentation."</p>	

LTO INSTRUCTIONS:

This THP is being used as the 1611 review mechanism for 11 map points. Please refer to the Map Point Table in Sec II, Item 24 for specific activities at these sites. Upon issuance of the agreement it shall be incorporated into the THP as the enforceable standard. Where standards in the 1611 conflict with other standards in the THP the standards in the 1611 are the enforceable standard

Map Point	Feature	Tributary to
4	Class III Watercourse Crossing(WC)	Gualala River
8	Class III WC	Gualala River
9	Class II WC	Gualala River
11	Class III Tractor Crossing(TC)	Gualala River
17	Class II Temporary WC	Gualala River
20	Class II TC	Gualala River
21	Class III TC	Gualala River
22	Other- Wet Area skid trail above head of CIII	Gualala River
23	Class II WC	Gualala River
26	Class III WC	Gualala River
670	Class I WC-Temporary Bridge	Gualala River

f. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are any exceptions provided under F & G code 1600 et seq., and made an enforceable part of plan?
	If YES, per 14 CCR 923 [943,963](d) identify the exceptions and provide the enforceable standards as instructions to the LTO in SECTION II.

g. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will new drainage structures and facilities on watercourses that support fish or listed aquatic species be constructed?
	If YES, per 14 CCR 914.8[934.8, 954.8](c) and 923.9 [943.9, 963.9](c). Structures and facilities shall be fully described and allow unrestricted passage of all life stages of fish or listed aquatic species, and natural movement of bedload. Provide operational instructions to the LTO in SECTION II.

Copper Top THP ITEMS 26 – WATERCOURSES

Per 14 CCR 923.9(e) – The location of all NEW permanent constructed and reconstructed, and temporary logging road watercourse crossings, including those crossings to be abandoned or deactivated, SHALL be shown on a map. If the structure is a culvert intended for permanent use, the minimum diameter of the culvert and the method(s) used to determine the culvert diameter SHALL be specified in the plan,	
h. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there any NEW PERMANENT constructed logging road watercourse crossings requiring mapping?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any NEW RECONSTRUCTED logging road watercourse crossings requiring mapping?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any watercourse crossings to be ABANDONED or DEACTIVATED?
<p>If YES, to the above questions these crossing shall be shown on a map in section II</p> <p>Per 14 CCR 923.9(e) If any watercourse crossing has a culvert intended for permanent use, the minimum diameter of the culvert and the method(s) used to determine culvert diameter shall be stated in the plan.</p> <p>Per 14 CCR 923.9(f) permanent watercourse crossings that are constructed or reconstructed SHALL accommodate the estimated 100-year flood flow, including debris and sediment loads.</p> <p>Method for sizing crossing: Rational</p>	
i. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is there any exception to flagging or otherwise identifying the location of any constructed or reconstructed road watercourse crossing prior to the pre-harvest inspection? If YES, per 14 CCR 923.9[943.9, 963.9](j) provide the explanation and justification in SECTION III.
j. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will other methods for diversion of overflow at culvert crossings be utilized (<u>other than critical dips</u>) in the construction or reconstruction of logging road watercourse crossings which culverts? If YES, per 14 CCR 923.9[943.9, 963.9](j) provide instructions to the LTO in SECTION II identifying the methods to be used for the diversion of overflow at watercourse crossings.
Per 14 CCR 923.9[943.9, 963.9](k) watercourse crossings and associated fills and approaches SHALL be constructed and maintained to prevent diversion of stream overflow down the road, and to minimize fill erosion should the drainage structure become obstructed.	
k. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any existing watercourse crossings that are located on logging roads within the logging area?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there any watercourse crossing proposed for construction located on logging roads within the logging area?
If YES, per 14 CCR 923.9[943.9, 963.9](k) identify the crossing and provide the methods to mitigate or address the diversion of stream overflow at the crossing.	
l. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will rock be used to stabilize crossing outlets? If YES, per 14 CCR 923.9[943.9, 963.9](k) Rock used to stabilize outlets of crossings shall be adequately sized to resist mobilization of soil and significant sediment discharge. The range of rock size shall be described within the plan as instruction to the LTO in SECTION II indicate the range of the rock dimensions to be used. Refer to Sec II, Item 38 , Map Point Table for more information

<p>m. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Watercourse crossing proposed to be reconstructed or removed, are there any significant volumes of sediment accumulated upstream of the watercourse crossing?</p> <p>If, YES per 14 CCR 923.9[943.9, 963.9](n) provide instructions to the LTO, in SECTION II, describing how the material will be stabilized, removed (the extent feasible), and in conformance with CDFW agreements, where applicable.</p>
<p>n. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Do logging road watercourse crossing drainage structures and other erosion control features have a high historical fail rate within the project area?</p>
<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Do/will existing watercourse crossings utilizing a culvert have large amounts of fill material covering the culvert making up the crossing?</p>
	<p>If, YES per 14 CCR 923.9[943.9,963.9](o) drainage structures and erosion control features shall be oversized, designed for low maintenance, reinforced, or removed before the completion of timber operations or as specified in the approved plan.</p> <p>Provide instruction to the LTO in SECTION II identifying these crossings, providing instruction of how these crossings will be treated.</p>
<p>Guidance on reducing the potential for failure at high risk watercourse crossings may be found in “Board of Forestry Technical Rule Addendum Number 5: Guidance on Hydrologic Disconnection, Road Drainage, Minimization of Diversion Potential, and High Risk crossings” (1st Edition, revised 10/27/14)</p>	
<p>o. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Will any logging road watercourse crossing be removed?</p> <p>If YES, provide instructions to the LTO, in SECTION II, describing the removal plan pursuant to the standards per 14 CCR 923.9[943.9, 963.9](p)(1)-(4)</p> <p>Refer to Sec II, Item 38, Map Point Table and Sec II, Item 38, Typicals for more information.</p>

FOR PLANS LOCATED WITHIN AN ASP WATERSHED	
p. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will timber operations occur within a Class I WLPZ?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will timber operations occur within a WLPZ adjacent to a restorable Class I watercourse?
	If YES, Address per 14 CCR 916.9[936.9, 956.9](f)(2)(A)-(E).
Per 14 CCR 916.9[936.9, 956.9](e)(1)(A)-(E) there shall be NO timber operations within a channel zone with the exception of those conditions listed within 916.9[936.9, 956.9](e)(1)(A)-(E)	
q. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will there be any timber operations within the channel zone of any watercourse? If YES, Indicted the location and type of timber operations to be conducted and provide instructions to the LTO in SECTION II.
Per 14 CCR 923.1[943.1, 963.1](h) NO logging road(s) or landing(s) shall be planned for construction or reconstruction in the CMZ or Core Zone of a Class I watercourse or within 150 feet of a watercourse transition line. with the exception of those conditions listed within 916.9[936.9, 956.9](e)(1)(A)-(E) and 916.9[936.9, 956.9](v)	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will there be any logging road(s) or landing(s) constructed in the CMZ or Core Zone of a Class I?
	If Yes, indicate the location and provide instructions to the LTO in SECTION II.
Per 14 CCR 923.9[943.9, 963.9](d) Watersheds with listed anadromous salmonids. A description of all existing permanent Class I watercourse crossings shall be provided, where fish are always or seasonally present or fish passage is restorable.	
r. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there existing permanent Class I crossings where fish are always present?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there existing permanent Class I crossings where fish are seasonally present? Note to reviewer: refer to appurtenant roads map for location.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there existing permanent Class I crossings where fish passage is restorable?
	If YES, provide a description of the existing permanent Class I watercourse crossings. Indicate in the description where the current crossing conditions may be adversely affecting fish passage and identify the proposed measures, if feasible, to address the conditions.
s. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will water drafting occur in association with the timber operations?
	If YES, timber operations shall comply with Fish and Game Code Section 1600, et seq. Water may be drafted from existing holes that have been dug for this purpose which are not a watercourse. While compliance with 14 CCR 923.7(l) water drafting for timber operations in watersheds with listed anadromous salmonids do not apply to these features, the General Water Drafting Measures shall be observed. Water may be drafted from 3 water drafting sites(refer to appurtenant roads map for location) . A new 1600 agreement is being prepared for this THP. The water drafting instructions will be similar to the 1600 agreement (1600-2022- 00021-R1) that covers this site and included as part of THP #1-22-00029MEN. The background information and analysis required by the ASP rules are included in Section III. The likely drafting requirements in the 1600 being prepared for this THP will include;

FOR PLANS LOCATED WITHIN AN ASP WATERSHED

- (A) To avoid take of fish and other aquatic species, Permittee shall not draft water from the flowing stream (wetted channel); instead, all water shall be drafted from pits dug in gravel bars or upland locations. Gravel bar holes shall be no less than 10 feet from the wetted channel. Excavation of gravel bar holes shall be conducted in isolation from the flowing stream.
- (B) Before commencing any water drafting operation, the RPF and the drafting operator shall conduct a pre-operations field review to discuss the water drafting measures in the plan and in the 1600 Agreement.
- (C) The drafting site shall have a downstream pool designated within the wetted channel that is easily observable from the drafting site but as far away as possible. This pool shall be used to determine any flow changes from drafting activities. A water level gauge with at least 0.05 foot increments shall be installed in this pool.
- (D) A pump test shall be conducted by an RPF at each site prior to commencement of any drafting activities and monthly thereafter. The purpose of this test is to establish if enough flow is present to allow for water drafting without significantly altering flow as measured by the wetted width of the channel. The test shall provide an estimate of the maximum change in water surface elevation as measured at the downstream water level gauge that would result in a change of less than 0.10 foot to the wetted width at each monitoring site (the first downstream riffle crest).
- (E) The diversion rate shall not exceed 300 gallons per minute.
- (F) In aggregate, for GRT operations, GRT will use less than 25,000 gallons per day from active channel water holes.
- (G) Water truck operators shall be in possession of log books that shall contain the following information, kept current during operations: 1) drafting site location, 2) date, 3) time, 4) pump rate, 5) filling time 6) screen cleaning/inspection notes, 7) pre and post drafting pool water elevation as recorded from the water level gauge. Drafting logbook data shall be submitted to CDFW monthly for each year that drafting operations occur.
- (H) If, during any drafting activity, the water level as read on the water gauge falls below the amount determined to cause a change of 0.10 foot to the wetted width, pumping shall immediately cease and a pump test shall be conducted to determine the maximum rate of diversion that can occur without causing significant reductions as defined by a 0.10 foot change in the wetted width. CDFW shall immediately be notified with the results of the pump test.

General Water Drafting Measures

All water drafting for timber operations are subject to the requirements below, unless the Department of Fish and Wildlife modifies requirements in the Lake or Streambed Alteration agreement that authorizes the drafting operation.

- (A) All water drafting intakes shall be screened to prevent impingement of aquatic species. The following requirements apply to screens and water drafting:
 - 1. Openings in perforated plate or woven wire mesh screens shall not exceed 3/32 inches (2.38 millimeters). Slot openings in wedge wire screens shall not exceed 1/16 inches (1.75 millimeters).
 - 2. The screen surface shall have at least 2.5 square feet of openings submerged in water.
 - 3. The drafting operator shall regularly inspect, clean, and maintain screens to ensure proper operation whenever water is drafted.
 - 4. The approach velocity (water moving through the screen) shall not exceed 0.33 feet/second.

FOR PLANS LOCATED WITHIN AN ASP WATERSHED

	<p>5. The diversion rate shall not exceed 300 gallons per minute.</p> <p>(B) Approaches and associated drainage features to drafting locations within a WLPZ or channel zone shall be surfaced with rock or other suitable material to minimize generation of sediment.</p> <p>(C) Barriers to sediment transport, such as straw waddles, logs, straw bales or sediment fences, shall be installed outside the normal high water mark to prevent sediment delivery to the watercourse and limit truck encroachment.</p> <p>(D) Water drafting trucks parked on streambeds and floodplains shall use drip pans or other devices such as absorbent blankets, sheet barriers or other materials as needed to prevent soil and water contamination from motor oil or hydraulic fluid leaks.</p> <p>(E) Bypass flows for Class I watercourses shall be provided in volume sufficient to avoid dewatering the watercourse and maintain aquatic life downstream.</p>
<p>t. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Is there a Fish and Game Code Section 1600 Master Agreement for Timber Operations which addresses water drafting? If YES, provide the operational restrictions from the Master Agreement in SECTION II as instructions to the LTO.</p> <p>If NO, describe the water drafting site conditions and proposed water drafting activity in the plan. Per 14 CCR 923.7[943.7, 963.7](1)(2)(A)-(F) (See Below)</p>

Per 14 CCR 923.7[943.7, 963.7](I)(2)(A)-(F) the description of water drafting site conditions and proposed water drafting activity shall include:	
General description of proposed site: See attached CDFW 1600 Draft Agreement at the end of Section II.	
Watercourse Classification:	
Drafting parameters including:	
	Month(s) of use -
	Estimated volume needed per day -
	Estimated maximum instantaneous drafting rate and filling time -
	Other water drafting activities in same watershed -
Drainage area (acres) above point of diversion -	
Estimated:	
	Unimpeded stream flow -
	Pumping rate -
	Drafting duration -
A discussion of the effects on aquatic habitat downstream from the drafting site(s) of single pumping operations, or multiple operations at the same location, and at other locations in the same watershed: <u>As per 14 CCR 916(b)(1) and (2) the LTO shall not do either of the following during timber operations:</u>	
<ul style="list-style-type: none"> • <u>Place, discharge or dispose of or deposit in such a manner as to permit to pass into the waters of the state, any substance or materials, including, but not limited to, soil, silt, bark, slash, sawdust, or petroleum, in quantities deleterious to fish, wildlife, beneficial functions of riparian zones, or the quality and beneficial uses of water;</u> • <u>Remove water, trees, or large woody debris from a watercourse or lake, the adjacent riparian area, or the adjacent flood plain in quantities deleterious to fish, wildlife, beneficial functions of riparian zones, or the quality and beneficial uses of water.</u> 	

ITEM #27– WLPZ IN-LIEU OR ALTERNATIVE PRACTICES

ITEM #27	WLPZ IN-LIEU OR ALTERNATIVES
<p>Per 14 CCR 916.1[936.1, 956.1] (In-Lieu Practices) – In rule sections where provision is made for site specific practices to be proposed by the RPF, approved by the Director and included in the THP in lieu of a standard rule, the RPF shall:</p> <ul style="list-style-type: none"> • Reference the standard rule • Explain and describe each proposed practice • Explain how it differs from the standard practice, • Explain and justify how the protection provided by the proposed practice is a t least equal to the protection provided by the standard rule. • Identify the specific location where it shall be applied. 14 CCR 1034(x)(15) and (16) <p>Per 14 CCR 916.6[936.6, 956.6] (Alternatives) – Alternative prescription for the protection of watercourses and lakes may be developed by the RPF or proposed by the Director on a site specific basis provided the following conditions are complied with and the alternative prescription will achieve compliance with the standards set forth in 14 CCR 916.3[936.3, 956.3] and 916.4[936.4, 956.4](b)</p> <p>The alternative prescription shall include in the THP information per 14 CCR 916.6[936.6, 956.6]a)(1)-(3)</p>	
<p>a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the prohibition of the construction or use of tractor roads listed below?</p> <p>Per 14 CCR 916.3[936.3, 956.3(c) Timber operators shall not construct or use tractor roads in a Class I, II, III, IV watercourses, wet meadows and other wet areas unless explained and justified in the plan by the RPF.</p> <p>Except at:</p> <ul style="list-style-type: none"> • Prepared tractor crossing described in 14 CCR 914.8[934.8, 954.8](b) • Class III watercourse crossings dry at the time of use • At new and existing tractor road crossings approved as part of a Fish and Game Code Process (F&GC 1600 et seq.) <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p> <p>Note to LTO and Reviewer: The creation of 170 feet of new skid trail and tractor crossing is proposed within a CII WLPZ. This proposed skid shall be constructed to the minimum width necessary to facilitate operations. After operations skid trails will be waterbarred to the Extreme EHR Standard and disturbed soils shall be slash packed or mulched to the standards in Sec II, Item 18.</p>
<p>b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the retention of non-commercial vegetation bordering and covering meadows and wet areas?</p> <p>14 CCR 916.3[936.3, 956.3(d)</p>

ITEM #27	WLPZ IN-LIEU OR ALTERNATIVES
	<p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
<p>c. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the Directional felling of trees within any WLPZ away from the watercourse or lake? 14 CCR 916.3[936.3, 956.3(e)]</p> <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
<p>d. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the standard WLPZ(s) width(s) identified in 14 CCR 916.5[936.5, 956.5], Table I? If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
<p>e. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the protection of Class IV watercourse(s)? 14 CCR 916.4[936.4,956.4](c) and 916.5[936.5, 956.5], Table I If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
<p>f. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the exclusion of heavy equipment from the WLPZ except at those locations listed below?</p> <p>Per 14 CCR 916.4[936.4, 956.4(d)&(f)] – Heavy equipment shall not be used in timber falling, yarding, or site preparation within the WLPZ unless such use is explained and justified in the THP and approved by the Director. Except at:</p> <ul style="list-style-type: none"> • Prepared tractor crossing described in 14 CCR 914.8[934.8, 954.8](b) • Class III watercourse crossings dry at the time of use • Existing road crossings • New tractor and road crossings approved as part of a Fish and Game Code Process (F&GC 1600 et seq.) <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p> <p>Note to LTO and Reviewer: The construction 170 feet of skid trails within the WLPZ is proposed. All equipment is restricted to skid trails flagged with solid yellow ‘SKID TRAIL’ flagging within the WLPZ. After operations skid trails will be</p>

ITEM #27	WLPZ IN-LIEU OR ALTERNATIVES
	waterbarred to the Extreme EHR Standard and disturbed soils shall be slash packed or mulched to the standards in Sec II, Item 18.
g. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the establishment of ELZ(s) for Class III watercourses unless side slopes are, 30% and EHR is low? 14 CCR 916.4[936.4, 956.4](c)(1)</p> <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
h. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the Retention of at least 50% of the overstory canopy in the WLPZ? 14 CCR 916.5[936.5, 956.5](e)“G”</p> <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
i. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Are there any site-specific practices proposed in-lieu of, or as an alternative, to the Retention of at least 50% of the understory in the WLPZ? 14 CCR 916.5[936.5, 956.5](e)“G”</p> <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p>
j. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>Are there any additional in-lieu or alternative practices proposed for watercourse or lake protection?</p> <p>If YES, provide operational information to the LTO under each item selected YES, in SECTION II. Provide the explanation and justification in SECTION III, (see table below)</p> <p>Item 27(j)-Additional in-lieu and/or alternative watercourse and lake protection practices.</p> <p>LTO - The In-Lieu practice proposed is to allow you to harvest, due to safety considerations (including cable clearance), unmarked trees within a WLPZ. Harvesting of any unmarked tree within the WLPZ for this reason must comply with any other applicable Forest Practice Rules and THP requirements (e.g. retention of 13 largest trees, maintenance of necessary canopy, surface cover, etc.). Guidance for you to comply with this practice is included in Item 14(d).</p> <p>Reviewer - See Section III, Item 27(j) for complete in-lieu discussion</p>

ITEM #28-29 – DOMESTIC WATER NOTIFICATIONS

ITEM #28 DOMESTIC WATER NOTIFICATIONS

Per 14 CCR 1032.10 – The THP submitter shall provide notice by letter to all other landowners within 1,000 feet downstream of the THP boundary whose ownership adjoins or includes a Class I, II, or IV watercourse(s) which receives surface drainage from the proposed timber operations.

The notice shall request that the THP submitter be advised of surface domestic water use from the watercourse, within the THP or within 1,000 feet downstream of the THP boundary.

When required to notice by letter, publication shall also be given one time by the THP submitter in a newspaper of general circulation in the area affected by the proposed project.

Such letter and publication shall notify the adjoining party:

- of the proposed timber operation
- describe its legal location
- identify the name, if any, of the watercourse it may affect
- request a response by the property owner within ten days of the post-marked date on the letter or the date of publication as appropriate

The RPF may propose, with justification and explanation, an exemption to such notification requirements, and the Director may agree.

Copies of either notice, proof of service and publication, and any responses shall be attached to the THP (SECTION V) when submitted.

If domestic use is noted, the plan shall contain mitigations necessary to protect domestic water use.

THE PLAN SHALL NOT BE SUBMITTED UNTIL TEN DAYS AFTER THE ABOVE NOTIFICATION(S) HAVE BEEN COMPLETED

<p>a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Are there any landowners with 1,000 feet downstream of the THP boundary whose ownership adjoins or includes a class I, II or IV watercourse(s) which receive surface drainage from the proposed timber operations? If YES, the requirement of 1032.10. Proof of letter notification shall be included in THP SECTION V. If NO, notification exemption request below need not be answered.</p>
<p>b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> Letter <input type="checkbox"/> Newspaper <input type="checkbox"/> Both</p>	<p>Is an exemption to the notification requirements requested? (check notification requesting to be exempted) If YES, provide the explanation and justification for the exemption request in SECTION III of the THP.</p>
<p>c1. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Was any information received in response to domestic water notifications indicating domestic water supplies may be present within or downstream of the project area? Correspondence is included in Sec V of the Plan.</p>
<p>c2. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>If YES, are there any additional mitigation measures needed beyond that required by standard watercourse and lake protection rules?</p>

ITEM #28 DOMESTIC WATER NOTIFICATIONS	
	<p>If YES, provide the site-specific instruction to the LTO in SECTION II.</p> <p><u>Additional information on Domestic Water:</u></p> <p>1-08-086MEN discloses a domestic water supply measured at approximately 185 feet downstream from the plan. See domestic water supply map at end of Sec II for location.</p> <p>Mitigation: A no harvest Class-I Non-ASP WLPZ will be established around the Class II portion of the watercourse. No utilization of ground based equipment is permitted within this WLPZ.</p>

ITEM #29	SENSITIVE WATERSHEDS
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Is any part of the THP area within a Sensitive Watershed as designated by the Board of Forestry and Fire Protection?</p> <p>If YES, identify the watershed and list the special rules, operating procedures or mitigation that will be used to protect the resources identified at risk.</p>

WATERSHED	SPECIAL RULE	MITIGATION MEASURES PROTECTING RESOURCES IDENTIFIED AT RISK

ITEM #30 – HAZARD REDUCTION

ITEM #30 HAZARD REDUCTION	
<p>Per 14 CCR 917, 937, 957 - Hazard reduction shall provide standards for the treatment of snags and logging slash in order to reduce fire and pest safety hazards in the logging area, to protect such area from potential insect and disease attack, and to prepare the area for natural or artificial reforestation while retaining wildlife habitat.</p> <p>Per 14 CCR 917.2, 937.2, & 957.2 – The following standards shall apply to the treatment of slash created by timber operations within the plan area and on roads adjacent to the plan area.</p>	
<p>a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Will slash treatment occur within 100 feet of the edge of the traveled surface of a PUBLIC road?</p> <p>NOTE TO LTO: Slash generated shall be lopped so that no material generally remains more than 30 inches above the ground.</p> <p>Additionally:</p> <p style="text-align: center;"><u>Within CCCSTA</u> Cal. Code Regs. tit. 14 § 921.6</p> <p><i>(a) Lopping. Except in the Southern Subdistrict, to reduce fire hazards, maintain soil fertility, reduce erosion, and improve visual appearance, all Slash and debris created by the current operations and within 300 feet of Public Roads and Watercourses open to the public shall be lopped and scattered, chipped, or crushed, prior to April 1st of the year following its creation, so that no material generally remains more than 30 inches (76.2 cm) above the ground.</i></p> <p><i>As an exception to the above requirements after creation of Slash and debris, the RPF may propose and, with the concurrence of the Director's representative, delete those areas within 300 feet not visible from roads or Watercourses when such requirements are not necessary to reduce fire hazards, to maintain soil fertility, to reduce erosion and to improve visual appearance.</i></p>
<p>b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Will slash treatment occur within 50 feet of the edge of the traveled surface of PERMANENT private roads open for public use where permission to pass is not required?</p>
<p>c. <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>[SOUTHERN only]</p> <p>Will slash treatment occur within 50 feet of the edge of the traveled surface of SEASONAL private roads open for public use where permission to pass is not required?</p>
	<p>If YES to any of the above, slash created or trees knocked down by road construction or timber operations shall be treated by: (Select all that apply)</p> <p><input checked="" type="checkbox"/> lopping for Fire hazard reduction per (14 CCR 895.1)</p> <p><input checked="" type="checkbox"/> Piling and burning per (14 CCR 917.2, 937.2, 957.2(a)(1-3))</p> <p><input checked="" type="checkbox"/> chipping</p> <p><input checked="" type="checkbox"/> burying</p> <p><input checked="" type="checkbox"/> removal</p> <p><input type="checkbox"/> Other (explain)</p>
<p>d. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Are there any permanently located structures maintained for human habitation in the project area requiring slash treatment?</p> <p>If YES, identify distance slash treatment will occur and indicate the method of treatment</p>

ITEM #30 HAZARD REDUCTION

- Within 100 feet of permanent structure
- Removed
- Piled and burned per (14 CCR 917.2, 937.2, 957.2(a)(1-3))
- Other (explain)

1 structure(the GRT Office) is within the 100' foot fuel reduction zone.

