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July 15, 2015
Director Cal Fire
135 Ridgeway Ave.
Santa Rosa, Ca 95402

Dear Director,

The following comments pertain to 01-15042SON which I have recently reviewed. Please have this letter submitted into the record and give these comments your full consideration.

General Comments

Gualala Watershed Impairments

In 1993, the USEPA listed the Gualala River on the Federal Clean Water Act §303(d) list of impaired water bodies due to declines in anadromous salmonids resulting from excessive sedimentation. Sediment is largely due to logging activity in the watershed.

The §303(d) listing was updated in 2003, and water temperatures in the basin are now considered impaired as well. Water temperatures increase due to removal of tree canopy from logging in the watershed.

[A Technical Support Document \(TSD\)](#) for the Total Maximum Daily Load for the Gualala was completed by the North Coast Regional Water Quality Control Board (NCRWQCB) in 2003.

The Gualala River TSD estimates that 85% of the anthropogenic sediment sources impacting the river are from poorly constructed timber and ranch roads. Since a large fraction of the timberland on the Gualala River is owned and operated by GRI, it is reasonable that a large fraction of the sedimentation in the river is attributable to GRI operations, contrary to claims in the plan that the contributions are insignificant.

Federal regulations for impaired waterways such as the Gualala require that activities which potentially degrade the river be completely remediated to so that water quality is actually

improved, not just preserved.

The plan does not seek to perform remediation activities that completely mitigate stream degradation due to sediment, thus the plan is not in compliance with the Federal Clean Water Act and state regulations.

Many of the activities described in this plan will cause additional sediment to flow into the river and remove canopy from tributaries, which will cause an increase in water temperature. Both these actions are harmful to the protected salmonids present in the Gualala River, which is listed for both temperature and sediment degradation.

The plan is also non-compliant with California Forest Practice Rules. Rule 916.9(a)(1) requires that “every timber operation shall be planned and conducted to: (1) Comply with the terms of a Total Maximum Daily Load (TMDL).” This THP does not quantitatively describe how or whether the THP complies with this adopted TMDL, thus is in violation of Rule 916.9(a)(1).

In particular the temporary bridges on Class II watercourses described are a potential source of sediment flow into the Gualala. These bridges are across the following tributaries:

- Rockpile Creek
- North Fork of the Gualala River
- Buckeye Creek

Although these bridges may be constructed in accord with the Forest Practice Rules, these rules do not specifically address the specific TMDL requirements for the Gualala and no data is presented in the plan showing how they may. The claim that the additional sediment introduced into the watercourses is insignificant is not supported by data, it is just a matter of opinion. The cumulative quantitative impact from the total sediment from all bridges is also not considered in the plan. Even if each bridge by itself contributes insignificantly to the TMDL, the total of all the bridges may be significant. Without quantitative sediment estimates for each bridge structure it is impossible to determine the additional sediment flowing into the Gualala in order to properly review the plan for compliance to Forest Practice Rules and other regulations.

Sediment loading will also be introduced into the watercourse from slides and roads either directly or through tributaries. Specific quantitative estimates are not presented in the plan to determine if the impact from these factors is significant. This also makes it impossible to properly review the plan for compliance to Forest Practice Rules and other regulations.

Salmonid Protection

Specific Forest Practice Rules that require protection and Restoration of the riparian zone for Salmonids are quoted below.

916.9, 936.9, 956.9 Protection and Restoration of the Beneficial Functions of the Riparian Zone in Watersheds with Listed Anadromous Salmonids. [All Districts]

In addition to all other district Forest Practice Rules, the following requirements shall apply in any watershed with listed anadromous salmonids. Requirements of 14 CCR § 916.9 [936.9,

956.9] precede other sections of the FPRs.

(a) Goal - Every timber operation shall be planned and conducted to protect, maintain, and contribute to restoration of properly functioning salmonid habitat and listed salmonid species. To achieve this goal, every timber operation shall be planned and conducted to:

(1) Comply with the terms of a Total Maximum Daily Load (TMDL).

(2) Prevent significant sediment load increase to a watercourse system or lake.

(3) Prevent significant instability of a watercourse channel or of a watercourse or lake bank.

(4) Prevent significant blockage of any aquatic migratory routes for any life stage of anadromous salmonids or listed species.

(5) Prevent significant adverse effects to streamflow.

(6) Consistent with the requirements of 14 CCR § 916.9 [936.9, 956.9], subsections (f), (g), (h) and (v), protect, maintain, and restore trees (especially conifers), snags, or downed large woody debris that currently, or may in the foreseeable future, provide large woody debris recruitment needed for instream habitat structure and fluvial geomorphic functions.

