SECTION II - PLAN OF TIMBER OPERATIONS

NOTE: If a provision of this THP is proposed that is different than the standard rule, the explanation and justification should normally be included in Section III unless it is clearer and better understood as part of Section II.

PART OF PLAN

913 (933, 953).11. map and list approximate acreag	If more than one r e for each. Clearcutting	method or treatment will be used show bound ac. []Shelterwood Prep. Step ac.	aries on
[]Seed Tree Seed Step	_ac. []Shelterwood Seed St	tep ac. []Seed Tree Removal Step	ac.
[]Shelterwood F	Removal Step ac.		
[X]Selection 278 a	c. []Transition	ac.	
[] Commercial Thinning	gac. [] Road	Right-of-Way ac. [] Sanitation Salva	age_ ac.
[X]Gualala River Coasta	al Commission Special Treatm	nent Area_12 ac. []Rehab ac.[] Fuelbre	ak_ ac.
[X] Gualala River Coasta	al Commission Special Treatment Area	nent Area_12_ac. []Rehabac.[] Fuelbre	ak_ ac.
[X]Gualala River Coasta [X] Wild and Scenic Rive Gualala River Coastal C	al Commission Special Treatm er Special Treatment Area Commission Special Treatmen	nent Area <u>12</u> ac. []Rehab ac.[] Fuelbre 0.5 ac. (note this ½ acre is also part of the 12 nt Area above)	ak_ ac. acres in
[X]Gualala River Coasta [X] Wild and Scenic Rive Gualala River Coastal C [] Alternative	al Commission Special Treatm er Special Treatment Area(Commission Special Treatmen ac. [] Conversi	nent Area <u>12</u> ac. []Rehab ac.[] Fuelbre 0.5 ac. (note this ½ acre is also part of the 12 nt Area above) ion ac. []Non-Timberland Area	ak ac. <u>acres in</u> _ac.
[X]Gualala River Coasta [X] Wild and Scenic Rive Gualala River Coastal C [] Alternative	al Commission Special Treatm er Special Treatment Area(Commission Special Treatmen ac. [] Conversi	nent Area_12_ac. []Rehabac.[] Fuelbre 0.5 ac. (note this ½ acre is also part of the 12 nt Area above) ionac. []Non-Timberland Area	eak ac. <u>acres in</u> _ac.

Total acreage 342 ac. :Explain if total is different from that listed in 8.)MSP option chosen (a) [] (b) [] (c) [X]

There are 52 acres in the plan boundaries where no harvesting is taking place.

 b. If Selection, Group Selection, Commercial Thinning, Sanitation Salvage or Alternative methods are selected the post harvest stocking levels (differentiated by site if applicable) must be stated. Note mapping requirements of 1034 (x)(12).

Coastal Commission Special Treatment Area: A small part of this plan area (12 acres) falls within the Gualala River Special Treatment Area (14 CCR 921). See maps at end of section II.

Special retention standards are required as follows:

- Leave 50% by number of those trees over 12 in. dbh present and established conifer regeneration shall amount to 50% of the pre-existing tree crown canopy cover. No conifer tree shall be cut which is more than 75 feet from a 3 point countable tree within the logging area. 14CCR 921.3 a.2.
- 2. Minimum stocking is 100 sq.ft./acre. 14CCR 921.4.
- No more than 60% by numbers of those trees 18 in. and more dbh and no more than 50% by numbers of those trees over 12 in. dbh but less than 18 in dbh be removed within any one 10 year period. 14 CCR 921.3 e.
- 4. The above standards plus additional standards listed below will apply for areas that are in the STA. Applicable to unit #1 only.

Wild and Scenic River Special Treatment Area- About ½ of an acre of unit 1 is within 200 feet of the Main Stem of the Gualala River which is designated as a Wild and Scenic River for recreation. Silviculture is selection under the same stringent constraints as the flood prone areas in the rest of the plan. Visual recreational impacts, noise and traffic effects are addressed in the cumulative impacts.

See table on next page for silvicultural prescriptions for the rest of the THP.

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Revised 2/23/18

4.4

Zone Designation	Zone width (ft.)	Overstory Canopy Cover	Large Tree Retention	Silviculture Requirements
Channel Zone	variable	No harvest		
Core Zone	30'	No harvest		100
Inner Zone A	30 to min. 100' max. 150'	80% overstory canopy *	Leave 13 largest trees per acre	Selection 125 SFBA standard
Inner Zone B	150' to edge of F.P.A.	50% overstory canopy *	Leave 13 largest trees per acre	Selection (Site Class I) 125 SFBA (Site Class II and III) 75 SFBA
Outer Zone	50'	50% overstory canopy *	Retain wind firm trees	Selection (Site Class II or III) 75 SFBA
Areas of this plan outside of the flood prone area that are not part of an outer zone	varies	Not applicable	none	Selection (Site Class I 125 SFBA) (Site Class II or III 75 SFBA)

Dogwood	THP	Silvicultural	summary
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*- (at least 25% conifer overstory canopy)

SFBA = square feet of basal area per acre of conifers.

PART OF PLAN

F.P.A.= Flood prone area

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 method (per 913.1(c)(1)(A)- fifteen square feet of basal area per acre of seed trees which are 18 inches DBH or greater shall be retained).

c. [] Yes [X] No Will evenage regeneration step units be larger than those specified in the rules (20 acre tractor, 30 acre cable)? If yes, provide substantial evidence that the THP contains measures to accomplish any of subsections (A) - (E) of 14 CCR 913 (933, 953).1(a) (2) in Section III of the THP. List below any instructions to the LTO necessary to meet (A) - (E) not found elsewhere in the THP. These units must be designated on map and listed by size.

Note: The THP units are numbered 1 thru 24 however there is no unit 2, 3, and 4.

d. Trees to be harvested or retained must be marked by or marked under the supervision of the RPF. Specify how the trees will be marked and whether harvested or retained.

All selection area harvest trees will be marked with a blue slash at breast height and a dot or slash below stump height.

[] Yes [X] No Is a waiver of marking by the RPF requirement requested? If yes, how will LTO determine which trees will be harvested or retained? If yes and more than one silvicultural method, or Group Selection is to be used, how will LTO determine boundaries of different methods or groups?

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MAR - 8 2018 COAST AREA OFFICE

Dogwood THP

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COASTAREA OFFICE Section II RESOURCE MANAGEMEN Revised 2/23/18

e. Forest Products to be Harvested:

sawlogs, chiplogs, fuelwood, firewood, split products and burl.

f. [] Yes [X] No Are group B species proposed for management?

[] Yes [X] No Are group B or non-indigenous A species to be used to meet stocking standards? [] Yes [X] No Will group B species need to be reduced to maintain relative site occupancy of A species.

If any answer is yes, list the species, describe treatment, and provide the LTO with necessary felling and slash treatment guidance. Explain who is responsible and what additional follow-up measures of manual treatment or herbicide treatment are to be expected to maintain relative site occupancy of A species. Explain when a licensed Pest Control Advisor shall be involved in this process.

g. Other instructions to LTO concerning felling operations.

All snags will be left standing except where they pose a threat to safety or a fire hazard.

Consistent with safety, trees should be felled in whatever direction best preserves the canopy as long as no part of any tree falls into a watercourse.

h. [] Yes [X] No Will artificial regeneration be required to meet stocking standards?

i. [] Yes [X] No Will site preparation be used to meet stocking standards? If yes, provide the information required for a site preparation addendum.

j. If the rehabilitation method is chosen provide a regeneration plan as required by 14 CCR 913(934, 954).4(b).

_PESTS

15.

a. [X] Yes [] No Is this THP within an area that the Board of Forestry has declared a zone of infestation or infection pursuant to PRC 4712-4718? If yes, identify feasible measures being taken to mitigate adverse infestation or infection impacts from the timber operation. See 917(937, 957).9(a).

<u>Pine Pitch Canker</u>: As far as is known there are no pine trees within the boundaries of this THP however this THP is within the broader zone of infestation of the Coastal Pine Pitch Canker. Pine Pitch Canker has been found in southern Mendocino County in bishop pine and Monterey pine. Other primary hosts include knob cone pine. To date there has been only one reported case in Douglas fir, a planted ornamental, and infections to sugar pine only in laboratory conditions. The harvest trees planned for removal are redwood and Douglas fir. If any species susceptible to Pine Pitch Canker are inadvertently cut the following measures will be taken: 1) Pitch Canker infected pines or beetle infested pines will not be shipped outside of the Zone of Infestation, 2) If pine logs are not infected with Pine Pitch Canker, they shall be shipped outside the Zone of Infestation within four days if during the period of February 1 through June 30, 3) If pine logs are not infected with Pine Pitch Canker during the period of July 1 through January 31, they shall be shipped outside the Zone of Infestation within seven days.

Zone of infestation for Pine Pitch Canker- All of the area within the counties of Alameda, Contra Costa, Los Angeles, Marin, Monterey, Mendocino, Napa, Orange, San Benito, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, Sonoma, and Ventura; and the portion of San Bernardino, Riverside and San Diego Counties which is westerly of the line beginning at the San Bernardino / Los Angeles County line and proceeding easterly along State Route (SR) 138 to Interstate Highway (I) 15; thence southerly along I-15 to I-215; thence southerly along I-215 to I-15; thence southerly along I-15 to SR-79; then southerly along SR-79 to I-8; thence easterly along I-8 to the San Diego / Imperial County line; thence southerly along the San Diego / Imperial County line to the U.S. / Mexico border.

Sudden Oak Death

This timber harvesting plan is located within the declared Zone of Infestation for Sudden Oak Death. Recently, and for the first time on this property, occurrences of this disease are suspected in and adjacent to the timber harvesting plan area. These occurrences haven't been confirmed by lab tests.

Identification/Background:

Sudden Oak Death is a forest disease caused by the fungus-like pathogen Phytophthora

ramorum. This pathogen has caused widespread dieback of tanoak and several oak species in the central and northern coastal counties of California, and has to date been associated with more than 26 different plant species. While some of these species - coast live oak, black oak, Shreve oak and tanoak - sustain lethal trunk infections, other plants get more benign foliar and twig infections. Many of these species with foliar infections play a key role in spread of P. ramorum by acting as a reservoir of innoculum, which may then be spread aerially via wind blown rain. Sporangia and chlamydospores, the most likely propagules of dispersion, are commonly generated on foliage, whereas they have not as yet been found on infested oak bark. The two plants determined to be the greatest sinks for innoculum are California bay laurel/Oregon myrtle and Rhododendron spp. Mortality is most common where oaks and these foliar hosts are found growing together.

Depending on the plant species, infection may occur on the trunk, branches, and/or leaves. Infections on woody portions of the tree are referred to as cankers. Cankers on the trunk of oak trees are the most damaging. Tree death appears to occur when cankers expand in the trunk (girdling) and disrupt physiological function. Diseased oaks are often attacked by other pest organisms -- fungi that decay sapwood (Hypoxylon thourasianum) and bark beetles. In the shrub species the symptoms can range from leaf spot to twig girdling, and do not necessarily result in death of the plant.

To date, P. ramorum has not been found to infect the main trunk of Douglas-fir or coast redwood. Coast redwood symptoms include discoloration of needles and development of cankers on small branches throughout the crown of small saplings. The fungus can also cause mortality of basal shoots on mature redwood trees. Only a few occurrences (i.e. less than 10 sites) on redwood have been confirmed.

Cankers on small branches of Douglas-fir saplings cause wilting of new shoots, needle loss, and branch die-back; while in smaller saplings, death of the leader and top branch whorls can occur. SOD in Douglas-fir has been confirmed at only one site in Sonoma County having high levels of innoculum from the infected bay leaves in the overstory above.

<u>List of Regulated Counties</u>-The declared zone of infestation includes: Alameda, Contra Costa, Humboldt, Lake, Marin, Mendocino, Monterey, Napa, San Mateo, Santa Clara, San Francisco, Santa Cruz, Solano, Trinity and Sonoma counties.

Regulated *Phytophthora ramorum* Hosts of Concern when Filing Timber Harvest Documents

Plants on the federal *P. ramorum*-Regulated Host list should be addressed by Registered Professional Foresters (RFPs) in harvest documents. These plants are: naturally infected by *P. ramorum;* found in California's forests; and have had Koch's postulates completed, documented, reviewed, and accepted. Further details on regulated plants and plant parts can be found at

<u>http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/nationa</u> <u>lpestalert_.pdf_</u>Plants on the federal *P. ramorum* Associated Host list are regulated in nurseries only and not in wildland settings; therefore, they do not have to be addressed by RPFs.

Note: As new hosts are found, they will be added to the host or associated host list. As Koch's postulates are successfully completed on associated hosts, they will be reclassified as hosts. As neither list is static, it is important to check for updates frequently.

Scientific Name	Common Name
Acer macrophyllum	Bigleaf maple
Adiantum aleuticum	Western maidenhair fern
Adiantum jordanii	California maidenhair fern
Aesculus californica	California buckeye
Arbutus menziesii	Madrone
Arctostaphylos manzanita	Manzanita
Frangula californica (=Rhamnus californica)	California coffeeberry
Frangula purshiana (=Rhamnus purshiana)	Cascara
Heteromeles arbutifolia	Toyon
Lithocarpus densiflorus	Tanoak
Lonicera hispidula	California honeysuckle
Maianthemum racemosum (=Smilacina racemosa)	False Solomon's seal
Pseudotsuga menziesii var.menziesii	Douglas-fir
Quercus agrifolia	Coast live oak
Quercus chrysolepis	Canyon live oak
Quercus kelloggii	California black oak
Quercus parvula var. shrevei	Shreve's oak
Rhododendron spp	Rhododendron (including azalea)
Rosa gymnocarpa	Wood rose
Sequoia sempervirens	Coast redwood
Trientalis latifolia	Western starflower
Umbellularia californica	California bay laurel/pepperwood
Vaccinium ovatum	Evergreen huckleberry

Associated Phytophthora ramorum Hosts Found in California Forests

Found naturally in California's forests, these species have been confirmed P. ramorum-positive via culture and/or Polymerase Chain Reaction (PCR), but Koch's postulates have not been completed or documented and reviewed. Currently they are not regulated in California's wildlands.

Note: Although not hosts at this point, these plants are under inspection and are undergoing the Koch's postulates process. Upon completion of the scientific process, it is expected that they will be reclassified to the regulated host list.

Scientific Name	Common Name	
Abies concolor		- White fir
Abies grandis	,	- Grand fir
Abies magnifica		Red fir
Acer circinatum		- Vine maple
Arctostaphylos columbiana	، من ها ها من بي بي من من بير الله بي	- Manzanita
Calycanthus occidentalis	ا ہے ہے کا	- Spicebush
Ceonothus thyrsiflorus		-Blue blossum
Clintonia andrewsiana	ا ها	-Andrew's clintonia bead lily
Corylus cornuta	من کا تک تنا این بنا بنا بنا بنا بنا بن بنا بر به به به بنا بن بن به به به بنا بن به به به بنا	-California hazelnut
Dryopteris arguta		California wood fern

Fraxinus latifolia	Oregon ash
Gaultheria shallon	Salal
Osmorhiza berteroi	Sweet Cicely
Rubus spectabilis	Salmonberry
Taxus brevifolia	Pacific yew
Torreya californica	California nutmeg
Toxicodendron diversilobum	Poison oak
Vancouveria planipetala	Redwood ivy

Movement of Host Material outside the Regulated Area

Movement of host material outside of the Regulated Area is not anticipated. Host material shall not be moved outside of the existing zone of infestation. If host material is to be moved outside of the regulated area, appropriate State and Federal permits must be obtained and amended to the timber harvesting plan.

Movement of Host Material inside the Regulated Area

It is anticipated that coast redwood and Douglas-fir saw logs 5" in diameter and greater will be removed from the harvest area and delivered to sawmills. (Douglas-fir and redwood saw logs greater than 4 inches in diameter that are free of limbs, sprouts, and burls are not host material.)

A small amount of firewood and redwood burl may be removed. This material will not leave the regulated area.

Notification of LTO

The LTO, who is required to have a copy of this plan, is responsible for compliance with the restrictions on the removal of host materials from the timber harvesting plan area. The list of regulated counties, and host species may change. It is the LTO's responsibility to inform himself and his employees about these procedures, and if necessary to seek assistance from the landowner's representative or the CALFIRE (formerly known as California Department of Forestry and Fire Protection).

Operational Mitigation

Leaves, needles, twigs, limbs, burls, basal sprouts, and portions of stems less than 4 inches in diameter from host material species shall not be removed from the timber harvesting plan area. The LTO shall inspect all vehicles and loads to make sure this material is not being removed from the area. (Removal of leaves, needles, twigs, limbs, burls, basal sprouts, and portions of stems less than 4 inches in diameter from host material species requires shipment in closed containers.) Redwood and Douglas-fir logs can be shipped to any destination as long as all portions of the stem are greater than 4 inches in diameter and the logs are free of basal trunk/burl sprouts, small branches (less than one inch in diameter), and leaves (needles).

The RPF responsible for the THP shall be responsible for amending or extending the restrictions and for informing the LTO of the operational requirements.

Hardwood logs maybe removed and shipped within the regulated area as long as the logs are from live healthy trees, greater than 4 inches in diameter, and all leaves and branches have been removed. Any evidence or suspicion of sudden oak death within the timber harvesting area should be reported to the landowner's forester.

Material Destinations

Redwood and Douglas-fir saw logs from this timber harvesting plan area are likely to be shipped to the following locations: Redwood Empire Sawmills in Cloverdale and Philo; Harwood Forest Products in Branscomb; Mendocino Forest Products in Ukiah and Fort Bragg; Willits Redwood in Willits; Agwood in Green Valley; Berry's Sawmill in Duncans Mills; Pacific Lumber Company in Scotia and Fortuna; California Redwood Company in Korbel; Schmidbauer Lumber in Eureka, MDI Forest Products, Port of Oakland.

