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December 23, 2015

SUBJECT: THP 1-15-042 SON (recirculated “Dogwood” THP)

Dear CAL FIRE:

I would like to supplement my comment letter on the original “Dogwood” THP (1-15-042 SON Gualala Redwood Timber LLC) with the following comments and recommendations regarding its recent recirculated, modified version, which was issued November 24 for a 30 day comment period coinciding almost precisely with the two major holidays of the year’s end.

I seldom prepare comments for THPs because of the largely programmatic (almost ministerial) intra-agency and interagency review of the nominally “CEQA equivalent” THP process. But the “Dogwood” THP, comprising 402 acres almost entirely within the flood prone alluvial flats of the lower Gualala River, is exceptional because of its unique environmental setting (floodplain, adjacency to a Regional Park, an estuary, Coastal Zone, and a reach of a designated Wild and Scenic River), its size, its recirculation, and its major precedent for application of Anadromous Salmonid Protection Rules. This letter incorporates by reference my comment letter of July 10, 2015, on the original “Dogwood” THP. My qualifications to provide expert comments on wetlands and riparian ecosystems, plants, endangered and special-status plants, species, and environmental regulatory policies and practices are summarized in my July 10 letter.

1. Alternatives Analysis

The analysis of alternatives in the recirculated Dogwood THP (Section III: p.105 *et seq.*) remains fundamentally flawed and does not comply with Forest Practice Rules requirements for assessment of a reasonable range of feasible alternatives. First, the statement of “landowner’s purpose” defines the project purpose so narrowly (purposes 1 and 6) that it defines timber harvest in the THP area itself as part of the project purpose, which precludes otherwise reasonable and feasible off-site (alternative location) alternatives that could avoid or reduce potential location-specific significant impacts (“unique impacts” of timber harvest in alluvial flats; Section III: p.107) that are inherent in the geographic location of the project area. Second, the analysis substitutes the landowner/applicant’s preferences and interests for objective, reasonable feasibility criteria to

compare alternatives: GRT argues that alternatives for conservation easements or public acquisition are “remote and speculative” only because the current landowner is “unwilling to consider selling at fair market value” and “unwilling at this time to sell/donate any part” of the THP area. Mere “unwillingness” to sell any part of the property at fair market value is not in itself a reasonable feasibility criterion in a CEQA-equivalent alternatives analysis under Forest Practice Rules. “Feasible” in the context of alternatives means capable of being accomplished in a successful manner within a reasonable period of time, taking in to account economic, environmental, social, and other technical factors (PRC § 21061, subds. (a), (b)). This objective definition of feasibility does not admit circumstantial landowner preference, postures, or whims as feasibility criteria. If landowner unwillingness to sell a property were generally a feasibility criterion sufficient to make any environmentally superior off-site alternative “remote and speculative”, such that it is disqualified as a reasonable alternative, then the CEQA obligation to consider otherwise reasonable off-site alternatives would be defeated. What is feasible for an off-site alternatives must reflect CAL FIRE’s impartial understanding of what would be reasonable from the perspective of a typical applicant as a commercial industrial timber company, it but not merely the particular applicant’s actual whim or preference. The previous landowner of the THP area at the time the THP was prepared did in fact sell the property to the current landowner, which indicates that landowner opinion about the feasibility of land sale (which may be influenced by variable economic conditions) may change over time.

The alternatives analysis arbitrarily excludes assessment of the potentially significant environmental impacts that would be avoided or minimized by off-site alternatives. It fails to consider land swaps with equivalent commercial timber volume or long-term productivity in the same market area. It fails to consider feasible reduced project alternatives that increase the “no cut” area from 70 acres (which was not explained or justified) to a larger proportion of the alluvial flats/floodplain that would protect wetlands, special-status plants and wildlife, floodplain salmonid foraging habitat, and other important public interest factors. The alternatives analysis is essentially a rationalization for the applicant’s arbitrary refusal to consider alternatives to logging the floodplain redwood forest that is now subject to more protections under the Forest Practices Act than during previous THPs in the same or similar areas. The applicant has discretion over its property transactions, but not the feasibility premises of the alternatives analysis regarding off-site alternatives. The alternatives analysis is unacceptable, and CAL FIRE must reject the flawed alternatives analysis and its invalid premises.