- Between 100-200 feet of permanent structure
- Lopped for fire hazard reduction (per 14 CCR 895.1)
- removed
- chipped
- Piled and burned per (14 CCR 917.2, 937.2, 957.2(a)(1-3))
- Other (explain)

17 structures are within this zone. Refer to Sec II, Item 38, FPZ Map for location.

e. Yes No

Has the RPF or Director determined there is an unusual fire risk or other hazard exists within the proposed project area?

If YES then lopping is required within 200-500 feet of permanent structures.

f. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Is the RPF proposing any alternatives to treating slash along roads and within 200 feet of structures.</p> <p>If YES, the RPF shall explain and justify in the plan how equal fire protection will be provided. The explanation and justification shall include:</p>
	Description of the alternative treatment(s):
	Estimated amount / distribution of slash:
	Type of remaining vegetation:
	Topography:
	Climate:
	Degree of public exposure fire history:
	Provide a description of where the alternative will be used: (mapping area(s) is suggested)

g. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<p>Will piling and burning be used for hazard reduction?</p> <p>If piling and burning for hazard reduction occurs:</p> <p>If YES, refer to 14 CCR 917.2, 937.2, 957.2(a)(1-3). (select all that apply)</p> <p><input type="checkbox"/> Piles created prior to September 1 shall be treated not later than April 1 of the year following its creation, or within 30 days following climatic access after April 1 of the year following its creation.</p> <p><input checked="" type="checkbox"/> Piles created on or after September 1 shall be treated not later than April 1 of the second year following its creation, or within 30 days following climatic access after April 1 of the second year following its creation.</p>
h. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Is the RPF proposing any alternatives to piling and burning from those required in 14 CCR 917.2, 937.2, 957.2(a)(1-2)?</p> <p>If YES, the RPF shall provide an explanation and justification in the plan to be approved by the director.</p>

Copper Top THP ITEMS #32-35 BIOLOGICAL RESOURCES

ITEM # 32 – BIOLOGICAL RESOURCES

ITEM #32 LISTED PLANT or ANIMAL SPECIES INCLUDING HABITAT	
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any <u>ANIMAL SPECIES</u> , including their habitat(s), which are listed as rare, threatened or endangered under Federal or state law, or a sensitive species by the Board of Forestry associated with the THP area? If YES, identify the animal species and the provisions to be taken for the protection of the species.

Northern Spotted Owl (NSO) Protection Measures

1. The THP area is within the range of the Northern Spotted Owl and contains habitat suitable for Northern Spotted Owls. There is one known NSO activity center(s) within 0.7 miles of the plan boundary as shown on the THP Maps and discussed in the NSO addendum located in THP Section 5. This species is Federally and State listed as "Threatened". See NSO addendum for additional information.
2. In order to meet the requirements of 14 CCR 919.9 the plan will comply with 14 CCR 919.9(d) using Scenario 4 of the Northern Spotted Owl Take Avoidance Scenarios 11/1/2019.

The plan complies with Scenario 4 in the following ways:

- The THP area contains suitable habitat for NSOs.
- There are known NSO activity centers within 0.7 miles of the plan boundary.
- NSO surveys will be conducted and will be in conformance with the most current USFWS survey protocol and the Northern Spotted Owl Take Avoidance Analysis and Guidance for California Coast Forest District Attachment A, dated March 15, 2011.
- The proposed project is in compliance with the USFWS Attachment A Take Avoidance Analysis - Coast 3/15/2011.
- This proposed project is in compliance with the USFWS Attachment A Take Avoidance Analysis - Coast Redwood Region 11/1/2019 for NSO habitat protection measures and operational procedures.

For the year(s) of operation on the THP area, timber operations shall not commence until protocol surveys have been completed for the current, and/or immediately preceding, survey period; the results have been provided to CAL FIRE; and the results have been incorporated into the THP. Surveys shall be submitted prior to each year of operations. Once a consistency determination has been made, survey results shall be valid until 2/1 of the following year.

VI. Post-Harvest Habitat Retention and Typing

Within the 0.7 mile radius (985 acres) of each Activity Center please use the following:

- 1) Retain habitat to maximize attributes desirable for NSO.
- 2) Retain at least 500 acres of suitable (Nesting/Roosting/Foraging) NSO habitat, post-harvest, as follows:
 - a) Retain 200 acres of Nesting/Roosting Habitat within a 0.7 mile radius of the Activity Center consisting of:
 - i) 100 acres of the 200 acres of Nesting/Roosting habitat retained should be contiguous, or contiguous as possible with the Activity Center.
 - ii) An additional 100 acres of Nesting/Roosting with in the 0.7 mile radius:
 - (1) For the second 100 acres. maintain Nesting/Roosting habitat with a minimum of 66% of the pre-harvest basal area per acre of trees at least 11" DBH.
 - b) Retain at least 300 acres of Suitable NSO habitat, post-harvest, of at least Foraging quality. Remove no more than 1/3 of the remaining suitable habitat in excess of 500 acres within 0.7 mile of an Activity Center during the life of the timber operations.

EXCEPTIONS TO ATTACHMENT A: None.

VII. Road Use

To avoid take of NSO from noise disturbance during the breeding season, road use within 0.25 mile (1,320 feet; or see Service 2006 for other potential buffer distances based on site-specific ambient and project-generated noise) of an occupied NSO activity center should not occur until July 10, unless:

- 1) Protocol surveys determine that NSO are non-nesting, or that nesting has failed (note that activity centers occupied in year 1 and/or year 2 cannot be determined to be non-nesting or failed until on or after May 1 in years 3 through 6), or;

2) The activity center is within 165 feet of a major highway that typically has high traffic year-round (Hwy 1, 36, 101, 128, 299, etc.) and the appurtenant road is not within 165 feet of the activity center.

3) After July 9th and until the end of the breeding season, road use within any core use area should be limited to use of existing roads, maintenance, and map point work.

4) At the discretion of the NSO review agencies, deviations to the above road use guidelines may be made depending on proposed noise minimizations (e.g., speed limits and compression brake restrictions), duration, distance of the noise source from the activity center, site topography (i.e., significant topography exists between the noise source and the activity center), and existing pre-project use.

EXCEPTIONS TO ATTACHMENT A: Exception for appurtenant road use on the following existing permanent roads: None

VIII. Timber Harvest Operations

A 0.25-mile seasonal restriction on timber operations (except for road use after July 9th) applies to every known NSO activity center during the breeding season, unless it is determined via a site monitoring visit, "activity center search" (Revised 2011 NSO Survey Protocol), that NSO are not nesting, or nesting failure has occurred. If it cannot be determined whether NSO are nesting, or nesting failure cannot be determined, the 0.25 mile seasonal restriction should stay in effect for timber operations until after July 31st. In lieu of the standard distance of 0.25 mile, project proponents may opt to use distances as described under the most recent version of AFWO's document entitled "Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California" (Service 2006; <https://www.fws.gov/arcata/es/birds/NSO/documents/MAMUNSO%20Harassment%20Guidance%20NW%20CA%202006Jul31.pdf>).

For all known Activity Centers, timber operations should adhere to the following recommendations:

1) Within any (either 100- or 40-acre) core use area polygon of an NSO activity center:

a) Outside the breeding season, limited timber operations (i.e., only road use and maintenance, map point work, tail-hold placements, use of existing skid roads, and loading) may be conducted, provided no trees >11" DBH are cut or removed by the operations, and no new cable corridors, skid trails, or roads are constructed in the core use area.

b) During the NSO breeding season, timber operations (including use of roads before July 9), should not occur within any core use area, except as allowed in subsections 4 and 5, below.

EXCEPTIONS TO ATTACHMENT A: None.

2) Timber operations outside any core use area, but within 0.25 mile of an NSO activity center:

a) Outside the breeding season, timber operations may be conducted.

b) During the breeding season, timber operations should not proceed unless protocol surveys determine that nesting NSOs are not present or that nesting has failed.

EXCEPTIONS TO ATTACHMENT A:

Exception to 2) a) above None.

Exception to 2) b) above. Exception for appurtenant road use outside the core area, but within 0.25 mile of an NSO activity center on the following existing permanent roads: None

3) For all NSO activity centers, prior to May 15th (until the recommended May 15 or later survey is completed):

a) Timber operations (except helicopter yarding or staging) should be conducted only >0.25 mile from the activity center.

b) Helicopter yarding and staging should occur only >0.5 mile from the activity center.

EXCEPTIONS TO ATTACHMENT A:

Exception to 3) a) above. Exception for appurtenant road use within 0.25 mile of an NSO activity center on the following existing permanent roads: None.

Exception to 3) b) above None.

4) For NSO activity centers where current nesting status has been determined (to protocol) to be non-nesting or failed nesting, or when fledglings are greater than 0.25 miles from the nest tree:

a) Limited timber operations (road use and maintenance, map point work, use of existing skid roads, tail-hold placements and loading) may be conducted within any core use area of the activity center provided no trees >11" DBH are cut or removed by the operations, and no new cable roads or corridors or skid roads or trails are created in the core use area.

b) Full timber operations, including helicopter yarding and staging, may be conducted within 0.25 mile but not within any core use area. Helicopter flyovers should not occur within 1,000 feet of the activity center.

EXCEPTIONS TO ATTACHMENT A:

Exception to 4) a) None

Exception to 4) b) None.

5) For NSO activity centers, where status has been determined to be nesting, nesting unknown, or nesting is presumed according to the Revised 2011 NSO Survey Protocol:

a) For activity centers where fledging status has not been determined, timber operations should be conducted only in approved THP areas that are >0.25 mile from the activity center until the end of the breeding season.

b) Helicopter yarding and staging should occur only on approved THP areas >0.5 mile from the activity center.

EXCEPTIONS TO ATTACHMENT A:

Exception to 5) a) above. Exception for appurtenant road use within 0.25 mile of an NSO activity center on the following existing permanent roads: None

Exception to 5) b) above None.

6) For any NSO activity center, regardless of current nesting status:

a) If NSO move to a new location (>1,000 feet from the historical activity center), the appropriate protection measures should be provided to each activity center, or consultation with NSO review agencies should occur to evaluate the status of what may be multiple activity centers

EXCEPTIONS TO ATTACHMENT

A: Exception to 6) a) above None. Both old and new AC's will be protected until a TA is completed and amended into the plan.

Listed and Sensitive Animal Species Table					
Animal Species	Species type Mammal / bird / reptile / amphibia / fish / Invertebrate	FEDERAL Threatened / endangered /	STATE Threatened / endangered / candidate	BOF Sensitive	Protection measures
Humboldt Marten <i>(Mares caurina humboldtensis)</i>	Mammal	Threatened	Endangered		If a marten is sighted in a harvest unit during timber operations, all timber operations shall be suspended within that unit and company biologists shall be notified. If a den or habitation of a marten is discovered, all operations (per PRC Section 4527) shall additionally be suspended within a 375-foot radius buffer around the den or habitation. The Department of Fish and

Listed and Sensitive Animal Species Table

					Wildlife and Department of Forestry and Fire Protection shall then be immediately notified. After consultation, a minor amendment to the THP reflecting the protections agreed upon by the Plan submitter and the Department of Fish and Wildlife shall be filed with the Director of the Department of Forestry and Fire Protection.
Townsend's Big-eared Bat (Corynorhinus townsendii)	Mammal		CDFW: Species of special concern		<p>Suitable maternity and/or hibernaculum colony roost habitats include abandoned mines, caves, abandoned anthropogenic structures, and large (42 inch dbh) residual trees (conifer or hardwood) with a basal hollow opening of 2 square feet (with a minimum dimension opening of 2 feet); hereinafter referred to as a "legacy tree".</p> <p>If any new legacy tree(s) meeting the above definition is discovered within the Plan or within 400 feet of the Plan area on the timberland owner's property during timber operations, then timber operations, consisting of felling or yarding, shall cease within 400 feet of the legacy tree until field reviewed by RPF or Plan biologists. A map depicting the location of the legacy tree(s) shall be amended into the Plan.</p> <p>No yarding or felling of trees shall occur within 400 feet of the identified legacy tree(s) between April 1 and September 15 unless surveys are completed to determine if COTO are present or not.</p>
Gray Wolf (Canis lupus)	Mammal	Endangered	Endangered		Although unlikely to occur, protection measures are given in the next sentence should a gray wolf be observed in the plan area. If any sighted wolves, identified rendezvous locations or active den is observed all timber operations within ¼ mile will be suspended and the RPF will consult with CDFW and CALFIRE The results of the consultation shall be amended into the plan.
Osprey(Pandion haliaetus)	Bird	None	None	Yes	If an active nest tree is located on the THP, operations will cease in a 5-acre buffer around the nest site until a consultation with The Department of Fish and Wildlife

Listed and Sensitive Animal Species Table

					<p>and Department of Forestry and Fire Protection to determine an appropriate buffer size.</p> <p>Within the buffer zone: all designated Nest Trees, perch trees, screening trees, and replacement trees shall be left standing and unharmed. If the RPF believes that retention is not feasible, he/she may propose construction of an artificial nest structure as an alternative.</p> <p>Two nests were mapped as occurring within the project area under 1-08-086MEN. A survey of the area failed to identify any raptor nest structures in the historic nest tree or surrounding area.</p> <p>Critical Period: From March 1 to April 15th for all active nests and extended until August 1st for occupied nests. During the critical period, at Nest Sites where Osprey have shown historical tolerance to disturbance, Timber Operations are permitted using a gradual approach to the nest, except that no cutting is permitted. Where Osprey are determined by the Director to be intolerant to Timber Operations, no Timber Operations are permitted within the Buffer Zone unless the Director determines that there are no feasible alternatives.</p> <p>No helicopter yarding is proposed on this THP.</p>
<p>Bald Eagle(<i>Haliaeetus leucocephalus</i>)</p>	<p>Bird</p>	<p>Delisted</p>	<p>Endangered</p>	<p>Yes</p>	<p>If an active nest tree is located on the THP, operations will cease in a 40-acre buffer around the nest site until a consultation with The Department of Fish and Wildlife and Department of Forestry and Fire Protection to determine an appropriate buffer size.</p> <p>Within the Buffer: no clear cutting is allowed within the Buffer Zone. Selection, commercial</p>

Listed and Sensitive Animal Species Table

					<p>thinning, sanitation-salvage, and the shelterwood regeneration method, except for the removal step, are permitted if all trees are marked prior to preharvest inspection. All Nest Trees containing active nests, and all designated perch trees, screening trees and replacement trees, shall be left standing and unharmed.</p> <p>Critical Period: January 15 until either August 15 or four weeks after fledgling, as determined by the Director. During this critical period, no Timber Operations are permitted within the Buffer Zone. Exceptions may be approved by the Director, after consultation with the The Department of Fish and Wildlife and Department of Forestry and Fire Protection to allow hauling on existing roads that normally receive use within the Buffer Zone during the critical period.</p> <p>No Helicopter yarding is proposed on this THP.</p>
<p>Great Egret(Ardea alba)</p>	<p>Bird</p>	<p>None</p>	<p>None</p>	<p>Yes</p>	<p>No Great Egret rookeries are known to exist in the THP area. If Egrets are observed nesting in the THP area during the period of March 15 to July 15, halt operations (other than one time logging road use for egress) within 150 feet of the suspected nesting site and notify the Plan Submitter. Do not recommence operations until appropriate measures have been taken by the Plan Submitter and approved by The Department of Fish and Wildlife and Department of Forestry and Fire Protection. If 5 or more nests are noted in close proximity to one another, halt all operations within 300 feet of the suspected nesting site and notify the Plan Submitter. Do not recommence operations until appropriate measures have been taken by the Plan Submitter and approved by The Department of Fish and Wildlife and Department of</p>

Listed and Sensitive Animal Species Table

					Forestry and Fire Protection.
Great Blue Heron(Ardea herodias)	Bird	None	None	Yes	No Heron rookeries are known to exist in the THP area. If Herons are observed nesting in the THP area during the period of March 15 to July 15, halt operations within 150 feet of the suspected nesting site (other than one time logging road use for egress) and notify the Plan Submitter. Do not recommence operations until appropriate measures have been taken by the Plan Submitter and approved by The Department of Fish and Wildlife and Department of Forestry and Fire Protection. If five or more nests are noted in close proximity to one another halt all operations within 300 feet of the suspected nesting site and notify the Plan Submitter. Do not recommence operations until appropriate measures have been taken by the Plan Submitter and approved by The Department of Fish and Wildlife and Department of Forestry and Fire Protection.
Northern Goshawk(Accipiter gentilis)	Bird	None	None	Yes	This species is not known to occur in the THP area. If you observe this species nesting in the THP area halt all operations, (other than one time logging road use for egress) within 527 feet of the suspected nesting site and notify the Plan Submitter. Do not recommence operations until appropriate measures have been taken by the Plan Submitter and approved by The Department of Fish and Wildlife and Department of Forestry and Fire Protection.
Golden Eagle(Aquila chrysaeto)	Bird	None	None	Yes	This species is not known to occur in the THP area. If you observe this species nesting in the THP area halt all operations, other than standard logging road use for egress, within 333 feet of the suspected nesting site and notify the Plan Submitter. Do not recommence operations until appropriate measures have been taken by the Plan Submitter and approved by The Department of Fish and Wildlife and Department of Forestry and Fire Protection.
Marbled Murrelet(Brachyramphus marmoratus)	Bird	Threatened	Endangered	Yes	No known Marbled Murrelet habitat occurs within or adjacent to the plan. The nearest known observance is at Clipper Mills Bridge, which is

Listed and Sensitive Animal Species Table

					<p>approximately 7 miles away from the plan.</p> <p>Should Marbled Murrelets exhibit occupied behaviors in the plan area, all operations (other than one time logging road use for egress) will be suspended within 0.5 miles of the observation so CDFW can be consulted to determine the extent of the occupied stand and to develop appropriate protection measures with a minimum disturbance buffer of ¼ mile and a no operations buffer of 300-feet from the occupied stand.</p> <p>At this time no additional protections are required, and no guidance to the LTO is deemed necessary other than to comply with the THP.</p>
Coho salmon Pop. 2 (<i>Oncorhynchus kisuthch</i>)	Fish	Threatened	Threatened		Protective measures for the Coho Salmon and other aquatic wildlife species have been incorporated into the silvicultural methods in Item #14, soil stabilization measures in Item #18, watercourse protection measures included in Item #26, and other provisions of the THP.
Chinook Salmon-California Coastal ESU(<i>Oncorhynchus tshawytscha</i>)	Fish	Threatened	Threatened		Protective measures for the Chinook Salmon and other aquatic wildlife species have been incorporated into the silvicultural methods in Item #14, soil stabilization measures in Item #18, watercourse protection measures included in Item #26, and other provisions of the THP.
Steelhead- Northern California ESU(<i>Oncorhynchus mykiss</i>)	Fish	Threatened	None		Protective measures for the steelhead Salmon and other aquatic wildlife species have been incorporated into the silvicultural methods in Item #14, soil stabilization measures in Item #18, watercourse protection measures included in Item #26, and other provisions of the THP.
Northwestern Pond Turtle(<i>Actinemys marmorata</i>)	Reptile	Proposed Threatened			<p>Aquatic Habitat is present within and adjacent to the THP. Basking habitat exists along the active channel and associated gravel bars of the Gualala River well outside of the plan area. No Upland Habitat was observed within the project area.</p> <p>Protective measures for aquatic wildlife species have been incorporated into the silvicultural methods in Item #14, soil stabilization measures in Item #18,</p>

Listed and Sensitive Animal Species Table

				<p>watercourse protection measures included in Item #26, and other provisions of the THP. These measures protect aquatic habitat and basking habitat.</p>
<p>California Red Legged Frog (<i>Rana draytonii</i>)</p>	<p>Amphibian</p>	<p>Threatened</p>	<p>CDFW-Species of Concern</p>	<p><u>The following CRLF restrictions will also protect the Yellow legged frog if any exist in the same habitat.</u> The California Red Legged frog will be protected by adhering to USFWS Scenario III and Scenario IV for the wet and dry weather periods respectively (see below for specifics). The wet weather period is defined as starting with the first frontal rain system depositing a minimum of 0.25 inches of rain after October 15 and ends on April 15. (Note to LTO - These wet and dry periods vary slightly from the wet weather periods described elsewhere in the plan so make sure that you understand the differences and the restrictions involved.) The dry weather period starts April 16 and ends with the first frontal rain system which deposits a minimum of 0.25 inches of rain.</p> <p>Scenario III mitigations apply during the red legged frog wet weather period as defined above.</p> <p>Scenario III: Suitable habitat within 2 miles of harvest units or in units and harvest activities planned within 300 feet of suitable habitat during the wet season (applies to winter period falling and to any other activities that are allowed elsewhere in the plan between April 1 and April 15th and between the first ¼ inch rain after October 15th and before Nov 15th). No take is estimated only under the following conditions: i. During the wet weather period for Class III watercourse, when dry, maintain a 30-foot no cut buffer, trees felled away from watercourse ii. During the wet weather period for Class II watercourse and intermittent ponds/wetlands that meet the definition of suitable habitat, where water is present, 300 foot no cut buffer; where dry, 30-foot no cut buffer, no</p>

