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June 4, 2015
Director Cal Fire
135 Ridgeway Ave.
Santa Rosa, Ca 95402

Dear Director,

The following comments pertain to 01-15033SON 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 its federal Clean Water Act §303(d) list of impaired water bodies due to declines in anadromous salmonids due to excessive sedimentation.

The §303(d) listing was updated in 2003, and water temperatures in the basin are now considered impaired as well.

[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 the extent that water quality is improved.

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 on p. 236 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 since no data is presented in the plan showing how they may. The cumulative quantitative impact from the total sediment from all bridges is also not considered in the plan. Even if each bridge by itself were to contribute 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.

Water Drafting

P. 76 States up to 25,000 gallons/day 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 potentially reduce water levels downstream thus stressing protected salmonids. This is especially true in the drought as we are currently in the midst of. It is stated that although pool levels will decrease and water temp increase but canopy will protect pools. No quantitative evidence is presented that this will provide sufficient protection.

P. 32 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 (042SON) that GRI has also submitted. These details are necessary for the plan to be properly reviewed, as required by Forest Practice Rules.

The impact of drafting on river flow was conducted in 2010 which was a high rainfall year study and showed flow reduced 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.

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. 167)

This section opens with a statement of global warming denial, quoting a non-binding politically motivated 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 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 text in the paragraph “Climate Change in General” should be removed from the plan since it is irrelevant and contrary in spirit to the California laws which 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 provides 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.

CEQA Impact Analysis

The plan does not perform its own 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. 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 169 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 logging site which includes clear-cutting 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. This method severely underestimates the amount of GHGs the project will emit in this time period.

This plan is in error in the analysis of long and short term carbon sequestration making it contrary to state regulations, No quantitative tradeoff is made in the plan between increased short term carbon emissions (the 2020 legal requirement) and long term storage. 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 table on Page 177 of the plan makes this error clear where it indicates it will take 22 years for the logged forest to recover its carbon stocks, including wood in chips, lumber, etc. This is well past the 2020 legal requirement.

P. 169 presents 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. 170 states that 47 % of the weighted average of wood products are 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 was intact after 100 years, 100% of the mature redwood forest would be in place and 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.

Pp. 170-171 states on the one hand that logging this tract will sequester carbon by incorporating the wood product in buildings. The plan also states that on the other hand 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 contradictory. Logging activities either sequester carbon or the decline of logging sequesters carbon in the forest but not both. 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.

P. 170 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 107 acres that will be harvested which represents only 0.0014% of the total available timberland in the state.” The impact of this individual project may not be large compared to the total of all projects but the total 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 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.

Herbicide Use

The plan states on Page 117 and elsewhere that herbicides may be used to control hardwood growth and their use covered in a separate regulatory process. In order to properly evaluate the plan as submitted it is necessary for details about which herbicides are to be used where and when. The plan does not contain enough information to evaluate potential environmental effects from herbicide use, if it would cause “significant, long-term damage” or cause a “taking” of a threatened species, in this case the salmonids in the Gualala River. The plan does state that herbicides will be used and establishes some limits on their use.

Herbicide Impacts on Fish, for example, Atrazine is one of the most commonly used herbicides in the world, has been shown to affect reproduction of fish, according to the U.S. Geological Survey (USGS) study. (“Commonly Used Atrazine Herbicide Adversely Affects Fish Reproduction”, May 20, 2010). Glycophosphate, commonly sold as “Roundup”, also has been observed to have adverse impacts on fish, see “Journal of Crop and Weed”, Ps. 236-249, 2009.

The website of another logging company in the Gualala watershed, the Mendocino Redwood Company (MRC) , provides details about their use of herbicides and their goal to phase them out, acknowledging their negative effect on the environment in the following paragraphs:

We [MRC] follow strict guidelines that meet and often exceed government regulatory

requirements; these guidelines include:

- Only using herbicides to address ecological imbalances on our forestlands;
- Applying herbicides manually on a plant-by-plant basis with fully-trained applicators who report herbicide usage to the County Agricultural Commissioner;
- Actively control invasive, exotic plants to protect native forest species working in cooperation with the Bureau of Land Management, state parks, and other landowners;
- Applying herbicides only outside watercourse protection zones of Class I and Class II streams and more than 25 feet from a Class III watercourse;
- Maintaining a 25-foot no-herbicide buffer around sensitive plant populations (HRC).

Early on, MRC set an ambitious target to reduce its use of herbicides by 60% over 4 years. While this goal was not completely achieved, MRC did reduce herbicide use by 44% in 2000-2002 and by 48.5% in 2003.