Compliance Agreement

Use of this THP for a compliance agreement is valid for one year. After one year, an amendment will be necessary for operations that require a compliance agreement. This amendment will include current information and mitigation requirements.

b. [] Yes [X] No If outside a declared zone, are there any insect, disease or pest problems of significance in the THP area? If yes, describe the proposed measures to improve the health, vigor and productivity of the stand(s).

HARVESTING PRACTICES

16.	Indic	ate type of yarding system and equipm	ient to	o be used:		
		GROUND BASED*		CABLE		SPECIAL
	a.	[X] Tractor, including end/long lining	d.	[] Cable, ground lead	g.[] Animal	
	b.	[X] Rubber tired skidder, Forwarder	e.	[] Cable, high lead	h.[] Helicopter	
	C.	[X] Feller buncher	f.	[] Cable, Skyline	i.[] Other	* All
iractor	onerat	ions restrictions apply to around based	equir	nment		

tractor operations restrictions apply to ground based equipment.

17. Erosion Hazard Rating: Indicate Erosion Hazard Ratings present on THP. (Must match EHR worksheets) Low [X] Moderate [X] High [X] Extreme [] If more than one rating is checked, areas must be delineated on map to 20 acres in size (10 acres for high and extreme EHRs in the Coast District).

Soil Stabilization: In addition to the standard waterbreak requirements describe soil stabilization measures or additional erosion control measures to be implemented and the location of their application. See requirements of 14 CCR 916.7 (936.7, 956.7), and 923.2 (943.2, 963.2) (m), and 923.5 (943.5, 963.5) (f).
 Note to LTO- The following rules are divided into sections to avoid confusion-

Part 1 Treatments to stabilize soils within WLPZ, & ELZ or EEZ

Part 2 Treatment non-WLPZ roads and landings

Part 3 Soil stabilization measures

Part 4 Watercourse Crossings

Part 5 Year-round tractor road use limitations

Part 6 Erosion Sites

Part 1 Treatments to stabilize soils within WLPZ Facilities-(as per 14 CCR 923.5(q)(3))

An In-lieu practice for skid trail soil stabilization measures located within the WLPZ is explained and justified under item 27J in section III. In those areas where they do not apply the following measures will be applied

<u>Within the WLPZ, and within any ELZ or EEZ</u> designated for watercourse or lake protection, treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge shall be described in the plan as follows:

(A) In addition to the requirements of subsections 923.5 (I)-(o) soil stabilization is required for the following areas:

1. Areas exceeding 100 continuous square feet where timber operations have exposed bare soil, and

2. Disturbed logging road and landing cut banks and fills, and

3. Any other area of disturbed soil that threatens to cause significant sediment discharge.

(B) Where straw 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.

(C) Where slash mulch is applied, a minimum of 75% of the area shall be covered by slash in contact with the ground.

(D) For areas disturbed outside of the extended wet weather period, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface that could result in significant sediment discharge.

(E) For areas disturbed during the extended wet weather period, 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 disturbance, whichever is earlier.

(F) 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.

Part 2 Treatments for Logging Roads and Landings (as per 14 CCR 923.5 (I))

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:

(1) Sidecast or fill exceeding 20 feet in slope distance from the outside edge of a logging road or a landing that has access to a watercourse or lake.

Restrictions during wet weather: Hauling, yarding, use of landings or mechanical site preparation shall not occur when saturated soil conditions exist or where a stable logging road or landing operating surface does not exist at any time of the year.

14CCR 895.1:

"Saturated soil conditions" means that site conditions are sufficiently wet that timber operations displace soils in yarding or mechanical site preparation areas or displace road and landing surface materials in amounts sufficient to cause a turbidity increase in drainage facilities that discharge into Class I, II, III, or IV waters, or in downstream Class I, II, III, or IV waters that is visible or would violate applicable water quality requirements.

In yarding and site preparation areas, this condition may be evidenced by: a) reduced traction by equipment as indicated by spinning or churning of wheels or tracks in excess of normal performance, b) inadequate traction without blading wet soil, c) soil displacement in amounts that cause visible increase in turbidity of the downstream waters in a 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 d) creation of ruts greater than would be normal following a light rainfall.

On logging roads and landing surfaces, this condition may be evidenced by a) reduced traction by equipment as indicated by spinning or churning of wheels or tracks in excess of normal performance, b) inadequate traction without blading wet soil, c) 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, d) pumping of road surface materials by traffic, or e) 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.

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(2) Cut and fills associated with approaches to logging road watercourse crossings of Class I or II waters or Class III waters where an ELZ, EEZ, or a WLPZ is required.

Part 3 Soil stabilization measures

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.

(As per 923.5 (0)) -Soil stabilization treatments shall be in place upon completion of operations for the year of use or prior to the extended wet weather period, whichever comes first. An exception is that bare areas created during the extended wet weather period shall <u>be treated prior to the start of rain that generates overland flow, or within 10 days of the creation</u> of the bare area(s), whichever is sooner.

As per 916.3(b)-Accidental depositions of soil or other debris in lakes or below the watercourse or lake transition line in waters classed I, II, and IV shall be removed immediately after the deposition or as approved by the Director.

Part 4 Watercourse crossing removal (As per 923.9 (p))

All logging road watercourse crossings that are proposed by the plan submitter to be removed, including temporary crossings and those along abandoned or deactivated roads, shall be removed as described in the plan and shall apply the following standards:

(1) Fills shall be excavated to form a channel that is as close as feasible to the natural watercourse grade and orientation, and that is wider than the natural channel as observed upstream and downstream of the logging road watercourse crossing to be removed.

(2) The excavated material and any resulting cut bank shall be no greater than 65 percent (1.5:1, horizontal to vertical) from the outside edge of the constructed channel to prevent slumping, to minimize soil erosion and sediment transport, and to prevent significant sediment discharge. Exposed soil located between the watercourse crossing and the nearest adjacent drainage facility or hydrologic divide, whichever is closer, including cut banks and excavated material, shall be stabilized by seeding, mulching, rock armoring, replanting, or other suitable treatment to prevent soil erosion and significant sediment discharge.

(3) Where it is not feasible to remove a logging road watercourse crossing or its associated fill to the above standards, the plan shall identify how soil erosion and significant sediment discharge will be prevented.

(4) All logging road watercourse crossings proposed for removal shall be removed upon completion of use, prior to the winter period or as specified in the applicable CDFW 1600 agreement, whichever is earlier, or as otherwise specified in the plan.

16

Stabilization Standards for Watercourse Crossings as per 923.9 (t)

The following stabilization standards shall apply to logging road watercourse crossings:

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COAST AREA OFFICE RESOURCE MANAGEMENT (1) Soil stabilization may include, but are not limited to, removal, armoring with rip-rap, replanting, mulching, seeding, installing commercial erosion control devices to manufacturer's specifications, or chemical stabilizers. See road database at the end of section II for details.

(2) 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. 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.

(3) Soil stabilization treatments shall be in place upon completion of operations for the year of use or prior to the extended wet weather period, whichever comes first. An exception is that bare areas created during the extended wet weather period shall be treated prior to the start of rain that generates overland flow, or within 10 days of the creation of the bare area(s), whichever is sooner, or as agreed to by the Director.

(4) In watersheds with listed anadromous salmonids and in planning watersheds immediately upstream of, and contiguous to, any watershed with listed anadromous salmonids, treatments to stabilize soils, minimize soil erosion, and prevent significant sediment discharge within the WLPZ and within any ELZ or EEZ designated for watercourse or lake protection shall be described in the plan as follows:

(A) In addition to the requirements of 14 CCR § 923.9(p)(1)-(3), soil stabilization is required for the following:

1. Areas exceeding 100 continuous square feet where timber operations have exposed bare soil.

2. Disturbed logging road watercourse crossing cut banks and fills.

3. Any other area of disturbed soil that threatens to cause significant sediment discharge.

(B) Where straw 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.

(C) Where slash mulch is applied, slash coverage in contact with the ground surface shall be a minimum of 75 percent.

(D) For areas disturbed outside the extended wet weather period, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface that could result in significant sediment discharge.

(E) For areas disturbed during the extended wet weather period, 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 disturbance, whichever is earlier.

Part 5 Year-round tractor road use limitations -(as per 14 CCR 916.9 (k))

Tractor roads shall not be used when operations may result in significant sediment discharge.

Tractor Road Time Schedule -(as per 14 CCR 916.9 (m)) -

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.

Part 6-Erosion Sites (as per 923.1)

As part of the planning and use of logging roads, landings, and watercourse crossings in the logging area, the RPF or supervised designee shall: (i) locate and map significant existing and potential erosion sites and (ii) specify feasible treatments to mitigate significant adverse impacts from the road or landing.

See Erosion Control Plan in Section V. Also see attached road work database and Map Points Map in Section II and landslide maps and report in Section V.

MAXIMUM DISTANCE BETWEEN WATERBREAKS

Estimated Road or Trail Gradient (in percent)

	10 or less	11-25	26-50	>50
	Feet	Feet	Feet	Feet
Extreme	100	75	50	50
High	150	100	75	50
Moderate	200	150	100	75
Low	300	200	150	100

19. [] Yes [X] No Are tractor or skidder constructed layouts to be used? If yes, specify the location and extent of use:

20. [] Yes [X] No Will ground based equipment be used within the area(s) designated for cable yarding? If yes, specify the location and for what purpose the equipment will be used?

21. Within the THP area will ground based equipment be used on:

a. [] Yes [X] No Unstable soils or slide areas? Only allowed if unavoidable.

b. []Yes [X] No Slopes over 65%?

[]Yes [X] No Slopes over 50% with high or extreme EHR?

d. [] Yes **[X]** No Slopes between 50% and 65% with moderate EHR where heavy equipment use will <u>not</u> be restricted to the limits described in 14 CCR 914 (934, 954).2(f)(2)(i) or (ii)?

e. []Yes [X] No Slopes over 50% which lead without flattening to sufficiently dissipate water flow and trap sediment before it reaches a watercourse or lake?

If a. is yes provide site specific measures to minimize effect of operations on slope stability and provide explanation and justification as required per 14 CCR 914 (934, 954).2(d). CDF requests the RPF consider flagging tractor road locations if a) is yes.

If b., c., d. or e. is yes:

1) the location of tractor roads must be flagged on the ground prior to the PHI or start of operations if a PHI is not required, and

2) you must clearly explain the proposed exception and justify why the standard rule is not feasible or would not comply with 914 (934, 954).

The location of heavy equipment operation on unstable areas or any use beyond the limitations of the standard rules must be shown on the map. List specific instructions to the LTO below.

C.

Note to LTO regarding skidding operations-All skid trails in this plan have been flagged with yellow flagging. Do not leave the main road unless you are on a landing or see yellow flagging for skid trails or orange flagging for a road.

Note to LTO-Unstable areas that affect areas of operation are shown on page 68 Unit #1 which is the only significant upslope part of the plan. Harvesting and tractor operations are not allowed on these areas. No trees have been marked on these areas and all usable skid trails within the unit have been flagged with yellow flagging.

Historic unstable areas in the watershed are shown and described in Section V. 22. [] Yes [x] No Are any alternative practices to the standard harvesting or erosion control rules proposed for this plan? If yes, provide all the information as required by 14 CCR 914 (934, 954).9 in Section III. List specific instructions to the LTO below.

WINTER OPERATIONS

 a. [] Yes [X]NoWill timber operations occur during the winter period? If yes, complete c) or d). State in space provided if exempt because yarding method will be cable, helicopter, or balloon.

No operations are proposed in this THP during the period between November 15th and April 1st. The planning watershed in this plan meets the definition of a "watershed with listed anadromous salmonids"(14CCR 895.1). To comply with 14CCR 916.9(I) (1), a complete winter period operating plan is being prepared pursuant to 14CCR 914.7(b) for operations during the extended wet weather period from October 15 to November 15 and from April 1st to May 1st.

b. [] Yes [X]No Will mechanical site preparation be conducted during the winter period. If yes, complete d).

c. [] I choose the in-lieu option as allowed in 14 CCR 914 (934, 954).7(c). Specify below 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), if there will be no winter operations in these areas, so state.

d. [X] I choose to prepare a winter operating plan per 14 CCR 914 (934, 954).7 (b).

1) EROSION HAZARD RATING: Low, Moderate and High

2) MECHANICAL SITE PREPARATION METHODS: No mechanical site preparation proposed.

3) YARDING SYSTEM: Tractor - See 5 below for timing on skid trail erosion control structures. Temporary tractor crossings will be pulled as soon as practical following yarding and prior to the start of any rain which causes surface flow within the watercourse unless a pipe has been used in which case the pipe will be pulled as

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soon as practical following yarding or prior to November 15th.

4) OPERATING PERIOD: "Winter period" means the period between November 15 and April 1, except as otherwise provided in the rules. During the periods from October 15 to November 15 and April 1 to May 1, there shall be no limitations on yarding during extended dry periods. (Extended Dry Periods means those periods during the winter period when saturated soil conditions do not exist. See item 18 above for definition of saturated soil conditions.)

5)EROSION CONTROL FACILITIES TIMING: Erosion control structures shall be installed on all constructed skid trails and tractor roads (not in a WLPZ, ELZ or EEZ designated for watercourse or lake protection)(1) as soon as practical following yarding and prior to the start of any rain which causes overland flow across or along the disturbed surface within a WLPZ or (2) 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, prior to any shutdown periods.

For areas in a WLPZ, ELZ or EEZ designated for watercourse or lake protection treatment to any disturbed areas 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, whichever is earlier.

6) CONSIDERATION OF FORM OF PRECIPITATION: The most common form of precipitation in this area is rain and fog. Snow would be rare.

7) GROUND CONDITIONS: Loading, hauling, and maintenance activities will be restricted to "dry, rainless periods where soils are not saturated " from Oct. 15th to Nov. 15th and April 1st to May 1st , and shall further be guided by diligence and prudence in achieving the goals of 14CCR 914.

8) SILVICULTURAL SYSTEM - GROUND COVER: The silvicultural system is selection. The anticipated ground cover remaining after operations is at least 80%.

9) OPERATION WITHIN THE WLPZ: No operations will occur within the WLPZs of this plan from November 15 to April 1st.

10) EQUIPMENT USE LIMITATIONS: No equipment operations during the period from November 15 to April 1. From Oct. 15th to Nov. 15th and April 1st to May 1st operations of trucks and heavy equipment on roads and landings shall be limited to those with a stable operating surface during extended dry periods with low antecedent soil wetness.

Logging roads, landings and tractor roads shall not be used when sediment from the logging road, landing or tractor road surface may be transported to a watercourse or a drainage facility in quantities sufficient to cause a visible increase in turbidity of downstream waters in receiving Class I, II, III or IV waters or that violate Water Quality Requirements.

11) KNOWN UNSTABLE AREAS: Tractor operations are excluded from unstable areas. If an unstable area is found during operations an Equipment Exclusion Zone will be implemented around the unstable area, or if operations within the unstable area are necessary, an amendment to the THP will be sent to CDF. No falling will occur on known unstable areas except as provided under item 21.

12) LOGGING ROADS AND LANDINGS: No road or landing construction from Nov. 15th to April 1st. During the periods from October 15 to November 15 and April 1 to May 1, there shall be no limitations on road and landing construction during extended dry periods with low antecedent soil 13) No timber harvest activities will take place during measurable rain events (defined as greater than ¼" in a 24 hour period). This measure does not apply to maintenance of existing roads and watercourse crossings or to fuels treatment such as hand piling and burning, hand fire line construction, or other activities which do not involve heavy equipment or timber hauling.

ROAD	S AND	LANDING	GS		
24.	item	any roads s a throug	s be co gh g.	onstr	ucted? []Yes [X]No, or reconstructed?[]Yes [X]No. If yes, check
	Will	any landi s h throu	ngs be ah k:	e con	structed? [X]Yes []No, or reconstructed? [] Yes [X]No. If yes, check
a.	[]	Yes	[]	No	Will new or reconstructed roads be wider than single lane with turnouts?
b.	Î Î	Yes	[]	No	Are logging roads proposed in areas of unstable soils or known slide-prone areas?
	t I	Yes	[]	No	Are logging roads proposed to be constructed or reconstructed across mass- wasting areas of concern defined as areas of extreme, very high, or high mass wasting hazard, inner gorges, headwall swales, and unstable areas, prior to watershed analysis?
с.	11	Yes	[]	No	Will new roads exceed a grade of 15% or have pitches of up to 20% for distances greater than 500 feet? Map must identify any new or reconstructed road segments that exceed an average 15% grade for over 200 feet.
d.	11	Yes	1 1	No	Are roads to be constructed or reconstructed, other than crossings, within the WLPZ of a watercourse? If yes, completion of THP Item 27 a. will satisfy required documentation.
е.	[]	Yes	[]	No	Will roads be located across more than 100 feet of lineal distance on slopes over 65%, or on slopes over 50% which are within 100 feet of the boundary of a WLPZ?
f.	11	Yes	[X]	No	Will any roads or watercourse crossings be abandoned?
g.	11	Yes	[]	No	Are exceptions proposed for flagging or otherwise identifying the location or roads to be constructed?
h.	[]	Yes	[X]	No	Will any landings exceed one half acre in size? If any landing exceeds one quarter acre in size or requires substantial excavation the location must be shown on the map.
i.	[]]	Yes	[X]	No	Are any landings proposed in areas of unstable soils or known slide prone areas?
j.	[1	Yes	[X]	No	Will any landings be located on slopes over 65% or on slopes over 50% which are within 100 feet of the boundary of a WLPZ?
1	11	Vec	IX I	No	Will any landings be abandoned?