Copper Top THP ITEMS #32-35 BIOLOGICAL RESOURCES

Listed and Sensitive Animal Species Table					
					<p>equipment within 75 feet of annual high water mark, trees felled away from suitable habitat.</p> <p>iii. During the wet weather period for Class I watercourse and permanent ponds/wetlands that meet the definition of suitable habitat - no cutting and no equipment within 300 feet of this suitable habitat.</p> <p>Scenario IV mitigations that apply during the red legged frog dry weather period as defined above.</p> <p>Scenario IV: Suitable habitat within 2 miles of harvest units or in units and harvest activities planned within 300 feet of suitable habitat during the dry season.</p> <p>i. All suitable habitats must maintain a 30-foot no-cut buffer; no equipment within the no-cut buffer; trees felled away from suitable habitat.</p> <p>Under both of the above scenarios, the following operational conditions must also be included:</p> <p>1) Pile burning must be outside the 300-foot buffer of suitable habitat</p> <p>2) No herbicide use allowed within 300 feet of suitable habitat except for direct application to stumps</p> <p>3) Roads and landings, if constructed, must be at least 300 feet from suitable habitat, and construction must occur in the dry season.</p> <p>2) Water drafting from suitable habitat (for dust abatement) must be done with a hose placed in a bucket in a deep pool. The bucket must be covered by < 1 inch mesh, and the mouth of the hose must be covered by 1/4 inch mesh</p> <p>No known occurrences of this species occur within the project area. If a CRLF is observed operations shall cease within 200 feet(with the exception of road utilization) and CDFW shall be contacted as soon as possible to develop further protection measures.</p>
Behren's Silverspot Butterfly(<i>Speyeria zerene behrensi</i>)	Insect	Endangered			<p>No known occurrences within the THP area. <u>If this species is identified in the plan area no operations shall occur within 25 feet of the identified</u></p>

Copper Top THP ITEMS #32-35 BIOLOGICAL RESOURCES

Listed and Sensitive Animal Species Table					
					individuals and the Plan Submitter shall be notified as soon as possible. The plan submitted will contact CALFIRE to develop protection measures.
Lotis Blue Butterfly(<i>Lycaeides argyrognomon lotis</i>)	Insect	Endangered			No known occurrences within the THP area. <u>If this species is identified in the plan area no operations shall occur within 25 feet of the identified individuals and the Plan Submitter shall be notified as soon as possible.</u> The plan submitted will contact CALFIRE to develop protection measures.
Western Bumblebee(<i>Bombus occidentalis</i>)	Insect		Candidate		There is potential habitat for the Western Bumble Bee within the THP area. There are no known occurrences within the THP area, and none were observed during THP layout. No bumble Bee nests were observed during layout. <u>If a nest or individual is observed all operations within 25 feet of the nest or individual shall stop and the observer shall contact the Plan Submitter who will contact CDFW to develop protection measures.</u> An appropriate no disturbance buffer zone(as determined by CDFW) shall be established around the nest to reduce the risk of disturbance or incidental take while the plan submitter and CDFW develop protection measures.
The Suckley's Cuckoo bumble bee (<i>Bombus suckleyi</i>)	Insect		Candidate		Open meadows largely confined to mountainous regions are considered the bee's most important habitat types for their life cycle. There are no occurrences within the THP area nor the BAA. Because this species relies on its host, the Western bumble bee, selected habitat must overlap with the needs of the host species. Since meadows and wet areas are afforded protection measures under the FPRs and under this THP, habitat modification will not result from operations under this THP. <u>If a nest or individual is observed, all operations within 25 feet of the nest or individual shall stop and the observer shall contact the Plan Submitter, who will contact CDFW to develop protection measures.</u> An appropriate no disturbance buffer zone(as determined by CDFW) shall be

Copper Top THP ITEMS #32-35 BIOLOGICAL RESOURCES

Listed and Sensitive Animal Species Table				
				established around the nest to reduce the risk of disturbance or incidental take while the plan submitter and CDFW develop protection measures.
Crotch's Bumble Bee (<i>Bombus crotchii</i>)	Insect		Candidate	<p>The Crotch's bumble bee (<i>Bombus crotchii</i>, CBB) was given candidate status under CESA on September 30, 2022. Candidate species are given protection under CESA until a determination is made on the listing status. There are few historic records for this species in north coastal California, and the CBB primarily persists in coastal habitats of southern California and around Sacramento. Grasslands and shrublands are considered the bee's most important habitat types for their life cycle. Since timber harvesting will occur only within forested areas pursuant to this THP, affects to grasslands and shrublands are generally not expected. Therefore, habitat modification will not result from operations under this THP.</p> <p><u>If a nest or individual is observed all operations within 25 feet of the nest or individual shall stop and the observer shall contact the Plan Submitter, who will contact CDFW to develop protection measures. An appropriate no disturbance buffer zone (as determined by CDFW) shall be established around the nest to reduce the risk of disturbance or incidental take while the plan submitter and CDFW develop protection measures. There are no occurrences within the THP area nor the BAA.</u></p>

NON-LISTED SPECIES IMPACTS	
b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there any NON-LISTED species which will be significantly impacted by the operation? If yes, identify the species and the provisions to be taken for the protection of the species.

Non-Listed Species Table		
Species	Species type Mammal / bird / reptile / amphibia / fish / Invertebrate	Protection measures

Copper Top THP ITEMS #32-35 BIOLOGICAL RESOURCES

ITEM # 33 – SNAGS

ITEM #33 SNAGS

Per 14 CCR 919, 939, 959 – Timber operations shall be planned and conducted to maintain suitable habitat for wildlife species as specified by the provisions of Article 9 of the Forest Practice Rules.

Within the logging area all snags shall be retained to provide wildlife habitat with the exception of snags for safety reasons Per 14 CCR 919.1, 939.1, 959.1(a)-(f)

ITEM #33 SNAGS	
a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Are there any snags which must be felled for fire protection or safety reasons? Felling of snags for health and human safety is allowed under this plan. Such snags may be felled at the discretion of the LTO or plan submitter.
b. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will snags over 20 feet in height and 16 inches dbh be felled within 100 feet of a main ridge that is suitable for fire suppression? If YES, ridge shall be delineated on a THP map.
c. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will snags over 20 feet in height and 16 inches dbh be felled within 100 feet of all public roads, permanent roads, landings and railroads? (select all that apply) <input type="checkbox"/> Public road(s) <input type="checkbox"/> Permanent road(s) <input type="checkbox"/> Landing(s) <input type="checkbox"/> Railroad(s)
d. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Will snags be felled where federal and state safety laws and regulations require the felling of snags?
e. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will snags be felled within 100 feet of structures maintained for human habitation?
f. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will merchantable snags be felled in any location as provided for in the plan?
g. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Will snags be felled as required to control insect or disease concerns?

ITEM # 34 – LATE SUCCESSIONAL FOREST STANDS

ITEM #34	LATE SUCCESSIONAL FOREST STANDS
a. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are any Late Successional Forest stands proposed for harvest? If YES, describe measures to be implemented by the LTO to avoid long-term significant adverse effects on fish, wildlife and listed species known to be primarily associated with late successional forests.
Describe:	

ITEM # 35 – OTHER WILDLIFE PROTECTION REQUIRED BY FOREST PRACTICE RULES

a. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are there any other provisions for wildlife protection required by the rules? If YES, describe.
Description:	

ITEM # 36 – CULTURAL RESOURCES

<p>a. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Has an archaeological or historical survey been made on the area to be harvested? [ref. 14 CCR § 1034(s)]</p> <p>NOTE: A Confidential Archaeological Addendum (CAA) shall be included in SECTION VI of this Plan. If any archaeological sites exist, protection measures for timber operations shall be outlined in the CAA and a meeting will take place with the LTO per 14 CCR § 1035.2. This information is confidential and <u>not</u> available to the public or review agencies, other than CAL FIRE per California Government Code § 7297.005 and 14 CCR § 969.1(a)(2)(F).</p>
<p>b. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Has there been a current archaeological records check conducted from the appropriate Information Center for the entire area proposed for Timber Operations? [ref. 14 CCR § 929.1 [949.1, 969.1](a)(1)]</p> <p>NOTE: A previously-conducted archaeological records check for the property may be used to satisfy this requirement if it covers the entire area proposed for Timber Operations and if it meets the definition of "current archaeological records check" per 14 CCR § 895.1.</p>

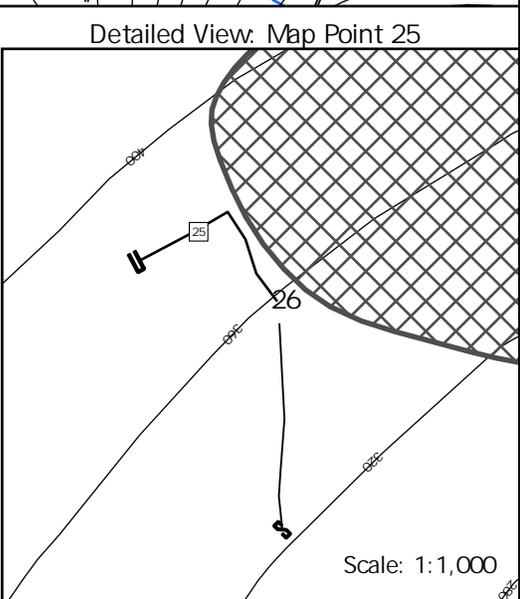
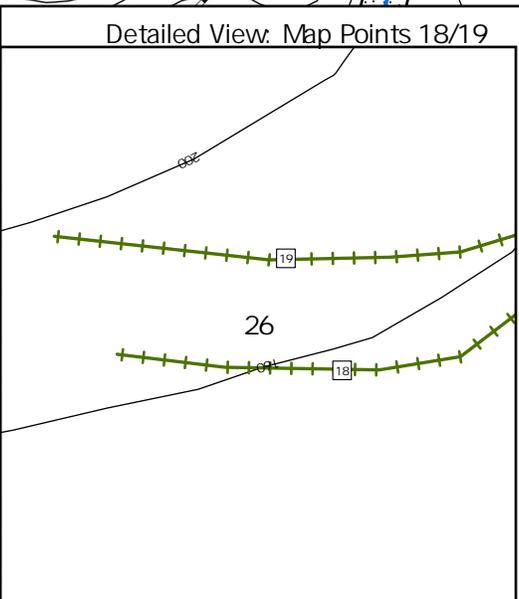
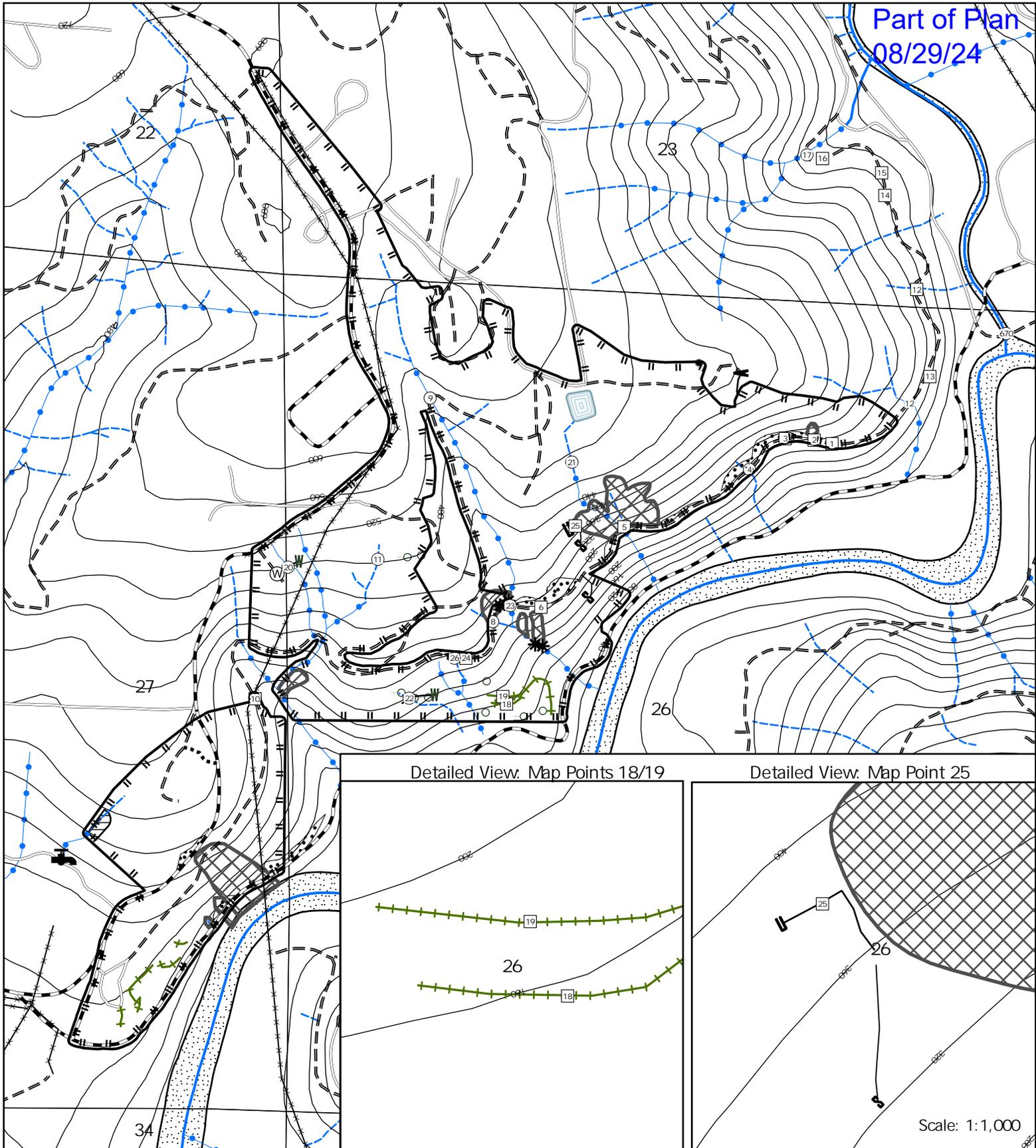
ITEM # 37 – GROWTH AND YIELD INFORMATION

<p>a. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Has any inventory or growth and yield information been designated “trade secret”? If “Yes” include the confidential growth and yield information in SECTION VI.</p> <p>NOTE: This information is confidential and <u>not</u> available to the public or review agencies, other than CAL FIRE. [ref. California Government Code § 7297.705, Evidence Code §§ 1040 & 1060, & Civil Code §§ 3426 et seq.]</p>
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ITEM # 38 – SPECIAL INSTRUCTIONS OR CONSTRAINTS

CONDITION Flagging codes / water drafting / paint colors etc.	INSTRUCTION
Pink 'THP BOUNDARY'	Boundary of THP. - Don't fell trees outside except for safety. This may also designate property lines, a property line map is included in Sec II, Item 38. Do not fall trees across property lines.
Blue/White 'LAKE AND WATERCOURSE PROTECTION ZONE'	Watercourse and Lake Protection Zones. May be hung with solid red for increased visibility.
Solid Red	Wet Area Buffer
Lime Green 'Silviculture Boundary'	Silvicultural System Boundary
Orange 'Truck Road'	Centerlines of existing or proposed truck roads.
Black/Yellow Striped	Logging System Boundary (Tractor/Cable)
Solid Blue	Class III centerline. Triple flag denotes end of segment.

CONDITION Flagging codes / water drafting / paint colors etc.	INSTRUCTION
Solid Yellow	CCCSTA boundary
Solid Red	Wet Area Protection Zone
Yellow 'SKID TRAIL'	Pre-flagged tractor road. Triple flag or flagging across skid trail denotes end of skid trail.
Orange/White Striped 'SPECIAL TREATMENT ZONE'	Boundary of geologic buffer or archaeological feature.



Scale: 1:1,000

Copper Top THP
Map Points

Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:10,000
Contour Interval: 40 ft.

- Class I Watercourse
- Class II Watercourse
- Class III Watercourse
- CII Wet Area
- Wet Areas
- Retention Ponds
- Gualala River Polygon
- THP Boundary

- Private Seasonal Road
- Private Permanent Road
- Public Permanent Road
- Proposed Seasonal Road
- Appurtenant Skid Trail
- WLPZ/ELZ Skid Trail
- Steep Slope Skid Trail
- STZ Skid Trail

- CCCSTA Skid Trail
- No Harvest Area
- Small Unstable Area
- WLPZ_Landing
- Unstable Areas
- Cut Bank Failure
- 1600 Site
- Other Map Point
- Domestic Water Intake

Map Point	Type	Description	Treatment	SEPES	ECP Site	1600	Treatment Priority
1	DITCH RELIEF CULVERT	18" metal DRC. Inlet and outlet are partially buried. Functioning	Excavate inlet and outlet. Inspect culvert for rust, replace with 18" minimum culvert if necessary. If culvert is sound no further treatment.	No	No	No	Low
2	DITCH RELIEF CULVERT	18" Metal DRC. Culvert drains a bank seep located in the inside ditch. Functioning	Maintain inside ditch prior to the winter period.	No	No	No	Low
3	DITCH RELIEF CULVERT	18" Metal DRC. Inlet is partially buried. Functioning.	Excavate inlet.	No	No	No	Low
4	Complex	18" Metal DR. Inlet is partially buried, and outlet is entirely buried. Class III watercourse crossing with no watercourse crossing place. No active erosion observed	DRC: Excavate inlet and outlet and inspect for rust. Replace with 18" minimum culvert if necessary. If culvert is sound no further treatment. WC: if wet at times of operations drain via a 4" flex pipe. After operations and prior to the winter period, install dip to drain feature after operations.	Yes	Yes	Yes	Low
5	WATERCOURSE CROSSING	Pulled Class II Watercourse Crossing. Functioning. An outboard edge road failure 50 feet long east of the site and cut slope failure 120 feet long east of the site render the road impassable	Do not use road past triple red flagging hung on both side of the Map Point. Do not reestablish watercourse crossing.	Yes	No	No	Low
6	Other	200-foot section of road partially blocked by spoils from rock pit and related cutbank failures.	Recontour road as necessary to regain the width necessary to utilize road and landings. No spoils shall be placed within the WLPZ,	No	No	No	Low

			spoils shall be removed from site and stored in a stable location outside of a WLPZ. No sidecast is permitted.				
8	Complex	WC:18" metal culvert that is rusting through. Functioning. Seep: 50 feet east of WATERCOURSE CROSSING is a is a bank seep that runs across the road with no drainage feature in place. Minimal erosion occurring at site and no sediment delivery to watercourse was observed.	WATERCOURSE CROSSING: Replace with 24" minimum culvert. Refer to Sec II, Item 38 Typical. Bank Seep: if wet at time of operations drain via a 4" flex pipe, after operations remove flex pipe and install dip to drain feature after operations.	Yes	Yes	Yes	Medium
9	WATERCOURSE CROSSING	36" metal culvert with inlet rusting out. Functioning.	Replace culvert with 36" minimum culvert. Refer to Sec II, Item 38, Typical.	Yes	Yes	Yes	Medium
10	Other	Outboard edge fill failure not impacting functionality of road. No sediment delivery observed.	Install waterbar 25 feet upslope of fill failure to direct flows away from site. Do not use the road past this site.	Yes	No	No	Low
11	TRACTOR CROSSING	Existing Class III tractor crossing. Functioning.	If utilized: Use only if crossing is dry. After operations, slash pack approaches within ELZ prior to the winter period. Refer to Sec II, Item 38 Typical, Temporary Watercourse Crossing Removal. If NOT utilized: no treatment proposed.	No	No	Yes	Low
13	Other	Bank Seep located in inside rock armored inside ditch. Functioning.	Maintain inside ditch after operations, add more rock if necessary. D50=2"	No	No	No	Medium
14	Other	Bank seep draining across road surface with no structure in place.	During operations: If wet at time of operations drain via a 4" flex pipe, If dry	No	No	No	Medium

			during operations than no treatment. After operations install dip that drains features towards redwood with painted "14"				
15	Other	Bank seep that drains across road via a rolling dip. Functioning.	During operations: If wet drain during operations drain via a 4" flex pipe, If dry than no treatment. After operations: Maintain rolling dip	No	No	No	Medium
16	Other	Bank seep that drains across road with no drainage structure in place inside CII WLPZ. No delivery of sediment observed.	During operations: If wet drain via a 4" flex pipe, If dry than no treatment. After operations install dip that drains features.	No	No	No	Medium
17	WATERCOURSE CROSSING	Pulled Class II Crossing. Functioning	<p>If utilized:</p> <p>Install 21'L X 10'W railcar bridge utilizing soil/log abutments.</p> <p>OR</p> <p>Install 6' half round pipes.</p> <p>OR</p> <p>Install a Temporary Straw Bale Stream Crossing, Refer to Item 38, Typical for instructions</p> <p><u>To the extent feasible, LTO shall retain large woody debris(buried logs) within the creek channel.</u></p> <p>Remove crossing after operations Refer to Item 38, Typical.</p>	No	No	Yes	Medium

			If not utilized, no treatment.				
18	Other	Bank seep that drains 150' down existing stable skid trail. Extent of site designated with "SKID TRAIL" flagging hung with "SPECIAL TREATMENT ZONE" flagging	If utilized: Slash pack skid trail for the extent of site. If not utilized: No treatment	No	No	No	Medium
19	Other	Bank seep that drains 120' down existing stable skid trail. Extent of site designated with "SKID TRAIL" flagging hung with "SPECIAL TREATMENT ZONE" flagging	If utilized: Slash pack skid trail for the extent of site. If not utilized: No treatment	No	No	No	Medium
20	TRACTOR CROSSING	Proposed CII Tractor Crossing. Tractor crossing occurs at area of low gradient(5%). Proposed WLPZ skid trail and crossing will require minimal tree removal and avoids the removal of sprouting species roots.	If utilized: Install a tractor crossing using a 12" minimum culvert to drain feature. Retain core zone trees and vegetation to the extent feasible. After operations: Slash pack WLPZ skid trail and waterbar to the Extreme EHR standard. If not utilized: No treatment	Yes	Yes	Yes	Medium
21	TRACTOR CROSSING	Existing Class III tractor crossing. Functioning.	If utilized: Use only if dry. After operations, slash pack approaches within ELZ prior to the winter period. See Item 38, Typical, Temporary Watercourse Crossing Removal. If NOT utilized: no treatment proposed.	No	No	Yes	Low
22	Other	New Proposed Class III Tractor crossing. 100' east of new TC is a wet area crossing that exists along an existing stable skid trail.	If utilized: TC Site: Install new tractor crossing. If wet at time of operations drain feature using a 4" flex pipe. After operations, slash pack approaches within ELZ prior to the winter period. See Item 38, Typical, Temporary	No	No	Yes	Medium

			<p>Watercourse Crossing Removal.</p> <p>Wet area crossing: If wet at time of operations, drain features by a 4" minimum flex pipe. Slash pack after operations.</p> <p>If not utilized: no treatment.</p>				
23	Watercourse Crossing	Existing Class II watercourse crossing utilizing a 40" metal culvert. Culvert is undercut. The WC is located at the base of a steep cut into a rock face. The WC has evidence of being overtopped during high flow events resulting in minor road erosion. Overtopping occurred as the result of tree falling across inlet during the winter of 2024, which the landowner removed.	<p>Remove WC and replace culvert with a 48" minimum culvert. Realign culvert to natural channel orientation.</p> <p>Move culvert inlet away from rock wall 6-8', as measured from existing inlet location, while maintaining sufficient road prism width to allow for logging vehicle traffic. Extend inlet basin approx. 5' east to catch overflows. Excavated materials may be utilized to create a berm around inlet basin.</p> <p>Refer to Sec II, Item 38 Typical.</p>	Yes	Yes	Yes	Medium
24	Other	A minor fill failure. No delivery to watercourse was observed	Install waterbar 25 feet upslope of fill failure to direct flows away from site.	No	No	No	Low
25	Other	Existing stable skid trail that enters an unstable area STZ.	<p>Operations are limited to the existing pre-flagged skid trail.</p> <p>If utilized, Slash pack from STZ flagging to end of steep slope skid trail(which is outside of STZ) after operations.</p> <p>If not utilized, No treatment.</p>	No	No	No	Low