2. Flood prone area redwood forest (alluvial flat redwood forest; floodplain)

The Dogwood THP, despite recirculation, still contains misleading inconsistent information about the flood prone redwood forest (alluvial flats, floodplain) that is now subject to Anadromous Salmonid Protection rules with greater restrictions than earlier Forest Practice Rules. The THP correctly states in Section III, p. 102, that the last entry into the THP area occurred when Class I watercourse WLPZ (buffer zone) was 75 ft wide, but the WLPZ is now defined to be as wide as the flood prone area – in some places well over 800 ft. But Section IV of the THP p. 182 (cumulative impacts, northern spotted owl; NSO) the THP states that because the WLPZs are 100 m or less in total width (less than 350 ft), they are considered “edge habitats” (lower quality) for federally listed northern spotted owls. This misleads the public to believe that WLPZ protection floodplain forest of NSO habitat (interior habitat; superior quality) is poorer than it is under current FPRs, if all parts of FPRs are read accurately together.

The THP does not comply with the FPR requirement that timber operations “shall not construct or use tractor roads [skid roads]” in WLPZs, including flood prone areas of Class I streams, unless explained and justified in the THP by the RPF, and approved by the Director. First, the THP does not quantify the amount of skid roads used either in terms of area or length; nor does it identify locations in the plan, other than to state that they are flagged in the field. Thus, the “exception” requested for allowing skid roads in the floodplain is not described or documented in the THP. Without information on the spatial extent or location of skid roads, no cumulative impact assessment of potential significant impacts of skid road disturbances is possible, in spite of the requirement of the Anadromous Salmonid Protection Rules to avoid such disturbances in flood prone areas. The THP proposes an exception that swallows this general rule to avoid floodplain logging disturbances by rejecting the environmental premises of the rule. The “justification” proposed argues that soil erosion from skid roads would be minimal, but this cannot be a valid rule for allowing skid road disturbances because as the THP itself correctly asserts (Section IV, p. 150, 166) that this floodplain (like all floodplains) is geomorphically a significant sediment sink (deposition zone; not erosion zone) for the river. Thus, there is no basis for an exception because it is unlikely to act as an erosional sediment source, since it is inherently a sediment sink. In addition, the THP erroneously asserts that the “thick leaf litter” that is expected to minimize disturbances is “replenished annually”, but in fact the decay-resistant redwood duff and litter layer is the accumulation of many decades of litterfall deposition, and is not replenished annually.

See comments on cumulative impacts, below, for discussion of the recirculated THP’s failure to assess cumulative impacts to the unique floodplain redwood forest of the lower Gualala River.

The Director should not abuse CAL FIRE discretion by accepting an unsound and invalid new precedent for “explanation” and “justification” of an exception to FPRs that now protect flood prone forests.

3. Wetlands

The THP still fails to include any baseline information on the extent or location of wetlands in the flood prone area that comprises almost the entire plan area, other than “wet areas” narrowly defined (*e.g.* perennially wet areas: marsh, springs, seeps, and swamps) in the FPRs. This is inconsistent with the THP’s identification of the dominant soil type in the THP area, Bigriver series, which is described as prone to seasonal wetness consistent with seasonal wetlands: “The main limitation affecting the harvesting of timber is the seasonal wetness. Ponding limits the use of equipment to dry periods. Unsurfaced roads and skid trails are soft when wet.” The THP also describes alluvial topography conducive to depressions and basins (“low areas”) trapping sediment and water (Section IV p. 166) – precisely the environment forming floodplain seasonal wetlands. Yet the recirculated THP still fails to survey, map, or describe (or even name!) seasonal wetlands despite the geomorphic wetland-prone setting of the floodplain, and despite their high importance for wetland-dependent sensitive wildlife and plant species. No cumulative impact assessment of floodplain wetlands was performed because there is no assessment of wetlands in 402 acres of the THP flood prone area. This remains a major omission of a significant resource impact.

