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May 3, 2019

SUBJECT: THP 1-15-042 SON (second 2019 recirculated “Dogwood” THP)

Dear CAL FIRE:

Please add the comments below to the record for the subject THP, and fully consider them in context of my previous comments, the comments of California Resource Agencies, relevant court decisions, and related public comments.

1. Alternatives and cumulative impacts evaluations are essentially related to each other, and depend on an accurate account of sensitive seasonal wetlands in flood prone areas

Accurate assessment of cumulative impacts to seasonal floodplain wetlands is essential to the analysis of alternatives. The purpose of alternatives analyses in CEQA is to consider alternative project descriptions that avoid, lessen, or minimize potential significant impacts. None of the alternatives considered in the THP account for direct, indirect, or cumulative impacts to seasonal floodplain wetlands, including sensitive slough sedge (*Carex obnupta*) swards (a wetland meadow plant community) listed by CDFW, as I explained in my previous comment letter (January 2019). Slough sedge swards are seasonal wetlands (seasonally dry or drained), not perennially moist or wet “wet areas” as defined in the Forest Practices Act. Wet Areas mapped in the THP do not account for or protect slough sedge swards. Slough sedge swards (under redwood canopy shade or partial shade of canopy gaps) are extensively distributed throughout the entire length of the Dogwood THP’s outer floodplain along the Gualala River mainstem, and they are likely to occur also in the inner floodplain. They are associated with seasonal wetland habitat for rare plants, and ground-level vegetation roughness that significantly influences trapping of fine sediment during floods.

No alternatives evaluated in the THP address or reduce wetland impacts at all. The standard WLPZ protections based on set-back distances from watercourses, configuration of “no cut” areas, and proposed in-lieu practices for erosion control, have no demonstrated relationship to the distribution of seasonal wetlands in the floodplain, since the THP presents no valid information (map or other) on seasonal floodplain wetlands. Similarly, the THP evaluates no alternative that provides any meaningful protection against significant disturbance or degradation of seasonal wetlands from skid roads or other

logging disturbances. There is no information or map in the THP that shows where seasonal wetlands (including slough sedge swards) occur, or their distances from skid road layouts. There are no alternatives evaluated that include mitigation measures requiring advance identification, mapping and avoidance of seasonal wetlands. In fact, the proposed project states that low lying, poorly drained areas would be drained, which indicates adverse hydrological modification of wetlands.

Alternatives to lessen impacts to seasonal floodplain wetlands would need to evaluate alternative project boundaries or configuration of harvest and skid road areas to reduce, minimize, or avoid disturbance, drainage, and degradation of seasonal wetlands. Deferring seasonal wetland surveys until after the alternatives analysis is completed would prevent essential information about significant impact avoidance from being considered in the alternatives analysis, defeating its purpose in CEQA.

The recirculated Dogwood THP still does not explain why it does not consider even one alternative that applies the standard Flood Prone rules that avoid disturbances in flood prone areas (such as skid roads), at least for purposes of comparing environmental impacts with the proposed project predicated on blanket exceptions to the standard rules.

2. Alternatives recommended for evaluation to minimize ecological impacts.

There are obvious and straightforward feasible alternatives that comply with CEQA, meet the project purpose, and meet the applicant's purpose for the THP, which would significantly lessen environmental impacts compared with the proposed THP. The THP should be revised to evaluate these alternatives which would meet CEQA requirements for a reasonable range of alternatives, and which are summarized below.

2.1. Alternative A: Dogwood THP fully compliant with the standard Forest Practices Act rules for avoiding disturbances to flood prone areas (without exceptions allowing any substitution of in-lieu practices for erosion control). This alternative would avoid skid road networks from being opened or re-opened in all flood prone areas, and would avoid equipment use that crushes, uproots, or dislodges soil, duff layers, roots and plants of flood prone areas.

Alternative A would allow some timber harvest by methods such as (a) helicopter yarding, or (b) cable yarding within limited reaches from hillslopes, or the main haul road (which is compacted enough to resist disturbance and does not normally support vegetation). The recirculated THP provides no evidence for its speculation that helicopter yarding would cause unacceptable noise impacts, or would be commercially unavailable.

Alternative A would represent a relatively high ratio of protection for sensitive floodplain habitat and species, relative to commercial logging efficiency, but would likely be least economically attractive to the applicant. It would also not, however, be the optimal ecological configuration for protection of sensitive wetland and other biotic floodplain resources, since disturbances would be concentrated both in the most sensitive and biological resource-rich outer floodplain (along the haul road) as well as along the somewhat less sensitive inner floodplain closest to hillslopes. But it would significantly reduce cumulative impacts to sensitive species, communities, and floodplain functions compared with the proposed alternative that completely

substitutes “in lieu” practices for the standard rule, and allows an extensive network of skid roads throughout the outer and inner floodplain.