(7) Consistent with the requirements of 14 CCR § 916.9 [936.9, 956.9], subsections (f), (g), (h) and (v), protect, maintain, and restore the quality and quantity of vegetative canopy needed to:

(A) provide shade to the watercourse or lake to maintain daily and seasonal water temperatures within the preferred range for anadromous salmonids or listed species where they are present or could be restored; and

(B) provide a deciduous vegetation component to the riparian zone for aquatic nutrient inputs.

(8) Prevent significant increases in peak flows or large flood frequency.

(b) Pre-plan adverse cumulative watershed effects - Pre-plan adverse cumulative watershed effects on the populations and habitat of anadromous salmonids shall be considered. The plan shall specifically acknowledge or refute that such effects exist. When the proposed timber operations, in combination with any identified pre-plan watershed effects, will add to significant adverse existing cumulative watershed effects, the plan shall set forth measures to effectively reduce such effects

Nowhere in the plan is it stated how some of these rules will be implemented. The sections in bold above are critical and are not addressed in the plan:

- Quantitative analysis of how the TMDL regulations will be satisfied
- Quantitative analysis of how significant adverse effects to streamflow (quality and quantity) will be achieved
- How any tree canopy will be restored
- Pre-planning for cumulative watershed effects

Water Drafting

P. 34 States up to 350 gallon/min will be drafted from the Gualala River, a Class I stream. The plan states this will be done during the dry season, from April 1 to November 15. This will reduce water levels downstream thus stressing protected salmonids. This is especially true in the drought as we are currently experiencing.

P. 98 The plan states that up to 25000 gallons per day will be drafted from the Gualala.

It is stated that although pool levels will decrease and water temp will increase but canopy will protect pools. No quantitative evidence is presented that the remaining canopy will provide sufficient protection from water temperature increases.

P. 34 states that the maximum diversion fraction will be less than 10% of surface flow and pool reduction will be less than 10%. However the plan does not state if this is the total from all drafting points or per drafting point. It is the total diversion is important for the protected fish. The plan does not state if the reduction of the pool is by volume or by depth. The plan does also does not state if the this diversion is from this plan only or from the other plan (033SON) that GRI has also submitted. These details are necessary for the plan to be properly reviewed, as required by Forest Practice Rules.

The impact analysis of drafting on river flow was conducted for THP 01-10-081SON in 2010 or earlier. 2010 was a high rainfall year and showed flow reduced at that time by 0.05%. It is not reasonable to assume a wet year for planning purposes, the impacts on flow in the drought conditions we are currently experiencing is necessary. It may require several rainy years for river flows to return to “normal” levels. Water drafting in amounts based on flow levels in wet years when conducted in dry years will likely result in permanent damage to the salmonids present in the stream.

These factual omissions make it impossible to properly review the impacts of the plan as required by the Forest Practice Rules. This information must be added to the plan so the public can review it – allowing for full disclosure in the informed decision making process required by CEQA.

Greenhouse Gases (Section 4, P. 214)

This section opens with a statement of global warming denial from a politically motivated no-binding vote from the US Senate in 2008. If this is the basis of the Greenhouse Gas analysis, the plan is legally flawed with respect to California laws which acknowledge the role of Greenhouse Gases in causing Global Warming. California law requires specific action on the part of the logging industry to address Global Warming in all the plans it submits. If the non-binding US Senate resolution is not the basis of the Greenhouse Gas analysis, the reference to it in the paragraph titled “Climate Change in General” should be removed from the plan since it is irrelevant and contrary to the California laws which actually regulate the logging industry.

California’s forests are acknowledged by the state of California to play a critical role in the State’s carbon balance, with the unique capacity to remove CO2 from the air and store it long-term to reduce the harmful effects of global warming. The forest sector is acknowledged by the state to provide the only mechanism for a net removal of Greenhouse Gases (GHGs).

The plan is also legally flawed because it based on the 2006 Global Warming Solutions Act, (AB32), not the more recent 2011 legislation which amended the Forest Practice Act.

According to the California Board of Forestry, link below,

[\[http://bofdata.fire.ca.gov/board_committees/interagency_forestry_working_group/current_projects/ifwg_task_2_final_3_20_12.pdf\]](http://bofdata.fire.ca.gov/board_committees/interagency_forestry_working_group/current_projects/ifwg_task_2_final_3_20_12.pdf)

the forest sector is to have a net sequestration of 5 million metric tons of CO2 equivalents by

2020.