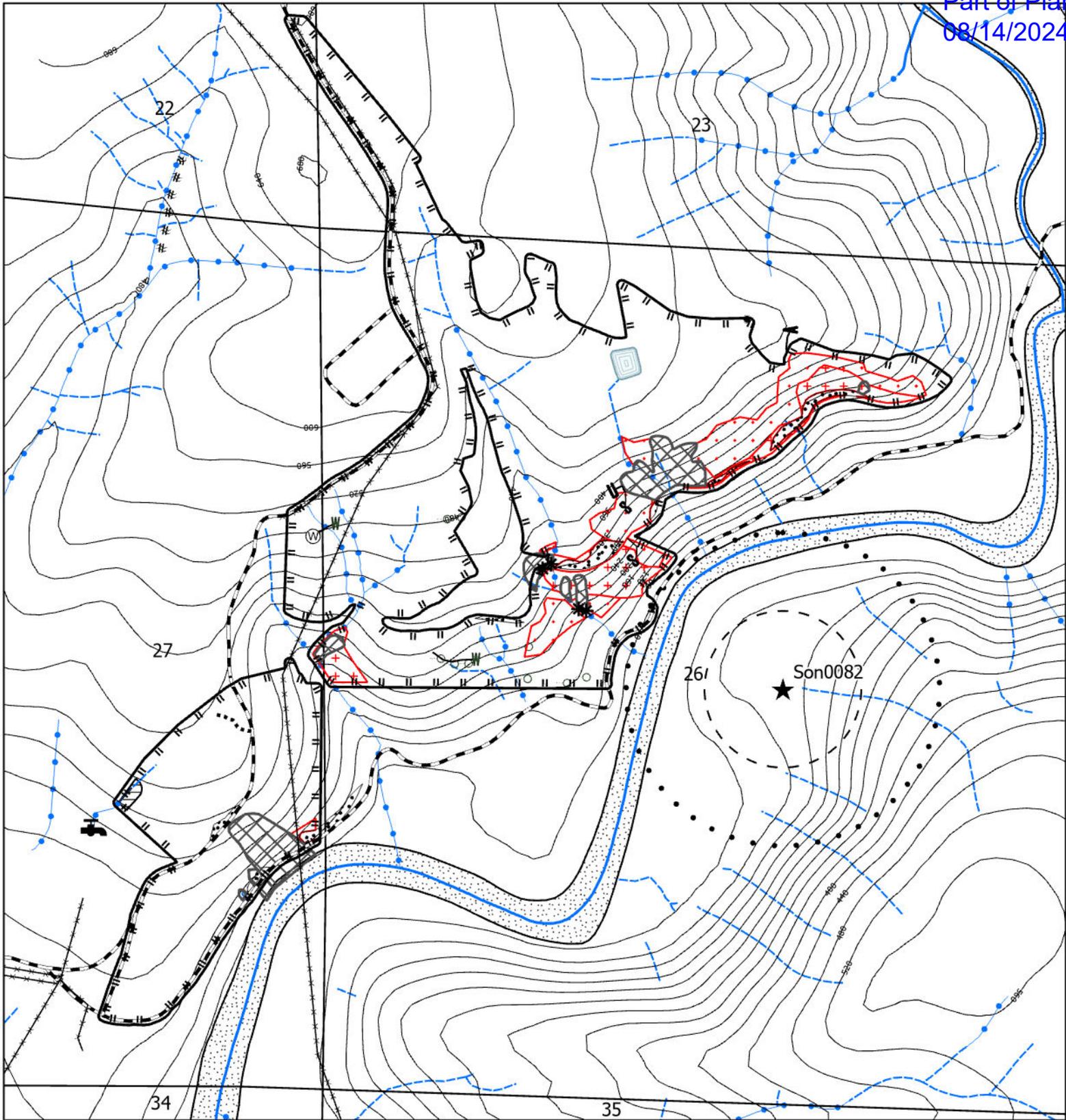
08/29/24

26	Watercourse Crossing	An 18" metal culvert that forms the head of Class III. Inlet is partially buried and outlet is rusting through.	Replace with 24" minimum culvert. Refer to Sec II, Item 38 Typical.	Yes	Yes	Yes	Medium
670	Temporary Bridge Installation	Existing Class I temporary bridge crossing . This bridge may be installed under another LSAA. Functioning. The bridge is a 50 foot railcar. The gravel source will be the gravel bar at crossing site.	<ul style="list-style-type: none"> • Bridge shall be long enough to span the wetted extend of the channel. • To construct the crossings, brow logs or Monschke(concrete) blocks shall be placed on each side of the wetted channel within the banks of the active watercourse channel. Up to approximately 3000 cubic feet of gravel shall be used to backfill behind each of the abutments to create the bridge approaches between the bank and the bridge abutments. When the bridge is removed, gravel can be removed and spread in place. A tractor and excavator shall be used to install the bridge abutments and to place and remove the railroad flatcars from the abutments. Bridge abutments shall be removed from within the banks of the watercourse channel immediately following the removal of the railroad flatcar • During the extended wet weather 	No	No	Yes	High

08/29/24

			period, the bridge shall be removed based on conditions detailed in the "Winter Operating Plan" found in Sec II, Item 23(FF).				
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SEPES, Significant Existing or Potential Erosion Sites. Note: ECP Sites area also SEPES but SEPES may not be ECP Sites. ECP sites must have a feasible treatment, but SEPES may not have a feasible treatment. Treatment priority = High priority sites should be treated first year of ground-based operations at site. Moderate priority sites should be treated by end of 3rd year. Low priority sites should be treated by end of 5th year or completion of timber operations, whichever is first.



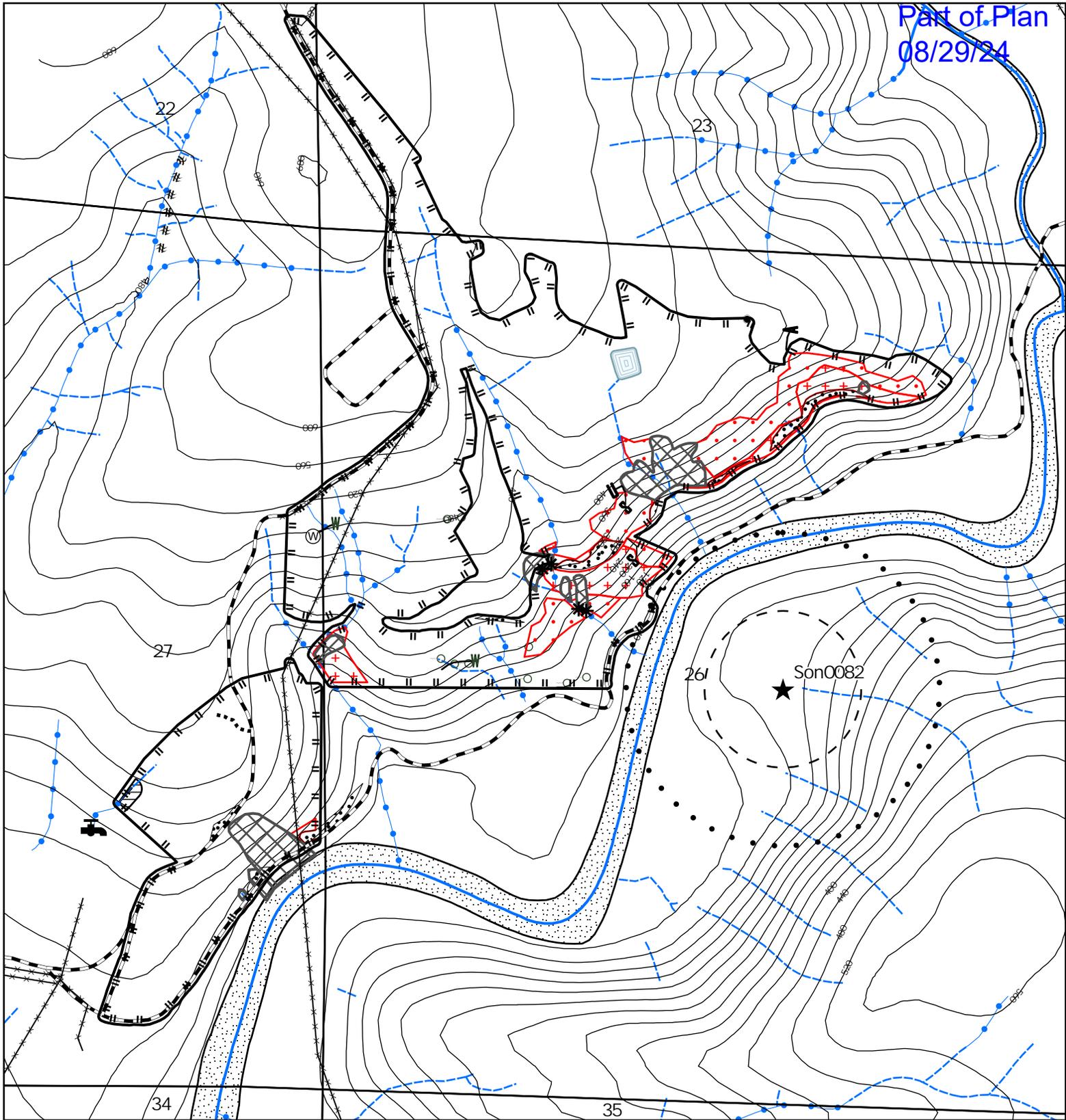
**Copper Top THP
Operations Map
Overview**

Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:10,000
Contour Interval: 40 ft.

- | | | |
|-----------------------|------------------------|-----------------------|
| Class I Watercourse | Private Seasonal Road | WLPZ_Landing |
| Class II Watercourse | Private Permanent Road | NSO Activity Center |
| Class III Watercourse | Public Permanent Road | NSO 1000' Buffer |
| CII Wet Area | Proposed Seasonal Road | NSO 500' Buffer |
| Wet Areas | Appurtenant Skid Trail | Slopes <50% But >65% |
| Retention Ponds | WLPZ Skid Trail | Slopes >65% |
| Gualala River Polygon | Steep Slope Skid Trail | Domestic Water Intake |
| THP Boundary | Unstable Area STZ Skid | |
| Unstable Areas | Small Unstable Area | |
| Cut Bank Failure | No Harvest Area | |

RECEIVED Utility Line
COAST AREA OFFICE
RESOURCE MANAGEMENT

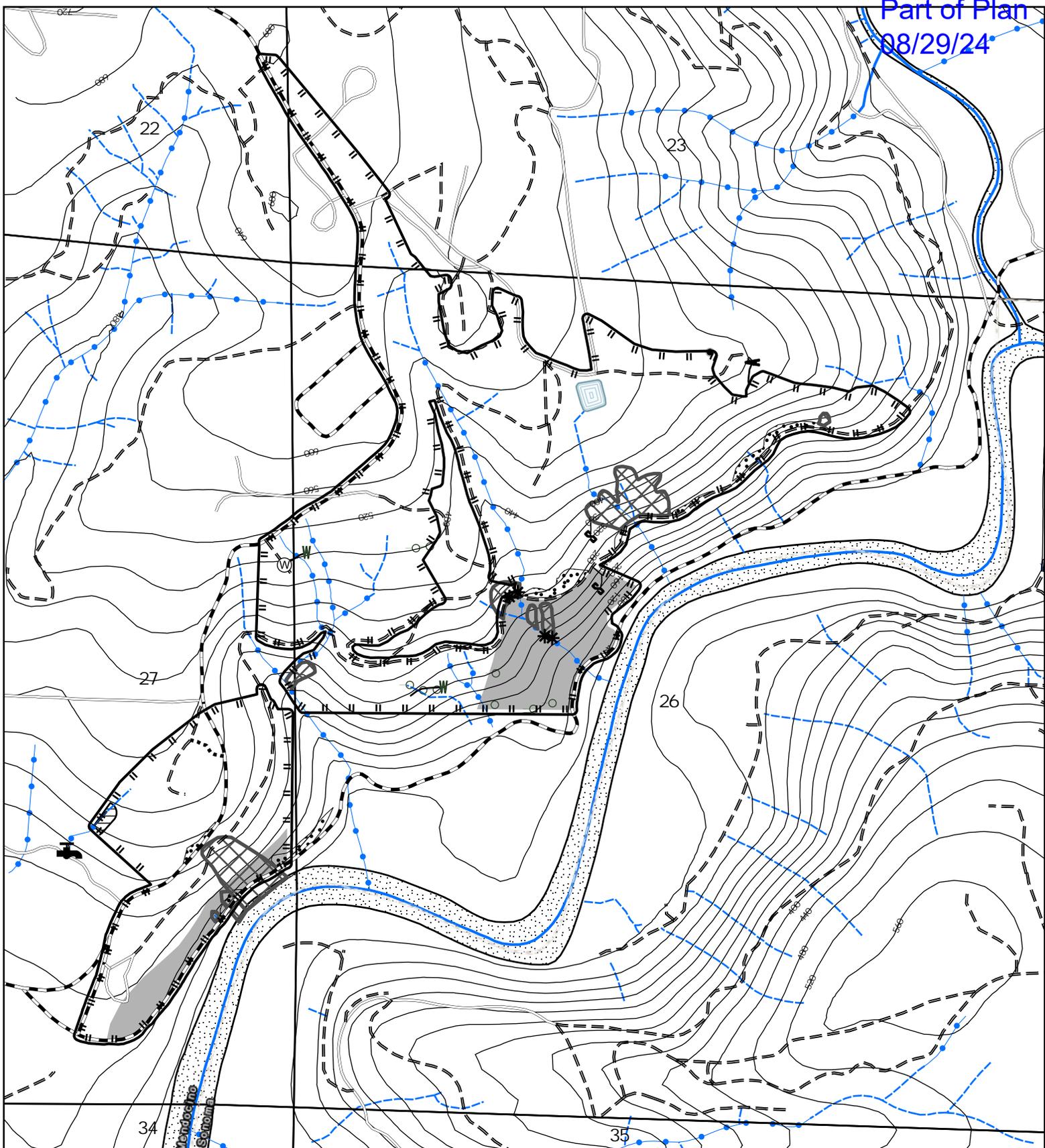
8/13
*All Areas Site Class II/III
*All Areas Tractor Yarding



**Copper Top THP
Operations Map
Overview**

Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:10,000
Contour Interval: 40 ft.

Class I Watercourse	Private Seasonal Road	WLPZ_Landing
Class II Watercourse	Private Permanent Road	NSO Activity Center
Class III Watercourse	Public Permanent Road	NSO 1000' Buffer
CII Wet Area	Proposed Seasonal Road	NSO 500' Buffer
Wet Areas	Appurtenant Skid Trail	Slopes < 50% But > 65%
Retention Ponds	WLPZ Skid Trail	Slopes > 65%
Gualala River Polygon	Steep Slope Skid Trail	Domestic Water Intake
THP Boundary	Unstable Area STZ Skid	Utility Line
Unstable Areas	Small Unstable Area	
Cut Bank Failure	No Harvest Area	

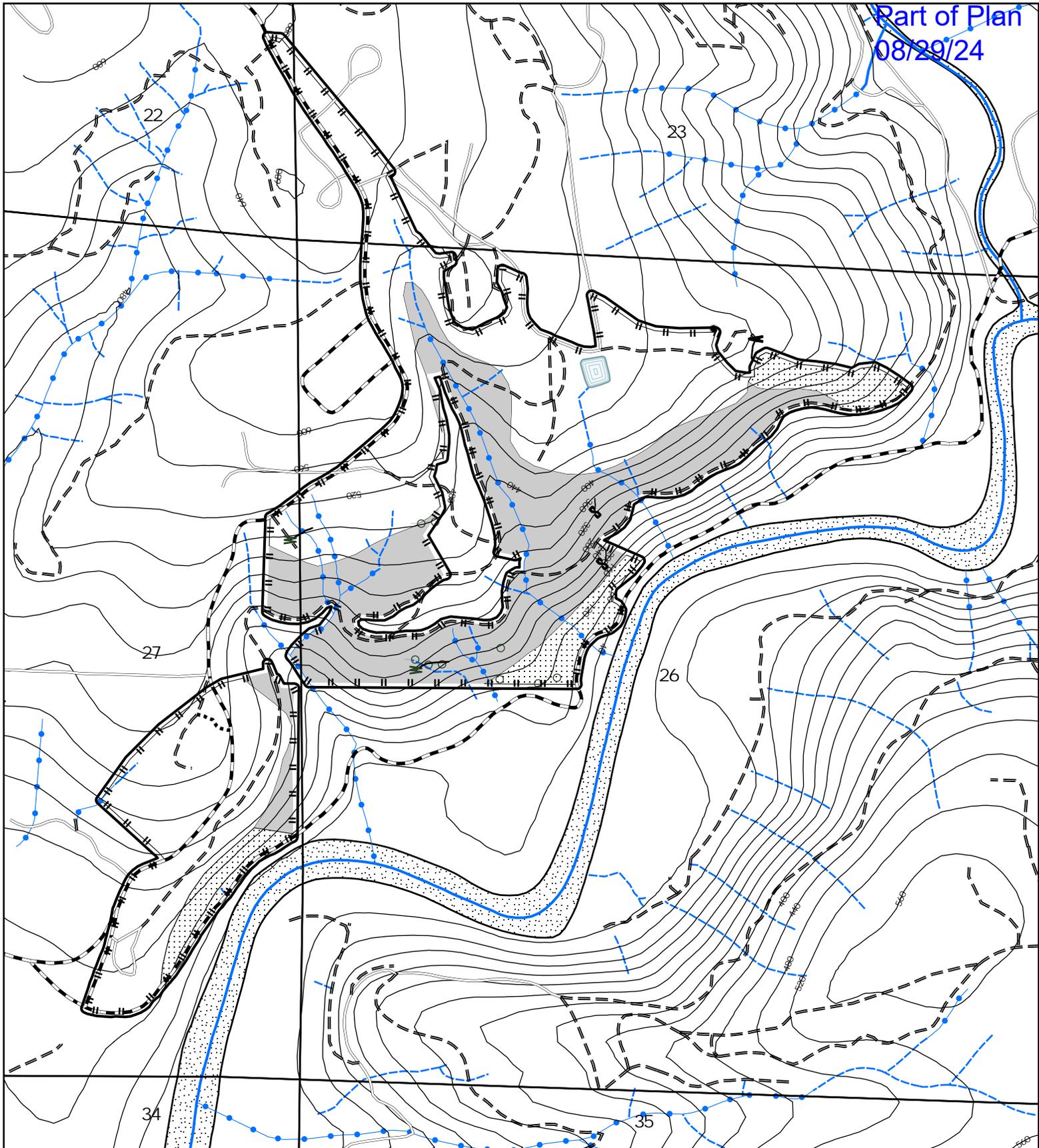


**Copper Top THP
Silviculture Map**

Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:10,000
Contour Interval: 40 ft.

Class I Watercourse	Private Seasonal Road	Small Unstable Area
Class II Watercourse	Private Permanent Road	Unstable Areas
Class III Watercourse	Public Permanent Road	Cut Bank Failure
CII Wet Area	Proposed Seasonal Road	Domestic Water Intake
Wet Areas	WLPZ Landing	No Harvest Area
Retention Ponds	Appurtenant Skid Trail	CCCSTA Selection
Gualala River Polygon	WLPZ Skid Trail	No Harvest Area
THP Boundary	Steep Slope Skid Trail	CCCSTA Selection

* All Areas Site Class II/III
 * All Areas Tractor Yarding
 RECEIVED 8/29/2024
 COST AREA OFFICE
 RESOURCE MANAGEMENT



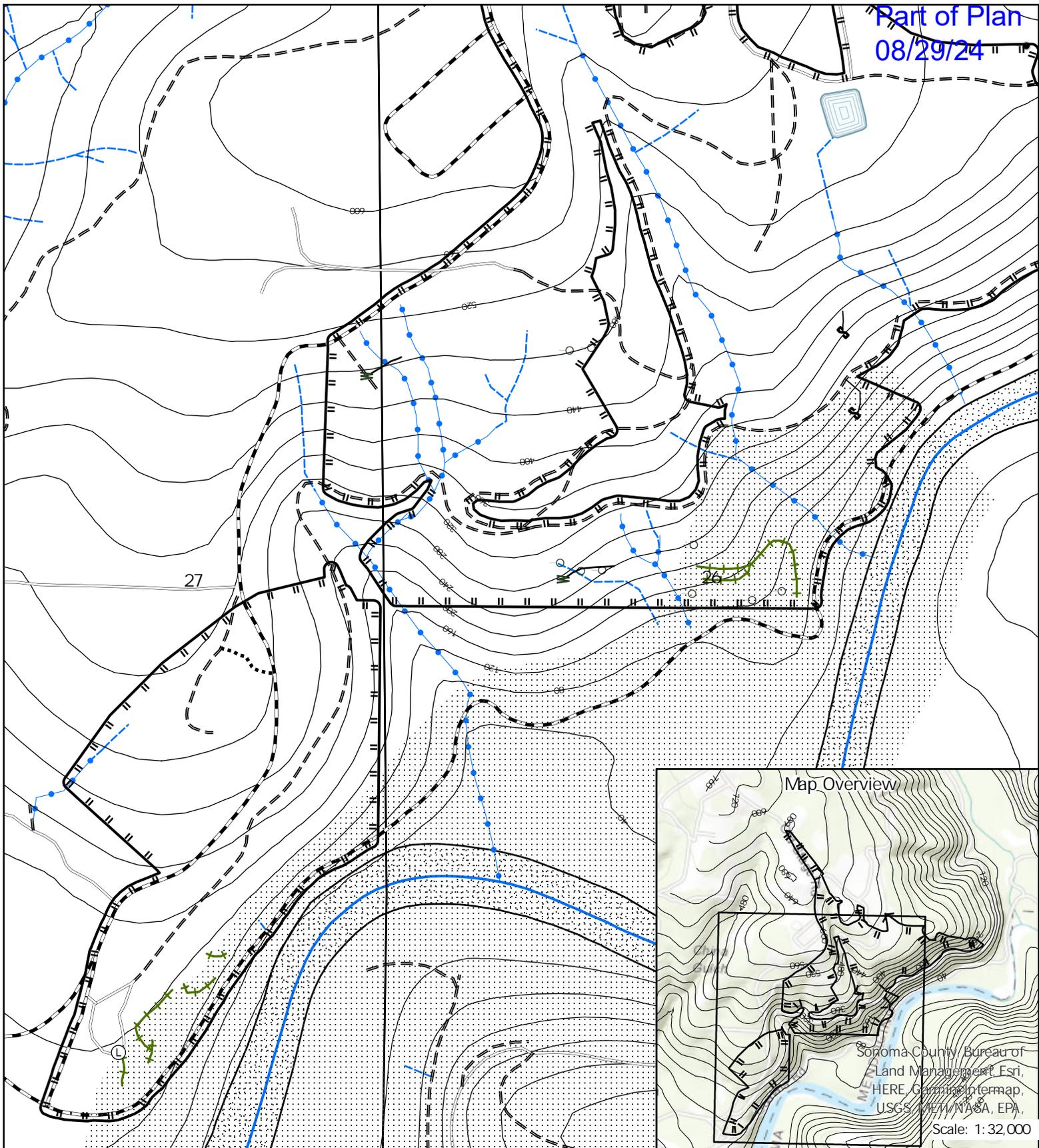
Copper Top THP
EHR Map


 Portions of:
 T11N R15W Sec 22,
 23, 26, & 27
 Scale: 1:10,000
 Contour Interval: 40 ft.

