

RECEIVED BY
AUG 01 2016
BOARD OF FORESTRY AND FIRE PROTECTION
epic
Keeping Northwest California wild since 1977

Comment Letter and Attachments Sent Via Overnight Delivery for Delivery on August 1, 2016

August 1, 2016

J. Keith Gilliss, Chairman
State Board of Forestry and Fire Protection
Attn: Matt Dias
Room 1506-14
1416 9th Street
Sacramento, CA 95814

RE: EPIC and Coast Action Group Comments Regarding June 10, 2016 45-Day Notice of Proposed Rulemaking for Working Forest Management Plan

Dear Chairman Gilliss and Board of Forestry Members:

The following comments are submitted on behalf of the Environmental Protection Information Center (EPIC) and Coast Action Group (CAG) in response to the June 10, 2016 45-Day Notice of Proposed Rulemaking for the Working Forest Management Plan (WFMP). EPIC and CAG request formal written response to comments and questions provided herein prior to a decision by the Board of Forestry and Fire Protection (Board) with respect to these proposed regulations. Please note that all previous comments and associated evidence to the Board and Management Committee with respect to these regulations are incorporated herein by reference, and also included as attachments to this letter.

SUMMARY

The June 10, 2016 45-Day Notice of Proposed Rulemaking for the Working Forest Management Plan regulations (hereafter, "June 10, 2016 Notice"), the companion Initial Statement of Reasons (ISOR), and the Rule Pleading text presently before the Board fail to substantially improve upon the previously-rescinded rulemaking effort to implement the provisions of AB 904 and the WFMP program, and fail to serve to effectuate the intent of the authorizing statute, or to

create a comprehensive and effective system of regulation to allow the Department of Forestry (CAL FIRE) to effectively administer the WFMP program. EPIC and CAG find that the present rulemaking package has similarly failed to substantively address many of the concerns we have raised repeatedly to the Board and the Board's Management Committee. EPIC and CAG once again urge the Board to decline to adopt the proposed rule package noticed in the June 10, 2016 Notice at this time, and redirect rulemaking efforts outside of the control of the Board's Management Committee.

The following comments outline the substantial basis upon which EPIC and CAG once again request that the Board decline to adopt the June 10, 2016 Notice and associated rulemaking.

INTRODUCTION

A Working Forest Management Plan (WFMP) is a plan in perpetuity for logging on nonindustrial timberlands less than 15,000 acres in size. The Legislature has required that such a plan be subject to strict standards in order to provide assurances that over time, and in perpetuity, added carbon sequestration, sustainable production of timber and unevenaged management shall occur while also protecting natural and other resources and increasing timberland productivity. AB 904 also requires that "shall be implemented in a manner that complies with the applicable provisions of [AB 904] and other laws, including, but not limited to, the Timberland Productivity Act of 1982, the California Environmental Quality Act, the Porter Cologne Water Quality Control Act, and the California Endangered Species Act." (PRC § 4597(b)). The Board of Forestry and Fire Protection (Board) is required to adopt regulations which properly implement AB 904, and provide the tools that the Department of Forestry and Fire Protection (Department or CAL FIRE) needs to ensure AB 904's purposes are consistently achieved.

EPIC and the CAG have been consistently vigilant for a few years in their efforts to assist the WFMP rulemaking process. EPIC and CAG filed suit to set aside the previous version of WFMP rules adopted by the Board in June 2015. The Board subsequently set aside its adoption of those rules, and EPIC and CAG dismissed their writ action.

EPIC and CAG engaged yet again in various Board Committee meetings and workshops in an effort to present concerns and identify issues which we believe require changes to the proposed rules in order for the Board to act in accordance with the governing laws. When it became clear to EPIC and CAG earlier this year that our concerns were not being taken seriously by the Management Committee

and staff, we decided that we would wait for the formal noticed rulemaking to present to the full Board our concerns and issues about the proposed rules.

Many of the concerns we raised in the previous rulemaking process (that resulted in litigation and rescission) remain, and thus we will provide with this comment letter our comments from the earlier processes. We intend here, however to provide a new set of comments and question. Again, EPIC and CAG request written response to comments and questions in advance of any final action by the Board.

A fundamental issue now is whether the Board is proposing regulations which are consistent and authorized by the AB 904, the governing legislation, and which provide the Department, the landowners, and the public with adequate provisions and the required rigorous timber inventory standards to ensure that going forward, in perpetuity, the Legislative intent is secure. We contend the Board has not done this, for numerous reasons as outlined below.

I. STATUTORY DUTIES WHICH THE BOARD MUST SATISFY IN ADOPTING RULES

A. Requirements of the Forest Practice Act

1. Board's Rulemaking Duties

The Forest Practice Act (FPA) imposes specific and straight-forward duties upon the Board when adopting regulations. The Board has a duty to adopt rules which “*ensure* the continuous growing and harvesting of commercial forest tree species and to *protect* the soil, air, fish and wildlife, and water resources, including, but not limited to, streams lakes and estuaries.” (PRC § 4551(a), emphasis added; ISOR, at p. 1).

The Board also “*shall ensure* that its rules and regulations that govern the harvesting of commercial tree species, where applicable, *consider the capacity of forest resources, including above ground and below ground biomass and soil, to sequester carbon dioxide emissions* sufficient to meet or exceed the state’s greenhouse gas reduction requirements for the forestry sector, consistent with the scoping plan adopted by the State Air Resources Board pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5 (Commencing with Section 38500) of the Health and Safety Code).” (PRC § 4551(b), emphasis added).

The regulations “adopted by the board *shall be based upon a study of the factors that significantly affect the present and future condition of timberlands and shall be used as standards by persons preparing timber harvesting plans.* In those

instances in which the board intends the director to exercise professional judgment in applying any rule, regulation, or provision of this chapter, the *board shall include in its rules standards to guide the actions of the director*, and the director shall conform to such standards, consistent with Section 710.” (PRC § 4552, emphasis added).

The proposed WFMP rules must satisfy all of these requirements, as well as all other provisions of the Forest Practice Act in order to, “create and maintain an *effective and comprehensive* system of regulation and use of all timberlands.” (PRC § 4513, emphasis added).

Our review of the proposed rules indication that these provisions have not been satisfied. In sum, the proposed rules do not ensure protection of public trust resources. Moreover, the proposed rules failed to mention, much less attempt to satisfy, the requirement under Public Resources Code section 4551(b) to ensure the rules consider the capacity of forest resources “to sequester carbon emissions.” Nor are the proposed rules based on any relevant study of the factors required, as set forth in Public Resources Code section 4552. A 2003 NTMP study is insufficient to provide the kind of study contemplated by this code section, and certainly fails to provide the kind of information needed to properly implement AB 904. And the proposed rules fail to provide standards to be used as a guide for the Director (Department) in its exercise of professional judgment as it reviews and oversees implementation and regulation of a WFMP.

2. WFMP Statutory Policies and Requirements

A Working Forest Management Plan, by definition, is a management plan with objectives of “maintaining, restoring, or creating uneven aged managed timber stand conditions, achieving sustained yield, and promoting forestland stewardship that protects watersheds, fisheries and wildlife habitats, and other important values.” (PRC § 4597.1 (j)). Only a land owner with less than 15,000 acres of timberland, and who is not primarily engaged in the manufacture of wood products, is eligible to secure approval of a WFMP. (*Id.*, (i)). These landowners must have the objective of “an uneven aged timber stand and sustained yield” which is proposed to be achieved through implementation of a WFMP. (PRC § 4597.2). The Board’s duty here is to adopt regulations which will require these objectives and facilitate their accomplishment.