- Landings on the appurtenant road system may be used as appurtenant landings. Logs may be loaded off of the road system as long as reconstruction is not necessary.
- 2. All roads including the appurtenant roads have been evaluated for connectivity and road points added to maps and the roads database. Please note that much of this road is on flat ground and has a deep rock layer and a thick and flat vegetative layer to trap sediment. The appurtenant road system does have permanent class I crossings at Groshong Gulch and Pepperwood creek and no further modifications are necessary. These crossings allow for the passage of fish at all life stages in both directions. These crossings have always been disconnected from the road system to the extent feasible either thru cross drains by road mounding or raised road beds. There are four temporary class I bridge crossings, one on the North Fork of the Gualala, one on Buckeye Creek, one on Rockpile creek and one on the South Fork of the Gualala. These bridges will be installed under 1600 agreements 1600-2011-423-R3 or 1600-2014-0012-R3 (see misc. addendums for these existing 1600 agreements).

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Details of Bridge Installation – The four bridges will all be installed in the same manner as shown on the diagrams on page 73.5. Logs or Monschke blocks (concrete blocks) will be placed outside of the wetted channel. Native gravel will be placed behind these logs or blocks and ramped away from the channel. The railroad car bridge will be placed on the gravel and logs. Since there are numerous conditions that are required during installation and removal of these bridges the operator must refer to the 1600 permit for these conditions before starting operations (see specifically pages 440.20 thru 440.24 and 440.54 thru 440.55 at a minimum).

25. If any section in item 24 is answered yes, specify site-specific measures to reduce adverse impacts and list any additional or special information needed by the LTO concerning the construction, maintenance and/or abandonment of roads or landings as required by 14 CCR Article 12. Include required explanation and justification in THP Section III.

WATERCOURSE AND LAKE PROTECTION ZONE (WLPZ) AND DOMESTIC WATER SUPPLY PROTECTION MEASURES:

26. a. [X]Yes [] No Are there any watercourse or lakes which contain Class I through IV waters on or adjacent to the plan area? If yes, list the class, WLPZ or ELZ width, and protective measures determined from Table I and/or 14 CCR 916.4 (c) [936.4 (c), 956.4 (c)] of the WLPZ rules for each watercourse. Specify if Class III or IV watercourses have WLPZ, ELZ or both.

b. [X] Yes [] No Are there any watercourse crossings that require mapping per 14 CCR 1034 (x)(7)?
 c. [] Yes [X] No Will tractor road watercourse crossings involve the use of a culvert? If yes state minimum diameter and length for each culvert (may be shown on map).

Although the tractor crossings are expected to be dry at time of operations, if any water is present a 4"X 20' minimum size pipe will be installed and then pulled at close of operations.

d. [X]Yes [] No Is this THP Review Process to be used to meet Department of Fish and Game CEQA review requirements? If yes, attach the 1603 Addendum below or at the end of this Section II; provide the background information and analysis in Section III; list instructions for LTO below for the installation, protection measures, and mitigation measures; as per THP Form Instructions of CDF Mass Mailing, 07/02/1999, "Fish and Game Code 1603 Agreements and THP Documentation".

The watercourses on or adjacent to the plan area are shown on the THP maps attached.

The Mouth of the Gualala 1113.850202, Big Pepperwood 1113.850201, Annapolis 1113.840303 and Little Creek 1113.830004 watersheds do meet the definition of "Watersheds with listed anadromous salmonids" and are subject to the Anadromous Salmonid Protection Rules 2009 section 916.9.

Much of this plan falls into a flood prone area adjacent to the Main stem, South Fork and Wheatfield Fork of the Gualala River and Big and Little Pepperwood Creeks and Buckeye Creek.

The protection measures that will be applied to any class I protection zones are outlined below in Table for Class I watercourses.

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The following applies to all watercourse designations-

As per 916.9 (e)- Channel zone requirements -

(1) There shall be no timber operations within the channel zone with the following exceptions:

(B) Actions necessary for the construction, reconstruction, removal, or abandonment of approved watercourse crossings.

(C) Actions necessary for the protection of public health, and safety and general welfare. This includes actions necessary to protect infrastructure facilities including, but not limited to, roads, bridges, powerlines, utilities, water drafting structures, homes, and other legally permitted structures.

(2) In all instances where trees are proposed to be felled within the channel zone, a base mark shall be placed below the cut line of the harvest trees within the zone. Such marking shall be completed by the RPF that prepared the plan, or a supervised designee, prior to the preharvest inspection.

The following applies to Class I watercourses with flood prone areas

Table 2: Procedure for Determining WLPZ Widths and Protective Measures

Pursuant to 14 CCR 916.9 (f)(3)							
<u>Zone</u> Designatio <u>n</u>	Zone width (ft.)	Overstory Ca	anopy Cover	Large Tree Retention	<u>Silviculture</u> <u>Requirements</u>	<u>Operational</u> <u>Requirements</u>	
<u>Channel</u> <u>Zone or</u> <u>Channel</u> <u>Migration</u> <u>Zone</u> <u>per 916.9</u> (f)(3)(A)	<u>Variable</u>	<u>Retain all trees except per</u> 916.9 (e) (1)A-F or 916.9 (v)		<u>Retain all</u> <u>trees except</u> <u>per 916.9 (e)</u> <u>(1)A-F or</u> <u>916.9 (v)</u>	<u>Retain all trees except</u> per 916.9 (e) (1) A-F <u>or 916.9 (v)</u>	<u>No timber</u> <u>operations except</u> <u>per 916.9 (e)(1)</u> <u>A-F or 916.9 (v);</u>	
<u>Core Zone</u> <u>per 916.9</u> <u>(f)(3)(B)</u>	<u>30 ft.</u>	<u>Retain all tree</u> 916.9 (e) (1)A-I	<u>s_except per</u> <u>- or 916.9_(v)</u>	<u>Retain all</u> trees except per 916.9 (e) (1)A-F or 916.9 (v)	Retain all trees except per 916.9 (e) (1) A-F or 916.9 (v); no sanitation salvage except 916.9 (s)(t)and (u).	<u>No timber</u> operations except per 916.9 (e) (1)A-F or 916.9 (v):	
Inner Zone <u>A</u> <u>per</u> <u>916.9</u> (f)(3)(C)	<u>Minimum</u> 70 ft. <u>Maximum</u> 120 ft.	80% Coast and Southern Forest District of Coastal Anadromy Zone per 916.9 (f)(3)(C)3.	<u>70% in all</u> <u>other</u> <u>watersheds</u> per 916.9 (f)(3)(C)3.	<u>13 largest</u> <u>trees /ac. per</u> <u>916.9</u> (f)(3)(C)4.	Increase QMD; No sanitation salvage except 916.9 (s)(t)and (u); commercial thinning or single tree selection only.	Preferred Management Practices in 916.9 _(f)(3)(E)	
<u>Inner Zone</u> <u>B</u> <u>per</u> <u>916.9</u> (f)(3)(D)	Variable: distance from Inner Zone A to end of FPA.	<u>50</u>	<u>%</u>	<u>13 largest</u> <u>trees /ac. per</u> <u>916.9</u> (f)(3)(D)1.	Increase QMD: No sanitation salvage except 916.9 (s)(t)and (u); commercial thinning or single tree selection only.	Preferred Management Practices in 916.9 (f)(3)(E)	
Outer Zone per 916.9 (f)(3)(F) Applicable only where even-aged regeneration <u>used</u> adjacent to the WLPZ	<u>50 ft.</u>	<u>50</u>	<u>%</u>	NA	<u>Commercial thinning</u> or single tree selection <u>only;</u> <u>Retain wind firm trees.</u>	Preferred Management Practices in 916.9 (f)(3)(E)	

Class I WI P7s - with flood prope areas or channel migration zones

The following are the minimum requirements for WLPZ delineation and timber operations near Class I watercourses with flood prone areas or channel migration zones.

Channel Migration Zone: When a CMZ is present, no timber operations are permitted in this zone except for those listed in § 916.9 , subsection (e)(1)(A)-(F), or pursuant to 14 CCR § 916.9 , subsection (v).

Core Zone: The minimum width of the Core Zone shall be 30 feet measured from the watercourse transition line or lake transition line. No timber operations are permitted in this zone except for those listed in 14 CCR § 916.9 , subsection (e)(1) (A)-(F), or those approved pursuant to 14 CCR § 916.9 , subsection (v). Sanitation-Salvage is prohibited except as provided in 14 CCR § 916.9 , subsections (s), (t), and (u).

Inner Zone A:

- 1. The Inner Zone A generally encompasses the portion of the flood prone area from 30 feet beyond the WTL (Core Zone perimeter) up to 150 feet from the WTL.
- 2. The minimum width of the Inner Zone A shall be the greater of the distance from the landward edge of the Core Zone to the landward edge of the Inner Zone A or 70 feet. The maximum width is 120 feet.
- 3. Single tree selection will occur in this zone.
- 4. Postharvest stand shall have a minimum 80% overstory canopy cover. The postharvest canopy may be composed of both conifers and hardwood species and shall have at least 25% overstory conifer canopy.
- **5.** Postharvest stand shall retain the 13 largest conifer trees (live or dead) on each acre of the area that encompasses the Core and Inner Zones.
- 6. Large trees retained that are the most conducive to recruitment to provide for the beneficial functions of riparian zones (e.g. trees that lean towards the channel, have an unimpeded fall path toward the watercourse, are in an advanced state of decay, are located on unstable areas or downslope of such an unstable areas, or have undermined roots) are to be given priority to be retained as future recruitment trees.

Inner Zone B:

1. The Inner Zone B is applicable when there are very wide flood prone areas. The Inner Zone B encompasses the portion of the flood prone area from the landward edge of the



Inner Zone A to the landward edge of the flood prone area.

- Single tree selection will occur in this zone.
- 3. Postharvest stand shall retain the 13 largest conifer trees (live or dead) on each acre of the area that encompasses the Core and Inner Zones.
- 4. Postharvest stand shall have a minimum 50% overstory canopy cover. The postharvest canopy may be composed of both conifers and hardwood species and shall have at least 25% overstory conifer canopy.

Outer Zone: -The width of the Outer Zone is 50 feet measured from the landward edge of Inner Zone. This zone is required where evenaged regeneration methods, seed tree removal, shelterwood removal, alternative prescriptions declared under 14 CCR §913.6, subsection (b)(3) as most related to any evenaged silvicultural system, variable retention or rehabilitation of understocked areas will be utilized contiguous to the watercourse and lake protection zone. Timber operations are permitted in this zone when conducted to meet the goals of this section, including those for the Outer Zone in 14 CCR § 916.9, subsection (c)(3) and (5), pursuant to 14 CCR § 916.9 subsection (e)(1) (A)-(F), or pursuant to 14 CCR § 916.9, subsection (v). Silvicultural systems for harvesting are limited to the use of commercial thinning or single tree selection modified to meet the following requirements: Single tree selection will be used in this THP in the Outer Zones.

1. Postharvest stand shall have a minimum 50% overstory canopy cover. The postharvest canopy may be composed of both conifers and hardwood species and shall have at least 25% overstory conifer canopy.

2. Priority shall be given to retain wind firm trees.

3. As per 14CCR 916.5 (e)(D) To ensure retention of shade canopy filter strip properties of the WLPZ and the maintenance of a multi-storied stand for protection of values described in 14 CCR § 916.4(b), residual or harvest trees shall be marked, including a base mark below the cut-line within the WLPZ by the RPF, or supervised designee prior to the preharvest inspection.

Preferred Management Practices in the Inner Zone A and B of flood prone areas.

1. Implement actions to improve salmonid habitat conditions: GRT intends to continue GRI's ongoing program of installing instream salmonid habitat structures. GRI has placed 560,000 board feet of LWD in the creeks on the ownership. GRT also intends to continue the MAR _ 8 2018 upslope program of road stormproofing to control sediment inputs which has previously upgraded or stormproofed over 50% of the road network. See cumulative impacts analysis in section IV.

2. Minimize Yarding and Skidding: Existing skid roads in the WLPZ that were selected to be used for this entry were flagged and mapped. Skid roads were selected for reuse so as to minimize the number of skid roads while protecting the hydrologic functions of the flood plain. As a test, the RPF measured all the existing skid roads in one unit and then the skid roads that were selected to be used again. Only 37.5% of the existing skid roads were selected for reuse. This percentage will vary somewhat from unit to unit. Skid trails have been limited to the

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greatest extent feasible.

3.Minimize Soil Erosion and Prevent Discharge: The running surface of skid trails on slopes less than 10% and the running surface of roads (except at crossings as outlined elsewhere) will not be treated with straw or slash. See section III item 27j for explanation. Operations shall be conducted only in dry soil conditions. Avoid disturbance of vegetation not intended for harvest that could increase the likelihood of erosion or damages the reinforcing root network on the channel banks, including any secondary overflow channel. Roads will be watered concurrent with operations in order to keep dust production to a minimum.

4.Avoid road and landing use: No new roads are proposed and use of existing roads and landings have been minimized to the greatest extent feasible.

5.Avoid Slash concentration and Site Preparation: Logging slash shall not be disposed of or concentrated in side channels. When slash is treated within the flood prone areas, scatter slash and avoid piling or other concentrations that may obstruct flows in side channels. When feasible, concentrate/mulch slash in tractor roads. No mechanical site preparation, broadcast burning or pile burning.

6. Delineate Zone on the Ground: Inner Zone B has been delineated with WLPZ flagging where it meets the edge of the Flood Prone Areas (the standard selection areas) but has not been marked where it meets the Outer Zone. Inner Zone A has not been delineated because additional flagging would create confusion and because the LTO is required in this plan to use only flagged skid trails. The transition between Inner Zone A, Inner Zone B, Outer Zone or regular selection (no zone) has been mapped and these zones are depicted on the silviculture map.

7. Avoid Use of Water Drafting Sites (in the flood prone areas): This is not feasible. The only water drafting sites that are available are in the channel zone and these are part of a previously submitted Department of Fish and Game 1600 agreement 1600-2011-0423R3.

8. Avoid Disturbance to Critical Flood Prone Area Habitat: No abandoned meanders, oxbox lakes, or other features that provide off-channel habitat for fish during flood flows will be affected by this THP since they have been given protection zones and all skid trails have been flagged. No activities that could increase potential for diversion or avulsion of stream flow out of existing channel, including breaching or lowering the elevation of natural levees will occur. Experience in these zones that affect hydraulic roughness have shown that generally hydraulic roughness is increased by operations. No large woody debris in the flood prone area will be harvested but some may be taken from the flats and used to enhance LWD in the channels with agency agreement.

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Class II watercourse Section-

Documentation of Class II delineations-

Most of the class II watercourses on this plan fall within the class I flood prone area protection zones therefore the higher standard of protection already will apply adjacent to them.

There are four class IIL watercourses that are adjacent to this plan. The THP boundary has been flagged back away from three of them and only one now runs thru the plan for a short distance.

Determination-

These watercourses either drain an area larger than 100 acres or have an average width of five feet for the first two hundred feet after their confluence with a class I.

(See class IIL watercourse map for location.)

Watercourse	percent	Core	Inner
Cidoo		20110	Lono
Class II-L	<10%	30	70
Class II-L	10%-30%	30	70
Class II-L	30-50%	30	70
Class II-L	>50%	30	70
Class II-S*	<10%	15	50
Class II-S*	10%-30%	15	35
Class II-S*	30-50%	15	60
Class II-S*	>50%	15	85

Table for class II watercourses

*Includes class IIS wet areas

Protective measures for Class II-L watercourses in the coastal anadromy zone:

Any Class II-L watercourses shall receive protection in conformance with 14 CCR §§ 916 through 916.7 in addition to the requirements listed under 14 CCR §§ 916.9 (g)(2)(A) and (B).

(i) Silviculture will be selection except in the core zone which is a no-cut zone.

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(ii) Sanitation-Salvage is prohibited except as provided in 14 CCR § 916.9 , subsections (s), (t) and (u).

(iii) Postharvest stand shall have a minimum 80% overstory canopy cover in the Coast Forest Districts of the coastal anadromy zone. The postharvest canopy may be composed of both conifers and hardwood species and shall have at least 25% overstory conifer canopy.

(iv) Postharvest stand shall retain the 13 largest conifer trees (live or dead) on each acre of the area that encompasses the Core and Inner Zones.

(v) Large trees retained to meet 14 CCR § 916.9, subsections (g)(2)(B)2.(i) and (iii) above that are the most conducive to recruitment to provide for the beneficial functions of riparian zones (e.g. trees that lean towards the channel, have an unimpeded fall path toward the watercourse, are in an advanced state of decay, are located on unstable areas or downslope of such an unstable areas, or have undermined roots) are to be given priority to be retained as future recruitment trees.

Also applicable to the class II L -

"B" - WLPZ shall be clearly identified on the ground by an RPF or supervised designee with blue and white striped "WATERCOURSE and LAKE PROTECTION ZONE" flagging prior to the start of timber operations. In watersheds with listed anadromous salmonids, on the ground identification of the WLPZ must be completed prior to the preharvest inspection. In this THP the flagging will be completed prior to the preharvest inspection. Note-Class II-L WLPZs will only be flagged in those areas where they extend out of Class I Core zones and Inner A zones. See explanation and justification in Section III item 27J.

"E" - To insure retention of shade canopy filter strip properties and the maintenance of wildlife values described in 14 CCR 916.4(b), a base mark shall be placed below the cutline of the harvest trees within the zone and shall be done in advance of timber felling operations by an RPF or supervised designee. In watersheds with listed salmonids tree marking must be completed prior to the preharvest inspection.

As per 916.4(b)(6)- Within the WLPZs, at least 75 percent surface cover and undisturbed area shall be retained to act as a filter strip for raindrop energy dissipation, and for wildlife habitat.

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Protective measures for Class II-S watercourses and class IIS wet areas in the coastal anadromy zone

Class II-S watercourses including class IIS wet areas (all designated wet areas on maps get class IIS protections except for the two potential frog habitat areas which receive higher protections as outlined elsewhere): Any Class II-S watercourses shall receive protection in conformance with 14 CCR §§ 916 through 916.7 in addition to the requirements listed under 14 CCR §§ 916.9 (g)(2)(A) and (B).