-  Class I Watercourse
-  Class II Watercourse
-  Class III Watercourse
-  CII Wet Area
-  Wet Areas
-  Retention Ponds
-  Gualala River Polygon

-  THP Boundary
-  Private Seasonal Road
-  Private Permanent Road
-  Public Permanent Road
-  Proposed Seas. Road
-  Steep Slope Skid Trail

- Erosion Hazard Rating**
-  Moderate EHR
 -  Extreme EHR
 - *All other areas Low EHR.
No High EHR
 -  Appurtenant Skid Trail
 -  WLPZ Skid Trail



**Copper Top THP
CCCSTA Map**

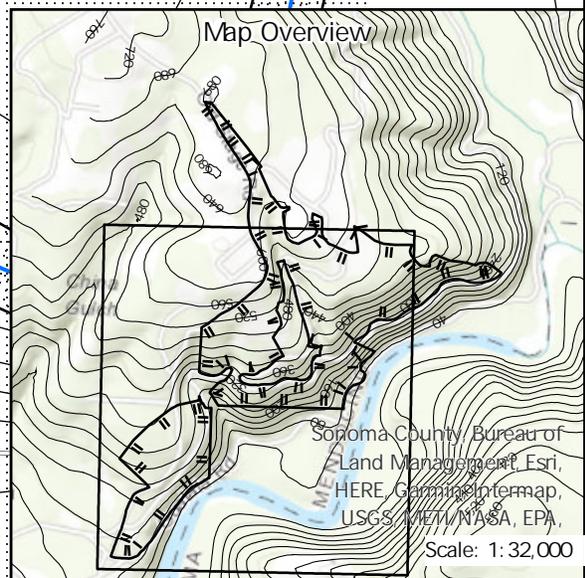
Portions of:
T11N R15W Sec 22,
23, 26, & 27

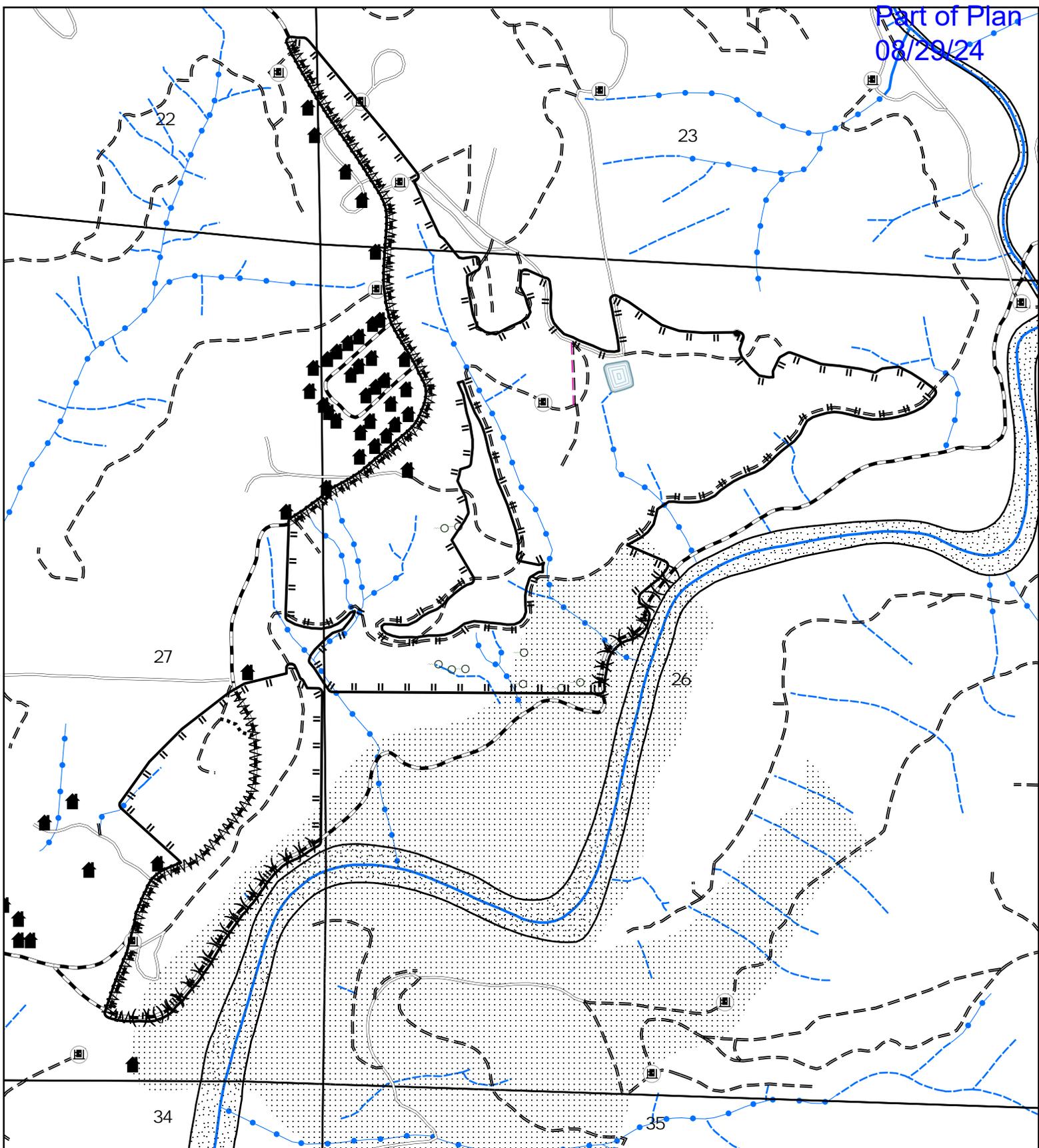
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Contour Interval: 40 ft.

- Class I Watercourse
- Class II Watercourse
- - - Class III Watercourse
- CII Wet Area
- Wet Areas
- Retention Ponds
- Gualala River Polygon
- THP Boundary
- Private Seasonal Road
- Private Permanent Road
- Public Permanent Road
- Proposed Seasonal Road
- CCCSTA
- CCCSTA Landing

- CCCSTA Skid Trail
- Appurtenant Skid Trail
- WLPZ Skid Trail
- Steep Slope Skid Trail





Copper Top THP

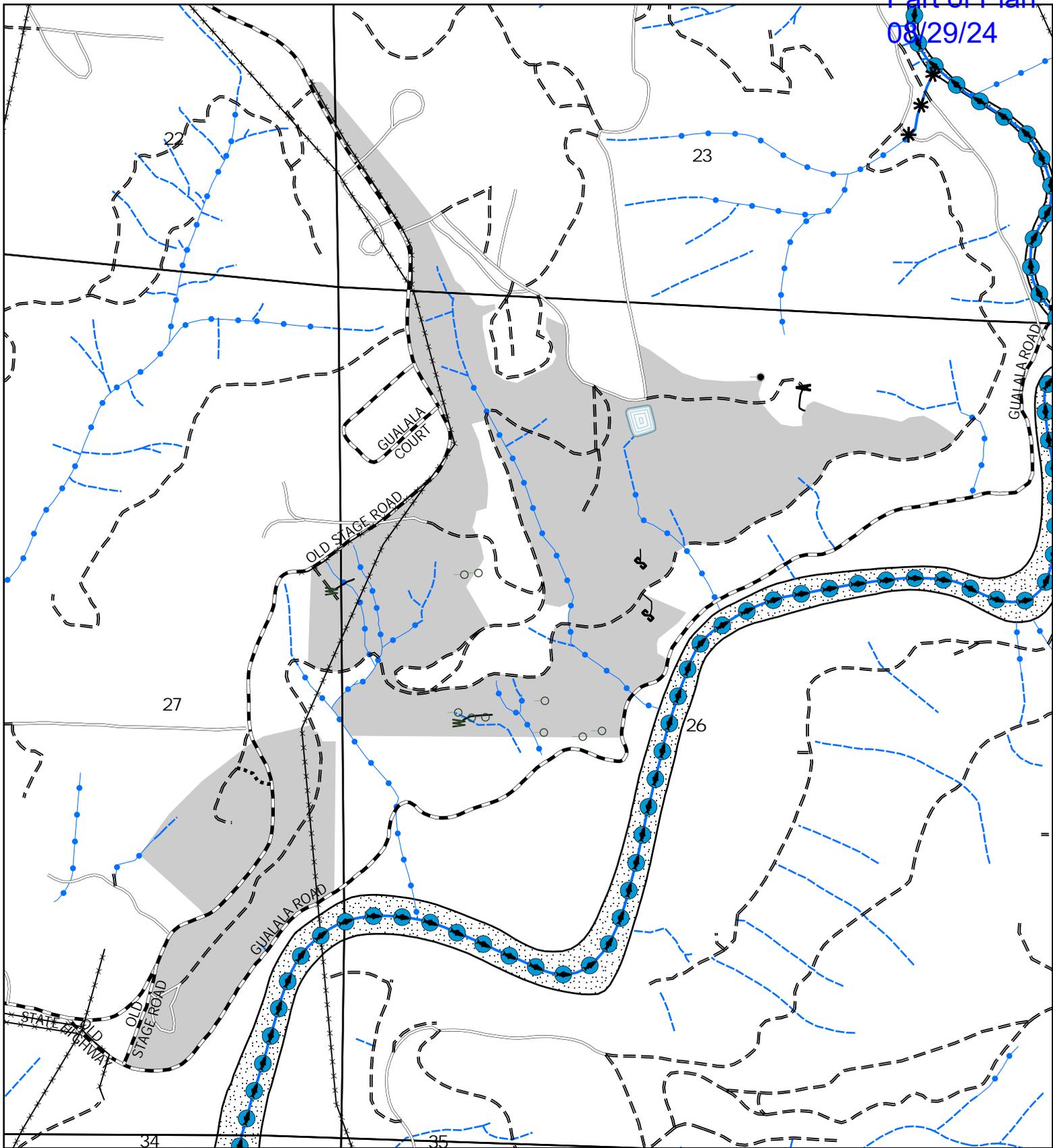
FPZ Map

Refer to Sec. II
Item 30

Portions of:
T11N R15W Sec 22,
23, 26, & 27

Scale: 1:10,000

- | | | |
|-----------------------|------------------------|--------------------|
| Class I Watercourse | THP Boundary | Structure near THP |
| Class II Watercourse | Private Seasonal Road | CCCSTA Road FPZ |
| Class III Watercourse | Private Permanent Road | Standard Road FPZ |
| CII Wet Area | Public Permanent Road | |
| Wet Areas | Proposed Seasonal Road | |
| Retention Ponds | CCCSTA | |
| Gualala River Polygon | Gate | |



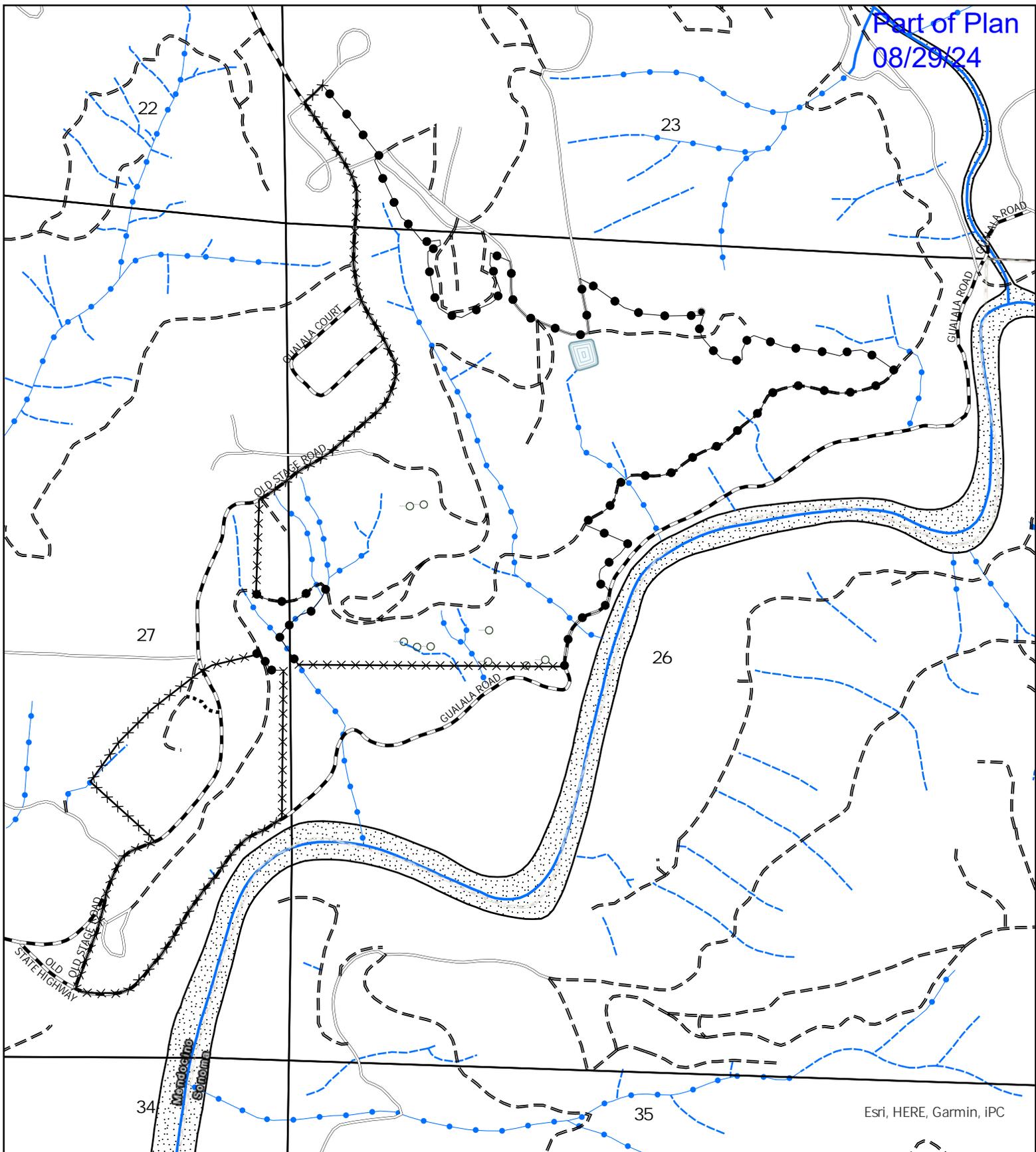
Copper Top THP
Hydrology Map

Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:10,000
Contour Interval: 40 ft.

- Class I Watercourse
- Class II Watercourse
- - - Class III Watercourse
- CII Wet Area
- Wet Areas
- Retention Ponds
- Gualala River Polygon

- THP Boundary
- - - Private Seasonal Road
- Private Permanent Road
- - - - - Public Permanent Road
- Proposed Seas. Road
- - - - - Utility Line

- Salmonid Habitat**
- * * * Possibly Restorable
 - ● Spawning- Rearing
 - ▲ Appurtenant Skid Trail
 - W WLPZ Skid Trail
 - S Steep Slope Skid Trail



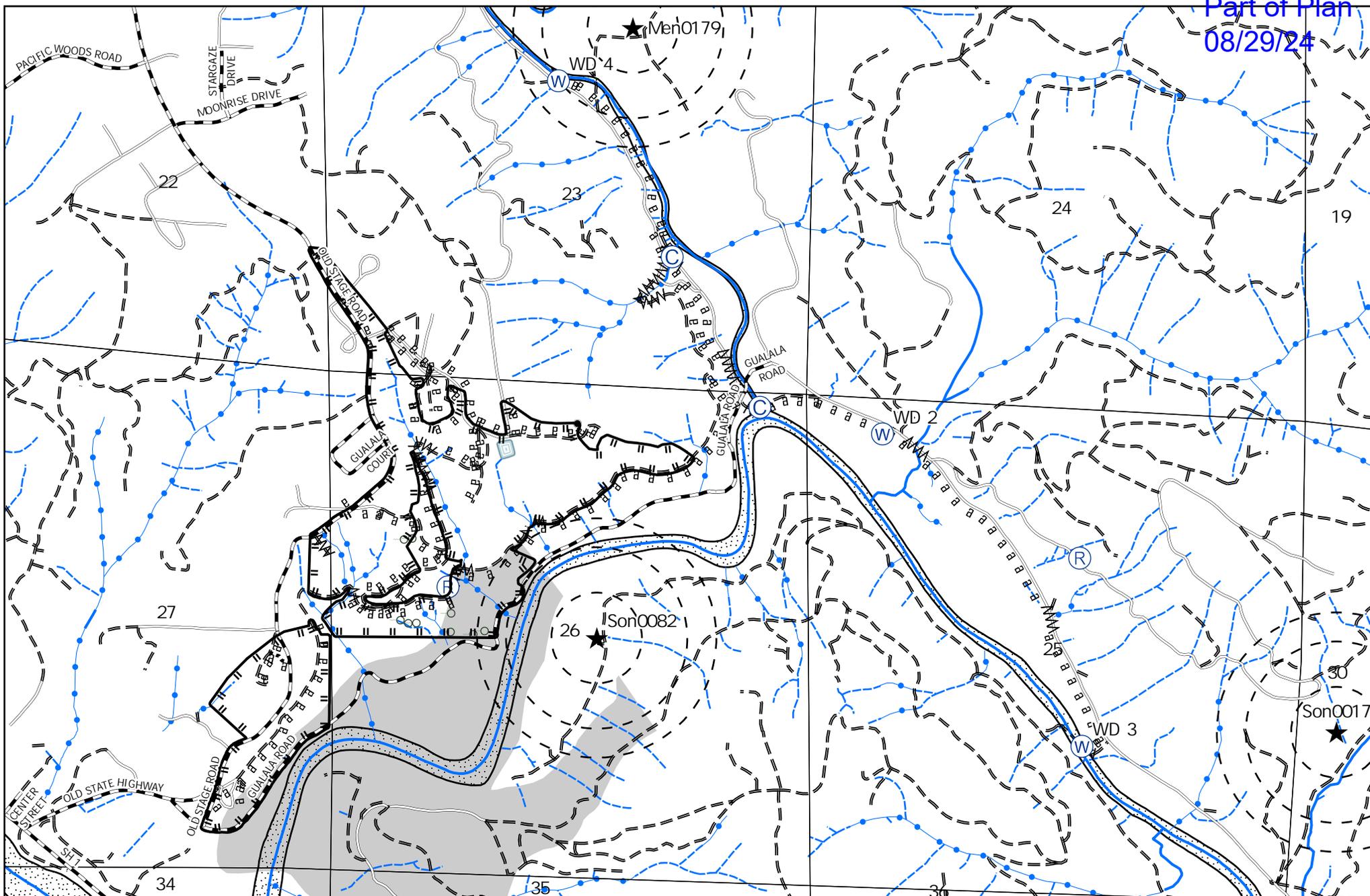
Esri, HERE, Garmin, iPC

Copper Top THP
Property Lines Map
Overview
 Portions of:
 T11N R15W Sec 22,
 23, 26, & 27
 Scale: 1:10,000
 Contour Interval: 40 ft.

- Class I Watercourse
- - - - - Class II Watercourse
- - - - - Class III Watercourse
- CII Wet Area
- Wet Areas
- Retention Ponds
- Gualala River Polygon

- Private Seasonal Road
- Private Permanent Road
- Public Permanent Road
- Proposed Seasonal Road

- THP Boundary Type**
- Internal THP Boundary
 - ×××× THP & Property Boundary



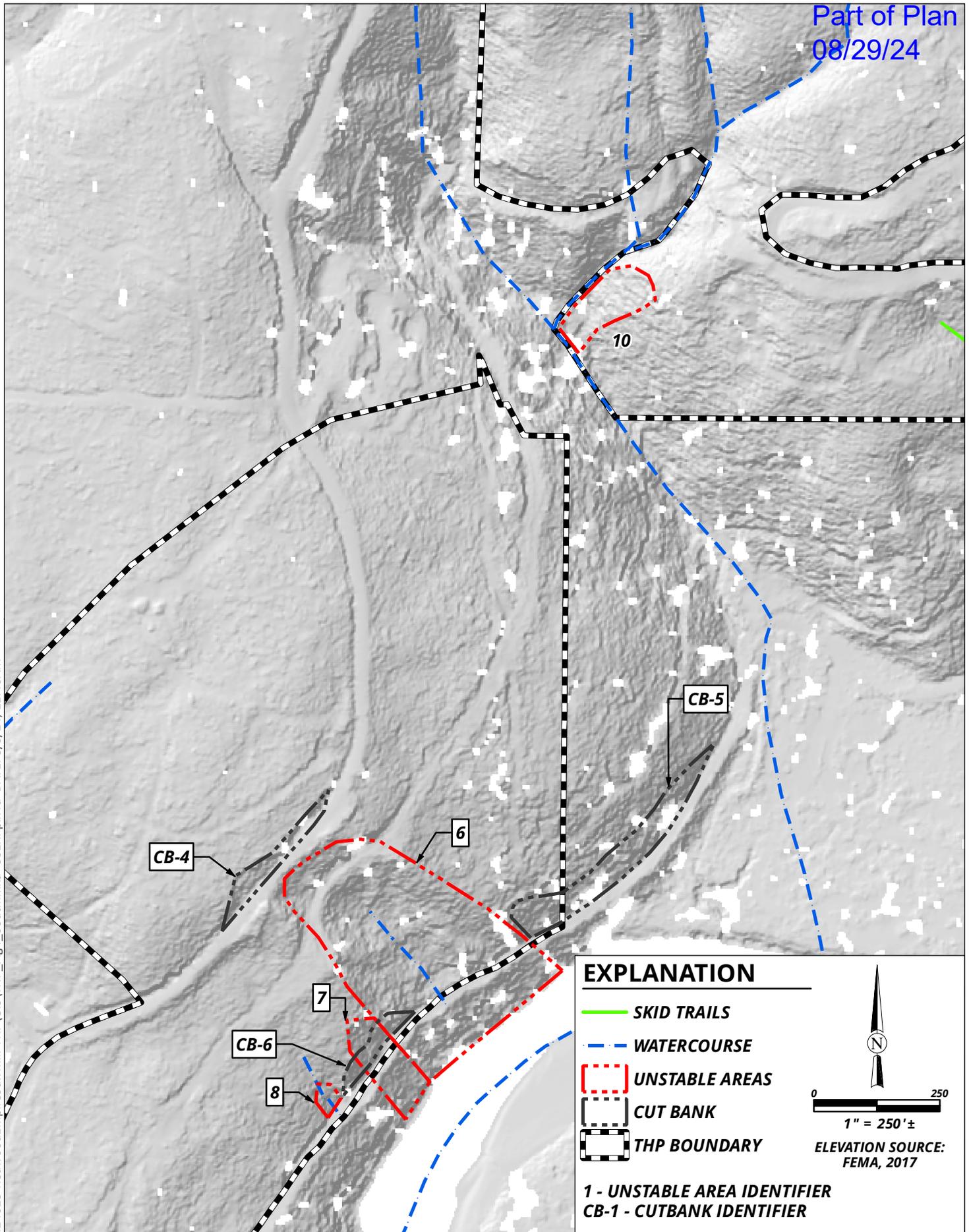
**Copper Top THP
Appurtenant Road Map**
Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:17,000