The Legislature created the WFMP to “encourage long-term planning, increased productivity of timberland, and the conservation of open space on a greater number of working forest ownerships and acreages.” (PRC § 4597(a)(3)).

The Board's duty here is to adopt rules which establish how increased productivity of timberland and conservation of open space is encouraged.

In AB 904, the Legislature required that the WFMP "shall comply with rigorous inventory standards that are subject to periodic review and verification." These required standards are need "to ensure" certain long term benefits, such as "added carbon sequestration, local and regional employment and economic activity, sustainable production of timber and other forest products, aesthetics, and the maintenance of ecosystem process and services." (PRC § 4597(a)(5)). Thus, the Board must adopt "rigorous inventory standards" and measures within those standards to ensure the long term benefits identified in AB 904. The Board's duty here is to adopt identified "rigorous inventory standards," and document how these standards will "ensure [among other things]... added carbon sequestration...sustainable production of timber and other forest products...and the maintenance of ecosystem processes and services." The Board must adopt provisions which ensure inventory standards are subject to "periodic review and verification." And, as noted above, the Board must adopt standards to guide the Department in its exercise of professional judgment when administering the WFMP process. (PRC § 4552).

AB 904 is also express in its requirement that it "shall be implemented in a manner that complies with the applicable provisions of [its provisions] and other laws, including, but not limited to, the Timberland Productivity Act, the California Environmental Quality Act, the Porter Cologne Water Quality Control Act, and the California Endangered Species Act." (PRC § 4597(b)). This means the Board may not adopt regulations which do not comply with requirements in AB 904 or any other laws.

AB 904 also is specific that the WFMP "shall be a public record and shall include the following information..." (PRC §§ 4597.2, 4597.11). This means that all of the contents of the WFMP must be presented in a public record and available to the public, including this information as outlined in the statute:

- "[i]nventory design and timber stand stratification criteria" (c);
- "projections of inventory estimates and growth and yield" (c)(3);
- "long-term sustained yield estimates" (c)(3);
- "description of the property and planned activities including acres and projected growth, exiting stand types, major stand types or strata, its current projected growth by strata, silvicultural applications to be applied to strata to achieve long term sustained yield, projected timber volumes and trees sizes to be available for harvest, and projected frequencies of harvest." (f);

for each management unit, "a description of: "acres by stand or strata and estimated growth and yield for each planned harvest entry covering the period of time the long-term sustained yield establishes as necessary to meet growth and yield objectives." (i)(1)(A); and "Yarding methods to be used." (i)(1)(B).

Similarly, the WFMP annual "notice shall be a public record" (PRC § 4597.11), to include a description of the land upon which the work is proposed and any information required by Board regulations. The Board's duty here is to fulfill that mandate, and not take action that would be contrary to ensuring that all of the WFMP and its notice are public records.

B. Requirements of the California Administrative Procedure Act (APA).

Rulemaking is subject to the requirements of the California Administrative Procedure Act (APA). To be effective, a regulation must be consistent and not in conflict with the governing statute, and must be reasonable necessary to effectuate the purpose of the statute. (Gov't Code § 11342.2). To be approved by the Office of Administrative Law, the regulations must satisfy these criteria: necessity, authority, clarity, consistency, reference and nonduplication. (Gov't Code § 11349.1). "Necessity" means to effectuate the purpose of the governing statute, taking into account the totality of the record before the agency at the time of approval. (Gov't Code § 11349 (a)). "Authority" means having "law which permits or obligates" the agency to act to adopt the regulation, and "consistency" means the regulation must be "in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or other provisions of law." (Gov't Code § 11349 subd. (b), (d)). A regulation must "be within the scope of authority conferred and in accordance with standards prescribed by other provisions of law." (Gov't Code, § 11342.1).¹ "Clarity" means the regulation must be "easily understood" by those who are directly affected by them; "consistency" means "being in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions or other provisions of law." (*Id.*, subd. (c) and (d)). A notice of proposed rulemaking must include discussion of "matters required by statute(s) applicable to the specific state agency or to any specific regulation or class of regulations." (Gov't Code § 11345.5 (a)(4)).

Certain procedures must be followed by the Board in proposing regulations. Among these are the requirements to provide a notice of the meeting date and

¹The Legislature directed the Board to adopt regulations as needed to implement AB 904 provisions. (See, e.g., PRC §§ 4597.2(l), 4597.3, 4597.8, 4597.11(m), and 4597.12(b)).

deadline for comments, and to permit oral and written statements, arguments, or contentions at the time of the public hearing. (Gov't Code §§ 11346.5, 11346.8).

The Board also “shall consider all relevant matter presented to it before adopting, amending, or repealing any regulation.” (Gov't Code § 11346.8). This means that the Board may not do as its notice states, and “*consider only written comments* received at the Board office by... August 1, 2016 and those *written comments* received at the public hearing.” (June 10, 2016 Notice, emphasis added). The Board's notice is improper and fails to follow basic APA procedure. The public hearing must be renoticed to comply with the Board's duty to receive and consider oral statements, arguments and contentions at the time of the public hearing. And, the Board also must respond to these comments prior to taking action on the proposed rules.

The APA thus requires that the Board's rulemaking meet the standards of the Forest Practice Act, including AB 904, as set forth above. The rules also must satisfy the Forest Practice Act goal of maximum sustained production of high quality timber products while protecting natural resources and other values. (PRC § 4513).

Thus, the Board must adopt regulations which are consistent with the authority given it by the Legislature, and may not exceed that authority.

The Board has proposed regulations which are not consistent with the enabling statute and its rulemaking duties, as explained throughout this letter. This is particularly true in its failure to plainly articulate and identify in the regulations “rigorous inventory standards,” and provide periodic review and verification of those standards. The Board has failed in its duty to present regulations that ensure added carbon sequestration, or that meet the requirements under Public Resources Code sections 4551 and 4552.

The proposed rules do not comply with applicable provisions of other laws, including the Porter Cologne Water Quality Act, and Regional Basin Plans adopted under that law. For example, the Board has proposed regulations that do not consider all pollutant sources. Thus, the proposed language limits consideration of sediment sources to existing or actively eroding sites that are confined to areas of timber operations. Sites with high potential for erosion and in a WFMP ownership, but outside of noticed operational areas, are not included in a mandated Erosion Control Implementation Plan. This failure to include all active and potential sediment sites limits necessary compliance with all sediment TMDLs as well as State Water Code and Regional Basin Plans, resulting in failure to meet TMDL requirements and attainment of Water Quality Standards. This diminishes water quality values. The failure to require compliance results in a 3-part failure: i.e. 1)

the failure to meet requirement of AB 904 – consistency with all State Codes and protect and enhance water quality values – including fisheries, 2) the failure to meet the APA requirement to be consistent with AB 904 and other State Code, and 3) the failure to address known and potential impacts, including acknowledgement of impaired listing(s) in the WFMP approval and review process and assessment and discussion of conditions and actions necessary to limit impacts from active and potential sediment sources and actually improve conditions leading to attainment of Water Quality Standards and Objectives.

Notably, the Board has acted outside of its authority in proposing regulations which allows multiple landowners to join in the submission of one WFMP. The Board has acted without authority in its proposal to allow portions of the WFMP to be withheld from the public record.

C. Requirements of the California Environmental Quality Act (CEQA)

The Board also must follow in the review and approval of regulations the provisions of the California Environmental Quality Act (CEQA). Pursuant to CEQA, the Secretary of Resources has certified the rulemaking process by the Board as a “regulatory program” within the meaning of Public Resources Code section 21080.5. Section 21080.5 of CEQA provides a mechanism for the use of an environmental review document “in lieu of the environmental impact report.” In adopting regulations, the Board must comply with all requirements of CEQA except those provisions of Chapters 3 and 4 of CEQA (commencing with sections 21100 and 21150), and Public Resources Code section 21167. The Board must also comply with its certified program, consisting of its legislative mandates and regulations. A certified program remains subject to other provisions in CEQA, including the policy of avoiding significant adverse effects on the environment, 14 CCR § 15250, and adequate evaluation and mitigation of cumulative impacts.