Thus the Forest Practices Act was amended by the legislature in 2011 to recognize role of forest carbon sequestration in meeting CO₂ sequestration goals. Changes included addition of PRC 4512.5 (a)-(e), PRC 4513 and PRC 4551. These additions to the Forest Practice Act require the adherence to rules and regulations that govern the harvesting of commercial forests meet AB 32 greenhouse gas reduction goals.

How this specific project has accounted for its contribution to atmospheric GHGs is not covered sufficiently in the plan. The GHG section states in effect that the contribution of this one project to overall emissions is small. This may be true but the California GHG regulations require that each individual project is accountable for its emissions and contribute to the sequestration of CO₂.

P. 224 shows a nearly 50% increase in 804 to 1481 metric tons per acre in the core zone sequestered pre logging to post logging over a period of one year. This 50% rate of growth seems to be very unrealistic.

CEQA Impact Analysis

The plan does not perform its own independent factual assessment of the essential CEQA question of “whether the Project may have a significant impact on the environment.” Instead, it assesses a different question - whether the Project is consistent with other agencies standards, on Page 105 . This violates CEQA because the THP cannot merely reference a project’s compliance with another agency’s standards to determine the significance of impacts. Lead agencies must conduct their own fact-based analysis of project impacts, regardless of whether the project complies with other agencies standards. See the following legal precedent:

Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th 1099, 1109, *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114 (“CBE”); accord *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342 [“A threshold of significance is not conclusive...and does not relieve a public agency of the duty to consider the evidence under the fair argument standard.”];

The plan should include in its impact analysis two criteria to determine potential significant environmental impact which are:

- California ARB’s Scoping Plan’s statewide year 2020 goal of a 29-percent reduction of GHGs emissions from business as usual (BAU)
- Project Consistency with Climate Action Framework Goals and Objectives

On Page 216 the plan states that the “Proposed project does not have a significant effect because it does implement a land use change or activity that decreases carbon storage.” This is erroneous because it fails to account for the actual physical state of the site which includes logging and the activity taking place on it. It ignores both the timber harvest and construction related emissions that will occur in the first years after logging and the operational emissions that will occur between project approval and 2020. It ignores the emissions that result from processing and transporting the trees and also the emissions from construction that uses the

timber produced. This method severely underestimates the amount of GHGs the project will emit in this time period and thus does not comply with the legally mandated CARB 2020 goals.

Analysis of the data presented in the for long and short term carbon sequestration shows it is not in compliance with state laws. The Tables starting on Page 223 show recovery times for carbon storage as a result of logging far past 2020. For the inner zone which is not logged, the time to recoup carbon is 1 year (Pg. 224), for Inner Zone A the time to recoup carbon is 7 years (Pg 230), for inner zone B the time to recoup is 14 years (Pg. 236) and for the most heavily logged Outer Zone it takes 28 years (Pg 242) to recoup the carbon introduced into the atmosphere.

If it cannot be shown that the plan reduces the total carbon emitted between now and 2020, then the plan does not meet the state mandated threshold. The tables at the end of Section 4 make this error clear, it will take as much as 28 years for the logged forest to recover its carbon stocks, including wood in chips, lumber, etc. This is well past the 2020 legal requirement.

Pages 216 – 217 present an incomplete analysis that underestimates the climate change impact because it includes only the immediate short-term carbon emissions as a result of logging activities since only on-site logging is included, not transportation off site, milling, drying and transport of finished lumber.

Climate change due to reduced tree cover is also not considered. Anyone knows that it is coolest in a forest on the hottest day.

P. 217 states that 47 % of the weighted average of wood products remain in use and 76% are either in use or in landfills in support of a claim of carbon sequestration. This may be true but if the forest remained intact after 100 years, more than 100% of the mature redwood forest would be in place because it would have grown so all the carbon plus more would still be sequestered. Quantitative analysis is required for both alternatives to determine the GHG impact of the plan so it may be properly evaluated.

Pg. 218 states on the one hand that logging this tract will sequester carbon by incorporating the wood product in buildings. The plan also states states the contrary - that the reduction in logging statewide has further reduced carbon emissions. It seems that this logging project sequesters carbon and reduces emissions yet overall the declining logging industry in California has also contributed to reduced emissions. These statements are logically contradictory. Logging activities overall either sequester carbon or the decline of logging allows carbon to be sequestered in the forest but not both. Both activities impact carbon sequestration thus quantitative analysis is required to determine the GHG impact of the logging proposed in this plan, without this information the plan cannot be properly evaluated as required by state law.