- | | | |
|-----------------------|------------------------|------------------------|
| Class I Watercourse | Retention Ponds | Private Permanent Road |
| Class II Watercourse | Gualala River Polygon | Appurtenant Road |
| Class III Watercourse | Public Permanent Road | WLPZ Appurtenant Road |
| CII Wet Area | Proposed Seasonal Road | Rock Pit |
| Wet Areas | Private Seasonal Road | Water Drafting |

- | | |
|---------------------|---|
| CCCSTA | NSO Buffers:
500 ft, 1,000 ft
and .25 Miles |
| NSO Activity Center | Class I Crossing (Appurtenant) |

RECEIVED 8/29/2024
COPPER TOP AREA OFFICE
RESOURCE MANAGEMENT

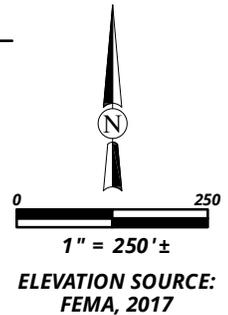
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EXPLANATION

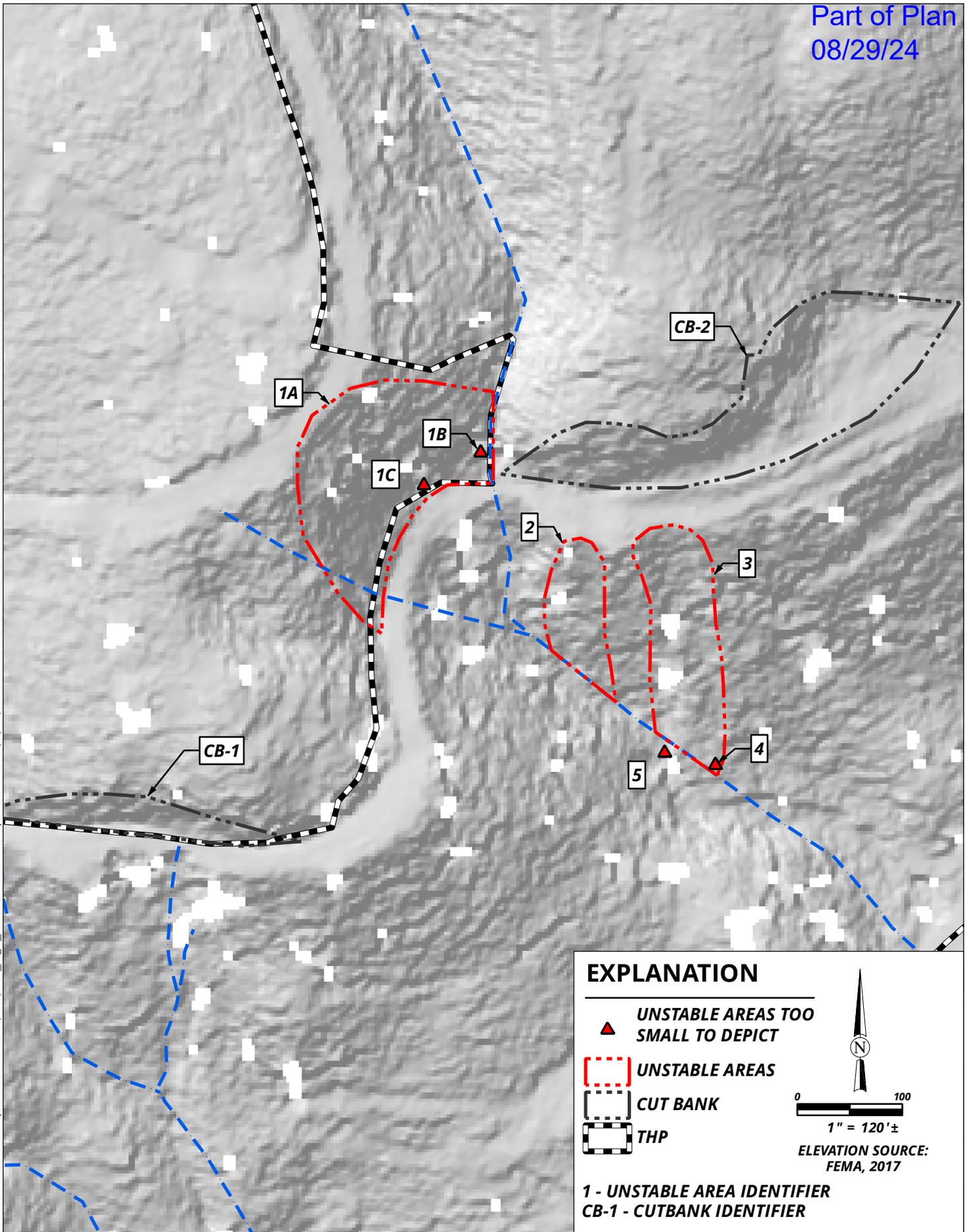
-  SKID TRAILS
-  WATERCOURSE
-  UNSTABLE AREAS
-  CUT BANK
-  THP BOUNDARY

1 - UNSTABLE AREA IDENTIFIER
 CB-1 - CUTBANK IDENTIFIER



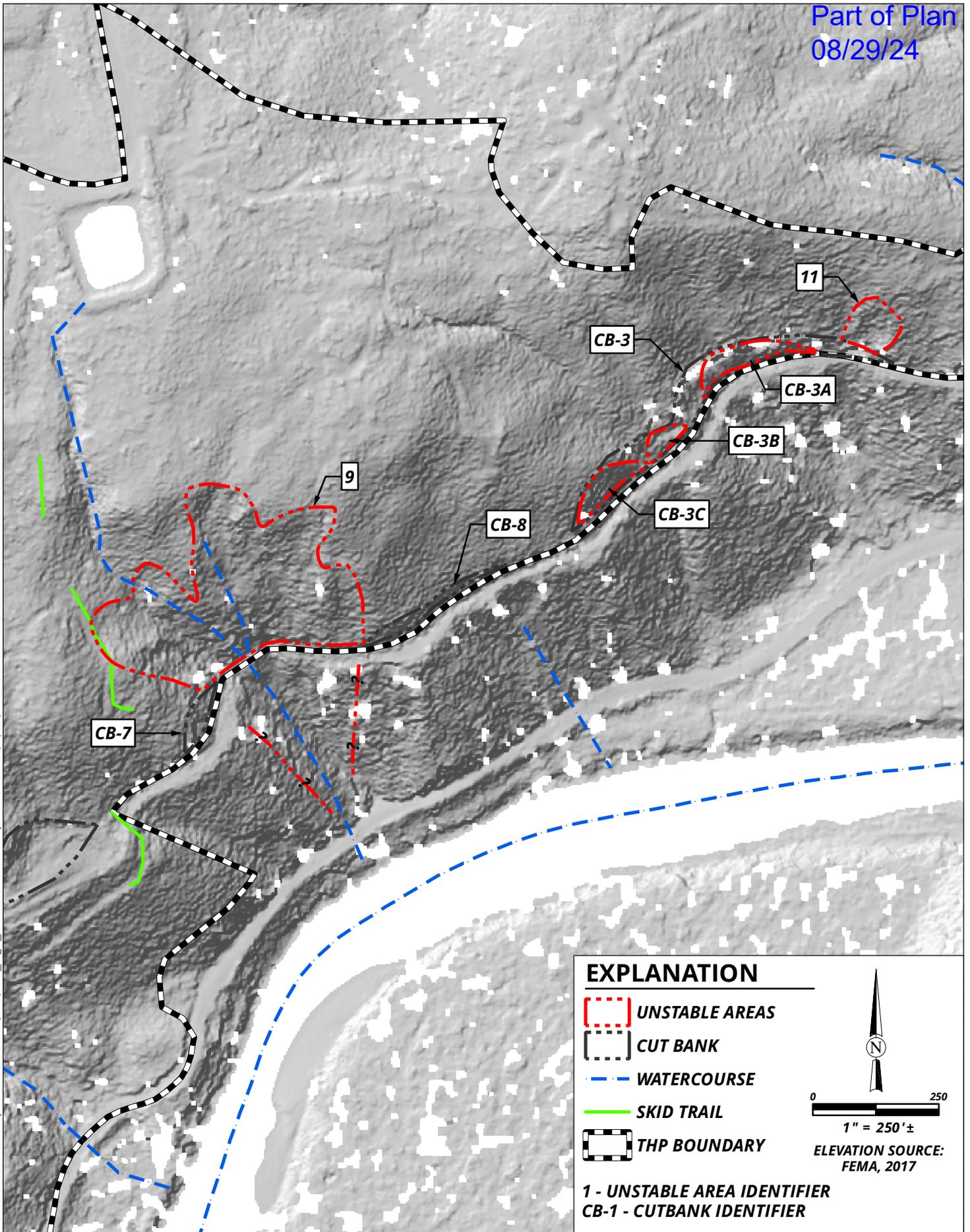
Redwood Empire Sawmill
 Copper Top THP
 Gualala, CA

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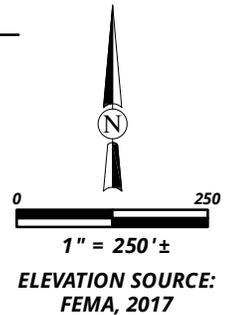
Redwood Empire Sawmill
Copper Top THP
Gualala, CA

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EXPLANATION

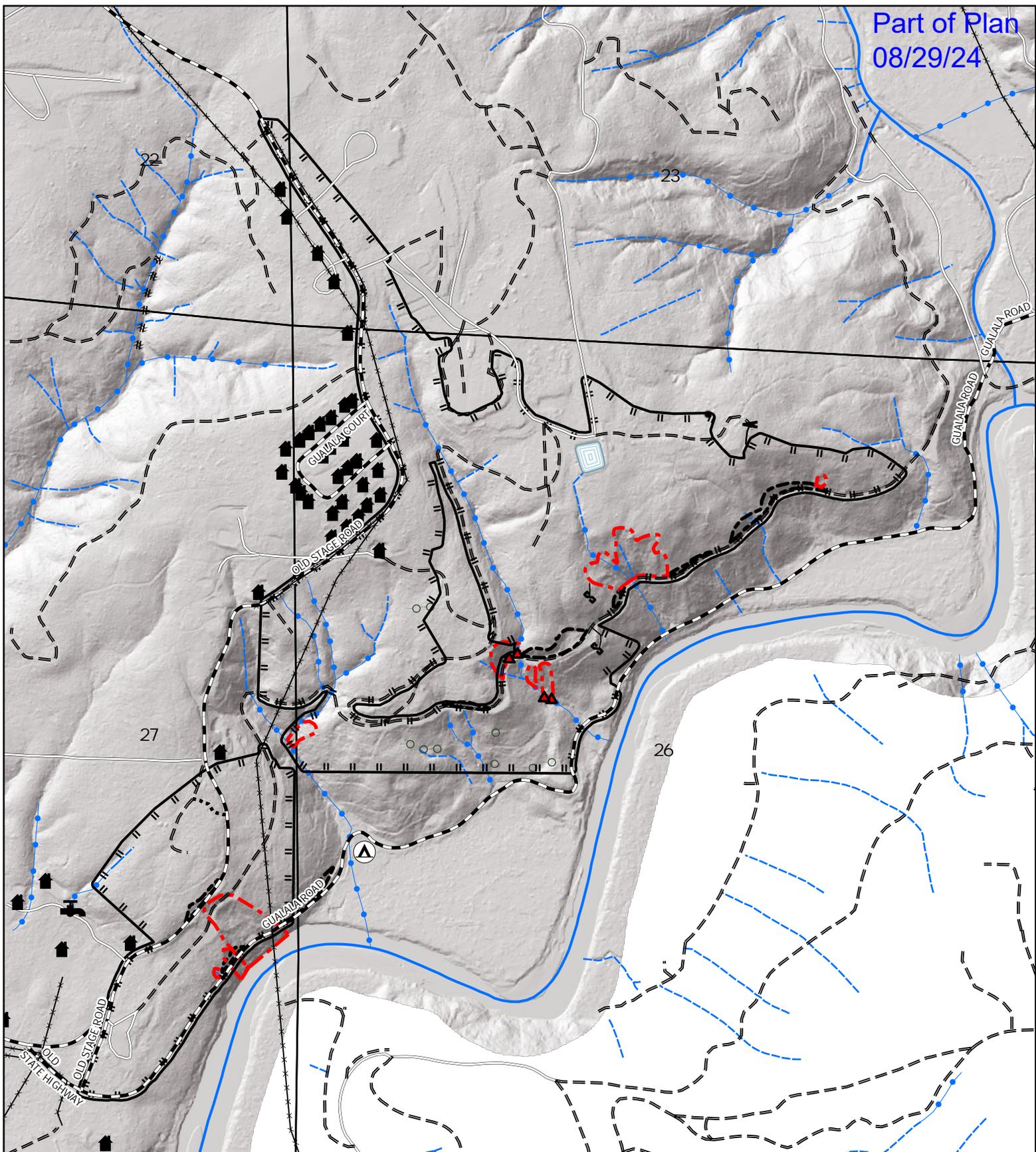
-  UNSTABLE AREAS
-  CUT BANK
-  WATERCOURSE
-  SKID TRAIL
-  THP BOUNDARY



1 - UNSTABLE AREA IDENTIFIER
CB-1 - CUTBANK IDENTIFIER



Redwood Empire Sawmill
Copper Top THP
Gualala, CA



**Copper Top THP
Public Safety Map**

Portions of:
T11N R15W Sec 22,
23, 26, & 27
Scale: 1:10,000

- Class I Watercourse
- Class II Watercourse
- - - Class III Watercourse
- CII Wet Area
- Wet Areas
- Retention Ponds
- THP Boundary

- Private Seasonal Road
- Private Permanent Road
- Public Road
- Proposed Road
- Domestic Water Intake
- Appurtenant Skid Trail
- Steep Slope Skid Trail
- Utility Line

- Cut Bank Failure
- Unstable Areas
- ▲ Unstable Areas Too Small to Depict
- Structure
- ▲ Campground

Table of Unstable Areas in Copper Top THP with Prescriptions

LANDSLIIDE LABEL	FAILURE MODE	ACTIVITY STATUS	SEDIMENT DELIVERY	STREAM CLASS	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
1c	DS	AS/DH	N	-	PL	Straight and leaning trees, ~3' headscarp, subdued but hollowed, edge of road, 100% slope	Outside of THP, above skid trail
1b	DS	AS	Y	II	SS	Along creek, 20' high, 25' wide, rock exposed in headscarp, 1-2' thick	Outside of THP, along creek
1a	DS	DH	Y	II	RCB	Above skid trail, ~150' high/wide, pampas grass, 1-2' thick, 100-140% slope	Outside of THP, above skid trail
2	DFTT	DH	Y	II	RLF/PL/SS	Below landing to creek, 1-2' thick, hollowed, young trees growing within slide	100 sq-ft basal retention, 25 ft buffer, No Cut in WLPZs
3	DS	DH	Y	II	RLF/PL/SS	Below landing to creek, 8-10' thick, hollowed, subdued side scarps, straight trees growing	100 sq-ft basal retention, 25 ft buffer, No Cut in WLPZs
4	IG	AS	Y	II	IGS	5' high, 20' wide, along creek, within feature 3	No Cut, 25 ft buffer
5	DS	AS	Y	II	SS/IG	20-25' high, 30' wide, 2-3' thick, rock exposed in headscarp	Within Inner Core Zone. No Cut, 25 ft buffer
6	LS	AS/DH	Y	I	PL/ST/RRF	5' thick, DH at headscarp, no bare soils, feature extends above skid trail to fill along downslope edge of fill. AS/DH at Guala Road where leaning trees are abundant, some active erosion along road due to cut made for road and for maintenance. No recent movement below road (outside of THP).	100 sq-ft basal retention, 25 ft buffer, No Cut in WLPZs, NO Cut within 100 ft of Gualala Road
7	DS	A/AS	Y	I	PL/RCB	60' wide, 40' tall above road, 5' thick, rock exposed in headscarp, pampas grass, cutbank along base.	No Cut, 25 ft buffer
8	DS	DH	N	-	RCB	Extends above cutbank, 20' wide, 70' high, 3' deep, surrounds watercourse, pampas grass.	No Cut, 25 ft buffer

Table of Unstable Areas in Copper Top THP with Prescriptions

LANDSLIIDE LABEL	FAILURE MODE	ACTIVITY STATUS	SEDIMENT DELIVERY	STREAM CLASS	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
9	LS/DS/Dss = IG	DH	Y	I/II	PL/ST	Converging, coalescing slope failures (debris slide slopes, translational and rotational landslides, and debris slides), lateral boundaries and headscarps generally subdued in field, no activity at headscarps. Features 5-8' thick, straight redwood trees present. Steep slope. Cutbank along base for road.	100-sq-ft basal retention in upper 125 feet of feature (slope distance as measured from STZ flag in field), No Cut below 125 feet, No Cut in WLPZs 25 ft buffer
10	DS	DH	Y	II	PL/ST	2-3' thick, crooked trees, minimal trees, subdued shape	100 sq-ft basal retention, 25 ft buffer, No Cut in WLPZs
11	DS	DH	N	-	RCB	East edge of cutbank, extends upslope, straight trees, no bare soils	100 sq-ft basal retention, 25 ft buffer, No Cut in WLPZs

*basal retention refers to both hardwood and conifers

**no cable yarding within unstable areas

Table of Cutbanks in Copper Top THP with Prescriptions

CUTBANK LABEL	FAILURE MODE	ACTIVITY STATUS	SEDIMENT DELIVERY	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
CB-1	-	-	N	SK/RCB	Rock (sandstone and claystone) interbeds in cut, 35' high	Outside of THP
CB-2	-	-	N	PL/SK/RCB	Rock (sandstone) exposed, quarry pit, 30' high, no trees, material quarried stockpiled at base of cutbank and on landing	100 sq-ft basal retention and No Cut in WLPZs
CB-3*	-	-	N	PL/RCB	Along road, up to 40' high, vegated with trees and shrubs, cutbank failures within cutbank CB-3 described in detail below and delineated on maps	100 sq-ft basal retention and No Cut in WLPZs, 25 ft buffer, applies to entire area within cutbank (CB-3)
CB-3a*	LS	AS/DH	N	RCB/SK	23' high, failure contained within cutbank boundares, distinct headscarp, vegetated	
CB-3b*	LS	AS/DH	N	RCB/SK	28' high, hummocky slide mass, vegetated	
CB-3c*	LS	AS/DH	N	RCB/SK	40' high, distinct scarp, vegetated	
CB-4	-	-	N	RCB	Along road, 13' high, few trees, minimal trees	100 sq-ft basal retention and No Cut in WLPZs
CB-5*	DS	AS	N	RCB	Along road, leaning trees, native soil exposed, few trees, minor sloughing and unraveling	No Cut with 25 ft buffer

Table of Cutbanks in Copper Top THP with Prescriptions

CUTBANK LABEL	FAILURE MODE	ACTIVITY STATUS	SEDIMENT DELIVERY	GEO ASSOCIATION	ROAD TYPE & ADDITIONAL NOTES	RX RECOMMENDATION
CB-6*	DS	AS	N	RCB	Along road, leaning trees, native soil exposed, extends through unstable features, few trees, minor sloughing and unraveling	No Cut with 25 ft buffer
CB-7	-	-	N	RCB	Few straight small trees, along road	100 sq-ft basal retention and No Cut in WLPZs
CB-8	-	-	N	RCB	Along road	100 sq-ft basal retention and No Cut in WLPZs

*denotes failure observed on cutbank face

**reference to basal retention refers to both hardwood and conifers

***no cable yarding on cutbanks

GENERAL GEOLOGIC RECOMMENDATION

- All mapped cutbanks and unstable areas are designated as equipment exclusion zone (EEZ), unless otherwise specified within the THP.
- For public safety measures, a setback of 50 feet from residential structures, excluding the GRT Office, is proposed. No harvesting is permitted within this zone.
- If soil is moved reopening of roads, the material should not be placed as sidecast fill; soils should be hauled to a stable storage area.

Notification Information List Pursuant to Fish and Game Code Section 1611

IMPORTANT: In order to facilitate processing of Streambed Alteration Notifications via Fish and Game Code (FGC) Section 1611, the Department of Fish and Game (Department) recommends all information requested below be attached in Item 26(d) of Timber Harvesting Plans (THP's) in Sections II or III, as appropriate. In accordance with FGC Section 1611, the Department is not required to process the notification until the THP and the notification fee have been received by the Department. Please send the notification fee directly to the appropriate Department regional office.

Please provide the following information for notification of Lake or Streambed Alteration Activities in accordance with the "Guidelines for Lake or Streambed Alteration Notification via Timber Harvesting Plans".

1. Basic data, including all the following: Please Refer to Section I of this plan. The contact person is the same as the plan submitter.

a) The name of each lake and the name and watercourse classification of each stream the lake or streambed alteration activities will affect, including the nearest downstream watercourse or waterbody.

Map Point	Feature	Tributary to	Lattitude	Longitude	Legal, All MDBM
4	Class III Watercourse Crossing(WC)	Gualala River	38.77498N	123.503006W	T11N R15W Sec 26
8	Class III WC	Gualala River	38.773187N	123.510773W	T11N R15W Sec 26
9	Class II WC	Gualala River	38.777233N	123.512281W	T11N R15W Sec 26
11	Class III Tractor Crossing(TC)	Gualala River	38.774236N	123.51346W	T11N R15W Sec 26
17	Class II Temporary WC	Gualala River	38.781686N	123.503759W	T11N R15W Sec 23
20	Class II TC	Gualala River	38.77411N	123.515478W	T11N R15W Sec 26
21	Class III TC	Gualala River	38.776098N	123.508986W	T11N R15W Sec 26
22	Other- Wet Area skid trail above head of CIII	Gualala River	38.771854N	123.512883W	T11N R15W Sec 26
23	Class II WC	Gualala River	38.773475N	123.510402W	T11N R15W Sec 26
26	Class III WC	Gualala River	38.77251N	123.511639W	T11N R15W Sec 26

670	Class I WC- Temporary Bridge	Gualala River	38.778448N	123.498984W	T11N R15W Sec 26
Water Drafting Sites					
WD 2	Spring	N/A	38.777287N	123.493605W	T11N R15W Sec 25
WD 3	Off Channel Sump(Class I)	SF Gualala	38.768228N	123.486088W	T11N R15W Sec 25
WD 4	Off Channel Sump(Class I)	North Fork Gualala	38.788261N	123.506721W	T11N R15W Sec 23

- a) A single map or diagram clearly showing all the following:
- i. All lake and stream encroachments, with a number or other appropriate identifying label.
 - ii. All roads, with a number or other appropriate identifying label
 - iii. All watercourse classifications (i.e., Class I, II, or III).
 - iv. Access from a named public road.
 - v. A north arrow and scale.

Please refer to the end of Section II for the THP Map Points and Features Map and Appurtenant Roads Maps.