CAL FIRE should not approve the floodplain THP without a baseline survey and map of wetlands that includes mitigation protection of seasonal and perennial wetlands from disturbances (including skid roads), filling, and adverse alteration of drainage. CAL FIRE should also require enforceable monitoring and reporting of pre-project and post-project wetlands that may overlap with skid roads and other disturbances in the floodplain that are proposed in the THP without geographically explicit maps. The THP's failure to map and avoid earth-moving disturbances to wetlands incurs risks that inadvertent fill discharges may cause violations federal and state laws. The limited Clean Water Act Section 404 exemption for "normal" forestry practices does not include conversion of wetlands to non-wetlands (*e.g.* fill that destroys wetland hydrology).

4. Special-status/rare plants

The recirculated THP still includes only rare plant (so-called) "scoping" that is not even specific to the THP area, which is almost entirely floodplain and prone to forming wetlands, as described in the type description for the alluvial Bigriver soil series. The "scoping" for rare plants encompasses all GRT ownership, which is mostly upland slopes and irrelevant vegetation types, and is grossly outdated – about 20 years old.

The THP impermissibly defers surveys for rare plants until after THP approval. The THP includes no enforceable criteria for plant survey expertise, species-specific timing, mapping methods, review, or reporting. It treats the entire plant survey for 402 acres including wetlands and endangered species as a "minor amendment", but by any professional standard, this large floodplain survey area requires a very major plant survey effort. The ten day reporting standard before operations that is proposed makes any survey results infeasible for expert review and rare plant protection; it is an outdated 1960s rare plant salvage standard.

The THP's statement that "no herbicide is proposed" (Section IV, p. 150) does not mean herbicides are enforceably prohibited in the floodplain or wetlands, since neither FPRs nor GRT practices prohibit herbicides. The THP should include special conditions to prohibit herbicide use (especially non-aquatic formulations, and all imazapyr) in floodplains and wetlands in the THP area. Otherwise high demand for herbicide to control brush in Bigriver soil series (Soil Survey of Mendocino County, Western Part, p. 28) will likely trigger significant impacts of normal GRT/GRI herbicide use evident in past THPs of GRI under direction of the same forest manager, Henry Alden. The THP still fails to mitigate significant impacts to rare plants.

5. Special-status fish and wildlife

Norther spotted owl (NSO) – The analysis of NSO impacts is entirely limited to narrow avoidance of legal "take" of individuals, and neglects all meaningful biological assessment of population-level impacts. The analysis omits any assessment of population trends of NSO or its primary threat, barred owls, which it treats as a marginal topic, out of date with the best available scientific evidence. The most significant potential impact of THP habitat alteration of 90-100 year old wide, pure alluvial redwood forest (large interior forest habitat, little edge, defensible for NSO) is facilitation of barred owls and territory displacement of NSO. Assessment of this significant indirect impact is entirely omitted in the THP. The floodplain redwood forest in the THP area contains a larger NSO population than the nearest federal forest (Redwood National Park) dedicated to conservation of

NSO. The NSO is in severe range-wide decline (Dugger, Forsman & Franklin *et al.* 2015, Condor 188: 57-116) so the relatively stable Gualala populations are highly important for the conservation of the species in the southern end of its range. Dugger *et al.* 2015 confirm that the narrow “take” avoidance approach in the THP is not likely to avoid the most significant impacts of barred owl invasion on habitat suitability and territory stability of NSO. The THP should include mitigation for NSO to minimize forest-gap facilitation of barred owl invasion of established and stable NSO territories, and minimize degradation of sub-mature to mature, extensive interior floodplain redwood forest stands. Minimal “take” avoidance of NSO will be inadequate to offset the impacts of logging disturbances (gaps, increase in edge habitat favoring barred owl invasion) and habitat degradation. The THP mitigation for NSO impacts should include barred owl removal from the THP area and adjacent GRT holdings.