The Board’s rulemaking is not exempt from the CEQA Guidelines, including 14 CCR 15064 and 15064.4. 14 CCR 15064.4 provides the requirements for “determining the significance of impacts from greenhouse gas emissions.” Among other things, the lead agency is required to make a good faith effort, based on factual and scientific data, “to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project.” The lead agency has two options, to either (1) use a model or methodology to quantify greenhouse gas emissions, and/or (2) rely on a qualitative analysis or performance based standards.” The rule identifies several factors which the lead agency should consider, including the “extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.”

It is eminently clear that CEQA, and particularly in conjunction with the Board's duty under Public Resources Code section 4552 to make sure its rules consider the capacity of forest resources to sequester carbon emissions, requires that the Board provide an analysis in its ISOR for rulemaking of the impacts of greenhouse gas emissions and carbon sequestration. It is well-documented that deforestation and forest degradation (clearcutting and logging) represent a measurable contribution to global warming and climate change. Your agency knows this. It is imperative in analyzing any project which facilitates logging that an analysis be done which carefully evaluates the potential for greenhouse gas emissions and carbon sequestration. Here, the Board's ISOR is silent on this issue. To the extent it offers conclusory statements, it provides no analysis or evidence which supports such statements.

The CEQA certification statute specifies the minimum requirements for Board regulations. These include requirements that the rules ensure that projects approved pursuant to Board rules (1) will not be approved if there are feasible alternatives or feasible mitigation measures available that could substantially lessen a significant adverse effect of the activity on the environment; and (2) are subject to and include orderly evaluation and which requires the plan documentation to be consistent with the environmental protection purposes of the FPA. (PRC § 21080.5(d)(2)(A),(B)). The CEQA certification also requires that the plan that is subject to the rules, such as the Working Forest Management Plan, must include a "description of the proposed activity with alternative to the activity, and mitigation measures to minimize any significant adverse effect on the environment from the activity." (PRC § 21080.5(d)(3)(A)). CEQA requires that any project be evaluated for the potential for, and avoidance at time of approval of, significant and cumulative adverse impacts upon the environment. (PRC §§ 21000, 21001, 21003.1, 21080.5(d)(3)(A)).

The Board must comply with its own rulemaking regulations, as well as Public Resources Code section 21080.5 (d). Among other things, these provisions require the Board to evaluate and mitigate possible significant adverse environmental effects, and propose reasonable alternatives to rule proposals. (14 CCR § 1142). The Board must also evaluate during its process how well the proposed rules would serve the policies of the Forest Practice Act, eliminate any avoidable environmental damage, serve the production of high quality timber while maintaining the productivity of all affected resources, and how the rule proposal could be modified to more effectively accomplish the purposes of the Forest Practice Act. (14 CCR § 1144). And the Board must respond in writing to comments received. (*Id.*, (c)).

In our view, the ISOR does not evaluate the potential for significant environmental effects as a consequence of the proposed regulations, and focuses instead on its view of potential impacts from the implementation of the proposed rules. In addition to the failure to evaluate the known fact of greenhouse gas emissions resulting from logging, or the potential for carbon sequestration, the Board's failure, for example, to provide the standards and provisions as outlined in the statute, have a potentially significant adverse environmental consequence that is directly related to the regulations, regardless of how they are implemented.

Failure of the proposed rules to comply with Water Code and TMDL mandates also will have significant adverse effects on Water Quality Resources. The Forest Practice Rules, CEQA, California Water Code, and regional Basin Plans require analysis of TMDL requirements on THPs and NTMPs (and all projects that may have an adverse effect on Water Quality Standards). A landowner is responsible of all pollutant sources on their property (active and or/potential) – and – not limited to areas of operation. (*See* additional discussion under Section B – APA Requirements, above).

There is no discussion or analysis on how these proposed rules are consistent with the need to address pollutant issues related to TMDLs, Water Code, Basin Plan, and Forest Practice Rules Requirements. It is a requirement, under CEQA, that full disclosure of conditions (project description) and discussion and feasible remedy of noted adverse impacts must occur. This project has failed to meet this requirement (under CEQA).

The proposed regulations fail to provide for adequate standards to address significant adverse individual and cumulative impacts on the environment, fail to provide standards for mitigation and/or minimization of significant adverse individual or cumulative impacts, and fail to identify or describe reasonable alternatives to the proposed regulations that could potentially minimize or mitigate to insignificance any potential significant adverse individual or cumulative impacts to the environment.

II. A WFMP MUST BE LIMITED TO A SINGLE LANDOWNER

A. Multiple Ownerships are Not Authorized by AB 904.

There is no authorization in AB 904 to permit development of a WFMP by more than one nonindustrial timberland owner. This is clear from the definitions in AB 904. The WFMP is defined as a "management plan for *working forest timberlands*..." (PRC § 4597.1(j), emphasis added); working forest timberlands are defined as "timberland owned by *a working forest landowner* (*id.*, §4597.1(k),

emphasis added); the working forest landowner is defined as “*an owner of timberland with less than 15,000 acres who has an approved working forest management plan...*” (*id.*, §4597.1(i), emphasis added). The WFMP contents’ statute specify that “[a] working forest management plan may be submitted to the department in writing by *a person who intends to become a working forest landowner...*” (PRC § 4597.2, emphasis added). That section lists the contents of the WFMP, which at the outset require the “name and address of the *timberland owner.*” (*Id.*, (a), emphasis added). It refers to a single timberland owner; it does not include a provision for multiple timberland owners.

The Board is acting without authority in proposing regulations which permit multiple landowners to join in the submission of one WFMP. The language in the proposed rules would allow an unlimited number of ownerships under one WFMP, so long as the acreage limit (< 15,000 acres) is not exceeded. However, the Legislature flatly rejected the idea of multiple ownerships under one plan, as is clear from the language in the statutes.

B. Permitting Multiple Ownerships within a Single WFMP Poses Regulatory and Environmental Impacts Which Have Not Been Addressed

The Board has not considered, nor evaluated under its own rules and CEQA, the adverse consequences which may, and likely will, result from authorizing multiple ownerships within a single WFMP. For example, multiple owners means there can be any number of landowners in one WFMP with multiple RPFs, multiple LTOs, multiple annual notices, and multiple operations extending from one year to the next.² The proposed rules do not prevent any of these outcomes, nor do they provide for any reasonable mechanism or standards by which the Department may regulate these overlapping interests.

Another example concerns the Management Unit designation. There is no restraint on the number or location of Management Units; there is no requirement that they be contiguous. While the boundaries for a Management Unit “shall not exceed a single ownership” (Proposed Rule 1094.6(e)(1)), there is no limit on the number of Management Units which may be included. Conceivably management units by different ownerships can be in multiple counties and Cal Fire regions. And while multiple Management Units may be included, there is no requirement that

²Operations under annual notices need not be completed in a given year; they may continue from one year to the next, subject only to reporting “annually.” (See 1094.25(b)).

sample marking be included for *each* Management Unit. (Proposed Rule 1094.6(e)(3)).