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"B" - WLPZ shall be clearly identified on the ground by an RPF or supervised designee with blue and white striped "WATERCOURSE and LAKE PROTECTION ZONE" flagging prior to the start of timber operations. In watersheds with listed anadromous salmonids, on the ground identification of the WLPZ must be completed prior to the preharvest inspection. In this THP the flagging will be completed prior to the preharvest inspection. **Note- Class II-S WLPZs will only be flagged in those cases where they extend out of the Class I F.P.A. See explanation and justification in Section III item 27J.**

"E" - To insure retention of shade canopy filter strip properties and the maintenance of wildlife values described in 14 CCR 916.4(b), a base mark shall be placed below the cutline of the harvest trees within the zone and shall be done in advance of timber felling operations by an RPF or supervised designee. In watersheds with listed salmonids tree marking must be completed prior to the preharvest inspection.

"I" - To protect water temperature, filter strip properties, upslope stability, and fish and wildlife values, at least 50% total canopy covering the ground shall be left in a well distributed multi-storied stand configuration composed of a diversity of species similar to that found before the start of operations. The residual overstory canopy shall be composed of at least 25% of the existing conifers.

As per 916.3(g)- Recruitment of large woody debris for instream habitat shall be provided by retaining at least two living conifers per acre at least 16 inches diameter breast high and 50 ft. tall within 50 ft. of all Class II watercourses.

As per 916.9(u)-No salvage logging will occur within the WLPZs .

As per 916.4(b)(6)- Within the WLPZs, at least 75 percent surface cover and undisturbed area shall be retained to act as a filter strip for raindrop energy dissipation, and for wildlife habitat

Class III watercourse section-

Watercourse	percent	Zone	type	Protective
Class	slope	width		Measure
Class III	<30%	30'	ELZ	916.9 (h)
Class III	30% and	50′	ELZ	(1,2,3,4,5,6,
	up			7 and 8)
				And
				916.5(e)
Springs	all	25′	ELZ	
without				
aquatic				
animals-				
Wet areas	all	25 '	ELZ	
or wet				
meadows				
without				
aquatic				
animals-				

Table for class III watercourses

For Class III watercourses the protective measures are:

Class III watercourses will have ELZs as outlined in the table above.

As per 916.5(e) – "H"- At least 50% of the understory present before timber operations adjacent to Class III watercourses shall be left living and well distributed to maintain soil stability upon completion of operations.

As per 916.9(h) – For Class III protection measures all Class III centerlines are flagged with blue flagging within the tractor yarding areas. Class III watercourse crossings will be kept to a minimum.

- (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.

- (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 ELZ and 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 subsections (e)(1) (A)-(F) are permitted in any ELZ and channel zone.

As per 14 CCR 916.4(c)(3)-Soil deposited during timber operations in a Class III watercourse other than at a temporary crossing shall be removed and debris deposited during timber operations shall be removed or stabilized before the conclusion of timber operations, or before October 15. Temporary crossings shall be removed before the winter period, or as approved by the Director.

As per 14 CCR 916 (b)-At a minimum, the LTO shall not remove water, trees or large woody debris from a watercourse or lake, the adjacent riparian area, or the adjacent flood prone areas in quantities deleterious to fish, wildlife, beneficial functions of riparian zones, or the quality and beneficial uses of water.

<u>Springs-</u> If springs are discovered during operations that are not specifically addressed as road points, a spring drain will be installed at the location if a crossing is needed. The spring drain can be installed anytime other ground operations are allowed and will use a 6" plastic pipe (larger pipes and metal pipes are acceptable). Pipe can be removed at close of operations and the road or skid trail will be dipped out to keep water from running down the road or skid trail. Optionally the pipe can be left in if it is functioning properly.

Otherwise no equipment will operate within 25 feet of springs, seeps, or any wet areas except on flagged skid trails or at designated crossings. Timber fallers

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will be instructed to fall timber away from springs and seeps unless it is unsafe to do so.

Water Drafting -

Water may be purchased from a private source for road watering on this plan.

Water may be drafted from three existing holes that have been dug for this purpose which are not near a watercourse, and the standard water drafting forest practice rules do not apply to these holes.

Water may be drafted from the active channel of the Gualala River at four sites. Operational instructions for the LTO regarding active channel water drafting are summarized below. A new 1600 agreement is being prepared for this THP. The water drafting instructions will be similar to the 1600 agreement (1600-2011-0423R3) that covered these sites and was approved as part of THP #1-10-081-SON. The background information and analysis required by the ASP rules are included in Section III (see item 26).

The likely drafting requirements in the 1600 being prepared for this THP will include;

- (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) Each of the four drafting sites 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 operation (including Bed Rock's 1600 permit), 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.

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(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.

All water drafting for timber operations are subject to each requirement below unless, as is likely, the Department of Fish and Wildlife modifies the requirement in a 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:
 - 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).
 - 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.
 - 5. The diversion rate shall not exceed 300 gallons per minute.
- (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.
- (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.
- (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.
- (E) Bypass flows for Class I watercourses shall be provided in volume sufficient to avoid dewatering the watercourse and maintain aquatic life downstream, and shall conform to the following standards, unless modified in the 1600 Agreement for this THP:

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- 1. Diversion rate shall not exceed 10 percent of the surface flow.
- 2. Pool volume reduction shall not exceed 10 percent.

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27. Are site specific practices proposed in-lieu of the following standard WLPZ practices?

a. [X] Yes	[]	No	Prohibition of the construction or reconstruction of roads, construction or use of tractor roads or landings in Class I, II, III, or IV watercourses, WLPZs, marshes, wet meadows, and other wet areas except as follows: (1) At prepared tractor road crossings.
			 Crossings of Class III watercourses which are dry at time of timber operations. At subting read analysis
			(3) At existing road crossings. (4) At new treater and read crossings approved by Department of Eich and Come.
h [] Yes	[X]	No	(4) At new fractor and road crossings approved by Department of Fish and Game. Retention of non-commercial vegetation bordering and covering meadows and wet
D'[] 169	[V]	NO	areas?
c.[]Yes	IX I	No	Directional felling of trees within the WLPZ away from the watercourse or lake?
d.[]Yes	IXI	No	Increase or decrease of width(s) of the WLPZ(s)?
e.[]Yes	IXI	No	Protection of watercourses which conduct class IV waters?
f. [X 1 Yes	11	No	Exclusion of heavy equipment from the WLPZ except as follows:
			(1) At prepared tractor road crossings.
			(2) Crossings of Class III watercourses which are dry at time of timber operations.
			(3) At existing road crossings.
			(4) At new tractor and road crossings approved by Department of Fish and Game.
g.[]Yes	[X]	No	Establishment of ELZ for Class III watercourses unless sideslopes are <30% and EHR is low?
h.[]Yes	[X]	No	Retention of 50% of the overstory canopy in the WLPZ?
i. [] Yes	[X]	No	Retention of 50% of the understory in the WLPZ?
j. [X]Yes	[]	No	Are any additional in-lieu or any alternative practices proposed for watercourse or lake protection?
NOTE A	VAG	ansi	wer to any of items a through i constitutes an in-lieu practice. If any item is answered

NOTE: A yes answer to any of items a. through j. constitutes an in-lieu practice. If any item is answered yes, refer to 14 CCR 916 (936, 956).1 and address the following for each item checked yes: 1. The RPF shall state the standard rule,2. Explain and describe each proposed practice; 3. Explain how the proposed practice differs from the standard practice; 4. The specific location where it shall be applied, see map requirements of 14 COR 1034(x)(15) and (16); 5. Provide in THP Section III an explanation and justification

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as to how the protection provided is equal to the standard rule and provides for the protection of the beneficial uses of water per 14 CCR 916 (936, 956).1(a). Reference the in-lieu and location to the specific watercourse to which it will be applied.

Exception to 27a, 27f and 27j- See Section III for explanation on justification for in lieu practices.

Note to LTO regarding WLPZ skid trails- All skid trails in the WLPZ have been flagged and the LTO will only be allowed to use flagged skid trails. Any WLPZ skid trail that traverses a slope greater than 30% or traverses a slope greater than 10% and is within 150 feet of a class I or II watercourse will be slash packed or straw mulched and seeded to the standards in item 18 and waterbarred. Any landing that is on slopes greater than 10% or is within 150 feet of a class I or II watercourse will be slash packed in item 18 and waterbarred. Any landing that is on slopes greater than 10% or is within 150 feet of a class I or II watercourse will be slash packed in item 18 and waterbarred.

28.	a.[X]Yes []No	Are there any landowners within 1000 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? If yes, the requirements of 14 CCR 1032.10 apply. Proof of notice by letter and newspaper should be included in THP Section V. If No, 28 b. need not be answered.
	b. []Yes [X] No	Is an exemption requested of the notification requirements of 1032.10? If yes, explanation and justification for the exemption must appear in THP Section III. Specify if requesting an exemption from the letter, the newspaper notice or both.
	c. []Yes [X] No	Was any information received on domestic water supplies that required additional mitigation beyond that required by standard Watercourse and Lake Protection rules? If yes, list site specific measures to be implemented by the LTO.
29.	[]Yes [X] No	Is any part of the THP area within a Sensitive Watershed as designated by the Board of Forestry? If yes, identify the watershed and list any special rules, operating procedures or mitigation that will be used to protect the resources identified at risk?
HA2	ZARD REDUCTION:	Are there roads or improvements which require slash treatment adjacent to them? If
		yes, specify the type of improvement, treatment distance, and treatment method.

All woody debris created by timber operations greater than one inch but less than eight inches in diameter, within 100 feet of the traveled surface of the road leading to the Gualala water treatment plant, shall be lopped for fire hazard reduction, removed or chipped or piled and burned.

See "special treatment area map / slash treatment area map" for location of slash treatment areas.

b. [] Yes [X] No Are any alternatives to the rules for slash treatment along roads and within 200 feet of structures requested? If yes, RPF must explain and justify how alternative provides equal fire protection. Include a description of the alternative and where it will be utilized below.

31. [] Yes [X] No Will piling and burning be used for hazard reduction? See 14 CCR 917 (937, 957).1-11 for specific requirements. Note: LTO is responsible for slash disposal. This responsibility cannot be transferred.

BIOLOGICAL AND CULTURAL RESOURCES

32. a. [X] Yes [] No Are any plant or animal species, including their habitat, which are listed as rare, threatened

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endangered under federal or state law, or a sensitive species by the Board, associated with the THP area? If yes, identify the species and the provisions to be taken for the protection of the species.

It was determined that the following sensitive animal species had a possibility, based on known range or historic range, of being found in or near the plan area. If a species was observed during plan layout it will be noted below.

Notes to LTO-

1- The LTO should be on the lookout for these species and report any observations to the supervising RPF who will report the presence to CDFW for consultation. 2-If an unmapped spring is discovered RPF shall be informed to investigate for presence of Red-Legged Frogs. If a red-legged frog is discovered during timber operations, operations within 500 feet of the area will cease and CAL FIRE and CDFW will be informed immediately.

Non listed species of concern as listed by the Californian Department of Fish and Wildlife

These species include Vaux's swift, Coopers' hawk, Sonoma tree vole, Sharp-shinned hawk, Purple martin, Tailed frog, Western pond turtle, Southern torrent salamander, Pacific Fisher and Townsend's big eared bat.

Note on Sonoma Tree Vole- Sonoma Tree vole is known to occur extensively on GRT property and many sites have been recorded and protected over the last decade. During plan layout for this plan however no signs of Sonoma tree voles were observed. Sonoma tree voles make domed nests of fir needles in trees. The LTO shall inform their fallers to be on the lookout for nests, to protect trees where nests are found and to inform the supervising RPF if nests are found so that additional screen trees can be marked for retention if necessary. The lack of tree voles on this plan is probably due to the fact that it is an area with virtually no conifers other than redwood. All of the other species except for the Southern Torrent salamander and tailed frog have been observed in the past on landowners property but unless specifically noted have not been observed on this THP area. For more information on non-listed species of concern see cumulative impacts analysis for more information.

Western pond turtle may be found within the plan area and will be protected by standard WLPZ protections if present. Coopers hawks, Sharp-shinned hawks and Vaux's swifts are also likely to be occasionally present although no nests are known.

Pacific Fisher (Martes pennanti)-

This THP is on the edge of the Pacific fishers historic range and in an area where the fisher is either rare or absent. No fishers have ever been known to occur on GRT property and this THP is approximately 30 to 40 miles from the known current fisher range. No fishers were found in the CNDDB database search for this plan area or the surrounding area.

For the LTO operationally you need to know that fishers den in snags, cavities in solid or hollow trees, downed logs, goosepens, stumps or rocky crevices. Oaks, especially black oaks appear to be important for denning in some areas. The natal and maternal denning periods occur starting March 1 and is usually completed by July 31st. Resting areas include large limbs, raptor or squirrel nests, and mistletoe brooms.

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In the event of an unexpected sighting of fisher after commencement of operations LTO will suspend all vegetation disturbing activities within the affected units. If a den, resting area or other habitation of a fisher is discovered, all operations shall be suspended within a ¼ mile of a natal den or within 375-foot radius buffer around the maternal den or other habitation until it can be confirmed that fisher are no longer present. The Department of Fish and Wildlife and Cal Fire shall be notified immediately. A substantial amendment may be necessary to incorporate protection measures from such consultation.

Measures that have been incorporated in this THP to avoid take are

- 1. Leaving of all snags that aren't a safety risk,
- 2. Marking of wildlife trees which have the characteristics that fishers prefer.
- 3. Leaving large hardwoods (24" or greater) up to 4 per acre.

See section IV for additional information.

Townsend's big-eared bat (Corynorhinus townsendii, COTO)-

This THP is within the historic range of COTO. No COTO have ever been known to occur on GRT property and there are no caves, mines, or abandoned buildings within the THP, which are currently considered the preferred habitat, although no targeted COTO surveys have taken place. Within the THP area there are large old snags and large old growth stumps that could contain hollows sufficient for roosting. During layout of the plan no evidence of COTO was found. However, given that COTO are widespread, but low-density in California and bats are nocturnal and cryptic in general, may be expected outside of targeted survey efforts by bat biologists. The entire plan was marked prior to the preharvest inspection and the entire THP has been walked through. No suitable roosting hollows (as defined in the following paragraph) were observed; although, it should be noted that the RPF was only aware of the possibility of the COTO listing for the last half of the marking process. On 9/2/15 and 9/3/15 the balance of the THP was checked for potential habitat and none was observed. COTO were found in the CNDDB nine quad database search. The record is greater than 20 years old; however, it is important to note that targeted COTO surveys have not been conducted and that PART OF PLAN negative survey results do not appear in the CNDDB..

For the LTO operationally, you need to know that the Townsends big eared bat are known to roost in caves, mines, abandoned buildings, basal hollows of large trees (> 42" dbh), or perhaps stumps if the stumps are closed at the top. The roost entrance in buildings, caves, and mines has been reported to be as small as 1 square foot in size (Pierson & Rainey 1998). In managed forests, the roost entrance in basal hollows has been reported ranging from 1 to 5.9 feet wide, and 2.6 to 14 feet high in size (Fellers & Pierson 2002). Basal hollow roost entrances greater than 2 square feet that extend 1 foot or more upward into the tree above the top of the entrance to buffer changing microclimates , and are greater than 3 feet above the ground to provide protection from terrestrial predators is what is currently recommended to define potential basal hollow COTO roost habitat by CDFW/CalFIRE (pers. comm., M. Baker, Nov.12, 2015). Pierson and Rainey (1998) noted that for caves and mines the only light penetrating the roost area originates from the roost entrances so that the internal roost area remains semidark to dark, however COTO are also known to roost in complete darkness and away from cave and mine entrances to roost also. COTO roost in a range of light conditions in

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anthropogenic structures and in basal hollows. Maternity colonies form between March and June and one pup is born between May and July. Adults and young begin to disperse in September and October. LTO should be aware that any bat sightings (or bat guano sightings) where it appears bats have been issuing from a tree or stump within the THP boundaries should be reported to the supervising RPF. Any bats that are observed that have extremely large ears should also be reported no matter where they are observed.

In the event of the discovery of potential COTO habitat after commencement of operations LTO will suspend all vegetation disturbing activities within a 400 foot buffer during the period from May 15th to August 15th, and within a 200 foot buffer between August 16 and May 14 until targeted surveys are completed (see below for survey specifics), and detection, or lack of detection, may change the buffer. If occupied habitat is discovered, The Department of Fish and Wildlife and Cal Fire shall be notified immediately. An amendment may be necessary to incorporate protection measures from such consultation.

Measures that have been incorporated in this THP to avoid take are

1. Leaving of all snags and goosepins.

2. Carefully inspecting basal hollows with red-filtered flashlights or placing guano traps in the base of hollows.

3. Leaving thirteen largest trees per acre in all flood prone areas and leaving all large hardwoods.

<u>Targeted survey methods for COTO if habitat is discovered during operations</u>-The RPF will consult with CDFW if COTO habitat is discovered in the THP area prior to or during operations. COTO surveys shall be performed under consultation with CDFW with CDFW-approved survey methods utilizing then-current best science practices.

See section IV for additional information on the life history of COTO.

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Board of Forestry Sensitive animal species-

Golden eagle, Great blue heron, Great egret, Northern Goshawk, Osprey. Only the Osprey and Great Blue Heron are known to occur regularly on GRT property.

Osprey- There are no known Osprey nest locations within the THP or within the buffers designated by 919.3b(5).

Great Blue Heron- There are no known Great Blue Heron nests on GRT lands.

As per 919.2

(b) During timber operations, nest tree(s), designated perch trees(s), screening tree(s), and replacement trees(s), shall be left standing and marked for protection except as otherwise provided in these following rules.

(c) Timber operations shall be planned and operated to commence as far as possible from occupied nest trees unless explained and justified by the RPF in the THP.

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(d) When an occupied nest site of a listed bird species is discovered during timber operations, the timber operator shall protect the nest tree, screening trees, perch trees, and replacement trees and shall apply the provisions of subsections (b) and (c) above and shall immediately notify the Department of Fish and Game and the Department of Forestry and Fire Protection. An amendment that shall be considered a minor amendment to the timber harvesting plan shall be filed reflecting such additional protection as is agreed between the operator and the Director after consultation with the Department of Fish and Game.