P. 218 bases an argument on the logical fallacy that may be summarized “No drop of water is responsible for the flood” when it states “This proposed timber harvesting plan includes 332 acres that are actually being partially harvested which represents only 0.0000455% of the total available timberland in the state.” The impact of this one project may not be large compared to the total of all projects but the impact of all projects is cumulative, just as the tailpipe emission

of one car is small compared to total auto emissions. Each project must logically be required to reduced carbon emissions just as each car must individually meet emission standards. Basing the GHG analysis on an obvious logical fallacy is not consistent with Forest Practice Rules and state GHG emission regulations. Consistently using this logic will lead to the erroneous conclusion that the sum total of all GHG impacts will be small because that of each project is small.

Cumulative Impacts

The cumulative impacts analysis on page 142 states it is based on studies published from 2003 to 2006. This is out of date and the plan should include current data for this watershed which the plan shows has been extensively logged.

The Cumulative Impacts paragraphs in Section 4 on pages 115 -117 describe logging activities in general qualitative terms and does directly relate to this specific project quantitatively. It is inadequate coverage of the requirements of the Forest Practice Rules Appendix Technical Rule Addendum # 2, which states under article A. Watershed Resources:

2. Watershed effects produced by timber harvest and other activities may include one or more of the following:
 - Sediment
 - Water temperature
 - Organic debris
 - Chemical contamination
 - Peak flow

The plan does not contain any quantitative information about the impacts of any of these factors either for this plan or other logging going on in the watershed.

The Cumulative Impacts section does not contain any information about another GRI plan, 01-15-033-SON which is proposed to be logging in the immediate vicinity at the same time as this plan, 01-15-042-SON.

Project Alternatives

P. 105 The plan uses circular logic in the claim that since the Forest Practice Rules have been followed there are no impacts and therefore it is not necessary to provide feasible alternatives. However, the Forest Practice Rules are designed to allow a reasonable trade off between environmental impact and maintaining a supply of commercial timber. There are many possible approaches within the scope of Forest Practice Rules that may be selected, each of which will have environmental trade offs depending on silviculture, the selected trees to be cut, topography, geology, accessibility and economic feasibility. Weather conditions and untimely rains can also result in foreseeable significant environmental impacts. The claim that simply by following the Forest Practice Rules means there will be no possibility of a significant impact is not supported by fact, history, logical arguments and is not the intent of the Forest Practice Rules.

Furthermore, numerous exceptions to standard Forest Practice Rules (FPR) are requested in the plan. Even if it was true that strict adherence to the FPRs would minimize environmental impact, the plan does do this because of the numerous exceptions requested. Since any activity could be requested as an exception to the FPRs, the logic followed by the plan leads to the obvious erroneous conclusion that any activity under an exception no matter how destructive is in compliance with the FPRs and is thus without significant impact.

P. 107 and following. Project Alternatives. None of the Project Alternatives are feasible alternatives – the are all unreasonable straw man arguments invented only for the purpose of dismissing them to justify the plan as proposed. Forest Practice Rules require feasible alternatives to be identified and analyzed. In this respect the plan is ignoring the FPRs.

P. 111 Insufficient analysis is done for the "Alternative Approach to Harvesting" options. While is is unreasonable to expect all options would be examined, alternatives mentioned in this section may result in less potential environmental impact and better conformance to the standard Forest Practice Rules without exceptions. For example, how about logging only a subset of the proposed groups in the immediate time-frame and excluding those which require intrusion into WLPZs?

The plan states on Pg 112 that alternative silviculture prescriptions were analyzed by the RPF. Is it possible for these to be included as part of the plan to permit adequate review?

It is highly problematic from the point of view of alternative analysis that radically different logging approaches are identified as the only satisfactory alternative in this plan and 01-15-033SON. Both plans are submitted by the same landowner, they are on the same Class I stream, in similar terrain and use much of the same road system. How can it be the case that the different silviculture proposed for these two plans are both claimed to be “ideal”?

P. 112 In the project alternative section is one of the most bizarre rationales against a straw-man alternative ever to appear in a THP, it is also in 01-15-033SON. This section argues against the No-Project alternative because it would preclude beneficial forest regeneration. If the No-Project alternative was selected over logging, then regeneration would not be necessary. This is the same text as in 01-15-033SON which proposes regeneration for the clear cut areas in that plan. The current plan does not propose clear-cutting and does not require artificial regeneration, presumably relying natural regeneration.