The noticing requirements do not adequately address how multiple landowners in one WFMP will provide notice. For example, how will notice be provided in separate counties, in a manner which provides notice of the entirety of timberlands covered by a WFMP? (Proposed Rule 1094.3(d)(1)-(7)). How will posting the Notice of Preparation occur if there are multiple timberland areas covered by one WFMP? With multiple landowners, there is no geographic limit on the number of units or how the timberlands may be aggregated to comprise one WFMP. Posting “near the Plan site” is insufficient, as those plan site areas may be multiple and not geographically related. (Proposed Rule 1094.3(g)). Will multiple postings be required, and what criteria or standards will the Department use to ensure adequate notice is provided for the WFMP multiple land ownerships?

The proposed rules require the WFMP to identify “public roads within one-quarter (1/4) mile of the harvest area.” (1094.6(e)(4)(D)). The existing rules define “harvest area” as “the area where trees are felled and removed.” (14 CCR § 895.1). With multiple landowners, there can be numerous locations of public roads within 1/4 mile of all of the harvest areas identified in the WFMP. What requirements are there to ensure that all public roads near the entire area identified for harvest on multiple ownerships will be mapped as required?

These are just a few examples of the problems created by the Board’s failure to comply with AB 904 by allowing multiple landowners to join in a single WFMP. The Board is on notice from the Department that multiple landowners under one NTMP present serious compliance and enforcement issues. AB 904 tried to remove these problems by limiting the WFMP to one ownership. Instead, the Board proposes to allow multiple configurations which will present insurmountable review problems. How will the 5-year review process successfully work with multiple landowners under one WFMP, with varying landowner objectives, different records for operations and inspections, and potential multiple operations ongoing from one year to the next? And critically, how will provisions under Proposed Rule 1094.6(g),(h) and (i)—which appear to govern the entire WFMP area—provide rigorous inventory standards when there are multiple ownerships with varying objectives, site and stand conditions, and conceivably different modeling? There is no guarantee, with this kind of hodge-podge ownership, that AB 904’s fundamental objectives and requirements shall be satisfied.

Even if multiple landowners are allowed by AB 904—which we believe is not the case—the absence of adequate standards to address the multiple variations

which exists with multiple landowners means there is a very real potential for environmental harm. Because the WFMP, once approved, exists in perpetuity, the absence of adequate standards to govern how these multiple ownerships will be governed, effectively means they will not be adequately regulated. This issue is not addressed from an economic or environmental perspective in the ISOR.

The proposed rules and the ISOR do not answer these concerns and questions, leaving a vacuum for landowners to do as they will. We know that the RPFs will insist that if a provision is not in the rules, they need not do something, or provide requested information, regardless of what the Department may request. So in authorizing multiple landowners the Board fails here in many respects, under all the governing laws.

C. The Provision for a “Designated Agent” Does Not Resolve These Problems

The proposed rules include a provision for a “Designated Agent.” The term “Designated Agent” is defined in Proposed Rule 1094.2(a) as “a person granted sole authority, through written certification of all the Working Forest Landowner(s) designated in a submitted or approved WFMP, to conduct those activities assigned to a Designated Agent by the Board Rules and Regulations.”

The definition does not identify any specific credential or criteria needed to act as a Designated Agent, yet allows the Designated Agent, for example, to assume responsibilities which would normally be handled by an RPF. For example, the Designated Agent is the one who the Department will “confer with” if there are any 5-year review conformance issues. (Proposed Rule 1094.29(e)). Another issue occurs when the Designated Agent is responsible to resolution or inconsistencies in the plan or issues related to violations. With the potential for multiple landowners and RPFs under one plan it may be the case that an untrained and un-licensed Designated Agent may not have the capacity to fulfill such requirements.

The creation of the “Designated Agent” is, according to the ISOR, in response to the Department request that a single point of contact be designated for each WFMP, “for the purpose of reducing enforcement issues that the Department has experienced with the management of NTMPs with multiple landowners” and so that administrative processes and land management decisions for landowners are communicated to the Department through one entity. (ISOR, at pp. 13-14). However, the proposed rules do not accomplish this.

The “activities assigned” by the rules to the Designated Agent are limited. There are only two unique obligations: to file the Working Forest Harvest Notice

(Proposed Rule 1094.7) and provide notification of commencement of operations (Proposed Rule 1094.14).

There is no requirement that a Designated Agent remain engaged during the conduct of operations under the Notice, or afterward. All other “assigned activities” are discretionary. For example, the plan submitter (timberland owner) may, but is not required to, delegate its responsibilities to the Designated Agent (1094.10). Thus, individual timberland owners may still assume the responsibilities outlined in Proposed Rule 1094.10. The Designated Agent “may,” but is not required to, submit deviations (Proposed Rule 1094.23). The Designated Agent may file report of completion and a stocking report, if these are not done by the timber owner (Proposed Rules 1094.25, 1094.27). Further indication that the rules expect that a Designated Agent will not exist consistently is seen in Proposed Rule 1094.29, where notice of the 5-year review public notice and plan summary is to be given to the Designated Agent only “if one exists.” (Proposed Rule 1094.29(a)(5)).

This could mean that the Designated Agent may be responsible to resolve issues, supply data, and act as the interface of communications between Cal Fire and RPFs and Landowners. With responsibilities not clearly defined and the potential for the responsible Designated Agent to engage in matters in which s/he is not required to have capacity or training, the issues of enforcement and facilitating communication are not addressed. The proposed rules are not clear in this regard.

Potential enforcement issues, which this provision seeks to deal with, as identified by the Department’s experience in the NTMP program with multiple timberland owners, remain. As multiple ownerships are not authorized by AB 904, the provision seeks to address a problem created solely by the proposed WFMP rules which now permit multiple landowners. Even if, *arguendo*, multiple landowners could be allowed, because the proposed regulations do not require the ongoing, consistent engagement of a Designated Agent for the WFMP, the provision does not address the problem identified by the Department. Further, the Designated Agent responsibilities are ill-defined and insufficient for professional management considerations and communications with potentially numerous landowners, RPFs, LTOs and timber owners. All of which means the potential for problems and impacts remain. These potential problems have not been addressed, and the potential impacts not analyzed, nor have alternatives to mitigate significant adverse impacts been considered either in the proposed rules or in the ISOR.

III. LANDOWNER OBJECTIVES MUST BE STATED IN THE WFMP

AB 904 requires that a WFMP must have the objectives of “maintaining, restoring, or creating uneven aged managed timber stand conditions, achieving

sustained yield, and promoting forestland stewardship that protects watersheds, fisheries and wildlife habitats, and other important values.” (PRC § 4597.1(j)). The proposed rules fail to require the plan submitter to articulate its objectives to satisfy this requirement. This failure to require the basic information undermines the achievement of the purpose and intent of the WFMP. The rules provide that the WFMP serves three functions, one of which is to “*provide information and direction for timber management so it complies with the Board rules and the regulations and the management objectives of the landowner(s)...*” (Proposed Rule 1094.6, emphasis added). By failing to require the plan submitter to articulate management or other objectives (including growth and yield targets), it is impossible to determine whether the information provided complies those objectives.

The landowner objectives must be stated. And, with multiple landowners as currently proposed, those objectives can be different. Historically, timberland owner objectives have focused on economics and how to secure the most from the standing timber volume. This is not appropriate for a WFMP; the objectives must set forth the landowner’s objectives to achieve sustained yield and unevenaged management, and articulate what is needed to make management decisions to achieve these objectives, as well as to comply with rigorous inventory standards which ensure the stated long term benefits such as added carbon sequestration and maintenance of ecosystem processes.