The buffer zones and buffer periods of 919.3 specific to each listed species, sensitive species or non-listed species of concern above shall apply to any species discovered after start of operations unless modified by consultation with CDFW.

Candidate Species for possible listing-

Foothill Yellow Legged frog- (Rana boylii) - (California candidate species for listing) Adult foothill yellow-legged frogs are moderately sized — between 1.5 and 3 inches long — with a distinctive lemon-yellow color under their legs. They inhabit partially shaded, rocky perennial streams and their life cycle is synchronized with the seasonal timing of streamflow conditions. Adult frogs move throughout stream networks from winter refugia to mating habitat where eggs are laid in spring and tadpoles rear in summer. They breed in streams with riffles containing cobble-sized or larger rocks as substrate. These frogs need perennial water where they can forage through the summer and fall months. (Excerpt from Center for Biological Diversity). Additional information can be found in the cumulative impacts portion of Section IV. These frogs do occur in suitable habitat in the assessment area and may occur in the same habitat that has been identified as potential red legged frog habitat in the plan area.

Any adult frogs that may exist near the THP will be protected by WLPZ requirements and red legged frog protections that are part of the plan. Desiccation of egg masses is a concern therefore this frog's egg masses will also be protected by drafting limitations that are part of the 1600 agreement. This agreement ensures that water levels will not be significantly reduced during water drafting.

The frogs or their egg masses may also be affected during temporary crossing installation. On class I crossings in this plan, mitigations are in the plan and in the 1600 agreement for the protection of salmonid species and these same protections will protect the yellow legged frog. The class II crossings on this plan have been examined and are not considered to qualify as habitat. These crossings are either dry at the time of their use or have minimal flow. Most of these crossings also have extensive shade canopy and/or excessive slope gradient.

The mitigations contained in the plan for protection of the red legged frog will also protect the yellow legged frog and its habitat.

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Listed Species Endangered or Threatened, (either California or Federal)-Northern spotted owl, California red legged frog, Bald eagle, Peregrine falcon, Marbled murrelet, coho salmon, chinook salmon, steelhead trout, gray wolf.

The LTO should be alert for these species during operations. The area was examined for these animals. The CNDDB was also searched and the results of that search are included in Section V. Northern Spotted Owl, Red-legged frog and Gray Wolf are addressed below. Biological information on the other species can be found in the biological section of the CIA found in Section IV of the THP. If a listed plant or animal is found within or adjacent to the THP area the RPF will complete and submit a Native Species Occurrence form to the California Natural Diversity Database to document it.

Gray Wolf (Canus lupus)-

No wolves have been sighted in this part of California since 1924 or earlier. Sightings of wolves and/or detection of den/rendevous sites shall cause work to immediately stop in the area and the sighting will be reported to CDFW. In the event of a sighting, protection measures will developed through a consultation with CDFW prior to the resumption of work in the affected unit. See section IV for more information on habitat and distribution.

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Marbled Murrelet- (Brachyramphus marmoratus)- Potential habitat may exist within and adjacent to the THP in the form of a handful of isolated and exposed large trees although the habitat is not ideal. Maps of these locations are provided under misc. addendums pages 441 and 441.1. Murrelet surveys conducted near this THP during the last two years did not detect murrelets. The results of this survey will expire in 2019. A history of current and past survey information along with post survey consultations is included in misc. addendums.

The nearest known occurrence of marbled murrelets is 3.5 miles south of the most southern boundary of the plan area where, in 1999, CDFW staff documented vocalizations and below-canopy flight over the Clipper Mill Bridge. More recent sightings at this location have also been reported. Consultation with CDFW will be sought if 1) trees or stands are identified within ¼ mile of the plan area that meet the definition

Dogwood THP

PART OF PLAN 38-2 revised 4/8/16

Section II
of suitable habitat; 2) the location and boundary lines of the proposed THP are expanded; or 3) CDFW, the RPF, the property owner or CALFIRE receive any new information regarding marbled murrelet occurrences near the proposed plan area. Harvest operations shall be completed by 2019, prior to the expiration of marbled murrelet surveys, or additional consultation with CDFW shall be initiated.

Northern Spotted Owl (Strix occidentalis). Status: Federal - Threatened (1990).

This THP is within the range of the NSO. 1.

2. This THP will comply with 14CCR 919.9(e) by conforming to the requirements of USFWS Take Avoidance Scenario 4: Avoidance of Disturbance and Direct Take Through Habitat Retention.

No timber operations shall occur until such time as all NSO surveys (which follow 3. the most recent approved USFWS survey protocols) for the current, or immediately preceding, survey period are complete and the results have been provided to CAL FIRE. As of Plan submission; protocol surveys are not complete.

Yearly NSO survey results are amended to the plan as necessary. These survey 4. result amendments may contain changes to the NSO protections not included in the THP as originally approved. All NSO amendments should be checked by the RPF and/or LTO to assure compliance with the most current NSO information.

Additional NSO information is located in THP Section V. 5.

USFWS Scenario 4: Avoidance of Disturbance and Direct Take

Through Habitat Retention – Attachment A, Coast, 2011

- A. Suitable habitat within some or all harvest units? Yes, all units
- B. Protocol surveys detect NSO and/or historic activity centers within 0.7 miles of timber operations?

Yes -Previous surveys and Landowner information show SON0012, SON0017, SON0045 (two ACs) SON0082, SON0085, SON0094 and an AC the Landowner calls SONVC within 0.7 miles.

- C. All habitat and operational conditions shall be followed for each activity center.
 - 1) Habitat conditions that avoid take

Take Avoidance Analysis – Coast (included)

Operational conditions that avoid take 2)

Harvest units containing suitable NSO habitat Post-harvest conditions will remain nest/roost habitat Historic monitoring detected SON0012, SON0017, SON0045 (Flats location) and SON0082 within 1/4 mile of harvest area; therefore, seasonal restrictions may apply.

- III. Take Avoidance Analysis Coast
- Accuracy of NSO Activity Center Location and Status I.
- 1) Location (Dogwood THP NSO Activity Centers See NSO Activity Centers Map, THP Sec. V).
 - Confirm plotted activity centers
- CDFW CNDDB Spotted Owl Database (June 30, 2014 See THP Sec. V).
- Data from adjacent landowners: No data from adjacent landowners.

Dogwood THP

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- ✤ Recent Surveys: Past survey efforts detected SON0012, SON0017, SON045, SON0085 and SONVC.
 - Document deviations from CDFW locations: There are deviations to the CNDDB mapped owl locations. The locations for SON045 and SON012 are not correct in the CNDDB. Landowner has notified CNDDB about this in the past. SONVC has not been assigned an AC in the CNDDB.
 - Update habitat analysis maps: See NSO habitat maps, THP Sec. V.
- 2) Status
 - Valid Site including occupancy and reproductive status
 - ✤ SON0012 Single NSO (2014).
 - **SON0017 Single NSO Male (2014).**
 - SON0045 Pair- nesting undetermined (This pair utilizes two ACs) (2014).
 - ✤ SON0082 No detections (2008 2014).
 - ✤ SON0085 Single NSO (2014).
 - SON0094 No detections This AC still appears in the CNDDB however USFWS determined abandoned June 5, 2008. See USFWS letter in Section V.
 - SONVC Pair nesting undetermined.
- II. Survey Effort
- 1) Coverage of Nesting/Roosting Out to 0.7 miles: A map of proposed survey stations is provided in THP Section V. Protocol surveys are not complete for this THP as of Plan submission. Protocol surveys will be completed prior to operations on this THP.
- 2) 2) Protocol Surveys: Protocol surveys are not complete for this THP as of Plan submission. Protocol surveys will be completed prior to operations on this THP.
- 3) Follow up Visits: Not applicable.
- III. Habitat
- 1) Typing
- Verify Habitat Typing: The habitat typing is based upon timber typing, inventory plots, ground knowledge of property, and aerial photos. Habitat typing has been ground verified by biologists with Forest Ecosystem Management.
- Changes to Typing: See acres summary on NSO Habitat Maps, THP Sec. V.
- Post Harvest Typing: See acres summary on NSO Habitat Maps, THP Sec. V.
- 2) Definitions
- Nesting/Roosting Habitat: Forested habitat that supports successful nesting and associated roosting behavior by NSOs. Habitat with >60% canopy cover of trees that are >11" dbh, and have a basal area >100 square feet per acre of trees >11" dbh. Trees may be conifer or hardwood.
- Foraging Habitat: Forested habitat that contains >40% canopy cover of trees that are >11" dbh and have a basal area >75 square feet per acre of trees >11" dbh. Trees may be conifer or hardwood.

3) Quantities (Attachment #A date 15MAR11):

Core Area Habitat Protection (100 acres): Once an AC has been accurately mapped, a 100-acre Core Area polygon must be identified that contains the highest quality habitat (typically nesting/roosting) located contiguous with the activity center (See NSO Habitat and NSO Seasonal Restrictions maps, THP Sec. V). There is no harvesting within the core area, without amendment to the THP.

- Within 0.7-mile radius of an Activity Center retain at least 500 acres of suitable northern spotted owl habitat as follows:
 - Retain 200 acres of nesting/roosting habitat within a 0.7 mile radius of the activity center consisting of:
 - 100 acres of the 200 acres of nesting/roosting habitat retained should be contiguous, or contiguous as possible with the activity center.
 - An additional 100 acres of nesting/roosting habitat within the 0.7 mile radius:
 - If the second 100 acres of nesting/roosting habitat is also contiguous with the activity center, or within the same drainage, operations should retain a minimum of 66% of the pre-harvest basal area per acre of trees at least 11" dbh.
 - If the remaining 100 acres of nesting/roosting habitat is not contiguous with the activity center, retain at least nesting/roosting habitat.
 - 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 miles of an activity center during the life of the timber operations.
- Road Use: USFWS Attachment A (2011) states "To avoid take of NSO from noise disturbances, road use within ¼ mile of a NSO activity center during the breeding season is prohibited until July 10th." The Plan Submitter requests an exception to this requirement. The continued occupancy of activity centers on landowner's property for at least 21 years demonstrates a tolerance to the existing roads. Additionally, USFWS has issued hundreds of no take determinations without limitations on road use within ¼ mile of activity centers. For these reasons there shall be no limitation on use of existing roads within ¼ mile of the activity centers.
- Seasonal Restrictions within ¼ mile: A ¼ mile seasonal restrictions 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" (2011 NSO Protocol), that NSOs are not nesting, or nesting failure has occurred. If it cannot be determined whether NSOs are nesting, or nesting failure cannot be determined, the ¼ mile seasonal restriction stays in effect for timber operations until after July 31st.
- 1) Within the 100-acre Core Area polygon of a NSO AC:
 - Outside the breeding season, limited timber operations may be conducted, provided no trees >11" dbh are cut or removed by the operations, and no logs are yarded through the Core Area. This may be changed through amendment

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to the THP.

- During the NSO breeding season, timber operations are not allowed within the 100-acre Core Acre polygon, except as allowed below.
- 2) Timber Operations outside the 100-acre Core Area polygon, but within ¼ mile of an NSO AC:
 - Outside the breeding season, timber operations may be conducted.
 - During the breeding season, no timber operations should proceed unless protocol surveys do not detect nesting NSOs.
- 3) For all NSO AC, prior to May 15th (until the required May 15 or later survey is completed):
 - Timber operations (except helicopter yarding or staging) may be conducted only on those THP areas >.25 miles from the AC.
 - Helicopter yarding and staging may occur only on those THP areas >.5 miles from the AC.
- 4) For NSO AC where reproductive status has been determined to be non-nesting or failed nesting:
- Limited timber operations (road use and maintenance, map point work, use of existing skid roads, tail-hold placements and loading) may be conducted within the 100-acre Core Area polygon of the AC provided no trees >11" dbh are cut or removed by the operations, and no logs are yarded through the Core Area.
 - Full timber operations, including helicopter yarding and staging, may be conducted within ¼ mile but not within the 100-acre Core Area polygon of the AC. Helicopter flyovers shall not occur within 1,000 ft. of the Activity Center.
 - 5) For NSO AC, where reproductive status has been determined to be nesting:
 - a. For Activity Centers where fledging status has not been determined, timber operations may be conducted only on those THP areas that are >0.25 mile from the Activity Center until the end of the breeding season.
 - b. Helicopter yarding and staging may occur only on those THP areas >0.25 mile from the Activity Center.
 - 6) For NSO Activity Centers, where fledging status has been determined (either nest failure or fledglings have left the Core Area):
 - A) Full timber operations, including helicopter yarding and staging, may be conducted within ¼ mile but not within the 100-acre core polygon of the AC. Helicopter flyovers shall not occur within 1,000 ft. of the Activity Center.
 - B) Limited timber operations may be conducted within the 100-acre core polygon of the AC, provided no trees >11" dbh are removed by the operations, and no logs are yarded through the Core Area.
 - 7) For any NSO AC, regardless of reproductive status:
 - a) If NSO moves to a new location (>1000' from the historic AC) and reproductive behavior is confirmed at the new site, request TA to evaluate the status of the historical AC.
 - b) Seasonal restrictions may apply to SON0012, SON0017 and SON0045 (Flats).

Dogwood THP

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- c) Priority Ranking of Habitat Retention Acres (Attachment #A dated 15MAR11):
- Tree Species Composition: Redwood or mixed conifer stands should be selected over hardwood dominated stands. Much of the area is mixed conifer stands (redwood/Douglas-fir with tanoak and madrone). Within the THP boundary is second growth redwood with very high basal area. It is in the best interest of Gualala Redwoods, Inc. to manage the stand for redwood/Douglas-fir (merchantable tree species). Madrone and tanoak are and will continue to be present.
- Abiotic Considerations:
 - Distance to nest: Nesting/Roosting and Foraging habitat closest to identified nest trees, or roosting trees if no nest trees identified.
- · Contiguity: Nesting/Roosting habitat within the 0.7 mile radius should be as contiguous as possible; and minimize fragmentation of foraging habitat as much as possible.
- Slope Position: Habitat located on the lower 1/3 of slopes provides optimal microclimate conditions and an increased potential for intermittent or year-round water sources. Watercourses are protected under the WLPZ zones as listed within the THP.
- Aspect: Habitats located on northerly aspects provide optimal vegetation composition and cooler site conditions.
- Elevation: Habitat should be at elevations of less than 6,000'. The entire THP is below 6,000' above mean sea level.
 - Size and Shape of Habitat Patch C)
- Narrow strips of habitat (100m or less) including WLPZ strips, retention areas OF PLAN . between clearcuts, or narrow corridors may contain the characteristics of nesting/roosting habitat; however, when surrounded by unsuitable or low quality habitats, they function as foraging habitat at best.
 - The habitat Maps, THP Sec. V, contain some corridors between clearcuts that would fall into this category (habitat conditions of nesting/roosting but would be considered foraging under this stipulation). There are still over 200 acres of nesting/roosting habitat and 500 acres of suitable NSO habitat within 0.7 miles of the Activity Center.
 - Summary of Protection Measures for NSOs for Dogwood THP
- 1. There may be Northern Spotted Owl Activity Centers within 1/4 mile of the THP boundary; therefore, there may be harvest and seasonal restrictions (See NSO Proximity Map, THP Sec. II and V).
- 2. 100-Acre Core Area Habitat delineations have been identified for the NSO activity centers within 0.7 miles of the THP. No harvest will occur within this Core Area Habitat without amendment to the THP.
- 3. There will be no harvesting within 500' of a northern spotted owl activity center without amendment to the THP. Harvest can occur between the 500' and 1,000' circle

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surrounding an AC; however, post-harvest habitat must retain existing habitat conditions.

- 4. Helicopter logging is not proposed for this THP.
- 5. Home range acres for all known northern spotted owl activity centers within 0.7 miles of the THP are met within the assessment areas this plan falls within.
- 6. If a new northern spotted owl is detected within or immediately adjacent to the THP, timber operations will stop and the appropriate regulatory agency will be notified.
- 7. Protocol NSO surveys will be conducted prior to harvest operations.

California Red Legged Frog-

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In this THP two areas have been designated as potential habitat for red legged frogs (see

map in section II). Seasonal buffer zones will apply to these areas.

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 very 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.

Scenario III mitigations apply during the red legged frog wet weather period as defined above.

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 <u>(applies 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).</u>

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 equipment within 75 feet of annual high water mark, trees felled away from suitable habitat.

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.

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Scenario IV mitigations that apply during the red legged frog dry weather period as defined above.

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.

i. All suitable habitats must maintain a 30-foot no-cut buffer; no equipment within the nocut buffer; trees felled away from suitable habitat.

Under both of the above scenarios, the following operational conditions must also be included:

1) Pile burning must be outside the 300-foot buffer of suitable habitat

2) No herbicide use allowed within 300 feet of suitable habitat except for direct application to stumps

3) Roads and landings, if constructed, must be at least 300 feet from suitable habitat, and construction must occur in the dry season.

3) 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

<u>Rare plants</u>- A scoping process for rare plants was conducted and is included in section IV. A seasonally appropriate plant survey will be conducted prior to start of operations using the focus species from the scoping. Special Treatment Flagging will be hung around areas where rare plants are discovered. These special treatment areas will be an equipment exclusion zone with a radius of at least 25 feet around the plants. Timber may be felled within the equipment exclusion zone but shall be felled away from the rare plant to the extent feasible consistent with safety. The survey will be submitted when it is completed but no later than ten days prior to start of operations as an amendment to CALFIRE. A copy of the rare plant survey will also be sent to CDFW at the same time. If any rare plants are discovered, additional protection to that described above (i.e. equipment exclusion zone, maintenance of canopy etc.), may be incorporated into the THP, dependent on the plant, its location, and consultation with CDFW.

Additional beneficial actions for wildlife protection-

<u>Nests-</u> All fallers shall be informed to leave trees in which nests or nest holes are observed and to report any nests found to the LTO who shall report to the landowner's representative.