If it is possible for MRC to supply detailed information about herbicide use on its website, why is comparable information not included as part of the current plan to enable review?

Cumulative Impacts

The cumulative impacts analysis on page 101 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, subsection (2) on pages 101 and following describes logging activities in general qualitative terms and does not 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 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, 01-15-042-SON which is proposed to be logging in the immediate vicinity at the same time as this plan, 01-15-033-SON.

Project Alternatives

P. 85 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. 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, 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 were the case that adherence to the FPRs would minimize environmental impact, the plan does even 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 no matter how destructive is in compliance with the FPRs and is thus without significant impact.

P. 85, Section 2 of the plan references a 1997 Calfire document used as guidance to prepare an analysis of alternatives. Is there nothing more recent to use as guidance?

P. 90 Project Alternatives. The Project Alternatives are all unreasonable straw man arguments invented only for the purpose of dismissing them in order to thereby attempt 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. 91 The plan suggests in passing that some of the clear-cutting is done in areas with primarily hardwoods, not conifers. Yet the descriptions of the units to be logged at the beginning of Section 3 do not support this, no unit has more than 25 sq feet/acre of hardwood compared to 200 to 250 sqft/acre of conifer timber. Additional information should be supplied about the distribution of tree species in each of the units to be clear-cut and since this claim that gives the impression that clear-cutting is targeting hardwoods should be removed if it cannot be supported with facts.

P. 91 Insufficient analysis is done for the "Alternative Approach to Harvesting" options. While it is unreasonable to expect all options would be examined, obvious minor modifications to the alternatives examined in the plan would result in less potential environmental impact and better conformance to standard Forest Practice Rules without exceptions. For example, how about the alternative of logging only 2 or 3 of the proposed groups in the immediate time-frame and excluding those which require intrusion into WLPZs? How about no clear-cutting of conifers?

P. 92 In the project alternative section is one of the most bizarre rationales against a straw-man alternative ever to appear in a THP. This section argues against the No-Project alternative because it would preclude beneficial forest regeneration. If the No-Project alternative was selected over clear-cutting, then regeneration would not be necessary.

P. 93 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.

P. 93 Given the great flexibility within the FPRs, the statement that the only the selected alternative can comply with them is not likely to be correct, especially as the plan has many exceptions to the standard Forest Practice Rules. Alternative silviculture approaches that are closer to the landowners stated goal of preservation may be possible yet they are not considered and should be added to this plan for it to comply with the Forest Practice Rules and CEQA.

Specific Comments

P. 19 The plan discusses winter operations including felling. A complete winter operating plan is not part of the plan at the current time. The plan cannot be adequately reviewed at this time without this information, in violation of CEQA.

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 aperturent road system crosses Class I watercourses at 5 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. 29 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 site-specific, according to the FPR section above it should be specified in the plan and is also necessary for the plan to be be adequately reviewed.

P. 75 The plan shows skid trails on slopes with >65% and high EHR which require an exception to standard rules. No data is presented that there are no impacts, only that this is necessary to log the area. Skid trails will remain even when logging operations are completed and will be subject to erosion, leading to sediment into the Gualala River which is listed as degraded for sediment.

P. 79 Shows the main haul road falls within the WPLZ. The WPLZ is defined by the Forest Practice Rules, but the plan requests an exception to the standard FPRs because it is said to be necessary. No argument or rationale is presented why this exception is necessary and will not have an impact and lead to additional sediment into the Gualala.

Pgs. 95 -100 Indicates that this project and future projects will log 4.4 % of the watershed and presents detailed information about past logging activities. On P. 96 the plan shows a summary of the total logging in the Gualala watershed since 2004 is about 30% or about 3% per year. This is a high level of logging that is not sustainable 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.

P. 96 The plan says "...many of the stands on the landowners property will not be harvested until they are many years older than the rules require for even-aged management. Much of the ownership will continue to be managed using uneven aged silviculture and older stands of mature lumber will be continue to exist into perpetuity." This sounds very good, however the question is if this represents a long term commitment for the property or otherwise. 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. 146 Indicates the Rare Plant Survey has not submitted and will be submitted later as a minor amendment. The plan also clearly indicates that there are rare plants known to be in the 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. 106 The plan discusses improvements to the road system are said to be underway and planned by the current landowner. This is excellent but is it an intrinsic part of the plan that will carry over into any new ownership of the plan? Better 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 to carry them out.

P. 114 references water temperature data from 1994 to 2001. This is potentially obsolete given the increase in global temperature since then (Global Warming) and current drought conditions. Newer data should be used on which to base this critical analysis.

Thank you for your attention,

Dr. John W. Cruz

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