AB 904 contemplates a well-defined forest management goal within the harvest schedule to determine what management direction is needed, and whether, as time progresses, there is a need to change management direction to achieve a forest regulated to the landowner’s goals at the planning horizon. Yet, the proposed rules are unclear as to whether evenaged management is to be allowed, at the outset of operations, or at any time during the period identified to achieve LTSY. The rules fail to provide guidance and direction on this critical issue. Coupled with the failure to require a basic statement of landowner objectives, and with no limit on the silvicultural methods which may be used in perpetuity, it is clear that the proposed rules are not satisfying the Legislative instruction to adopt rules which implement AB 904.

A WFMP requires objectives for a sustainable forest using unevenaged management and protection of important values such as watersheds, fisheries and wildlife habitat, and the long-term benefits stated in Public Resources Code section 4597. The ISOR misinterprets and distorts AB 904’s plain duty that a WFMP, “shall comply with rigorous timber inventory standards” which “ensure” enumerated long term benefits, as being a “rigorous inventory standards goal.” (ISOR, at pp. 28, 29).

This is incorrect; the rigorous timber inventory standards are not a goal of AB 904, they are required by AB 904.

Presently, we have three areas of concern about the specific rules identified in the ISOR as requiring “rigorous sampling methods and inventory estimates”: (1) the inventory and growth and yield process – which should include near, mid, and long term inventory targets (as the basis of attaining benefits as per the AB 904 intent), (2) the requirement for periodic review and verification, and (3) the duty to ensure the long term benefits as required by the statute.

A. Inventory and Modeling Process is Inadequate

We have reviewed proposed WFMP contents provisions in Proposed Rule 1094.6, subsections (g), (h), (i), and (n), as identified in the ISOR, to evaluate whether these constitute the required “rigorous timber inventory standards” as required by AB 904. We have also conducted our own research about how one goes about providing a valid inventory. In doing so, we have identified several concerns.

According to LeBlanc, “[b]y carefully specifying measurable objectives, landowners have a way to carry out their land management decisions.” (LeBlanc, John, *What Do We Own: Understanding Forest Inventory*, U.C. Cooperative Extension, 1998, at .1)(Attachment 1). It is interesting to note that the NTMP rules do require description not only of the proposed management objectives for each management unit, but also the proposed activities to achieve those objectives. (14 CCR §1090.5(h), (i)). As discussed above, the proposed WFMP rules do not require disclosure of management objectives or the activities proposed to achieve those objectives. While the proposed rules require disclosure of inventory and growth and yield information, they fail to tie or relate this information to the landowner’s objectives.

This is a major flaw, and results in a failure to ensure that the Department and public have what is needed to understand whether the WFMP is meeting the intent of the Act—e.g., how the landowner intends to achieve and maintain sustained yield and unevenaged management in perpetuity. In the absence of disclosure of objectives, it is not clear what benchmark the Department should use to evaluate the projections for growth and yield, or the need for periodic re-inventory updates and analysis. We believe this violates not only AB 904, but also the Board’s duty under Public Resources Code section 4552.

The rules which are intended to provide the “rigorous inventory standards” are not always clear as to whether the information requirement applies to the entire WFMP property, or could apply to respective multiple landowners. For example, while subsection (g) requires description of baseline condition for the WFMP area, it

is not clear that the projections or models used for projecting growth and yield must be the same for each of the allowed multiple landowners. It is also unclear what is meant by “appropriate for stand conditions” as used in subsection (g). These may vary from one Management Unit to the next, and in terms of stands or strata. Under subsection (h), it is unclear whether the inventory design and timber stand stratification criteria are for the entire WFMP area, or Management Units, or multiple landowners.

Given that the Board is proposing to allow multiple landowners, does this rule require the information for each ownership? Similarly, while the WFMP must provide all the items identified in subsection (i) for the “property,” will this same information be required for each ownership? This same information is not required for each Management Unit under subsection (n). Multiple landowners may not share the same goals over the life of the WFMP. There is the potential for separate revisions and amendments from respective multiple landowners. This could become burdensome and interfere with consistency with the WFMP and compliance going forward. The Board’s proposed rules fail to provide the Department with the standards it needs to exercise its judgment in dealing with these situations.

The proposed rules do not provide criteria to be used to evaluate the credibility and reliability of the growth and yield projections and modeling. Please identify what criteria, if any, is to be used to determine what models are appropriate to develop accurate LTSY projections achieving unevenaged management in perpetuity, while ensuring the long term benefits identified by the Legislature in AB 904. If this determination is to be based on professional judgment, then the Board has a duty under the FPA to provide standards to the Department. The plan should document all the user-specified options of the models, such as calibration to local conditions, merchantability limits, mortality, and ingrowth—which is needed to convincingly establish the suitability of the model to the site.

Reliable growth projections are imperative to providing a balance of growth and harvest over time, and depend upon accurate inventory estimates by stand types. This is all the more imperative when dealing with a plan that, once approved, exists in perpetuity, without further scrutiny. The proposed rules do not define an acceptable level of inventory accuracy, nor do they provide direction for every element that goes into analyzing for growth and yield. Under subsection (i), it is unclear why “projected growth” and “current projected growth by Strata” are required. What is the distinction between the two, and how will they each contribute to development of rigorous timber inventory standards? Another example is in subsection (n), which requires the estimated growth and yield for each planned harvest entry covering the period of time the LTSY plan establishes as necessary to meet growth and yield objectives for each Management Unit. Missing from this

provision is documentation providing not only in-growth assumptions such as density, size, composition and frequency, but also the estimated residual inventory, harvest and pre and post-harvest inventory for each projection period. Without this information, there is no way to evaluate whether the progression toward the balance of harvest and with unevenaged management can be achieved growth, while accruing inventory to satisfy the statutory requirement for long term benefits such as carbon sequestration, and maintenance of ecosystems processes and services, critical for protection of water, fish and wildlife. Similarly, for each Management Unit, the rules should require all management prescriptions proposed for use in the harvest schedule and a list of all acres assigned to each management prescription.

It appears that the proposed rules require the WFMP to disclose silvicultural prescriptions to be applied to Strata to achieve LTSY (Proposed Rule 1094.6(i)(6)), and to be applied during the initial harvest under subsection (i)(9), but noting beyond that. To meet AB 904's directive for rigorous inventory standards, a harvest schedule for the planning horizon is needed, which should be sufficiently detailed to justify the projected LTSY.

An inventory analysis should be based on grouping of trees of similar age, species composition, stand structure, and maximizing variability between strata. While combining inventory data from unique stands, as allowed by Proposed Rule 1094.6(h)(3), does not compromise an average volume determination, it does distort on-the-ground information, compromise the ability to make informed decision, and fails to provide the baseline for which management can be evaluated in meeting its objectives during WFMP implementation. Combining and aggregating inventory data from unique stand types leads to questionable growth and harvest projections creating serious doubts about what is available for future harvest, discredits any explicit non-timber resource commitments, as well as the cumulative impacts assessment.

The proposed rules fail to provide clear standards as to whether the discussion of projected timber volumes "available for harvest" applies to only initial harvests or harvests into the future, at least for the period of time estimated to achieve LTSY. (See Proposed Rules 1094.6(h)(3) and 1094.5(n)(1)(A), ["existing and projected timber volumes and tree sizes to be available for harvest."]). Please explain what is required, and provide justification for the requirement as described.

The rules must require empirical evidence that demonstrates the sustainability of the LTSY projections (with targets and showing accrued inventory increases). We do not find provisions in the proposed rules to ensure that each staged harvest does not over-harvest inventory (or diminished inventories in the

near short-term) needed to ensure that the subsequent growth culminates in the inventory projected at the end of any designated cutting cycle, as well as at the end of the period identified to achieve and maintain LTSY and unevenaged management. How, for example, will annual harvests be constrained to not exceed projected LTSY? Because LTSY may not be achieved for decades, the annual or periodic harvest levels must be required to follow the projected analysis. Otherwise, invalid projections of the future will result, thereby invalidating the LTSY, if not the WFMP. Permitting harvests in any amount so long as it does not exceed LTSY does not prevent this scenario. What provisions are in the rules to guarantee that harvest levels are subject to these restraints?