Western pond turtle – No protocol surveys were conducted within the THP assessment area for western pond turtles. The failure to detect western pond turtles, which occur in all reaches of the South Fork and Wheatfield Fork that I have visited over the last 15 years, is apparently due to inadequate survey effort and duration by qualified observers. There is no assessment of the overland movement of pond turtles into the potential impact areas (falling, skid roads, yarding) of the floodplain. The THP fails to provide conditions to detect and prevent significant impacts to this species. The THP does not explain the basis for changing its (erroneous) conclusion that pond turtles were not present in the project area. The THP still lacks substantial enforceable mitigation measures to detect and prevent timber operations from harming adult turtles dispersing or foraging in terrestrial floodplain habitat.

California red-legged frog - The THP now acknowledges that this species may occur in the THP area, but fails to provide survey information regarding the distribution of habitats near and within the THP area. The THP uses an incorrect and outdated name for the species, which is no longer a subspecies of *Rana aurora*, but a full species, *R. draytonii*. This careless error is consistent with an unacceptably low level of biological literacy and poor diligence in correcting erroneous information on this special-status species, and others, in the THP. The THP still fails to provide mitigation and monitoring to minimize impacts to adult CRLF foraging and dispersing overland in the moist floodplain. The THP erroneously treats the moist coastal floodplain as an arid inland habitat in its assessment of overland foraging and dispersal, which underestimates the potential of significant impacts of logging disturbances to foraging adults. It considers only aquatic habitat (breeding adult and larval) protection in the project area. The absence of any information on wetland extent and location in the floodplain (hydration habitat for terrestrial foraging adults in summer), and the absence of any survey information whatsoever on CRLF on or near the project area precludes assessment of direct, indirect, and cumulative impacts on CRLF. The distribution of potential breeding habitats (seasonal pools in the floodplain with standing water from December through most of the summer in wet to average rainfall years) must be surveyed between known populations in the freshwater-oligohaline reaches of the estuary (seasonal lagoon and peripheral backwater marshes and swamps; tule marsh, willow-waxmyrtle/fern swamp, sedge marsh) and the THP area, to identify likely migration corridors for dispersing or foraging adults. Breeding habitats of these wetland types occur at the floodplain marsh at Gualala Point (Regional Park) west of Mill Bend, the south shore tule marsh at Mill Bend, two backswamp wetlands below (SW and NE) the entry road of the Regional Park, and should be expected and searched at some “wet areas” (seasonally flooded depressions with obligate wetland plants) in the THP area. Survey methods should follow USFWS

guidance for nighttime surveys. The exclusive reliance on detection of terrestrial occurrences (foraging, moisture refuge, dispersing) CRLF by non-expert timber operators is utterly inadequate and unenforceable as mitigation.

Marbled murrelet— The THP now acknowledges that marbled murrelets (MAMU) do in fact occur on the Gualala River, but it cites no survey data or methods (dates, times, protocols, locations, expertises of surveyers) to support its apparently subjective conclusion that habitat available in the THP is “not conducive” to marbled murrelet occupancy. This conclusion is inconsistent with the presence of mature redwoods (exceeding 80 cm diameter) with irregular crowns and large diameter branches in the WLPZ (riparian buffer zone) of multiple reaches of the South Fork of the River adjacent to the THP area. The USFWS recovery plan for the species (1997) concluded that size of mature conifer stands was not significantly correlated with murrelet presence, and the number of detections may be masked by many variables. In addition, predation (by corvids such as ravens, Steller jays favored by forest gaps caused by timber harvest) may reduce detection of MAMU. Therefore, the THP provides no objective evidence or arguments to support its persistent conclusion (despite known contemporary presence of murrelets further upstream on the South Fork) that MAMU do not occur in or near the THP area. The fact that MAMU occurs upstream of the THP area but were not detected by surveys vaguely cited in the THP (Section IV, p. 183), confirms that whatever surveys occurred failed to detect MAMU dispersal over the river bed (the only dispersal corridor used by the species to reach breeding locations) through the THP-adjacent river reaches. Therefore, whatever surveys were cited by the THP were clearly inadequate. Protocol-level surveys for MAMU, focused on mature riparian redwoods bordering the THP area, must be conducted to provide reliable, reported data on MAMU distribution within the vicinity of the THP. Biologists with special expertise in MAMU surveys (including but not limited to CDFW and USFWS staff) should be consulted on survey protocols. Surveys should be coordinated with MAMU detections at known recurrent MAMU localities such as Clipper Mill Bridge.