2.2. Alternative B: Alternative B would be a compromise between the complete exception of the standard rule allowing skid roads throughout the floodplain (proposed project), and its complete adherence (Alternative A).

In this alternative, selective application of the standard rule (effectively excluding skid road use in flood prone areas) would be configured to those flood prone areas with frequent, large patches of seasonal wetlands and dense non-wetland ground layer vegetation in the outer floodplain. Skid roads would be configured to avoid proximity to seasonal wetlands, which would be accurately mapped in advance of skid road layout.

The ecological premise of this alternative is that the most ecologically important interactions between the floodplain and the river channel occur in a gradient between the stream bank (overbank flow and tributary connections, alcoves) and the landward extent of the floodplain. This premise places higher conservation priority on the outer floodplain, and avoidance of seasonal wetlands.

Alternative B would allow substitution of in-lieu practices for the standard rule to avoid disturbances in the inner floodplain, farther from the river and tributary mouths. It would exclude skid road use in the outer floodplain and avoid ground disturbances to soil, wetlands, plants, duff, and woody debris there (roughness elements, and sources of high biological productivity supporting off-channel salmonids during floods).

Alternative B, would likely provide an environmentally superior outcome over the proposed project, and probably also Alternative A. This is because Alternative B selectively minimizes and avoids logging disturbance impacts to the most ecologically sensitive and valuable outer floodplain, while allocating timber harvest disturbances towards the landward, inner floodplain.

3. Cumulative, indirect, and direct impact assessment of seasonal wetlands.

The Dogwood THP provides no account, inventory, map, data sheets, or objective, expert opinion about seasonal wetlands of the extensive flood plain within the project area. Despite new (2019) comments from CDFW recommending surveys for sensitive, special-status wetland plants and plant communities omitted in all THP recirculations (fringed corn-lily, *Veratrum fimbriatum*, and slough sedge swards, *Carex obnupta*) the recirculated THP continues to disregard any discussion at all of these public trust resources, and perpetuates a significant omission of potentially significant impacts, without any explanation.

Fringed corn-lily is a special-status, rare wetland plant that occurs in or in the vicinity of the Dogwood THP area (see my previous January 2019 letter and that of CDFW), but it was not even considered on the list of plants the Registered Professional Forester surveyed. The Dogwood THP does not mention or assess impacts to this species. The flowering season for detection of this plant is summer-fall. No surveys were conducted during this period, so they do not conform to CDFW survey protocols, and are

inconclusive and unreliable. This is consistent with the non-detection of this species, which was inexplicably omitted from the “scoping” (search/survey) list of sensitive plant species in the THP.

Seasonal wetlands are not the same as “wet areas”. Seasonal wetlands in California’s coastal Mediterranean climate are those that are wet or moist only during the wet season, when heavy rains and annual river overbank flooding occurs. Seasonal wetlands are not the same as the older, narrower category of “wet areas” defined by Forest Practice Rules. “Wet Areas” refer only to the wettest of wetlands that remain wet almost all year round. These are not as extensive or widespread in the Gualala River floodplain as seasonal wetlands. Cumulative impacts to seasonal wetlands have not been assessed in the Dogwood THP because they have not been identified or mapped accurately, and no documented wetland survey results (no evidence, data sheets, survey maps) have been presented in the Dogwood THP to provide a basis for alternatives that minimize or avoid significant impacts to seasonal wetlands.

Seasonal wetlands are widespread in the floodplain of the river, including the Dogwood THP area.

Seasonal wetlands occur in poorly drained flats, swales, relict overflow channels, and in old skid road track depressions in the Gualala River floodplain. FoGR and Forest Unlimited representatives, guided by Henry Alden of Gualala Redwoods Inc. during an inspection of a portion of Dogwood THP in 2015, directly observed conspicuous slough sedge wetlands (both intact and disturbed ones) in plain view of the entire Dogwood Haul Road route and Buckeye Creek roads. There is no doubt that they are present, but the THP incorrectly denies that they are. The THP presents no data, photographic evidence, standard wetland data sheets for delineation, or any other evidence to support its narrative account that denies that any seasonal wetlands (outside of “wet areas”) occur in the Gualala River floodplain within the THP area. That narrative and conclusion is both inaccurate and lacks any credibility; it is not a dispute among experts, but a unilateral rejection of expert wetland observations with no basis in evidence or expertise. The recirculated THP continues to omit any credible, reasoned explanation for its flatly erroneous and prejudicial conclusions about wetlands, which contradict National Wetlands Inventory map evidence and first-hand observations I have provided. The THP cites no wetland expert opinion or evidence from resource agencies or independent consultants to support its erroneous conclusions

4. Cumulative impact assessment of water quality related to disturbance of seasonal wetlands and riparian ground layer vegetation.