The proposed rules must also establish clear guidance for how LTSY is to be modeled for the purposes of a WFMP. These clear guidelines, standards, and criteria need to be based on acceptable methods and recognized industry and professional standards to provide adequate guidance, constraints, and assurances in the integrity of the LTSY projections provided for the purposes of a WFMP. Such standardization based on acceptable industry and professional practice are similarly absent from the proposed rules.

Based on these comments, we believe the proposed rules fail to meet statutory requirements, lack clarity and must include stronger provisions to enable rigorous timber inventory standards as AB 904 requires.

B. Rules Fail to Provide for Periodic Review and Verification of Timber Inventory Standards

Rigorous timber inventory standards are required to be subject to “periodic review and verification.” (PRC 4597(a)(5)). Based on the plain language of the statute, this means the standards themselves must be reviewed to determine whether those standards are ensuring the long term benefits which AB 904 identifies. While the rules provide for future inventory modeling, and review of operations under the WFMP, the rules fail to provide the periodic review and verification as required by AB 904. In this way, the Board has failed to provide the Department with necessary standards by which to ensure this periodic review and verification occurs.

The ISOR states that “rigorous timber inventory standards...are subject to periodic review and verification by the Department...” (ISOR, at pp. 4, 5). This is the only mention of “periodic review” in the ISOR, and it is not supported by any citation to evidence. There is no mention of “periodic review” in the proposed rules.

There are two proposed rules which do concern future inventory sampling, and review. The first is the WFMP content provision, (Proposed Rule 1094.6(q)), which requires a schedule for “future inventory sampling and analysis of LTSY,” which shall consider:

- (1) Site class, projected growth and yield and harvest(s).
- (2) Original projections or model calibration and accuracy.
- (3) Episodic events including disease and drought caused tree mortality, windthrow, fire and reforestation.

This requirement, according to the ISOR, is to provide “more rigorous inventory sampling and review.” (ISOR, at p. 37). However, all this provision does is require the landowner to identify a future schedule for sampling and analysis of LTSY. It does not require review of all the information which the ISOR claims, incorrectly, meet the rigorous inventory standards, “goal,” as set forth in 1094.6 (g), (h), (i), and (n). (ISOR, at pp. 28, 29). The information required by these subsections, to the extent they are actual “rigorous inventory standards,” must be reviewed and updated, as required by AB 904 and to ensure they provide the long term benefits stated. How will subsequent re-inventories and analysis of growth and yield occur? No time frame for the future schedule of inventory sampling and analysis is identified or required. There should be in place periodic inventory increase benchmarks based on growth and yield projections to assure compliance – over time. There is no standard against which to evaluate whether future monitoring will be sufficient to evaluate progress toward the LTSY estimate. Also, the required periodic growth and harvest updates required under this subsection must reflect improvements in models and analysis techniques which achieve more accurate projections of LTSY.

It also is not clear that the proposed rule as written requires a description of past harvests, which would inform whether the harvests have been consistent with the projections. Updates should correspond, at a minimum, with the 5-year review as well as the cutting cycle presented in the WFMP. It may be that the re-inventory and monitoring could be limited to those areas which have been harvested to evaluate the credibility of the initial projections. This can be complicated, yet all the more necessary, if the Board illegitimately allows more than one ownership within a given WFMP, and particularly if each landowner within a WFMP have conducted separate and independent operations. AB 904 requires that the “rigorous timber inventory standards” be subject to periodic review and verification, not just some component of those standards.

The second provision concerning review is in 1094.29, the 5-year review process. This does not review and verify the claimed rigorous inventory standards; instead it essentially reviews the WFMP record and operations to determine if operations comply with Plan. (Proposed Rule 1094.29 (b) [“review the Plan’s administrative record, agency comment, public comment, plan summary, and any other relevant information to verify that completed or current timber operation(s) have been conducted in accordance with the Plan and applicable laws and regulations.”]). The plan summary, which precedes the “review,” discloses the “number of Working Forest Harvest Notices, acreage operated under each Working Forest Harvest Notice, the number of violations received, the number of substantial deviations received, and the volume harvested in relation to projections of harvest in the WFMP to determine if timber operations under Working Forest Harvest Notice(s) were conducted in compliance with the content and procedures in the WFMP.” (Proposed Rule 1094.29(c)). Neither the “summary” nor the “review” evaluates the standards outlined in Proposed Rule 1094.6 (g), (h), (i), and (n).

There is no clear requirement for monitoring of activities as planned, or as carried out, which is needed to understand if the rigorous inventory standards are adequate to ensure the long term benefits required by AB 904.

The proposed rules fail to provide a mechanism by which the “rigorous timber inventory standards” identified in the ISOR are subject to periodic review and verification. This has very real consequences, because the review and verification is necessary to ensure the long term benefits outlined in AB 904.

C. Rules Fail to Ensure the Long Term Benefits Required by AB 904

AB 904 requires compliance with rigorous timber inventory standards “[t]o ensure long term benefits such as added carbon sequestration, local and regional employment and economic activity, sustainable production of timber and other forest products, aesthetics, and the maintenance of ecosystem processes and services.” (PRC §4597(a)(5)). The proposed rules do not come close to providing a rationale that these long term benefits are even considered, much less achieved through compliance with rigorous timber inventory standards. The rules must provide a methodology which shows that the rigorous inventory standards, if met, will ensure these long term benefits. They do not.¹

¹ This requirement enhances the duty in Public Resources Code section 4551(b), which requires that the Board ensure its rules consider the capacity of forest resources to sequester carbon. We find no evidence in the ISOR that the Board provided this assurance.

1. Rules Fail to Adopt Rigorous Inventory Standards Which Ensure Added Carbon Sequestration

The notable example where the rules fail to ensure a long-term benefit is the lack of standards to provide “added carbon sequestration.” As noted above, the ISOR states, without citation to any evidence, that the claimed “rigorous timber inventory standards ... *will ensure* achievement of other long-term benefits upon the environment including fire resiliency, improved fish and wildlife habitat, aesthetics, and added carbon sequestration (PRC §4597(a)(5)). (ISOR, at p. 4, 5, emphasis added).

A closer reading of the ISOR finds, however, that “[t]he proposed action *may have* a beneficial effect on the environment. These beneficial effects upon the environment *could be related* to fire resiliency, habitat, aesthetics, carbon sequestration, and decreased timberland conversion. However, *these prospective benefits are speculative*, but it may be presumed, at a minimum, that the level of protective effect upon the environment will not be reduced as a result of the proposed action.” (ISOR, at p. 104, emphasis added). In other words, there is no guarantee at all that the timber inventory standards, if complied with, *will ensure* “added carbon sequestration,” as required by AB 904.

The ISOR also states that “[i]ncentivizing unevenaged management,” is a long term benefit of a WFMP, and it “*may afford* increased carbon sequestration, conservation of scenic values and protection of water quality and fish and wildlife habitat.” (ISOR, at p. 4, 117). It is not clear from the rules how unevenaged management is “incentivized,” particularly since there is no actual requirement to conduct unevenaged management. And even if it is incentivized, at most it only “*may*” provide for increased carbon sequestration. This is insufficient; AB 904 requires that “compliance” with the standards “ensure ... added carbon sequestration.”