- b) A description of the types of lake or stream encroachments the applicant intends to construct, install, use or remove (e.g., a corrugated metal pipe, "Humboldt" crossing, impoundment for water diversion, water drafting sites, bank stabilization, rocked ford, bridge, etc.), and whether they will be temporary or permanent. If multiple lake or stream encroachments are proposed, the applicant should include a table that describes each type of encroachment (e.g., permanent culvert, temporary bridge, rock revetment, etc.), watercourse classification, culvert size and encroachment map reference number.

Please refer to the Map Points Table in Section II, Item 38 of this THP document.

- c) A description of the fish and wildlife and botanical resources the work could adversely affect, including riparian resources and special status species (i.e., species listed under the California Endangered Species Act ("CESA") and/or the federal Endangered Species Act ("ESA"), species fully protected under state law, and/or species of special concern). If the work could adversely affect any listed species, the applicant should indicate whether consultation under CESA or ESA has commenced and if so, the current status of the consultation. Applicant should also provide the biological opinion, as applicable.

Northern Spotted Owls are known to occur within or near the project area. Coho salmon and steelhead trout are known to occur throughout the Gualala River watershed. A floristic survey will be completed and amend into Section V prior to operations. Please refer to the THP Sections 2 and 3, Item 32 for additional information concerning wildlife and botanical resource issues.

- d) Indicate if the work takes place in, adjacent to, or near a river that has been designated as "wild and scenic" under state or federal law.

Map Point 670(Bridge installation) is visible from a Wild and Scenic River(Gualala River Mainstem). This seasonal bridge installation is a routine occurrence.

1. Information about each lake and stream encroachment, including the following:

- a) Construction plans, including specific details, cross sections, and dimensions.

Please refer to the Map Points Table in Item 24 of Section II.

- b) If water will be present and diversion of flow around the work site is necessary, the volume of water to be diverted and the method of diversion.

Stream flow is not anticipated during crossing installations for all crossings except Map Point 670. Most crossings are on Class III Watercourses that remain dry during summer months. If water is present, a coffer dam, water pump, and hose will divert any stream flow present during Map Point work. Installation of the temporary bridge at MP 670 may necessitate equipment entering the wetted channel, protections are expected to be consistent with Final Lake or Streambed Alteration Agreement, Notification No. 1600-2022-0004-R3, Holly THP.

- c) If water drafting is proposed, provide drafting site information (i.e. estimated volume, drafting rate, timing, etc.). Indicate if the activity will be done pursuant to a water right application or permit.

The estimated volume per day is 10,000 gallons. Water drafting may occur between April 1st and November 15th. These parameters are only applicable to the stated sites for the duration of this LSAA.

Water Tanks

If water tanks are in place, it is anticipated it will take 12 to 48 hours to fill 10,000 gallons in tanks. It is estimated that ~10,000 gallons/day may be needed for dust abatement from water truck and/or tank drafting.

- d) The materials (e.g., soil, sand, gravel, ¼- to ½-ton rip-rap, large wood, etc.) and volumes that will be used for and/or removed from the lake or stream encroachment, the dimensions of the area to be excavated and the dimensions of the area to be filled.

Map Point	Material Removed (Yds Fill)	Material Added (Yds Fill)	Comment
4	0	0	Class III Watercourse Crossing(WC)
8	3	3	Class III WC
9	3	3	Class II WC
11	1	0	Class III Tractor Crossing(TC)
17	4	4	Class II Temporary WC
20	1	1	Class II TC
21	1	1	Class III TC
22	0	0	Other- Wet Area skid trail above head of CIII
23	1	1	Class II WC
26	1.5	1.5	Class III WC
670	0	0	Class I WC- Temporary Bridge
Water Drafting Sites			

WD 2	0	0	Spring
WD 3	3	0	Off Channel Sump(Class I)
WD 4	3	0	Off Channel Sump(Class I)

- e) Specify the type of equipment to be used.

Excavator, crawler tractor, and dump truck for watercourse crossings. Water truck and excavator for water drafting.

- f) Proposed work periods including the date or conditions requiring temporary crossing removal.

If dry: April 1 through November 15. If wet: May 15 through October 30.

- g) The species composition and density of vegetation to be removed or disturbed as a result of lake or streambed alteration activities. Indicate if sensitive plant surveys have been completed within areas which will be affected by lake or stream encroachments. Include any plans to restore the affected riparian or hydrophytic vegetation.

Small amounts of vegetation within and around crossing upgrades. A floristic survey will conducted and can be found in Sec V.

- h) Mode of impact to fish, wildlife and botanical resources (i.e., changes in sediment and/or flow delivery rates, dewatered or impounded watercourses, destabilized stream banks, erosion causing sediment deposition, changes to or elimination of riparian vegetation, reduced canopy effects on microclimate and/or water temperature, etc.).

Direct disturbance will be limited to the project vicinities. Significant changes in flow, stream volume, bank stability, reduced riparian vegetation, canopy reduction, and water temperature increase are not anticipated with crossing upgrade activities.

- i) Measures included to protect fish, wildlife and botanical resources (i.e., avoidance measures, sediment control measures, construction time periods, methods to divert water around or away from the work site, special measures necessary to protect special-status species, a post-work action plan including measures to minimize soil erosion, revegetation, etc.).

Soil disturbance during crossing installation or removal shall be kept to a minimum necessary for maneuvering and properly installing and removing drainage structures. Water diversion around crossings will involve a pump, coffer dam, and hose to redirect water back into the watercourse channel. Bare mineral soil shall be treated as outlined in Item 18 of this document.

- j) Calculations or other data used to size culverts.

Location: THP

(Enter data in fields with red-colored headings. Other data fields will be calculated automatically.)

Magnitude and Frequency Method for 100-year flood flow (A > 50 acres)

No.	Crossing	Area (acres) A	maximum elevation n	Crossing elevation (ft)*	Area (mi ²) A	Annual Precipitation (in/yr)	Average Basin Elevation H	100-yr flood flow Q ₁₀₀ (cfs)			
								Coast ⁽¹⁾ (NC)	Sierra ⁽²⁾ (S)	North-east ⁽³⁾ (NE)	Central Coast ⁽⁴⁾ (C)
1	8	0.5	400	320	0.001	50	360	0.9	1.2	1.7	1.3
2	9	22	640	520	0.034	50	580	23.1	28.2	27.1	31.7
3	23	33.5	640	320	0.052	50	480	33.2	42.7	36.9	45.1
4	26	1	400	310	0.002	50	355	1.6	2.1	2.8	2.4
5					0.000	50	0	0.0	###	0.0	0.0
6					0.000	50	0	0.0	###	0.0	0.0
7					0.000	50	0	0.0	###	0.0	0.0
8					0.000	50	0	0.0	###	0.0	0.0
9					0.000	50	0	0.0	###	0.0	0.0
10					0.000	50	0	0.0	###	0.0	0.0

See below for M&F equations

Rational Method for 100-year flood flow (A < 200 acres, best < 100 acres)

No.	Crossing	T _c = 60((11.9 X L ³)/H) ^{0.385}			Q ₁₀₀ = CIA			
		length (to top of basin) L (mi)	n difference (ft) H	Concentration time (min) T _c	Runoff coefficient C	Return-Period Precipitation I* (in/yr)	Area (acres) A	100-yr flood flow (cfs) Q ₁₀₀
1	8	0.03	80	1	0.3	3.7	0.5	0.6
2	9	0.04	120	1	0.3	3.7	22	24.4
3	23	0.51	320	8	0.3	3.7	33.5	37.2
4	26	0.06	90	1	0.3	3.7	1	1.1
5			0	#DIV/0!	0.3	3.7	0	0.0
6			0	#DIV/0!	0.3	3.7	0	0.0
7			0	#DIV/0!	0.3	3.7	0	0.0
8			0	#DIV/0!	0.3	3.7	0	0.0
9			0	#DIV/0!	0.3	3.7	0	0.0
10			0	#DIV/0!	0.3	3.7	0	0.0

Magnitude & Frequency Q₁₀₀ equations

NC (1) Q₁₀₀ = 48.5(A)^{0.866}(P)^{0.556}
 S (2) Q₁₀₀ = 20.6(A)^{0.874}(P)^{1.24}(H)^{-0.250}
 NE (3) Q₁₀₀ = 0.713(A)^{0.731}(P)^{1.56}
 CC (4) Q₁₀₀ = 11.0(A)^{0.84}(P)^{0.994}

*Use 100-yr precipitation of duration similar to T_c or for 10 min, whichever is larger; convert to in/yr for input as "I"

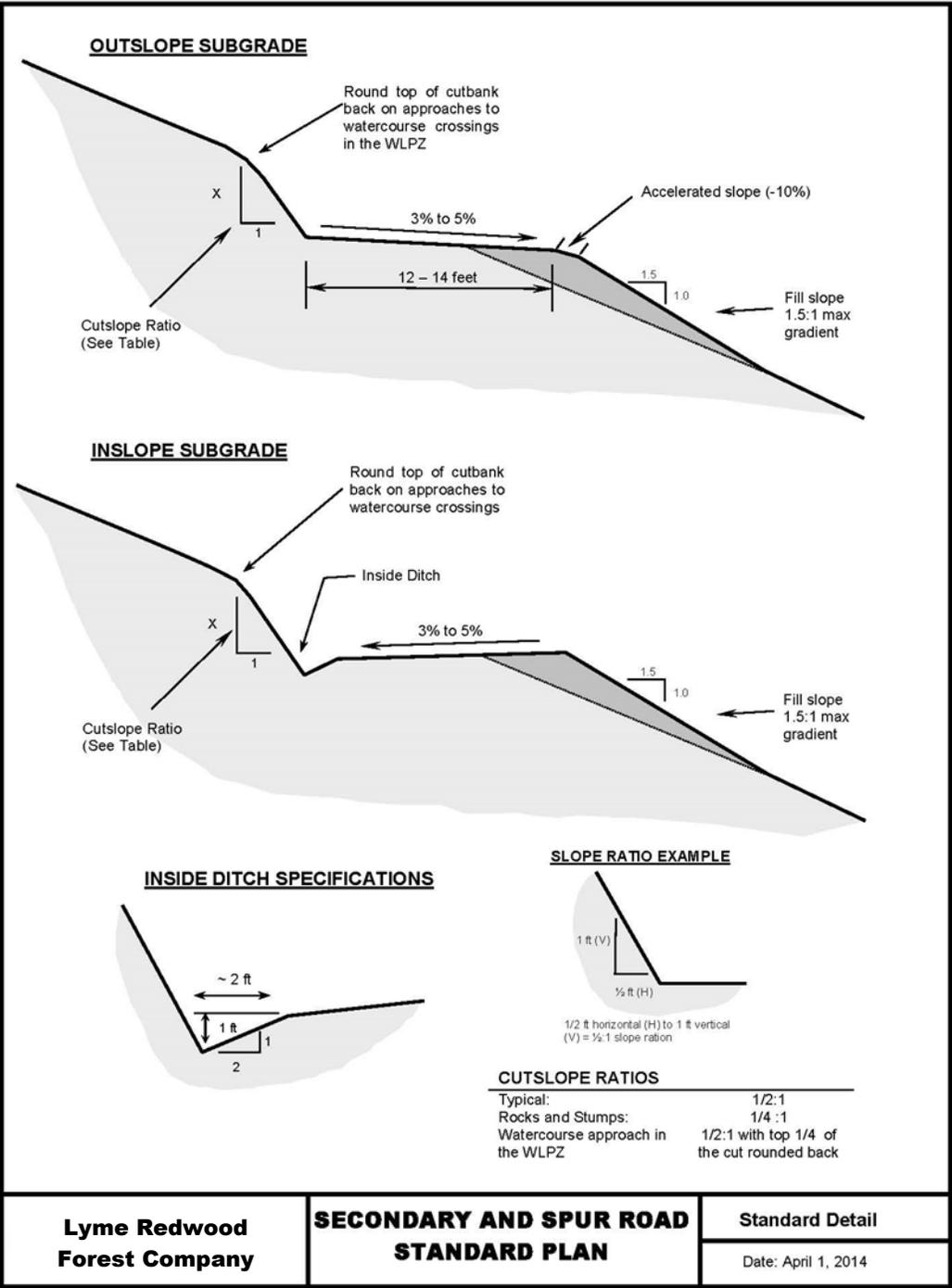
- k) For bridge installations: indicate if the abutments or road approaches will encroach into the floodplain or channel; provide the calculations or data used to determine bridge height and flow capacity; describe the type of abutments and scour protections with dimensions; provide any engineering reports or plans; etc.

Map Point 670 proposes the installation of a seasonal bridge. This bridge will be removed prior to winter period. Measures of this agreement are expected to reflect that of Final Lake or Streambed Alteration Agreement, Notification No. 1600-2022-0004-R3, Holly THP

- l) Describe any torrent, debris or landslide conditions at each encroachment.

Map Points 23 and 8 are located at the base of Unstable Area 1A which is a dormant debris slide. A description of Unstable Area 1A may be found in the Geologic Evaluation of the THP.

End of the Notification Information List Pursuant to Fish and Wildlife Code Section 1611.

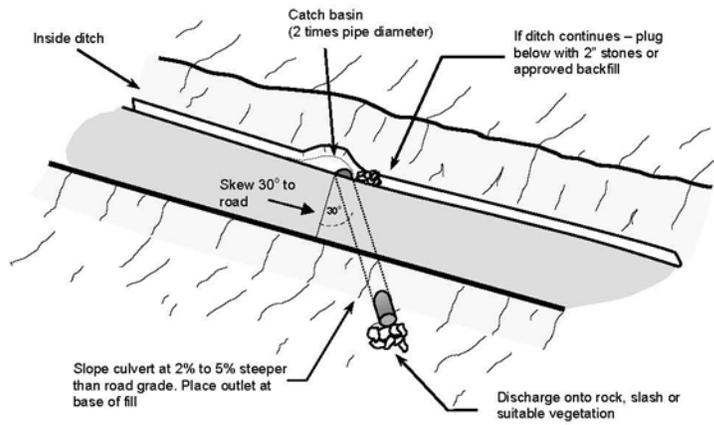


**Lyme Redwood
Forest Company**

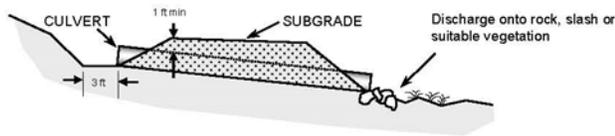
**SECONDARY AND SPUR ROAD
STANDARD PLAN**

Standard Detail

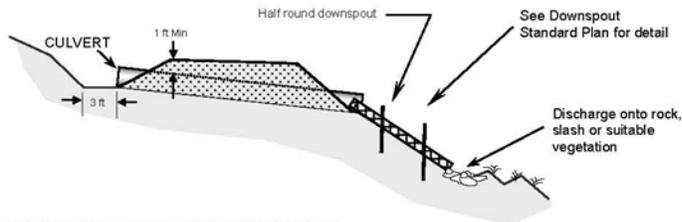
Date: April 1, 2014



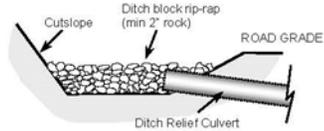
**TYPE "A" DITCH RELIEF CULVERT
(no downspout)**



**TYPE "B" DITCH RELIEF CULVERT
(with round or half round downspout)**



TYPICAL DITCH BLOCK SECTION



NOTES

- Backfill should be compacted alongside and over top of the culvert.
- Culverts should extend a minimum of 1' beyond base of road fill, or flume used to carry flow beyond fill.
- Rock, slash or suitable vegetation should be used at discharge point.

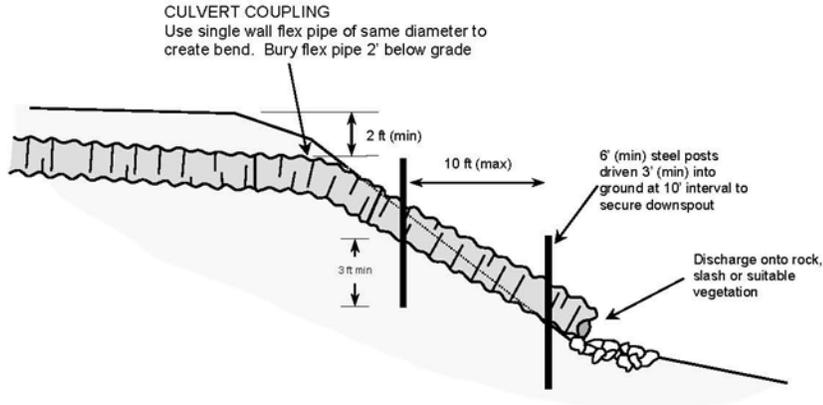
**Lyme Redwood
Forest Company**

**DITCH RELIEF CULVERT
STANDARD PLAN**

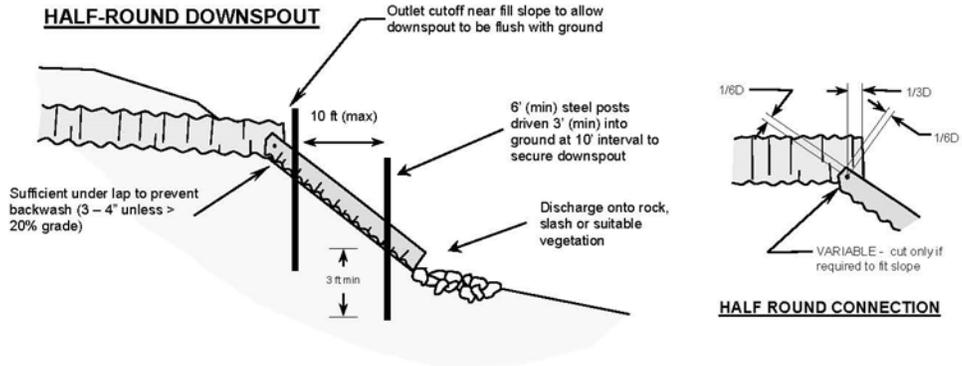
Standard Detail

Date: April 1, 2014

FULL-ROUND DOWNSPOUT

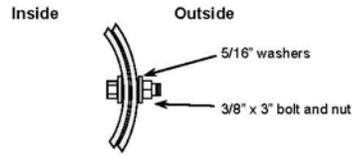
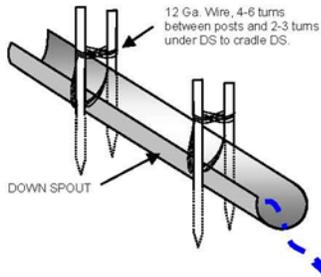