<u>Dead and down Materials</u>- Dead and down materials within the WLPZs shall be left on the ground to provide habitat for amphibians, reptiles, birds, and small mammals.

<u>Hardwoods</u>-All hardwoods within the WLPZs shall be left uncut. Leave hardwoods outside of the WLPZs that are 24" or greater DBH (up to 4 per acre) unless they pose a threat to safety.

<u>Springs-</u> If springs are discovered during operations that are not specifically addressed under item #25, a spring drain will be installed at the location if a crossing is needed. Otherwise no equipment will operate within 25 feet of springs, seeps, or any wet areas except on flagged skid trails or designated roads.

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Wildlife trees- Trees have been marked with a "W" to indicate a wildlife no-cut tree.

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Dogwood THP

AMENDMENT NO 3 (Minor)

7/7/2016

TO CALFIRE Resource Management 135 Ridgway Ave. Santa Rosa, CA 95401 This amendment conforms to the rules and the regulations of the Board of Forestry and the Forest Practice Act. Reviewed by M2 date routed cc: Unit (2) DFG WG CP PR BoE Sub RPF

Regarding THP # 1-15-042SON DogwoodTHP

Dear Sirs,

Amendment to 1-15-042SON

The rare plant survey has been completed for this plan. For details of the plant scoping and focus list see section IV of the THP. Approximately 36 hours over a 1 ½ month period was spent surveying. The survey method was a random meander through the units with a focus on areas that have been disturbed, areas with canopy openings or areas with sunken topography. The attached map of the survey route is only approximate and many additional lines could be drawn off of the survey route line to show points that were checked out during the survey that are difficult to show to scale. The results of the survey found one patch of swamp harebell (Campanula californica) consisting of less than ten individual plants. The site was flagged with special treatment area flagging (STA flagging) to provide a 25 foot EEZ. The supervising forester will show the LTO the rare plant site prior to start of operations. A CNDDB report was sent in on 7/7/16.

Included are the map of the site and approximate survey route. A copy of the common plants observed and a copy of the CNDDB report is also included.

Sincerely,

ple

Art Haschak #2423

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THP # 1-15-042SON DogwoodTHP

cc - CDFW

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THP name-Dogwood	check box if present
Date and time spent- 8 hours May	15 (Art Haschak), 6/8/16, 5
hours, 6/9/16, 6 hour, 6/13/16,	7 hours, 6/28/16, 5 hours,
6/29/16 5 hours (John Bennett)	, nours, s, co, co, s nours,
6/23/10, 5 hours (bonn bennett)	
Common name	
alder (red)	X
alumroot (small-flowered)	
anise	X
Australian fireweed	
Azalea	X
baby stars	
Baker's goldfields	
Baker's larkspur	
Bay-Laurel	X
beaked tracyina	
bedstraw	X
bicolor lotus	
bird's-foot lotus	
Bishop pine	
black oak	
blue blossom	X
blue dicks	
blue-eyed grass	X
blue flax	
Bolander rush	
Bolander's phacelia	
buck brush	
buckeye	
bulrush (small-flowered)	
buttercup	X
calvpso orchid	
carrot (wild)	
catchfly	
Cat's ears	X
ceanothus (sp.)	1
checkerbloom (maple leaved)	
checkerbloom (Point Reyes)	
checkerbloom (purple-stemmed)	
checkerbloom (Siskiyou)	
chickweed	
chinquapin (dwarf)	
chinquapin (giant)	
cinquefoil	X
Clintonia (andrews) bead lilv	X
clover (Santa Cruz)	
clover (showy Indian)	
clover (Spanish)	
clover (spotted)	
clover (white)	X
coast boykinia	
fawn lily (coast)	
coast lily	
coastal bluff morning-glory	
coltsfoot	
coralroot	
corn lily	X
cow parsnip	X
and a local	

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greening gudwood	
creeping cudweed	
dendelier	V
dandellon	^
Death camas	
deer brush	
Douglas-fir	Χ.
doveweed	
duckweed	
elderberry	
elk clover	X
english daisy	
eucalyptus	
English plantain	
fairy bells	
fern (bracken)	X
fern (chain)	X
fern (deer)	X
fern (five-fingered)	X
fern (goldenback)	
fern (lady)	X
Fern (maiden hair)	X
fern (sword)	X
fescue	
Fetid adders tongue	X
fiddleneck	
field bindweed	
figwort (coast)	
forget me not	X
foxglove	x
fragrant fritillary	
French broom	x
fringegung	A
fringed false ballebore	x
dinger laise hellebole	- X
genger	A
Grand fir	v
	<u>^</u>
grape-rern	
grass (American manna)	
Grass (annual blue)	
Grass (barley)	
grass (bear)	
grass (Dolanders reed)	
Grass (Cheat)	
grass (creeping bent)	
grass (goose)	
grass (Kentucky blue)	1
grass (North Coast semaphore)	
Grass (oat)	X
grass (Orchard)	
grass (perennial rye)	X
grass (rattlesnake) (large)	X
grass (rattlesnake) (small)	
grass (ripgut)	
grass (sweet vernal)	
grass (vanilla)	
grass (velvet)	
great burnet	
groundcone (California)	
groundcone (small)	
hairy honeysuckle	X

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hazelnut	
hedgehog dogtail	
hedge-nettle	X
hemlock	
hill lotus	
Himalayan blackberry	X
borsetail	x
hound's-tongue	x
hughlohoppy (colifornia blue)	x x
huckleberry (calloinia bide)	v v
Humbeldt milk-wetch	^
humboldt milk-vetch	
nyacının (wnite)	v
Indian pink	A
inside-out flower (redwood)	
iris (Douglas)	X
Ithuriel's spear	
Labrador tea	
lace flower	
large-flowered agoseris	
leopard lily	
little princes pine	
live oak (canyon)	
live oak (coast)	
lupine (false)	
lupine (miniature)	
madrone	X
mallow	
manzanita (glossyleaf)	
manganita (hairy)	
manganita (hoary)	
manzanita (Ringon)	
manizanica (Kincon)	y .
maple (bigieat)	^
marsh pea	
milkwort	
miners lettude	
mountain sweet-cicely	
mugwort	
Napa false indigo	
narrow-anthered California	
brodiaea	
nemophila (small-flowered)	X
nutmeg	
oats (wild)	X
orange monkey flower	X
Oregon ash	X
Oregon goldthread	
oregon grape	X
Pacific bramble	
Pampas grass	X
pea (hillside)	X
plantain (rattlesnake)	
poison hemlock	
poison-oak	X
popcorn flower	
poppy	
purple cudweed	
purple needlearses	
Purphe neededtass	
burbre-reaved IILemeed	
rausn (wiid)	
raspoerry (white-stemmed)	A



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trail plant	X
trifid bedstraw	X
trillium	X
Usnea longisima	
vanilla leaf	
vetch (spring)	
violet (redwood)	x
water-parsley	X
wax myrtle	X
weedy cudweed	
western leatherwood	
wild licorice	
willow	X
wood rose	X
woodland madia	
woolly mullien	
woolly sunflower	
yarrow	
yellow parentucellia	
Yerba buena	
yerba de selva	X
Yerba santa	
yew	

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Mail to: California Natural Diversity Database California Dept. of Fish & Wildlife 1416 9 th Street, Suite 1266 Sacramento, CA 95614 Fax: (916) 324-0475 email: CNDDB@wildlife.ca.gov			For Office Use Only Source Code:				
Date of Field Work (mm/dd/yyyy):	Date of Field Work (mm/dd/yyyy): 06/13/2016		EO Index:				
Clear Form Californ	nia Native S	pecies	Field	Surve	y Form	Pri	nt Form
Scientific Name: Campanula cal	ifornica						_
Common Name: swamp harebel	I						
Species Found? O			Reporter:	John Benne	ətt		
Yes No	If not found, why?		Address:	P.O. Box 1	97		
Iotai No. Individuals: <10 Su	bsequent visit? O ve	IS ONO	Gualala,	CA. 95445			
Is this an existing NDDB occurrence?	Yes, Occ. # No	D Unk.	E-mall Ad	dress: jbenr	ett@pacificstate	es.com	
Collection? If yes:	Museum / Herbarium		Phone:				
Plant Information	Animal Informa	ation					
Phenology:		-					
80 . 20	# adults	# juve	niles	# larvae	# egg masses	# unkr	nwoi
% vegetative % flowering % fruiting	wintering	breeding	nesting	C rookery	burrow site		other
Coordinates: 38 43.962 -123 26.97 Habitat Description (plants & animals) Animal Behavior (Describe observed beha Depositional alluvial flats, Openings a	plant communities, domin avior, such as territoriality, t	nants, associa foraging, sing	ites, substrating, correst. Pop	tes/soils, aspect	s/slope: hing, roosting, etc., e	especially	for avifauna): ociated
with old skid trails and roads. Plants	not always associate	d with wet	or season	ally wet area	s.		
Please fill out separate form for other rare taxa	seen at this site.			O Freedlag	00000	0.5-1-	0.0
Immediate AND surrounding land use	Timber management	(site + po)	sulation):	CExcellen		J Fair	Poor
Visible disturbances: None	·						
Threats: Individual mortality due to heav	y equipment. Populatio	on mortality o	lue to cano	py closure and	lack of soil distu	bance.	
Comments: This was a known popula timber management has individuals were found du	ation that previously (allowed the canopy to uring this survey. It is	>10 years) to close and likely that	was comp there has continued	prised of 100 s been no so protection w	s of Individuals. il disturbance. L Il eliminate this	Protection ess than population	on from 110 on.
Determination: (check one or more, and fill is	n blanks)	aros		Photograp	hs: (check one or m	ore)	-
Compared with specimes bound at		KEU.	111-1	Pla	nt / animal	Slide	Print Digital
Compared with specifier housed at:		41.11	7 000	Ha	bitat		
□ By another person (name): X OHLO: Sight I.O		GUASTAR	EAGERIC	Dia	gnostic feature		
	45.	Shirers	Annen mens	EN ^A	PART OF	PLA	N

Fallers will be instructed to avoid falling trees into trees marked with a "W" or falling merchantable trees into snags (which are all meant to be left) unless there is a safety risk.

b. [] Yes [X] 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.

33. [X] Yes [] No Are there any snags which must be felled for fire protection or safety reasons? If yes, describe which snags are going to be felled and why.

Any snag that the LTO determines to be a hazard to worker or public safety may be felled. All snags that do not constitute a safety hazard will be retained to the extent feasible during timber harvest.

34. [] Yes [X] No Are any Late Succession Forest Stands proposed for harvest? If yes, describe the measures to be implemented by the LTO that avoid long-term significant adverse effects on fish, wildlife and listed species known to be primarily associated with late succession forests.

35. [] Yes [X] No Are any other provisions for wildlife protection required by the rules? If yes, describe.

- 36. a. [X] Yes [] No Has an archaeological survey been made of the THP area?
 - b. [X] Yes [] No Has a current archaeological records check been conducted for the THP area?

c. [] Yes [X]No Are there any archaeological or historical sites located in the THP area? Specific site locations and protection measures are contained in the Confidential Archaeological Addendum in Section VI of the THP, which is not available for general public review.

37. [] Yes [X] No Has any inventory or growth and yield information designated "trade secret" been submitted in a separate confidential envelope in Section VI of this THP?

38. Describe any special instructions or constraints which are not listed elsewhere in Section II. Note to LTO regarding tractor operations;

In order to ensure minimal ground disturbance from ground based yarding, tractors may not drive with their blade lowered, except as needed to move debris. No excavation shall occur on flood prone areas except at watercourse crossings described in section 2 or as needed to improve drainage or resolve access problems resulting from previous logging operations.

Note to LTO regarding falling operations;

Consistent with safety, trees should be felled in whatever direction <u>best preserves the</u> <u>canopy</u> as long as no part of any tree falls into a watercourse.

At a minimum, the LTO shall not do either of the following during timber operations-

1-Place , discharge, or dispose of or deposit in such a manner as to permit to pass into the waters of the state, any substances or materials, including, but not limited to, soil, silt, bark, slash, sawdust, or petroleum, in quantities deleterious to fish, wildlife,

Dogwood THP

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Section II PART OF PLAN

beneficial functions of riparian zones, or the quality and beneficial uses of water;

2-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;

Note to LTO and supervising RPF about wet area protections-

During the pre-operations meeting with the LTO, the RPF will explain the characteristics of wet areas, the location of mapped wet areas and the importance of protecting them. The RPF will also explain the importance of not operating heavy equipment on saturated soils.

Note to LTO about servicing equipment-

- 1) No servicing of equipment within 150 feet of a class I watercourse or 100 feet of a class II watercourse or wet area. Maps showing these buffer zones are included as pages 68.3 thru 68.6.
- 2) All state and federal regulations pertaining to the handling and storage of fuel must be adhered to during logging operations.

The plan submitter is responsible for notifying the Department of the commencement of timber operations.

> Telephone LNU= (707) 576-2344 Mail: 135 Ridgway Ave. Santa Rosa 95401 Email: santarosareviewteam@fire.ca.gov

Flagging Key-

Pink flagging - THP boundaries.

Blue and white striped flags- Boundary between class Inner B and non-WLPZ regular selection areas.

Solid blue flagging- Class III watercourses have their centerlines flagged in ground based skidding areas- See table under item 26 for specifics.

Solid yellow – All usable skid trails within all WLPZ zones have been flagged.

Road Points. Road point numbers are painted on nearby trees or banks in blue paint. Orange and White striped with Special Treatment Zone printed on it- Rare plant location if any. Designates a 25 foot radius equipment exclusion zone around plant location. Two flags hung together usually mean an abrupt change in direction, three flags hung together mean the end of the flag line.

DIRECTOR OF FORESTRY AND FIRE PROTECTION

This T Practic By:	mber Harvesting Pl e Act: <i>Willia</i>	an conforms to Σ	the rules and	l regulations	of the Board of $7/1/2016$	Forestry a	nd the For	^{rest} 47.	1
27.	(Signature)		1		(Date)		0		
	WILLIAM	D. Soli	NSKY R	PF 22	97				
	(Printed Name)	III, THP	ADMINIS	TRATION	RECEIV	ED			
			-		NOV -3 2	015			

Dogwood THP

COAST AREA OFFICE Section II ? RESOURCE MANAGEMENTY IS CO 10/27/15

DIRECTOR OF FORESTRY AND FIRE PROTECTION

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

Dominik Schwab No. 2823

OFCAL

* PROF

By: (Signature)

- hway (Printed Name

March 30, 2018 (Date) Forester III (Title) SSIONAL

Section II Maps

Pages 49 –51 intentionally blank



Revised 2/23/18



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Revised 2/23/18











COAST AREA OFFICE RESOURCE MANAGEMENT

Ford with culvert if wet at time of operations

Note- If this is a permanent road crossing then the ford will be rock armored as described in the database and in diagrams on page 61.1 prior to the winter season. If this is a temporary road or skid trail crossing it will be pulled down to grade prior to the winter season. The description in the road points database is what has priority over anything shown on this page.

SANDBAGS WITH - CIEAN GRAVEL for coffer DAM PIRT

Ford if dry at time of operations.

If this is a temporary skid trail or road crossing on a dry class III watercourse then the straw is not required (unless it is stated in the road points database) and operator will pull crossing down to grade prior to winter period. If this is a permanent ford then the rock armoring can be completed at the beginning of operations and used or this diagram can be used if the crossing is not drivable and then the crossing can be rocked at the end of operations but prior to winter period.