Listed salmonids (Coho salmon, steelhead) – The THP still fails to assess the highly significant transient salmonid foraging events during floodplain submergence. The logging disturbances in the floodplain (vehicle track compaction of soils, disturbance, reduction of soil invertebrate density and productivity) may adversely impact floodplain foraging by reducing prey availability or visibility (increasing turbidity). Since skid road use that should normally be avoided under ASP rules is not even quantified or mapped, assessment and mitigation of this significant potential impact is still not addressed by the recirculated THP.

6. Archaeological and cultural resources

The recirculated THP still fails to identify the type and significance of archaeological resources within the THP area that have already been published and are publicly available without compromising the confidentiality of specific archaeological resource localities. CAL FIRE’s CEQA assessment of archeological resources for the Artesa (Annapolis) vineyard timber conversion plan did not claim “blackout” exemption for meaningful discussion of archaeological resources, but this THP inappropriately excludes all meaningful assessment of impacts and mitigation under a claimed over-reach of the exemption for confidentiality of archaeological resource locations, citing California Government Code Section 6452.10. This section does not relieve CAL FIRE of CEQA obligations for archeological resources (the CEQA exemption for the THP certified regulatory program process

does not cover CEQA chapters covering archeological resources). The THP area includes both old village sites and camps described in Barrett, S.A. (1908) *Ethnogeography of The Pomo and Neighboring Indians* (pp. 224-226) including pasikoyoyoelli (vicinity or in Unit 1), tcayahakaton, kubamoi, and kabateyo (Rockpile Creek mouth vicinity). The THP should confirm to the public and affected tribes that it has investigated these localities and protected them from logging disturbances. It has not apparently done so, and the limited information in the recirculated THP (emails between CAL FIRE archeology and Forest Practices staff) indicates that it had not even exhibited diligence to inquire about them until after the comment period on the first THP had closed. The THP should disclose the methods and expertise consulted and utilized in assessment and mitigation to protect archeological and cultural resources of this unique floodplain Pomo cultural area. I recommend that CAL FIRE coordinate with experts at Sonoma State University Anthropological Studies Center with detailed knowledge of the archeology of the Central Pomo, Kashaya [Kashia] Pomo in this geographic area. The indiscriminate exclusion of all archaeological assessment and relevant non-confidential information in the THP precludes meaningful public or independent expert review and comment.

7. Pre-project Biological and Cultural Resource Surveys, Assessment, Mitigation and Monitoring

The recirculated THP generally still defers or omits timely (not outdated, not deferred to future post-approval) pre-project surveys for biological resources specific to the 402 acre project area, such as rare plants, western pond turtle, federally listed California red-legged frog, and marbled murrelets. It also includes no requirements for post-project (post-harvest) surveys or monitoring reports to confirm that protections were effective, or that impacts were avoided. The THP fails to function as CEQA-equivalent for the most basic environmental baseline, impact assessment, and mitigation and monitoring standards even Initial Studies, let alone Environmental Impact Reports.

8. Cumulative Impacts

Persistent basic failures to assess cumulative impacts in the recirculated THP include:

Unique Floodplain forest - The Dogwood THP still includes no assessment of cumulative impacts of the Dogwood THP on the aggregate floodplain redwood forest habitat of the Gualala River, even though it distinguishes the floodplain redwood forest as some of the most productive and mature stands in the GRT ownership in context of alternatives (Section III pp. 105-107). The THP still fails to map or quantify the baseline area or length of floodplain redwood forest of the Gualala River within GRT ownership or beyond that may be left to mature undisturbed. The THP assesses cumulative impacts only in terms of planning watersheds (Section IV) that blend and blur the steep hillslope forests (mixed redwood, douglas-fir, and mixed evergreen hardwoods) with the nearly pure, mature redwood forest stands unique to the alluvial flats, which are more environmentally sensitive, and in the THP's view, "unique" (Section IV p. 107). The THP does not assess the proportion of the total Gualala River floodplain redwood forest area that is impacted by the THP, or the future potential impacts of logging the floodplain redwood forest outside the THP area within GRT ownership and control. Thus, there is no assessment of cumulative impacts to specific floodplain redwood forest type, or the floodplain-dependent habitats (alluvial wetlands: backswamps, sedge meadows, etc.) and sensitive wildlife species. Since the alternatives analysis (Section III p. 107) states

explicitly that GRT is unwilling to withhold harvest of its most productive alluvial redwood forest, it is incumbent on CAL FIRE to require cumulative impact assessment of future projects.