HALF-ROUND DOWNSPOUT



HALF ROUND CONNECTION

DOWNSPOUT STAKE WIRING DETAIL



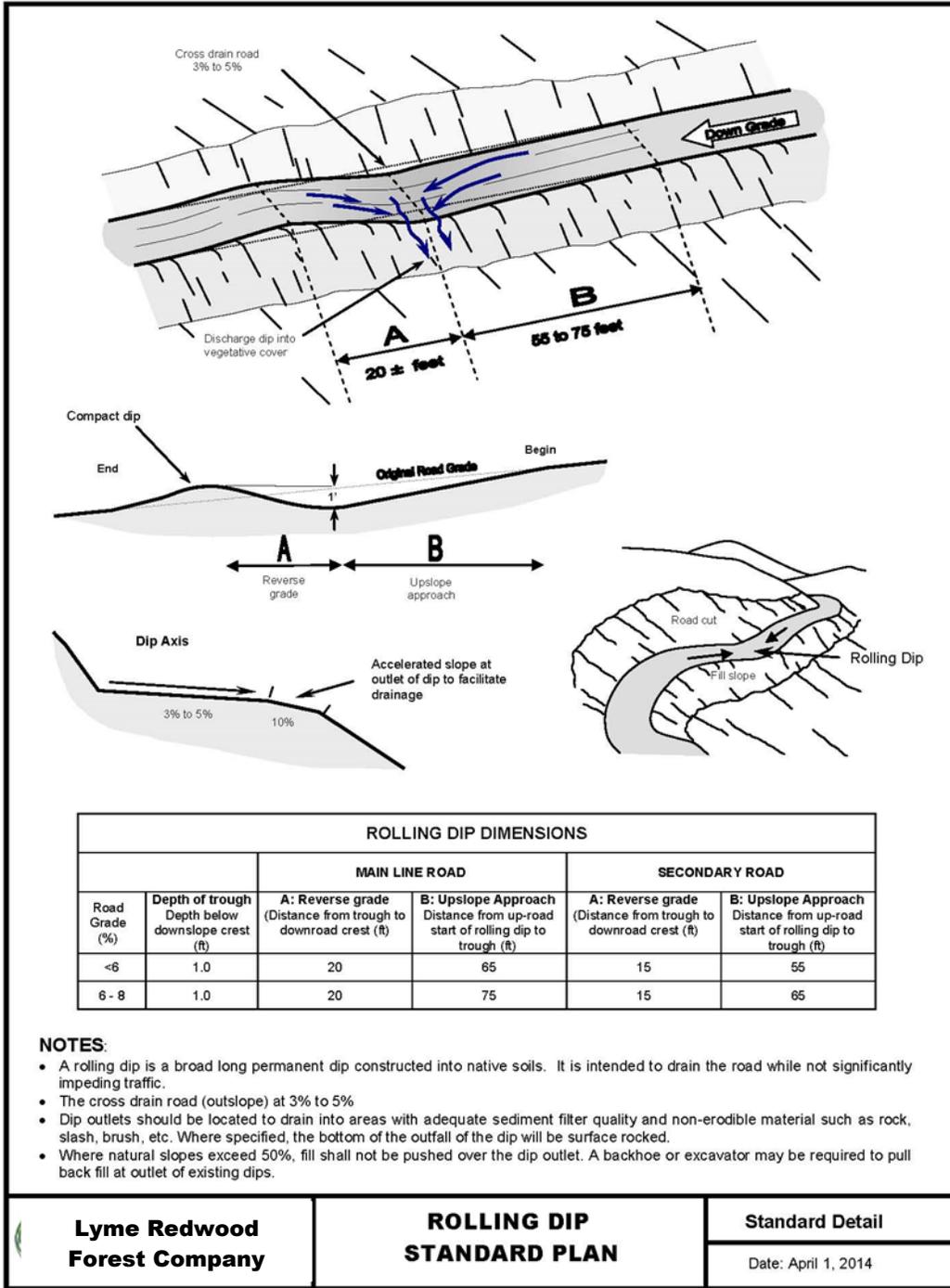
BOLT DETAIL

Lyme Redwood Forest Company

DOWNSPOUT STANDARD PLAN

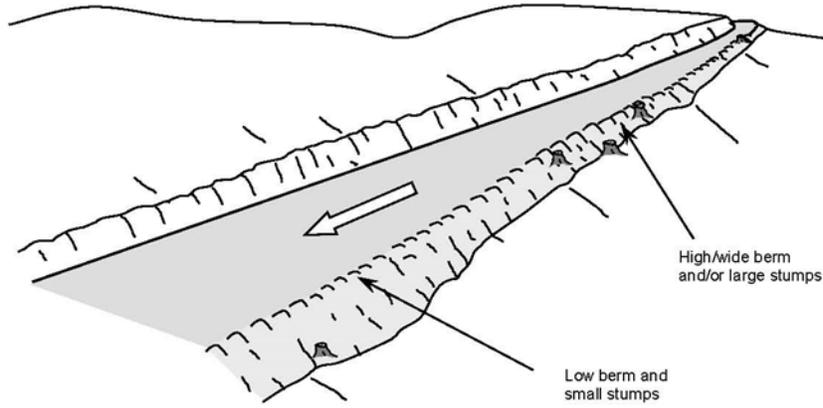
Standard Detail

Date: April 1, 2014

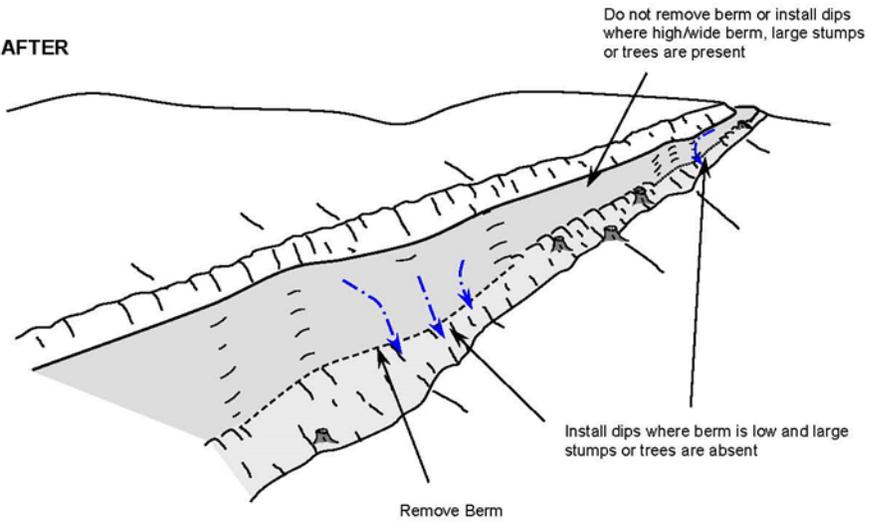


ROLLING DIP APPLICATION ON EXISTING ROADS

BEFORE



AFTER



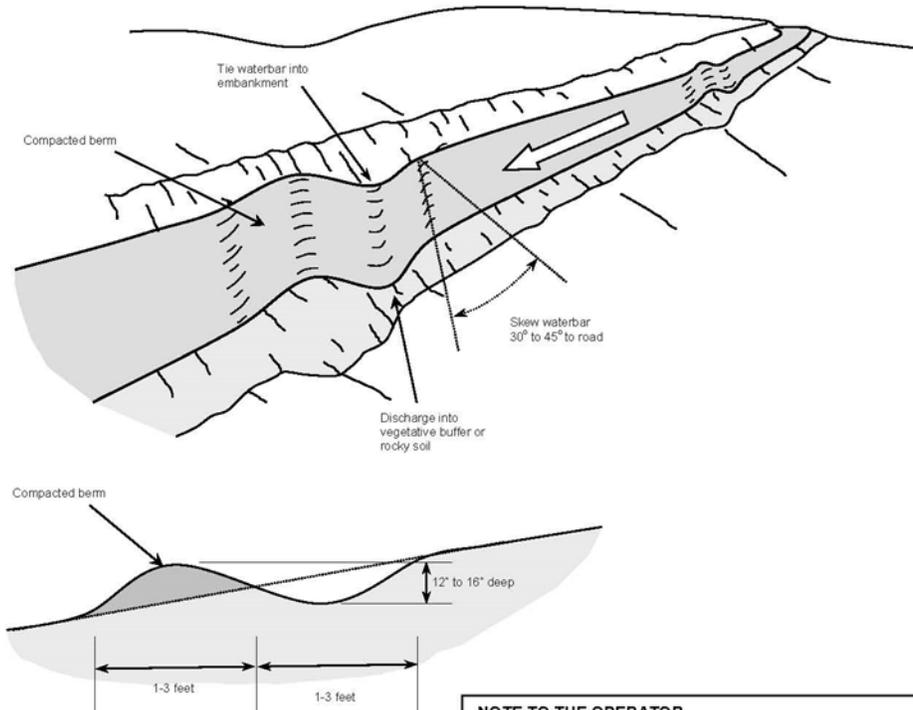
NOTE: See Rolling Dip Standard Plan for design specifications

**Lyme Redwood
Forest Company**

**ROLLING DIP APPLICATION
ON EXISTING ROADS**

Standard Detail

Date: April 1, 2014



NOTE TO THE OPERATOR

The typical and associated guidelines are intended to: (1) provide for waterbar construction and (2) provide consistent implementation on managed Timberlands. Effective drainage facilities on native surface logging roads minimize erosion, maintain the integrity of the road prism and reduces future road maintenance issues. It is understood that site-specific conditions may require deviation(s) from the typical approach. Primary considerations should be given to waterbar outlet location.

NOTES

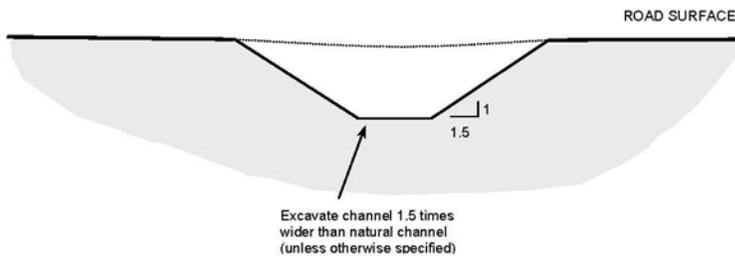
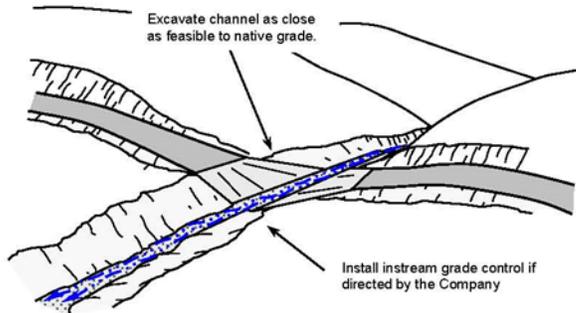
1. Identify waterbar locations that take advantage of natural drainage features and minimize the amount of disturbance required for waterbar construction
2. All waterbars shall begin at the intersection of the roadbed surface and the cut slope and run the entire width of the road surface prism.
3. Waterbar length shall not exceed 1.5 times the width of the road surface.
4. Acceptable waterbars shall be skewed 30 to 45 degrees.
5. All waterbars shall have free flowing outlets with minimum 2% grade in the bottom of the channel that discharge onto vegetative surfaces or less erodible material where possible.
6. Native materials used to construct downslope berm shall be compacted with equipment to minimize wear resulting from trespass and/or administrative use.
7. Waterbar depth measured from the bottom of the waterbar channel to the top of the compacted berm must be between 12" and 16" high.
8. Compacted waterbars must be passable in a 4WD vehicle unless otherwise specified in the contract or by a logging supervisor in writing.

**Lyme Redwood
Forest Company**

**WATERBAR
STANDARD PLAN**

Standard Detail

Date: April 1, 2014

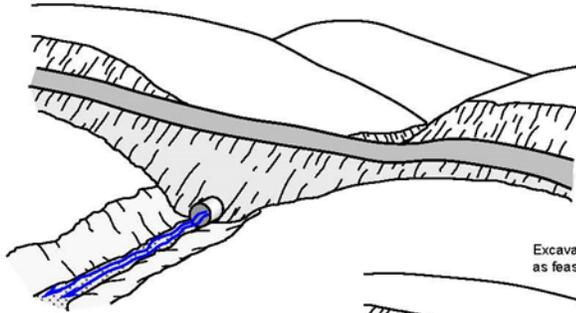


NOTES

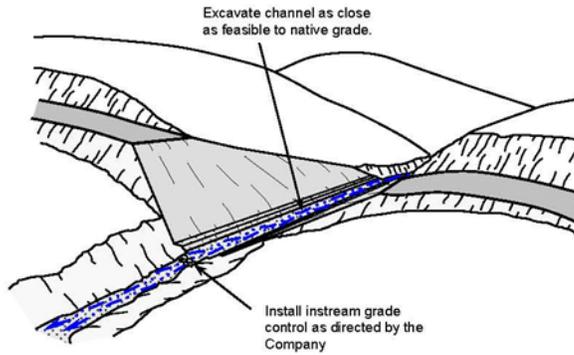
1. Excavate a channel that is 1.5 times wider than the natural channel (unless otherwise specified).
2. Excavated channel shall be as close as feasible to the grade and orientation of the natural channel.
3. Channel banks shall be excavated to a 1.5:1 slope unless otherwise specified in the plan or directed by the Company.
4. Spoils shall be placed and compacted along a stable portion of the inboard edge of the road, unless otherwise specified. Fill shall be placed in a manner to prevent future erosion.
5. Install instream grade control if directed by the Company. Grade control shall consist of large wood or rock and is intended to prevent stream down cutting.
6. Mulch disturbed ground.
7. Conform to requirements Department of Fish and Game 1600 permits where applicable.
8. Attempt to leave 5 foot wide ATV passageway on upstream side. May require use of straw vs. slash.

 Lyme Redwood Forest Company	TEMPORARY WATERCOURSE CROSSING REMOVAL PLAN	Standard Detail
		Date: April 1, 2014

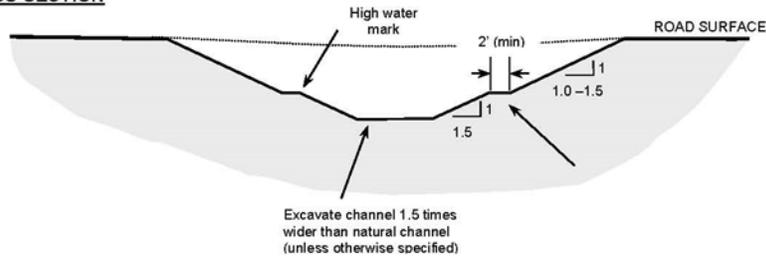
EXISTING CROSSING



REMOVED CROSSING



CROSS-SECTION



NOTES

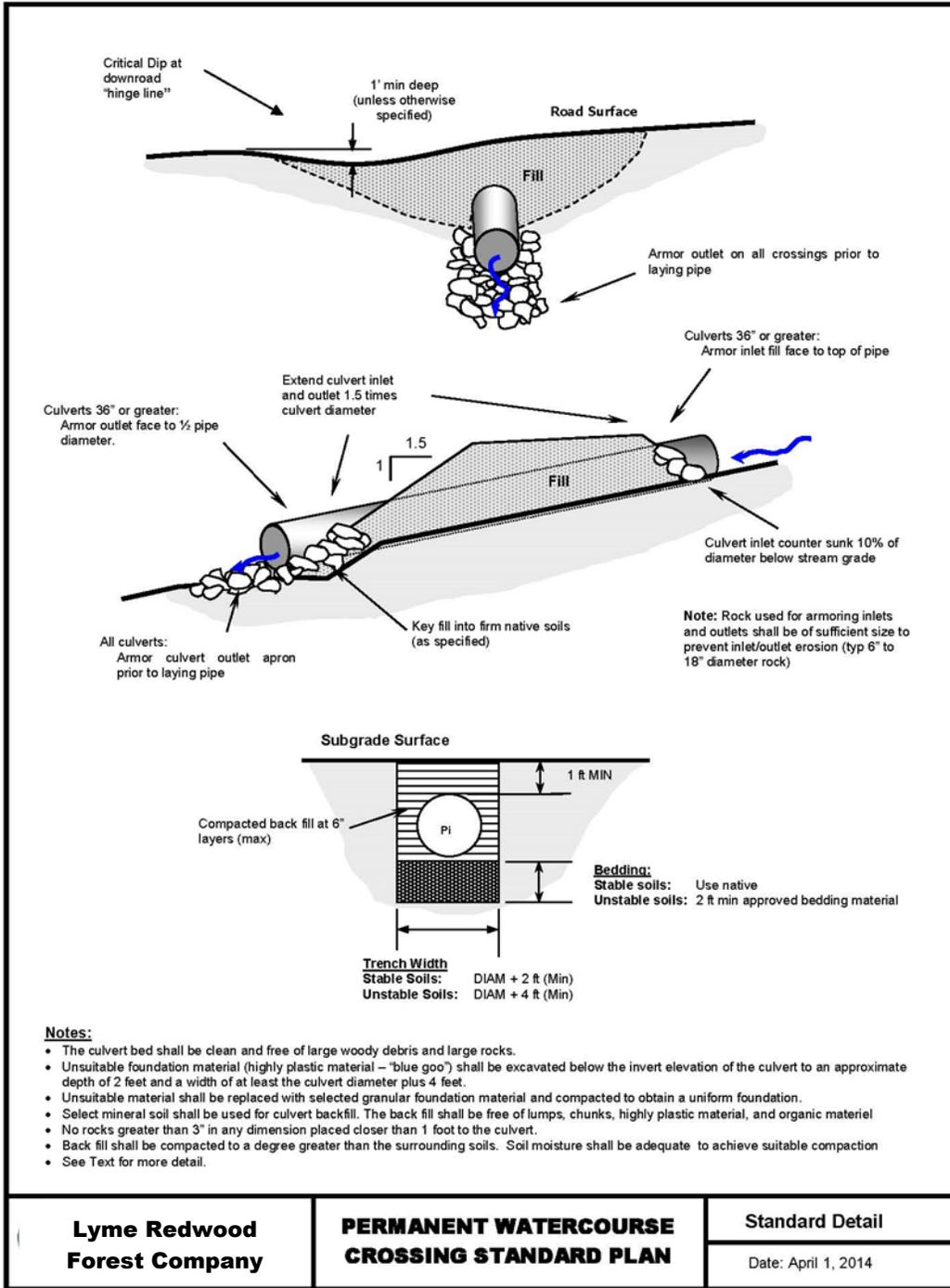
9. Excavate a channel that is 1.5 times wider than the natural channel (unless otherwise specified).
10. Excavated channel shall be as close as feasible to the grade and orientation of the natural channel
11. Channel banks shall be excavated to a 1.5:1 slope unless otherwise specified in the plan or directed by the Company.
12. Where specified, remove fill to create a 2' wide bench paralleling the excavated bench shall be located above the high water mark as specified in the THP or directed by the Company. The bench is intended to intercept debris that may slough off of the excavated channel bank and to accommodate flood flows.
13. Spoils shall be placed and compacted along a stable portion of the inboard edge of the road, unless otherwise specified. Fill shall be placed in a manner to prevent future erosion.
14. Install instream grade control if directed by the Company. Grade control shall consist of large wood or rock and is intended to prevent stream down cutting. Grade control shall be keyed into the channel unless directed otherwise by Company
15. Where specified, cull logs shall be placed against both channel banks to protect the bank from erosion
16. Exposed soils shall stabilized seed, mulch and/or slash packing or other suitable methods.
17. Conform to requirements Department of Fish and Game 1600 permits where applicable.

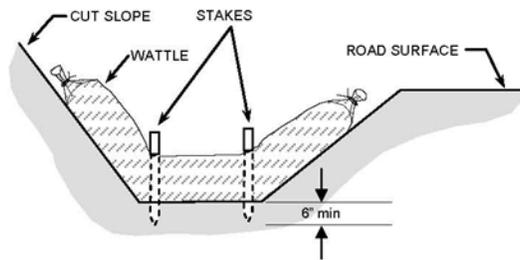
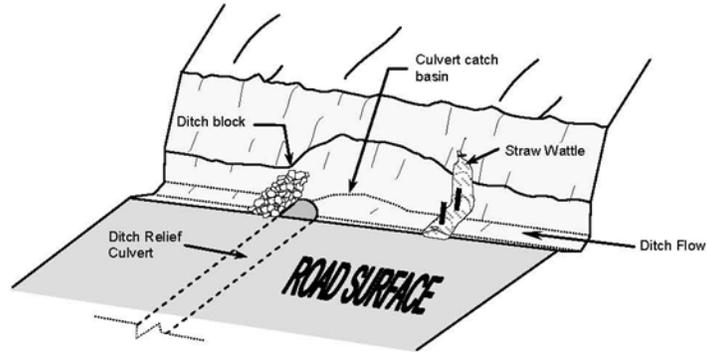
**Lyme Redwood
Forest Company**

**WATERCOURSE CROSSING
ABANDONMENT STANDARD PLAN**

Standard Detail

Date: April 1, 2014

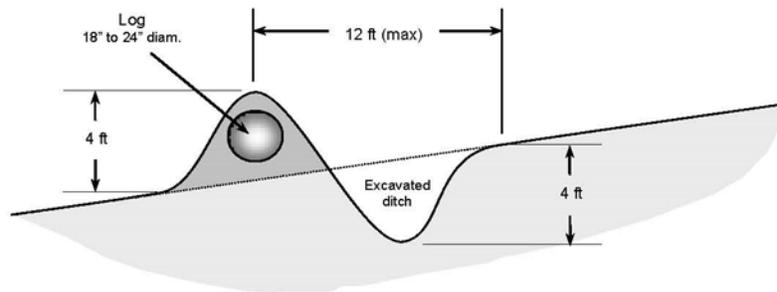
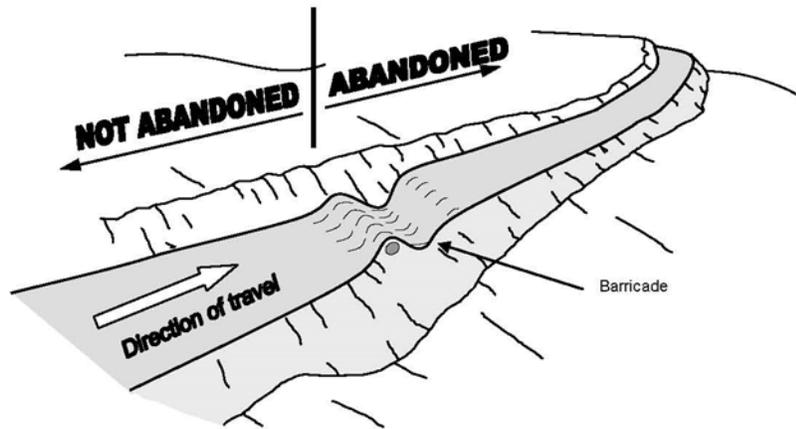




NOTES

1. Straw wattles: 9" or 12" diameter
2. Inset wattles in 3" to 4" ditch prior to staking, if directed by Company
3. Anchor wattles in place with 1" x 1" x 2' stakes
4. The wattles will be bedded and staked securely enough to preclude runoff from washing under the staked wattles.

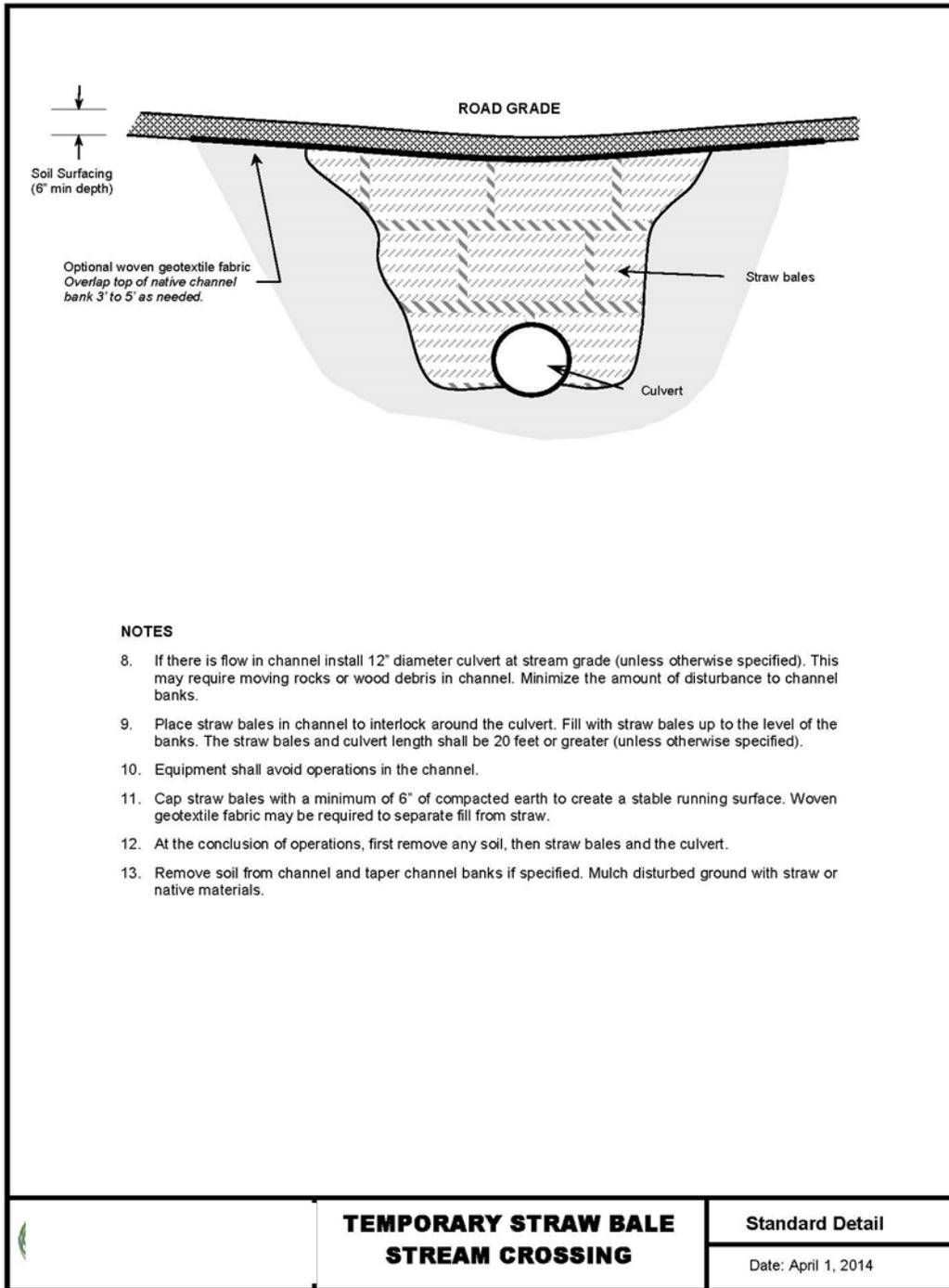
 Lyme Redwood Forest Company	STRAW WATTLE DITCH BLOCK STANDARD PLAN	Standard Detail
		Date: April 1, 2014



NOTES

1. Place 18" to 24" diameter, 12 ft long cull log in embankment and cover with at least 1 ft of earth.
2. If large diameter log is unavailable then substitute with wire wrapped smaller logs to a combined diameter of 2 ft, unless otherwise specified in plan or directed by logging supervisor in writing.
3. The bottom of the excavated ditch will be outsloped 8% to facilitate drainage, unless otherwise specified.
4. Road barricades will be constructed at flagged locations.

 Lyme Redwood Forest Company	ABANDONED ROAD BARRICADE STANDARD PLAN	Standard Detail
		Date: April 1, 2014



DIRECTOR OF FORESTRY AND FIRE PROTECTION

This Timber Harvesting Plan conforms to the rules and regulations of the Board of Forestry and the Forest Practice Act:

By:	Adam Deem	Forester II
	_____	_____
	(Printed Name)	(Title)
		9/19/2024
	_____	_____
	(Signature)	(Date)