The reliability of speculative carbon benefits is challenged by the additional factor that the proposed rules allow for forest inventory decreases in the near short run (up to 30 or 40 years) while claiming compliance with LTSY at the 100 year horizon. These shorter term losses in inventory will result, initially, in lower levels of carbon sequestration. This fact is not consistent with the statute and State carbon and GHG goals. Under the new CARB rules, increases are to be measurable at the 10 horizon and future 10 year intervals. There is a very low level of confidence for attainment of increased carbon sequestration as reflected in the current language. Increased inventory targets need to be a measurable aspect of the WFMP to assure compliance with the goal of increased carbon sequestration benefits.

We do not see how it is possible to realize the statutes intended benefits if inventories are allowed to decrease and/or if there are no benchmarks, or noted specific inventory targets, for increased inventories over near short and long term planning horizons.

The failure to include measures which, if followed, would ensure added carbon sequestration, has very real consequences, which have not been addressed in the ISOR under the FPA or CEQA. We know that the consequences of climate change are severe and can cause permanent alterations. Within the realm of forests, climate change is causing drought and disease, which in turn is responsible for increased fire. Attached is one study by Dr. James Hansen and others, which lays in striking discussion, how serious climate change is and the need for responsible, effective, and immediate action. (Hansen, James, et al., *Assessing 'Dangerous climate Change': Required Reduction of Carbon Emissions to Protect young People, Future Generations and Nature*," PLOS ONE, Vol. 8, Issue 12, 2013). (Attachment 2).

"Arctic sea ice end-of-summer minimum area, although variable from year to year, has plummeted by more than a third in the past few decades, at a faster rate than in most models [21], with the sea ice thickness declining a factor of four faster than simulated in IPCC climate models [22]. The Greenland and Antarctic ice sheets began to shed ice at a rate, now several hundred cubic kilometers per year, which is continuing to accelerate [23–25]. Mountain glaciers are receding rapidly all around the world [26–29] with effects on seasonal freshwater availability of major rivers [30–32]. The hot dry subtropical climate belts have expanded as the troposphere has warmed and the stratosphere cooled [33–36], contributing to increases in the area and intensity of drought [37] and wildfires [38]. The abundance of reef-building corals is decreasing at a rate of 0.5–2%/year, at least in part due to ocean warming and possibly ocean acidification caused by rising dissolved CO₂ [39–41]. More than half of all wild species have shown significant changes in where they live and in the timing of major life events [42–44]. Mega-heatwaves, such as those in Europe in 2003, the Moscow area in 2010, Texas and Oklahoma in 2011, Greenland in 2012, and Australia in 2013 have become more widespread with the increase demonstrably linked to global warming [45–47].

"These growing climate impacts, many more rapid than anticipated and occurring while global warming is less than 1uC, imply that society should reassess what constitutes a "dangerous level" of global warming." (*Id.*, at 4).

Dr. Hansen enumerates climate impacts—on sea level, shifting climate zones, human extermination of species, coral reef ecosystems, climate extremes, human health, and the ecology and the environment. (*Id.*, at pp. 6-9). “[I]t is urgent that large, long-term emission reductions begin soon.” (*Id.*, at p. 10). Importantly, Dr. Hansen speaks to how the effects of climate change having intergenerational consequences, placing the need to act as one of fairness for intergenerational justice and human rights. (*Id.*, at pp.19-20).

“Relevant fundamentals of climate science are clear. The physical climate system has great inertia, which is due especially to the thermal inertia of the ocean, the time required for ice sheets to respond to global warming, and the longevity of fossil fuel CO₂ in the surface carbon reservoirs (atmosphere, ocean, and biosphere). This inertia implies that there is additional climate change “in the pipeline” even without further change of atmospheric composition. Climate system inertia also means that, if large-scale climate change is allowed to occur, it will be exceedingly long-lived, lasting for many centuries.

“One implication is the likelihood of intergenerational effects, with young people and future generations inheriting a situation in which grave consequences are assured, control, but not of their doing. The possibility of such intergenerational injustice is not remote – it is at our doorstep now. We have a planetary climate crisis that requires urgent change to our energy and carbon pathway to avoid dangerous consequences for young people and other life on Earth. (*Id.*, at pp.19-20).

While Dr. Hansen and the others focus on fossil fuel emissions, there is no question that deforestation and forest degradation contribute to climate change impacts. “Deforestation (clear cutting) and forest degradation (diminished inventories) contribute to atmospheric greenhouse gas emissions through combustion of forest biomass and decomposition of remaining plant material and soil carbon.” (van der Werf, G.R. et al., “*CO₂ emissions from forest loss*,” *Nature Geoscience* 2, 2009). (Attachment 3). Allowing logging to continue under a business as usual model, with no regard for the loss of stored carbon, contributes to the overall climate crisis, and to the consequences of drought and disease and fire which we have directly experienced here in California. Science establishes that current levels of Greenhouse Gas Emissions (GHG) related the release of carbon dioxide already exceed safe levels, are adverse and are impacting our long-term continued survival. Deforestation is the second largest anthropogenic source of carbon dioxide to the atmosphere, after fossil fuel combustion. (Attachment 3, van de Werf, et al.). Logging releases carbon; the more intensive the logging regime, the greater and

long term the loss. Studies show that, “32.5% of carbon is released within 5 years, 32% goes to forest products (15% of which can be released in the process of harvesting, transporting and processing, with additional releases of 2% annually through decay); and 35% is retained in the form of stumps, roots and soils. The roots and woody debris, due to the disturbance and resulting decay, continue to release carbon for years after the initial logging—even after the area is replanted with trees.” (Forest Ethics, “*Climate Destruction – Sierra Pacific Industries Impact on Global Warming*,” undated, at p. 3). (Attachment 4).

Conversely, our forests provide critical water resources for all. And our forests sequester carbon, which will not offset the CO₂ from fossil fuels, but does contribute to overall reduction of CO₂ concentrations in the atmosphere. Modern research now clearly shows that rates of tree carbon accumulation (sequestration) increase continuously with increases in tree growth and size. (N. L. Stephenson et al, *Rate of tree carbon accumulation increases continuously with tree size*,” Nature, Vol. 507, Issue 7420, 2014). (Attachment 5). In California, specifically, new research has now confirmed that old-growth coast redwood forests (*Sequoia sempervirens*) are capable of storing and sequestering more carbon dioxide than any other tree species or forest type on earth (Van Pelt, Robert, et al., “*Emergent crowns and light-use complementarity lead to global maximum biomass and leaf area in Sequoia sempervirens forests*,” Forest Ecology and Management, Vol. 375, pp. 279-308, 2016). (Attachment 6).

It is also well established that “the longer the rotation the higher is the average store of C.” (Krankina, Olga N., “Forest Management and mitigation of climate change in search of synergies,” 2008.) “One can gain a 50% increase in C stores by extending rotation from 40 to 100 years.” (*Id.*). (Attachment 7).

What AB 904 has prescribed, enhancing the duty set forth in Public Resources Codes section 4551(b)(1), is the duty to require that the Board take this into account, and assure that our forests will contribute to “added” carbon sequestration. While Public Resources Code section 4551(b)(1) requires the Board to consider sequestration of carbon, AB 904 raises the bar to require the Board to adopt standards, which if met, will *ensure added carbon sequestration*. Measures are needed to ensure that added carbon sequestration is required in the long term.

The Board has an obligation to take seriously the existence of climate change and its impacts. After all, California fashions itself as a world leader in dealing with this issue—our Governor just spoke at the Democratic National Convention on the urgency and need to deal with this unprecedented consequence of our human existence. Moreover, the Forest Practice Act states a policy that the forest management must protect the “public’s need for ... sequestration of carbon

dioxide...in this and future generations.” (PRC § 4512(c)). The Board has a duty to ensure that manifestation of these policies as identified in the FPA, and now in AB 904, are secure for this and future generations. It is uniquely positioned to do this, and its failure to act in accord with its statutory mandates is legally and morally wrong.