Listed species – None of the listed/special status species are assessed for cumulative impacts in relation to regional or watershed-wide population status and viability. The analysis of impacts is limited to “take” avoidance of individual wildlife, which is by definition not a cumulative impact analysis of populations or regional habitat quality or distribution. No maps or literature on regional distribution is cited for any listed species, so the THP fails to assess the cumulative importance of the THP assessment area to the larger regional or subregional populations of sensitive wildlife species.

Noise – The THP arbitrarily asserts the vague and indefinite area north and west of the most northern part of the THP is the only one that could “conceivably” be affected by noise. No evidence is cited for what is “conceivable”, and the claim substitutes an arbitrary assertion for analysis of cumulative noise impacts, especially to recreation on the river and its Wild and Scenic reaches. The Wild and Scenic status of the river demands a high standard of cumulative noise impacts.

GHG (alluvial/wetland) – The Greenhouse Gas analysis does not analyze the higher soil carbon storage capacity of deep alluvial floodplain soils close to the water table of the floodplain. The loss of GHG sequestration capacity due to timber harvest should be compared with “no project” with a clear and explicit conclusion regarding the magnitude and duration of any loss of below-ground or above-ground carbon sequestration capacity, including soil organic matter due to sediment burial and rising groundwater in pace with sea level rise (anoxic stabilization of saturated, buried wood).

Water Drafting and Diversions – The THP still does not disclose the sub-gravel water diversion intake for the commercial gravel operation (Bedrock) on GRT property, which uses Gualala River water to wash and process gravel mined from the river. The cumulative impacts of simultaneous pumping for gravel wash water and in-channel diversion of water for the THP dust suppression is not assessed in the pump test for the water drafting site nearest the gravel plant at Valley Crossing. This cumulative intake location was also not disclosed to CDFW for their 1600 streambed alteration agreement, even though GRT owns both intake/drafting locations.

Conclusions and Recommendations

Despite recirculation and ample opportunity to correct deep flaws in the THP identified in public and expert comments, the Dogwood THP persistently retains both careless errors and apparently willful non-compliance with both the spirit and letter of Forest Practice Rules regarding alternatives, riparian/flood prone area forest protections, cumulative impacts, wetlands, special-status species, and archaeological resources. The THP with few exceptions fails to provide basic sound biological baseline survey data, and relies almost exclusively on detection of difficult-to-detect or difficult-to-identify plant and wildlife species by non-expert timber operators, or through surveys lacking any enforceable conditions for methods or expertise. In addition, the THP ignores the need to identify, map, and protect wetlands in over 400 acres of floodplain rich in wetlands. All this would be unimaginable and unacceptable in even rudimentary CEQA professional practice, and should be shocking that it is apparently routine in THP review. The THP at this stage should be either

suspended and recirculated with corrections, or denied because it still contains impermissibly incomplete, incorrect, or materially misleading essential information and assessments.

I recommend that CAL FIRE assist the applicant with development of an adequate alternatives analysis, without prejudice to any feasible alternative, by facilitating discussions among Sonoma County Regional Parks, Sonoma County Agricultural and Open Space District, interested non-profit forest conservation organizations, and State Sen. Mike McGuire's office.

Respectfully submitted,

A handwritten signature in black ink that reads "Peter Baye". The signature is written in a cursive, flowing style.

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Copies furnished:
Audubon Society Madrone Chapter
California Native Plant Society
Center for Biological Diversity
Forest Unlimited
Friends of Gualala River
Northern California River Watch
California Sen. Mike McGuire
Independent Coast Observer
Interested Parties