P. 113 Alternative Project Location. It is claimed in this paragraph the project's impacts are mitigated to insignificance without factual evidence that it is the case. It is also stated that “relocating the project to an alternative location would not avoid possible significant adverse impacts because not operating on the THP area would require operations to occur elsewhere on the property, where even greater impacts would occur because of the reduced standards allowed at the alternative location.” Why would operations at another location have greater impact? What characteristic of this location compared to others nearby results in adherence to higher standards? Because it makes so little sense, this paragraph is an inadequate analysis of the Alternative Project Location.

P. 113 Alternative Approach to Harvesting. The arguments against an Alternative Approach to harvesting is that it “probably” does not satisfy the landowners economic needs. This

essentially makes the alternative analysis process entirely an economic issue – the alternative silviculture methods are said to be more costly or will produce less income for the landowner, although not even a rudimentary analysis is done to show that this is the case. The plan is in violation of the Forest Practice Rules and CEQA because the plan holds the economic well-being of the landowner to be the only factor in evaluating alternatives to the plan as proposed.

Specific Comments

P. 20 The plan says that logging operations will not be conducted if using roads adds visible turbidity to streams. How is it known that this a sufficient criteria? How much sediment is introduced into the Gualala which is listed for sediment by following this rough, unscientific rule of thumb and does this threshold satisfy the quantitative TMDL requirements? A quantitative, measurable threshold for turbidity must be included in order to protect the stream as required by law.

P. 21 The plan says the appurtenant road system crosses Class I watercourses at four places via temporary bridges and one permanent bridge. This will lead to extra sedimentation, a prohibited environmental impact, in the Gualala which is listed as degraded for sediment.

P. 30 discusses protections for the Class III watercourses but does not specify the WLPZ for them. This is contrary to the California Forest Practice Rules 2015 which says on pg. 72:

916.4, 936.4, 956.4 Watercourse and Lake Protection

(c)(2) The width of the WLPZ for Class III and IV waters shall be determined from on-site inspection.

Minimum protective measures required when Class III and Class IV protection zones are necessary are contained in Table I 14 CCR 916.5 [936.5, 956.5].

Although the Class III WLPZ is established on a site-specific basis, according to the FPR section above it should be specified in the plan and is also necessary for the plan to be adequately reviewed.

Pg. 116 says that this project and future projects will log 19.4% over 15 years in the Big Pepperwood watershed, about 1.3% per year. For the Mouth of the Gualala the logging rate is 30% over 15 years, about 2% per year. No rationale is presented for this unsustainable level of logging except that that it is less than an arbitrary 60 year rotation rate which leads to 25% logging every 15 years, or 1.67%/year. Trees 60 years old are far from mature, but may be close to the minimum marketable age. A forest containing trees no older than 60 years of age is not mature and this practice may not even be the most beneficial economically in the long term. However cutting and marketing trees as young as possible will generate cash quickly. It is not clear how the forestry management goals are served by this practice.

This is a high level of logging that is unsustainable and does not permit regeneration of the forest, which requires annual levels not much more than one percent. Thus the plan does not answer the key question posed by the FPRs in Article 3 Silvicultural Methods 913, 933, 953 Silvicultural Objectives [All Districts](c) which is if this level of logging is sustainable to maintain the flow of forest products from managed timberlands, and shall demonstrate the

achievement of maximum sustained production.

On Page 116 the plan states that “At the present rate of harvest and because of adjacency rules it is likely that many of the stands on landowners property will not be harvested until they are many decades older than the rules require...” Is this a hard, firm commitment in the plan or is it a feel-good statement that may be ignored if circumstances or ownership changes? The plan should clarify if this represents a solid long-term commitment on the part of the owners which will be binding on future ownership to whom the THP may be transferred or if it is simply a statement of good intent.

P. 167 Indicates the Rare Plant Survey has not submitted and will be submitted later. On Page 196 it is acknowledged that rare plants are present in the logging area. It is not possible to completely review the plan as submitted, as required by the FPRs and CEQA, without the completed Rare Plant Survey.

P. 256 - 257 The plan discusses improvements to the road system that have been conducted, underway and planned by the current landowner. This is excellent but is this an intrinsic part of the plan that will carry over into any new ownership of the plan? Long term forest stewardship says these improvements should be detailed as to exactly what they are, when they will be carried out and made an integral part of the plan so that subsequent owners are responsible for them.

Thank you for your attention,

Dr. John W. Cruz

Forest Unlimited Logging Review Program Manager