The Dogwood THP continues to omit any reasoned assessment or analysis of the impacts of ground disturbance from logging operations (skid road construction or use, yarding, crushing of vegetation by wheeled vehicles, etc.) on water quality – specifically, post-harvest reduction or loss of ground-level vegetative roughness that influences the floodplain’s capacity to trap and stabilize fine sediment, and prevent it from returning to the main channel as the floodplain discharges with lowering water levels. This impact is loss of capacity to perform an essential water quality function of removing fine sediment from floodwaters, not addition to sediment loads from erosion. Erosion impacts for sedimentation are primarily associated with hillslopes. Aggrading floodplains are primarily net sinks of fine sediment, not net sources of sediment. Sediment impacts to floodplains should be based on their geomorphic functions and key attributes, which are related to area, height, and density, or cumulative surface area, of ground layer vegetation causing friction to flood flows (roughness elements).

The Dogwood THP provides only unsubstantiated offhand speculation about timber operation effects on vegetative roughness and impairment of sediment trapping compacity, with no supporting evidence, citation of scientific literature, or reference to monitoring data from past Gualala River flood-prone THPs. The Dogwood THP does not even provide written subjective expert accounts of resource agency evaluations from past Gualala flood prone THPs to support its speculation that timber harvest increases roughness (either in short term or long term) rather than impair it. Speculation without explanation is not adequate for cumulative impact assessment of water quality impacts due to impaired floodplain roughness.

5. Seasonal floodplain wetlands impacts on off-channel fish habitat and steelhead recovery.

The Dogwood THP continues to omit any reasoned discussion or objective assessment of impacts to floodplain productivity for off-channel steelhead, caused by disturbance of seasonal wetlands and other floodplain riparian vegetation and soils. Invertebrates in soil and moist litter of seasonal wetlands and the forest floor provide highly important rapid feeding and growth opportunities for juvenile steelhead and other salmonids. The recirculated THP provides no explanation for its failure to address this potentially significant impact, despite emphasis in past Dogwood THP comments, including mine.

6. ALTERNATIVES ANALYSIS RECOMMENDATIONS

- Because any alternative that protects significant seasonal wetland habitats in the floodplain requires an accurate inventory and map of this sensitive resource, no THP should be approved until an alternatives analysis fully considers a complete, accurate evidence-based (scientifically sound survey) map of seasonal floodplain wetlands in the Dogwood THP area.
- CAL FIRE should consult with resource agency (CDFW, RWQCB, NOAA) experts in riparian (floodplain) wetland ecology, or other qualified wetland experts, to develop authentic, feasible alternatives to avoid or minimize cumulative impacts to Gualala River seasonal wetlands. This is necessary because most THPs prepared by Registered Professional Foresters are in uplands, where there are no floodplains, and few, small seasonal wetlands.
- Dogwood THP alternatives *should include at least one that avoids or minimizes disturbance impacts to flood-prone areas*, consistent with the standard flood prone rules without substituting in-lieu practices (Forest Practice Rules) that are less protective of wetlands. This is especially important for old skid roads track depressions that develop wetland characteristics.
- A wetland-protective *reduced impact project alternative* (CEQA) should evaluate exclusion of logging disturbances in the most sensitive flood-prone areas, consistent with the standard flood prone rules (Forest Practice Rules). This alternative applies to especially to skid trail use or construction, in and around sensitive seasonal wetland habitats, including old skid trail depressions that have reverted to wetland habitat.

- An alternative or alternatives complying with the standard rules should be compared with alternatives based on in-lieu (substitute) practices allowing disturbance of the floodplain by skid road use, as proposed in the Dogwood THP.
- Intermediate alternatives should evaluate excluding logging disturbances and skid road use (Standard flood prone rules) in zones where sensitive seasonal wetlands are most extensive or frequent, and applying in-lieu practices in flood prone areas where evidence indicates seasonal wetlands are infrequent and small. Compensatory mitigation for significant impacts to seasonal wetlands, through wetland restoration or creation in the floodplain, should be evaluated for wetlands impacted by in-lieu practices.