61.2 RECEIVED ADDED 7/1/15 JUL 0 3 2015

COAST AREA OFFICE RESOURCE MANAGEMENT

PART OF PLAN



Revised 2/23/18








Revised 2/23/18



























POOL RIFCIE RATIOS

STREAM	Level2	Length		%	
BIG PEPPERWOOD CREEK	Flatwater		620		0.32
BIG PEPPERWOOD CREEK	Pool		527		0.27
BIG PEPPERWOOD CREEK	Riffle		809		0.41
BUCKEYE CREEK	Flatwater		5552		0.53
BUCKEYE CREEK	Pool		3838		0.37
BUCKEYE CREEK	Riffle		1010		0.10
GROSHONG GULCH	Flatwater		112		0.38
GROSHONG GULCH	Riffle		179		0.62
LITTLE PEPPERWOOD	Flatwater		1036		0.45
LITTLE PEPPERWOOD	Pool		757		0.33
LITTLE PEPPERWOOD	Riffle		516		0.22
NORTH FORK GUALALA	Riffle		52		0.98
ROCKPILE CREEK	Flatwater		38		0.05
ROCKPILE CREEK	Pool		141		0.18
ROCKPILE CREEK	Riffle		611		0.77
SF GUALALA RIVER	Flatwater	:	27955		0.78
SF GUALALA RIVER	Pool		4092		0.11
SF GUALALA RIVER	Riffle		3723		0.10
WHEATFIELD GUALALA R	Flatwater		410		0.15
WHEATFIELD GUALALA R	Pool		2181		0.81
WHEATFIELD GUALALA R	Riffle		96		0.04















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MAR - 8 2018 COAST AREA OFFICE RESOURCE MANAGEMENT



73.4

revised 3/5/18



-								RECE	IVE	D	
THP Road Work THP# 15-042 Dogwo				d \ 5-04	Vork 2 Dogwo	ood		MAR -	3 2018 EA OFFICI ANAGEM	E	
		ŕ		_							-
Roa	ad #	0									
THP#	Mila St.	age End	ll GIS#	D# New	Problem	Solution	Repair Type	Culvert Dia.	Cr. Class	Priority	PSD FSD
221	0.000	0.000	6,072	6,072	Temp. Crossing	Temp. Crossin	g THP Non-Road	÷	III	THP Med	0
Comme	ents:	Tem to a	porary higher	skid xii order w	ng on cIII. Dip out at c ratercourse.	lose of operation	ns. Probably not actually a class l	II since it does	i't appea	r to be deli	vering
Num	ber of	Sites	=	1							
Roa	ad #	26									
THP#	Mila St.	age End	1	D#	Problem	Solution	Repair Type	Culvert Dia.	Cr. Class	Priority	PSD FSD
3/18	0.000	0.000	GIS#	New 6.017	Temp Crossing	Temp Crossin	THP Non-Road		ш	THP Med	0
Comme	ents:	Dip	out cla	uss III cr	ossing at close of oper	ations.	g III Non-Koad			TTH INICO	0
573	0.000	0.000	2.588	6,025	Temp. Crossing	Temp. Crossin	g THP Non-Road	÷	ш	THP Med	0
Comme	ents:	Dip	out at	close of	operations.		•				
580	0.000	0.000	6.028	6,028	Temp. Crossing	Temp. Crossin	g THP App. Rd.		ш	THP Med	0
Comme	ents:	Dip	out to	grade at	close of operations.						
605	0.000	0.000	6,030	6,030	Temp. Crossing	Temp. Crossin	g THP Non-Road		п	THP Med	0
Comme	ents:	Inst	all tem	porary p	ipe if water is present.	Pull banks bac	k and remove all soil down to ex	isting grade,			
601	0.000	0.000	6,031	6,031	Temp. Crossing	Temp. Crossin	g THP Non-Road	-	ш	THP Med	0
Comme	ents:	Dip	out to	grade at	close of operations.						
606	0,000	0.000	6,032	6,032	Temp. Crossing	Temp. Crossin	g THP Non-Road		ш	THP Med	0
Comme	ents:	Dip	out to	grade at	close of operations.						
550	0.000	0.000	6,023	6,023	Temp. Crossing	Temp. Crossin	g THP Non-Road		ш	THP Med	0
Comme	ents:	Dip	out at	close of	operations.						
510	0,000	0.000	6,022	6,022	Temp. Crossing	Temp. Crossin	g THP Non-Road		III	THP Med	0
Comme	ents:	Dip	out at	close of	operations.	10.2.2.					
541	0.000	0.000	6,012	6,012	Temp. Crossing	Temp. Crossin	g THP Non-Road	Υ	ш	THP Med	0
Comme	ents:	Clas	ss III sk	cid trail	crossing. Dip out at clo	ose of operation	S.				4
551	0.000	0.000	6,024	6,024	Temp. Crossing	Temp. Crossin	g THP Non-Road		III	THP Med	0
Comme	ents:	Dip	out at	close of	operations.				ô 1		
357	0.000	0.000	6,016	6,016	Temp. Crossing	Temp. Crossin	g THP Non-Road		Swale	THP Med	0
Comme	ents.	Two	skid t	rails cor	iverge on west side of	swale. Only use	e when dry or install small culver	t and pull down	to grade	e at close of	
400	0.000	0,000	6 019	6019	Tomp Crossing	Temp Crossin	THP Non-Road	4	TIT	THP Med	0
Comme	ents:	Din	out els	s UL cr	ossing at close of oper	ations				IIII Wed	v
55	0.000	0.000	6.044	6 044	Temp Crossing	Temp Crossin	THP Non-Road	-	Ш	THP Med	0
Comme	ents:	Dip	out do	wn to e	sisting grade at close.	remp: croatin					
509	0.000	0.000	508	6.021	Temp. Crossing	No Action	THP App. Rd.		Ш	THP Low	0
Comme	ents:	Exis	sting ro	lling di	with rock armored ou	itlet. No action	required unless rolling dip gets fi	lled with soil th	en reesta	ablish rollir	ig dip.
210	0.000	0.000	6,056	6,056	Temp. Crossing	Temp. Crossin	g THP Non-Road	-	III	THP Med	0
Comme	ents:	Inst	all tem	porary p	pipe adequate to handle	e flow if water is	present. Pull all material down t	o grade and slo	be banks	s back to sta	ble
361	0.000	0.000	6.015	6.015	Temp Crossing	Temp Crossin	THP Non-Road		п	THP Med	0

 Solution 0.000 0.000 0.015 0.015 remp. Crossing
 Temp. Crossing
 Temp. Crossing
 Temp. Non-Road
 II
 THP Med
 0

 Comments:
 Install temporary pipe adequate to handle flow and pull down to grade at close of operations.
 II
 THP Med
 0

 66
 0.000
 0.000 6,045
 6,045
 Temp. Crossing
 THP Non-Road
 II
 THP Med
 0

 Comments:
 Install temporary pipe 6" or larger. Pull at close of operations.
 II
 THP Med
 0

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122 0.000	0.000 6.054 6		w aterbar	THP NON-KOad			THD MAGA	
Comments:	0.000 6,034 6	,054 Surface Dramage		1 1 1 1 1 1 2 2	-	m	I FIF Med	U alala
comments.	An existing se	toward the class III wat	urface flow down it. At 12	tely 50 feet to the north A k	waterbars will	e place	a across the	SKID
121 0.000		052 Surface Decimara	Wotowhow	TUD Non Bood	backhoe may b	e requir	TUD Mad	0
121 0.000	0.000 6,055 6	,055 Surface Drainage	waterbar	THP Non-Koad	-	III	THP Med	U .
comments.	An existing sk	toward the class III wat	urface flow down it. At 12	tely 50 feet to the north A k	waterbars will	e requie	a across the	SKID
120 0.000		(052 Surface Drainace	Waterbar	THD Non Dood	Jackhoe may b	m	TUD Med	0
Comments:	0.000 6,052 6	1,052 Surface Drainage	waterbar	1 HP Non-Koad	votorboro will l	III ha nloga	I HP Mcu	U
oonnonto.	trail draining sh	toward the class III wate	ercourse that is approximately	tely 50 feet to the north A h	ackhoe may h	e requir	ed	SKIU
80 0.000	0.000 6.050 6	5050 Temp Crossing	Temp Crossing	THP Non-Road	-	III	THP Med	0
Comments:	Install nine ad	lequate to handle flow i	f wet at time of operations	Din out to existing grade a	t close of oper	ations	IIII Wed	v
76 0.000	0.000 6.047 6	6047 Temp Crossing	Temp Crossing	TUP Non-Poad	r close or open	III	THD Med	0
Comments:	Install nine ad	lequate to handle flow i	f wet at time of operations	Din out to existing grade a	t close of oner	ations	THE WEG	0
Number	Citese =	requate to natione now in	wet at time of operations	. Dip out to existing grade a	t close of open	ations.		_
Number of	Sites = 22							
Road #	40.10							
Nouu #	40.19							
THP# Mila	ige ID#	Problem	Solution	Repair Type	Culvert	Cr.	Priority	PSD
St.	End GIS# N	lew			Dia.	Class		FSD
928 1.100	0.000 6.057 6	5.057 Temp. Crossing	Armored Ford	THP App. Rd.	-	П	THP Low	10
Comments:	Rock outside	edge at this location. Th	e armoring placed at the o	outfall shall be sized with a r	ange of 6- to 1	8-inche	s in diameter	er.
	The armoring	should consist of a mix	of sizes in this range, with	a minimum of 50 percent of	of the volume i	neeting	the median	size
	of 12 inches.	See diagrams on page 6	1.1 (dogwood THP).					
579 2.500	0.000 6,058 6	5,262 Other	Armored Ford	THP App. Rd.	-	п	THP Med	10
-		ed rolling ford. The arm	oring placed at the outfall	shall be sized with a range of	of 6- to 18-incl	hes in di	iameter. The	3
Comments:	Existing rocke						mailine alma	of 12
Comments:	Existing rocke armoring shou	ald consist of a mix of si	izes in this range, with a n	ninimum of 50 percent of the	e volume meet	ing the i	median size	01 14
Comments:	Existing rocke armoring shou inches. See di	ald consist of a mix of s agrams on page 61.1 (de	izes in this range, with a n ogwood THP).	ninimum of 50 percent of the	e volume meet	ing the i	median size	01 12
575 3.040	Existing rocke armoring shou inches. See di 0.000 6,026 6	uld consist of a mix of s agrams on page 61.1 (do 5,252 Culv.	izes in this range, with a n ogwood THP). Culv. Replace	THP App. Rd.	e volume meet 24"	III	THP Med	01 12
575 3.040 Comments:	Existing rocke armoring shou inches. See di 0.000 6,026 6 The 24-inch c	uld consist of a mix of s. agrams on page 61.1 (do 5,252 Culv. ulvert shall be replaced	izes in this range, with a n ogwood THP). Culv. Replace in-kind; or alternatively, t	THP App. Rd. he culvert shall be replaced	e volume meet 24" with a rocked	III III ford. Th	THP Med ie armoring	0 12
575 3.040 Comments:	Existing rocke armoring shot inches. See di 0.000 6,026 6 The 24-inch c placed at the c	uld consist of a mix of s agrams on page 61.1 (d 5,252 Culv. sulvert shall be replaced putfall shall be sized wit	izes in this range, with a n ogwood THP). Culv. Replace in-kind; or alternatively, t th a range of 6- to 18-inch	THP App. Rd. THP App. Rd. he culvert shall be replaced as in diameter. The armoring	e volume meet 24" with a rocked should consis	III ford. Th	THP Med ie armoring	0 0
575 3.040 Comments:	Existing rock armoring shot inches. See di 0.000 6,026 6 The 24-inch c placed at the o range, with a	uld consist of a mix of s agrams on page 61.1 (d 5,252 Culv. sulvert shall be replaced outfall shall be sized wit minimum of 50 percent	izes in this range, with a n ogwood THP). Culv. Replace in-kind; or alternatively, t th a range of 6- to 18-inch of the volume meeting the	THP App. Rd. THP App. Rd. he culvert shall be replaced es in diameter. The armoring median size of 12 inches. S	24" with a rocked should consister	III ford. Th st of a m	THP Med ie armoring ix of sizes i	0 in this
575 3.040 Comments:	Existing rockd armoring shot inches. See di 0.000 6,026 6 The 24-inch c placed at the o range, with a THP). The wi	uld consist of a mix of s agrams on page 61.1 (d 5,252 Culv. ulvert shall be replaced outfall shall be sized wit minimum of 50 percent dth of the rocked ford sl	izes in this range, with a n ogwood THP). Culv. Replace in-kind; or alternatively, t th a range of 6- to 18-inch of the volume meeting the hall at least be equal to the	THP App. Rd. THP App. Rd. he culvert shall be replaced es in diameter. The armoring median size of 12 inches. S watercourse width and the	24" with a rocked g should consis see diagrams o road level sha	III ford. Th st of a m n page (ll at leas	THP Med te armoring tix of sizes i 51.1 (dogwo t be as high	0 in this od as
575 3.040 Comments:	Existing rockd armoring shot inches. See di 0.000 6,026 6 The 24-inch c placed at the c range, with a t THP). The wi the watercours	uld consist of a mix of s agrams on page 61.1 (do 5,252 Culv. sulvert shall be replaced outfall shall be sized wit minimum of 50 percent dth of the rocked ford sl se banks.	izes in this range, with a n ogwood THP). Culv. Replace in-kind; or alternatively, t th a range of 6- to 18-inch of the volume meeting the hall at least be equal to the	THP App. Rd. THP App. Rd. he culvert shall be replaced es in diameter. The armoring median size of 12 inches. S watercourse width and the	24" with a rocked g should consis See diagrams o road level shal	III ford. Th st of a m n page (ll at leas	THP Med the armoring thix of sizes i 51.1 (dogwo the as high	0 in this ood as
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-	0.000	505	0,011	Temp. Crossing	Temp. Crossing	THP App. Rd.	-	п	THP Med	0
Comments:	Insta repos	ll tempo se.	orary pi	ipe adequate to hand	lle flow if water is preser	t. Pull all material down to	grade and slop	e banks	back to sta	ble
Number of	Sites	= 1	3							
Road #	40.19	903								
THP# Mila St.	age End	ID; GIS#	# New	Problem	Solution	Repair Type	Culvert Dia.	Cr. Class	Priority	PSD FSD
738 0.000	0.000	6,073	6,073	Temp. Crossing	Temp. Crossing	THP App. Rd.		ш	THP Low	0
Comments:	Main	tain exi	sting c	lass III ford. If you	need to smooth it out for	operations then dip out at c	close of operati	ons.		
740 0.000	0.000	6,061	6,061	Temp. Crossing	Armored Ford	THP App. Rd.	~	III	THP Med	0
Comments:	Exist edge at lea	ing ford is alread st as high	l needs dy wel gh as w	to be smoothed out armored. Width of vatercourse banks.	to allow truck passage. rock armored rolling dip	should at least equal water	onal rock in th course width a	at case t nd road	level shoul	d be
Number of	Sites	= 2	8							
Road #	60.2	8								
THP# Mila St.	age End	ID: GIS#	# New	Problem	Solution	Repair Type	Culvert Dia.	Cr. Class	Priority	PSD FSD
670 0.050	0.000	670	6,253	Bridge	Bridge - Temp	THP App. Rd.	1RRBr	1	THP Med	0
Comments:	see 1 Instil	600 agr lation o	eemen f this b	t (1600 2011 0423-) bridge is optional.	R3) for details of installa	tion.				
Number of	Sites	= 1	li -		1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -					
Road #	60.3		-							
THP# Mila St.	age End	ID; GIS#	# New	Problem	Solution	Repair Type	Culvert Dia.	Cr. Class	Priority	PSD FSD
68 1.420	0.000	243	6,055	Other	No Action	THP App. Rd.	-	11	THP Low	0
Comments:	Exist opera	ing rock	ked for make	d on a class II water sure water stays in	course. Dip out channel channel.	6" to 1' and mound materia	l on both sides	of road	at close of	
672 2.730	0.000	672	6,254	Bridge	Bridge - Temp	THP App. Rd.	1 ÷ 1	1	THP Med	0
Comments:	see 1	600 agr	eemen	t (1600 2011 0423-)	R3) for details of installa	tion				
Number of	Sites	= 2				8				
Road #	60.3	038								
THP# Mila St.	age End	ID: GIS#	# New	Problem	Solution	Repair Type	Culvert Dia.	Cr. Class	Priority	PSD FSD
29 0.010	0.000	111	6,062	Temp. Crossing	Bridge - Temp	THP App. Rd.	IRRB	I	THP Med	0
Comments:	See River place	1600 ag r run ne d in the	eds to inside	nt (1600 2014 0012 be placed on the app ditch on the east ap	-R3) for conditions of in proaches to the bridge who pproach to the bridge.	stallations. here it ramps down to the ac	ctive channel, A	Angular	rock needs	to be

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THP Road Work

- Road This is a unique road ID number for each road segment on the property.
- · Map# This is the working number created by the inspector in the field. It is often found on field flagging.
- · Mileage Each numbered road has mileage ticks from 0 to the end of the road.
 - a. St. "Start" mileage is the distance of the site out the road.
 - b. End If the site is along a length of road, like upgrading, there is a "start" and "end" mileage.
- ID# Each "new" road site visit has a unique ID number. It is generated when the record is entered into the database. Each existing site in the field (like a culvert) has a unique "old" number, usually the first visit ID#. It appears on the map. A new visit to an existing site will reference the "old" number. You can look up the history of visits to a particular site.
- Problem The type of problem.
- Solution The type of solution.
- Repair type Why the work was done.
- · Priority Implementation Priority
- THP Low Mitigation applied prior to THP completion.
- THP Med Mitigation applied concurrent with operations affecting site.
- THP High Mitigations applied in the first year after THP approval or as described in the plan.
- PSD FSD Potential sediment delivery (Cal Fire) Future sediment delivery (WQ) This is the yards of soil that will be
 prevented from being delivered into the watercourses if the project is completed.

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Section II 1600 Agreement

FOR DEPARTMENT USE ONLY								
Date Received	Amount Received	Amount Due	Date Complete	Notification No.				
	5	\$						





Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Henry Alden					
Business/Agency	Gualala Redwoods, Inc.					
Street Address	PO Box 197					
City, State, Zip	Gualala, CA 95445					
Telephone	(707) 884-3521 Fax (707) 884-1942					
Email	halden@deltapac.com					

2. CONTACT PERSON (Complete only if different from applicant)

Name	John Bennett					
Street Address	P.O. Box 197					
City, State, Zip	Gualala, CA 95445					
Telephone	(707) 884-3469 Fax (707) 884-1942					
Email	jbennett@deltapac.com					

3. PROPERTY OWNER (Complete only if different from applicant)

Name		
Street Address		
City, State, Zip		
Telephone	Fax	
Email		

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name Dog		ogwood THP					
B. Agreement Term Requested			☑ Regular (5 years or less) □ Long-term (greater than 5 years)				
C. Project Term			D. Seasonal Work Period E. Number of V		E. Number of Work Days		
Beginning (year)	Beginning (year) Ending (year)		Start Date (month/day) End Date (month/day)				
2015	2020		04/01	11/15	15.00		



5. AGREEMENT TYPE

A.	Standard (Most construction projects, excluding the categories)	ories listed below)
В.	Gravel/Sand/Rock Extraction (Attachment A)	Mine I.D. Number:
C.	Timber Harvesting (Attachment B)	THP Number: no number at this time
D.	Water Diversion/Extraction/Impoundment (Attachment C)	SWRCB Number:
E.	Routine Maintenance (Attachment D)	
F.	DFG Fisheries Restoration Grant Program (FRGP)	FRGP Contract Number:
G.	Master	
н.	Master Timber Harvesting	

6. FEES

	A. Project	B. Project Cost	C. Project Fee
1	THP no fee		
2			
3			
4			
5			
		D. Base Fee (if applicable)	
		E. TOTAL FEE ENCLOSED	

7. PRIOR NOTIFICATION OR ORDER

Yes	(Provide the information below)	⊠No	
Applica	nt:	Notification Number:	Date:
B. Is this r	notification being submitted in responent	nse to an order, notice, or other directiv	e ("order") by a court or
No No	Yes (Enclose a copy of the order person who directed the applic	er, notice, or other directive. If the directive ant to submit this notification and the ag	ctive is not in writing, identify the gency he or she represents, and



8. PROJECT LOCATION

A. Address or descri	ption of project location.				
(Include a map tha directions from a n	t marks the location of the pr najor road or highway)	roject with a reference	to the nearest o	ity or town, and	provide driving
See attachment B					
B. River, stream, or la	ke affected by the project.	unnamed class II wa	ercourses		o on additional page(s)
C. What water body is	s the river, stream, or lake tril	outary to? The G	ualala River see	attachment B	
D. Is the river or strea state or federal Wi	m segment affected by the p ld and Scenic Rivers Acts?	roject listed in the	Yes	No No	Unknown
E. County Sonom	a		-		
F. USGS 7.5 Minute 0	Quad Map Name	G. Township	H. Range	I. Section	J. 1/4 Section
	Stewarts Point	see attachme	ent B		
	Gualala	0			
1	McGuire Ridge	ù a	_		
				Continue	d on additional page(s)
K. Meridian (check or	ne) 🗌 Humboldt	Mt. Diablo	an Bernardino		
L. Assessor's Parcel	Number(s)				
see attachment B				🛛 Continue	ed on additional page(s)
M. Coordinates (If av	ailable, provide at least latitu	de/longitude or UTM d	oordinates and	check appropria	ate boxes)
	Latitude: see atta	chment B L	ongitude:	see attac	chment B
Latitude/Longitude	☑ Degrees/Minute	s/Seconds	Decimal Degree	s 🗌 Dec	imal Minutes
UTM	Easting:	Northing:		Zor	ne 10 Zone 11
Datum used for Latitu	de/Longitude or UTM	□ NAD	27	NAD 83	or WGS 84

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization - bioengineering/recontouring			
Bank stabilization - rip-rap/retaining wall/gabion			
Boat dock/pier			
Boat ramp			
Bridge			
Channel clearing/vegetation management			
Culvert			
Debris basin			
Dam			
Diversion structure – weir or pump intake			
Filling of wetland, river, stream, or lake			
Geotechnical survey			
Habitat enhancement - revegetation/mitigation			
Levee			
Low water crossing			
Road/trail			
Sediment removal - pond, stream, or marina			
Storm drain outfall structure			
Temporary stream crossing			
Utility crossing : Horizontal Directional Drilling			
Jack/bore			
Open trench			
Other (specify): Rock armored ford			

9. PROJECT CATEGORY AND WORK TYPE (Check each box that applies)

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COAST AREA OFFICE RESOURCE MANAGEMENT



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10. PROJECT DESCRIPTION

A. Describe the project in detail. Photographs of the project location and immediate surrounding area should be included.