7. CUMULATIVE IMPACT ASSESSMENT AND MITIGATION RECOMMENDATIONS

- No cumulative impact assessment of seasonal wetlands is possible without an accurate survey of seasonal wetlands, so CAL FIRE should require one to inform the Dogwood THP.
- No Dogwood THP should be approved until accurate seasonal wetland surveys within the Dogwood THP area, past flood-prone THP areas (including “Kestrel” and “German South” THP areas) along the lower Gualala River are prepared and presented in maps, and assessed for cumulative impacts and mitigation.
- CAL FIRE should consult with resource agency (CDFW, RWQCB, NOAA) experts in riparian (floodplain) wetland ecology, or other qualified wetland experts, to develop scientifically accurate and meaningful baseline data on seasonal wetlands along the lower Gualala River to support an adequate assessment of cumulative impacts.
- No THP should be approved until accurate seasonal wetland surveys specifically identify “slough sedge swards” (CDFW classification) within the Dogwood THP area, past flood-prone THP areas (including “Kestrel” and “German South” THP areas) along the lower Gualala River, and are prepared and presented in maps for cumulative impact assessment and mitigation by avoidance of disturbances.
- No THP should be approved until CDFW protocol-compliant surveys by a qualified botanist are conducted for fringed corn-lily along the entire Dogwood THP area. All other potential rare plants should be included in this survey as CDFW rare plant (floristic survey) protocols require.
- CAL FIRE should ensure that resource agency wetland experts from CDFW and RWQCB, NOAA or other qualified riparian (floodplain) wetland experts, provide technical supervision and review of wetland survey and assessment methods, and comment on their interpretation and conclusions.

- CAL FIRE should rigorously assess the need for compensatory mitigation for any significant potential impacts to seasonal wetlands or fringed corn-lily that are not avoided, consistent with standard CEQA and Porter-Cologne Water Quality Act practices and policies.
- Foothill yellow-legged frog (*Rana boylei*). As recommended by CDFW, new protocol surveys for foothill yellow-legged frog (FYLF, candidate species for listing under the California Endangered Species Act) should be conducted during the appropriate spring-summer low flow season. An impact avoidance and minimization (mitigation) plan, reviewed and approved by CDFW, should be completed before any THP is approved.
- California red-legged frog (*Rana draytonii*). Protocol night surveys for this federally listed species, which forages (feeds) at night in coastal floodplains and uplands influenced by marine air layers (summer fog), should be conducted in the THP area. Adult frog survey areas for this species are not limited to breeding habitat in standing water. An impact avoidance and minimization (mitigation) plan for CRLF adults in the floodplain, prepared in consultation with a qualified CRLF expert and reviewed and approved by CDFW, should be completed before any THP is approved.
- Wildlife Trees: Both decadent and structurally sound “late seral” (mature, old trees with complex structure and cavities, including but not limited to old growth trees) should be surveyed and inventoried throughout the flood-prone area of the THP. Cumulative impacts to wildlife trees should be assessed based on this inventory. All wildlife trees in flood-prone areas (WLPZ) should be protected. No “hazard trees” should be excluded from protection. If decadent wildlife trees pose potential hazards to logging, logging operations should avoid risk of hazard by routing around them, not by removing them. CAL FIRE should modify the THP to include this as a condition of authorization.
- Steelhead trout off-channel habitat in flood-prone areas. The THP should assess the existing capacity of the floodplain to support steelhead growth by rapid feeding on terrestrial invertebrates during flood (overbank flow, floodplain submergence) events. The THP should assess the impacts of logging disturbance on floodplain productivity due to logging disturbances that crush vegetation and expose litter, moist organic debris, subsoil, roots, and soil invertebrates to light and drying in summer. CAL FIRE should consult with experts in salmonid ecology and fluvial geomorphology from National Marine Fisheries Service and the California Department of Fish and Wildlife to address this impact.

I recommend that CAL FIRE and the Board of Forestry should consult one another about the appropriateness of systematically making exceptions for standard Flood Prone rules in the Forest Practices Act, in all or most major Gualala River flood prone THPs, especially the largest of them, Dogwood THP. I strongly recommend that CAL FIRE discontinue its practice of relying exclusively on generalist Registered Professional Foresters with little or no experience or expertise in floodplains, or current scientific understanding of floodplains, for its environmental impact assessments of major flood prone THPs. CAL FIRE should do as all lead CEQA agencies do, and require that applicants retain qualified interdisciplinary professional consulting scientists to provide at least minimally accurate, objective evidence supporting environmental assessments about floodplain wetlands, floodplain ecosystem functions, fish, plants, and wildlife, consistent with CAL FIRE's own guidance (Riparian Protection Committee *Flood Prone Area Considerations in the Coast Redwood Zone* November 2005). In the course of the multiple Dogwood THP recirculations, CAL FIRE has systematically failed to do so.

Respectfully submitted,



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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 Department of Fish and Wildlife
North Coast Regional Water Quality Control Board
Sen. Mike McGuire
Independent Coast Observer
Interested Parties