- Include any structures (e.g., rip-rap, culverts, or channel clearing) that will be placed, built, or completed in or near the stream, river, or lake.
- Specify the type and volume of materials that will be used.
- If water will be diverted or drafted, specify the purpose or use.

Enclose diagrams, drawings, plans, and/or maps that provide all of the following: site specific construction details; the dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; an overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, and where the equipment/machinery will enter and exit the project area.

See attached pages for project description and impacts.

		Z	Continued on additional page(s)
B. Specify the equipment and machinery that will be used to com	plete the project.		
Cat, backhoe and/or excavator and dump truck			
			0
			Continued on additional page(s)
C. Will water be present during the proposed work period (specif the stream, river, or lake (specified in box 8.B).	ied in box 4.D) in	Ves 🛛	□ No (Skip to box 11)
D Will the proposed project require work in the wetted perting	Ves (Enclose	a plan to c	livert water around work site)



11. PROJECT IMPACTS

Specify the dimensions of the modification volume of material (cubic yards) that will	ons in length (linear feet) and area (squar l be moved, displaced, or otherwise distur	re feet or acres) and the type and rbed, if applicable.
See attached pages for project description a	and impacts.	
Т		Continued on additional page(s)
B. Will the project affect any vegetation?	Yes (Complete the tables below)	Z] No
Vegetation Type	Temporary Impact	Permanent Impact
	Linear feet:	Linear feet:
	Total area:	Total area:
	Linear feet:	Linear feet:
	Total area:	Total area:
Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
		Continued on additional page(s
C. Are any special status animal or plant sp near the project site?	pecies, or habitat that could support such	species, known to be present on or
Ves (List each species and/or describ Steelhead trout , Western Pond turtle (pos	e the habitat below)	
		Continued on additional page(s,
D. Identify the source(s) of information that	supports a "yes" or "no" answer above in	Box 11.C.
Dogwood THP biological evaluation for cum	ulative impacts.	
		Continued on additional page(s)
E. Has a biological study been completed f	for the project site?	
☑ Yes (Enclose the biological study)	□No	
Note: A biological assessment or study n	nay be required to evaluate potential proje	ect impacts on biological resources.
F. Has a hydrological study been complete	d for the project or project site?	
Ves (Enclose the hydrological study)	🗆 No	
Note: A hydrological study or other inform recurrence intervals) may be required to	mation on site hydraulics (e.g., flows, cha evaluate potential project impacts on hyd	nnel characteristics, and/or flood drology.

S

12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment from entering watercours	ses during and after	construction.
This work will be done when no water is flowing or water will be piped around the work site except the running surface of rocked roads will be seeded and/or mulched at close of oper	e during the work. Mo ations.	ost areas
P. Describe project quaidance and/or minimization measures to protect fish wildlife, and r	Continued on add	itional page(s)
B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and p	blant resources.	
C. Describe any project mitigation and/or compensation measures to protect fick, wildlife	Continued on add	itional page(s)
C. Describe any project mitigation and/or compensation measures to protect fish, wildlife,	and plant resources	
3. PERMITS List any local, state, and federal permits required for the project and check the correspon- each permit that has been issued.	Continued on add	<i>litional page(s)</i> e a copy of
A Timber Harvest Plan permit_CDF	Applied	Issued
B		Issued
C	Applied	Issued
D. Unknown whether local, state, or federal permit is needed for the project.	(Check each box th	nat applies)

14. ENVIRONMENTAL REVIEW

A. Has a draft or final docum National Environmental Pr Species Act (ESA)?	ent been prepared for rotection Act (NEPA), 0	the project pursuar California Endange	t to the California Enviro red Species Act (CESA)	nmental Quality Act (CEQA), and/or federal Endangered
Yes (Check the box for e	each CEQA, NEPA, CES	A, and ESA documer	t that has been prepared a	nd enclose a copy of each)
□ No (Check the box for e	ach CEQA, NEPA, CESA	A, and ESA documen	t listed below that will be or	is being prepared)
Notice of Exemption	Mitigated Nega	ative Declaration	INEPA docume	ent (<i>type</i>):
Initial Study	Environmental	Impact Report	CESA docume	ent (<i>type</i>):
Negative Declaration	Notice of Deter	mination (Enclose)	ESA documen	t (<i>type</i>):
	Mitigation, Mor	nitoring, Reporting I	Plan	
B. State Clearinghouse Num	ber (if applicable)			
C. Has a CEQA lead agency	been determined?	Ves (Comple	te boxes D, E, and F)	□No (Skip to box 14.G)
D. CEQA Lead Agency			CALFIRE	
E. Contact Person	Leslie Markh	ham F. Telephone Number (707) 576-2275		
G. If the project described in	this notification is part	of a larger project	or plan, briefly describe t	hat larger project or plan.
			Γ	□ Continued on additional page(s)
H. Has an environmental filin	g fee (Fish and Game	Code section 711.4	4) been paid?	
Yes (Enclose proof of p CEQA equivalent document (payment) THP) has not yet been	⊠No (Briefly e approved.	xplain below the reason	a filing fee has not been paid)
Note: If a filing fee is required is paid.	d, the Department may	not finalize a Lake	or Streambed Alteration	Agreement until the filing fee

15. SITE INSPECTION

		a sector of the sector of the sector of the sector is a sector.
In the event the Department determine	es that a site inspection is ne	ecessary, I hereby authorize a Department
representative to enter the property wh	nere the project described in	this notification will take place at any
reasonable time, and hereby certify that	at I am authorized to grant th	he Department such entry.
	and an	
		Sec. March
I request the Department to first contact	ct (insert name)	John Bennett
at (insert telephone number)	(707) 884-3469	to schedule a date and time
	described in this notification	n will take place. I understand that this may
to enter the property where the project	uescribed in this nothcato	
to enter the property where the project	as to whether a Lake or Stre	eambed Alteration Agreement is required and/or
to enter the property where the project delay the Department's determination	as to whether a Lake or Stre	eambed Alteration Agreement is required and/or

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16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☐ Yes (Please enclose the information via digital media with the completed notification form) ☑ No

17. SIGNATURE

Print Nam

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

Signature of Applicant or Applicant's Authorized Representative

 $\frac{7/2/14}{Date}$

HULA HASCHAK

ATTACHMENT B

Additional Information for Projects Included in Timber Harvesting Plans

Project name -Dogwood THP -no number at this time Project Location- See attached Map Project Description-see below

A. Table for Encroachments

Table 1

Road Point	type	watercourse	Structure size
66	Temporary skid trail crossing	Class II	Install temporary pipe 6" or larger if wet at time of operation
68	Existing rock ford	Class II	The edges of the rock ford crossing shall be dipped out 6 inches to 1 foot and left as a rolling mound on both sides of the road after completion of harvest operations.
90	Temporary road crossing	Class III	Class III is running down a spur road into the flat but shall be redirected to run straight across the road with a berm placed on downhill side.
146	Temporary skid trail crossing	Class II	A 12-inch culvert with packed fill shall be installed prior to harvest operations to avoid sedimentation impacts to the Class II watercourse. The culvert shall be removed and dipped out upon completion of harvest operations.
361	Temporary skid trail crossing	Class II	Install temporary pipe 6" or larger if wet at time of operation
537	Temporary road crossing	Class II	Install temporary pipe 6" or larger if wet at time of operation
538	Temporary road crossing	Class II	Install temporary pipe 6" or larger if wet at time of operation
575	Permanent road crossing	Class III	Replace 24" culvert. As alternative culvert can be replaced with a rolling dip armored on the downstream edge with 6"+ rock. Width of rock armored rolling dip should at least equal watercourse width and road level should be at least as high as watercourse banks.
579	Existing rock ford	Class II	Additional 12" or larger rock shall be added to the outlet for protection from sedimentation during rain event conditions
605	Temporary	Class II	Install temporary pipe 6" or larger

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	road crossing		if wet at time of operation
928	Existing rock ford	Class II	The outlet shall be armored by keying in 12-inch rock and placing 6-inch rock adjacent to it for protection from sedimentation during rain event conditions.

B. Conditions at Encroachment(s). Describe any torrent, debris, or landslide conditions at each encroachment.

No torrent, debris or landslides noted at any of the encroachments.

C. Work Period(s). If temporary crossings are proposed, specify dates and conditions requiring temporary crossing removal.

Must be removed prior to winter period of each year (November 15 to April 1).

D. Culverts.

E. Bridges. If a bridge is proposed, include the following:

1. Indicate if the abutments or road approaches will encroach into the floodplain or stream channel

2. Provide the calculations or data used to determine bridge height and flow capacity

3.Describe the type of abutments and scour protections with dimensions.

4. Provide any engineering reports, plans, or other related documentation.

F. Water Diversion or Drafting. If water will be present, and will be drafted or diverted around the work site, specify the following.

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Continuation sheet Dogwood 1600 permit-

8. Project Location

A-Address or description of project location

66- Part 1-From the intersection of Hwy 1 and Old State Hwy (at the south end of Gualala) go east on Old State Hwy. After a tenth of a mile take a slight right to stay on Old State Hwy and follow it for 1.8 miles to the intersection that is right before a large green suspension bridge. Part 2-From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for 0.42 miles. Approximately 100 feet after a road intersection the crossing is about 100 feet off of the road on the right.

68- Follow part 1 of #66 directions above. From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for 1.35 miles.

90-You will need a guide from GRT to get to this point as the description is too difficult to write out.

146- Follow part 1 of #66 directions above. From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for 3.7 miles. Approximately 300 feet north of Buckeye Bridge take road to the east for 0.62 miles

361– Follow part 1 of #66 directions above. From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for .44 miles. You will be at a gate. The crossing is 400 feet to the southwest on the skid trail system and you will need a guide to find it.

537 -follow directions to #146 above. Continue on road to the east for another 0.72 miles

538- follow directions to #537 above. Continue on road to the east for another 0.44 miles

575- Follow #68 directions above. Then continue for 2.9 miles.

579- Follow part 1 of #66 directions above. From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for 5 miles.
605- Follow part 1 of #66 directions above. From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for 1.8 miles. The crossing is 760 feet to the east on the skid trail system and you will need a guide to find it.

928- Follow part 1 of #66 directions above. From the intersection proceed across the green bridge and take the first right. Follow this road (staying to the right) for 6.9 miles. B-River, stream or lake affected by the project

66	Unnamed class	
68	Unnamed class	
90	Unnamed class III	
146	Unnamed class	
361	Unnamed class	

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537	Unnamed class II			
539	Unnewed			
556	class II			
575	Unnamed			
	class III			
579	Unnamed			
	class II			
605	Unnamed			
	class II			
928	Unnamed			
	class II		- P. C	
C-What water b	ody is the river, stream	n of lake trib	utary to?	
66	The South			
	Fork of the			
	Gualala River			
68	The South			
	Fork of the			
	Gualala River			
90	The Main stem			
	of the Gualala	(= · · · · · · · · · · · · · · · · · ·	-	/
	River			4
146	Buckeye Creek			
361	Groshong			
	Gulch			
537	Buckeye Creek			
538	Buckeye Creek			
575	The South			
	Fork of the			
	Gualala River			
579	The South			
	Fork of the			
	Gualala River			
605	Little			
	Pepperwood			
	Creek			
928	The South			
	Fork of the			
	Gualala River			
D-ls the river or	stream segment affect	ted by the p	oject listed in t	he state or
federal Wild and	Scenic Rivers Acts?			
66	No			
68	No			
90	No			
146	No			
361	No			
537	No			
538	No			-
	No			-
5/5				
575	No			

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928	No				
E-County	1			1	
66	Sonoma			1	
68	Sonoma				
90	Sonoma				
146	Sonoma				
361	Sonoma				
537	Sonoma				
538	Sonoma				
575	Sonoma				
579	Sonoma				
605	Sonoma				
928	Sonoma	1			
F-	USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
66	McGuire	11N	15W	25	NW
68	McGuire	11N	15W	25	SE
90	Gualala	11N	15W	German	
146	Stewarts Point	10N	14W	5	NW
361	McGuire Ridge	11N	15W	25	NW
537	Stewarts Point	10N	14W	5	NE
538	Stewarts Point	11N	14W	33	SW
575	Stewarts Point	10N	14W	16	NW
579	Stewarts Point	10N	14W	8	NW
605	McGuire Ridge	11N	14W	31	NW
928	Stewarts Point	10N	14W	16	SW
K. Meridian					
All	Mt Diablo				
L. Assessors Parcel Numbers					
66	121-010-03				
68	121-010-03				
90	122-040-09	2	1		
146	121-030-03		1		
361	121-010-03				
537	121-030-03				
538	121-020-03		-		
	121-020-03				

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575	122-070-03			
579	122-070-03			
605	121-020-01			
928	122-170-01			
M. Coordinates	Latitude	Longitude	Datum	
66	38°46'59"N	123 29'54"W	Nad 27	
68	38°46'00"N	123 28'51"W	Nad 27	
90	38°46'16"N	123 30'18"W	Nad 27	
146	38°44'39"N	123°26'45"W	Nad 27	
361	38°46'33"N	123°29'30"W	Nad 27	
537	38°44'49"N	123°26'14"W	Nad 27	
538	38°44'53"N	123°25'55"W	Nad 27	
575	38°43'56"N	123 26'55"W	Nad 27	
579	38°43'36"N	123°26'30"W	Nad 27	
605	38°45'45"N	123°28'21"W	Nad 27	
928	38 42'40"N	123 25'33"W	Nad 27	

10. Project Description-

Temporary Crossings on roads and skid trails (road point numbers 66, 90, 146, 361, 537, 538, 605)

These crossings will use a temporary culvert of 6" or larger if water is present at time of operations. All fill will be removed down to grade and the approaches will be sloped back to a stable repose at close of operations. See descriptions above in Table of encroachments as specifics may vary some.

Existing rock ford crossing on main haul road (road point 68, 928, 579)-

Dip out any loose soil at close of operations. Maintain existing rock base as much as possible. For rock ford #579 and #928 armor outside edge with 12" or larger rock. See descriptions above in Table of encroachments as specifics may vary some.

Culvert or rock ford (road point 575)- Replace 24" culvert. As alternative culvert can be replaced with a rolling dip armored on the downstream edge with 6" + rock. Width of rock armored rolling dip should at least equal watercourse width and road level should be at least as high as watercourse banks. See descriptions above in Table of encroachments as specifics may vary some.

11. Project Impacts-

Temporary Crossings on roads and skid trails (road point numbers 66, 90, 146, 361, 537, 538, 605)

No significant vegetation will be impacted at any of these crossings. The total area disturbed per crossing will be approximately 40 by 20 (800 square feet)or less. The banks will be returned to the pre-crossing condition or better and any loose soil be removed and placed in a stable location away from the watercourse.

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Section II JUL 03 2015 ravisco 7/1/15

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COAST AREA OFFICE RESOURCE MANAGEMENT Rock Fords-(68, 928, 579) No significant vegetation will be impacted at any of these crossings

Culvert or rock ford (road point 575)- No significant vegetation will be impacted at this crossing.

12. Measures to Protect Fish, Wildlife and Plant Resources

Temporary Crossings, and rock fords on roads and skid trails (road point numbers 66, 90, 146, 361, 537, 538, 575, 579, 605, 68, 928) and permanent culvert or rock ford (575)

No fish are present at these crossings and flow should be low or non-existent so impacts to downstream class I watercourses will be small. A few aquatic insects or amphibians could possibly be directly impacted. If water is present during installation or removal of the crossing then a temporary dam will be created by placing hay bales or dirt with a plastic covering on the upstream side and water will be pumped around the site.

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