The Board has made no attempt to meet the requirement to ensure added carbon sequestration through rigorous inventory standards. There is no requirement, for example, to measure sequestration of carbon within the WFMP area and its Management Units. This can be done, just as a timber inventory can be done. We refer the Board to the U.S. Forest Service report entitled “*Measurement Guidelines for the Sequestration of Forest Carbon*,” dated 2007. A copy of this report is provided as Attachment with these comments. (Attachment 8). Surely if the Forest Service can develop guidelines, California also can have measurement guidelines in place. Certainly, the Legislature contemplated as much when it amended the FPA in 2010 to require the Board, in adopting any rules and regulations, to consider the “capacity of forest resources, including above ground and below ground biomass and soil, to sequester carbon dioxide emissions...” (PRC §4551(b)(1)). Yet, there is absolutely *no mention* of added carbon sequestration in the proposed rules. Simply put, the provisions of 1094.6(g),(h), (i), and (n) – which the ISOR posits as the rigorous timber inventory standards – fail to provide standards, which if complied with, would ensure added carbon sequestration. This is a failure to properly implement AB 904.

The posture of the Management Committee, the Board, and others regarding requirements to ensure added carbon sequestration in the WFMP and other “plans” seems to be rooted in the false narrative that the Board need only “*consider*” the forest values related to carbon sequestration for the purposes of an FPA and/or CEQA analysis rather than acting to ensure that the standards of added carbon sequestration are achieved. This tired narrative has been flatly rejected by the California Attorney General’s Office and courts alike, and is contrary to the plain-language interpretations of both the Forest Practice Act and AB 904. It is simply not enough for the Board to claim that the WFMP regulations “*may*” result in added carbon sequestration; it is the responsibility of the Board to promulgate regulations that “ensure” that “added carbon sequestration” is achieved through actual rigorous timber inventory standards.

The Board has failed to propose rules which implement AB 904, and instead propose rules which will thwart the obligations set forth in the law. The Board does not have authority to do this.

2. Rules Fail to Provide Rigorous Inventory Standards That Ensure Maintenance of Ecosystem Processes and Services

The proposed regulations for the WFMP fail to provide rigorous timber inventory standards which ensure “maintenance of ecosystems processes and services,” as required by Public Resources Code section 4597(a)(5). A search of the ISOR, for example, fails to include this provision. The proposed rules have but one mention, in the definition of the WFMP, with an add-on sentence stating: “Other important values include maintained forest ecosystem processes and services.” (Proposed rule 1094.2(l)). Nowhere is any definition given as to the nature or scope of what constitutes “forest ecosystem processes and services,” much less what the statute requires, which is not limited to “forest” ecosystem processes and services.

A review of the proposed rules shows that the Board has not taken this responsibility seriously in any way insofar as there is no attempt in the proposed rules to promulgate standards or prescriptions to ensure that the higher standard to be attained by a WFMP with respect to maintaining public trust natural resources and “ecosystem processes and services.” The Board has failed in the proposed rules to breathe life and specificity into the meaning and subsequent required standards for protection of “ecosystem processes and services.”

AB 904 adds a new requirement for rules in articulating the need to ensure the long term benefit of maintenance of ecosystem processes and services. Yet, the proposed regulations rely on pre-existing regulations for the protection of water, fish and wildlife, without also promulgating additional rules to effectuate and make specific the higher standards to be attained in a WFMP.

A glaring example of this is evidenced by the failure of the proposed rules to deal with a known defect of the existing rules, notably 14 CCR 919.9 [939.9] (g) of the northern spotted owl rules. The Board has well documented evidence showing that this particular subsection, which is heavily relied on by plan submitters, does not protect the northern spotted owl. (See EPIC Petition to Delete 14 CCR 919.9 [939.9(g)], February 6, 2013). (Attachment 9). It is well-known and documented to the Board that the provisions of 14 CCR 919.9 [939.9] subsection (g) are long-since out-of-date, ineffective, and do not reflect the best available science on the ecology and management of northern spotted owls. The Board has knowledge and evidence that the strict application of this regulation is no longer deemed adequate to avoid unauthorized “take” of NSO through application in THPs and other discretionary projects. Nevertheless, the proposed rules act only to add the WFMP to 14 CCR 919.9 [939.9] without adding more specific standards predicated upon the latest science and the knowledge that the application of 919.9 [939.9] subsection (g) is likely no longer adequate for the purposes of ensuring “take” avoidance. (Regulatory and Scientific Basis for U.S. Fish and Wildlife Service Guidance for Evaluation of

Take for Northern Spotted Owls on Private Timberlands in California's Northern Interior Region, U.S. Fish and Wildlife Service, 2009). (Attachment 10).

In light of this knowledge and evidence, the Board's failure to provide effective regulation to ensure maintenance of ecosystem processes and services for the northern spotted owl is an abuse of discretion. The proposed rules rely heavily on the presumption that existing rules to protect NSO, and other wildlife are adequate to effectuate the purpose and intent of the higher standards to be attained in a WFMP, without any corroborating evidence to support this presumption provided in the ISOR. AB 904 requires more – because the WFMP is a plan in perpetuity, and it therefore must include rigorous standards to satisfy long-term benefits. Reliance on pre-existing rules is not sufficient.

Given that the WFMP was created as a plan that must attain a higher standard of environmental stewardship through a commitment to unevenaged management, achievement of sustained yield, increased timber inventory and timberland productivity over time, and protection of public trust benefits pertaining to “ecosystem processes and services,” the Board's failure to include specific regulations to protect listed wildlife, and other wildlife that may be adversely impacted by proposed timber operations pursuant to an approved WFMP above and beyond the bare minimum requirements of existing FPRs renders the proposed rulemaking incongruent with the legislative intent of AB 904.

The proposed rules fail in another way to provide plain language to protect species. Proposed Rule 1094.6(e)(14) requires the WFMP to disclose the “[l]ocation of unique areas including Coastal Commission Special Treatment Areas or other special treatment areas and *known* locations of state or federally listed threatened, candidate, and endangered species; rare plants; Sensitive Species pursuant to 14 CCR § 895.1; and species that meet the criteria under 14 CCR § 15380(d).” (Emphasis added). There is no indication as to what is meant by “known location” or “unique areas.” What is meant by “known location?” What are responsibilities of RPF/Working Forest Landowner insofar as expected level of due diligence to determine “known locations?” Does a “known location” disclosure point also require mapping and disclosure of buffers and other mitigation measures for species identified? What are standards and protocols for determining and identifying “known locations?”

And, the requirements of Proposed Rule 1094.6(e)(14) are not as inclusive or expansive or even congruent with the over-arching provisions of Article 9, 14 CCR 919 [939, 959]. There is the likelihood of confusion because Proposed Rule 1094.6(e)(14) does not also include reference to all the information that may be required to satisfy 14 CCR 919 [939, 959] inclusive, but rather only requires disclosure of “known locations” and “unique areas” there can be substantial

confusion and uncertainty as to what information is required to be included in the contents of the WFMP above and beyond the “known locations,” and “unique areas.”

In addition, Proposed Rule 1094.6(e)(14) focuses only on disclosure of state or federally listed threatened, candidate, and endangered species; rare plants; Sensitive Species pursuant to 14 CCR 895.1; and species that meet the criteria under 14 CCR 15380(d). The proposed rule does not require disclosure of “known locations” or “unique areas” associated with species not in these categories that may be substantially adversely impacted by the proposed timber operations under and approved WFMP.

As noted above, it is simply not enough for the Board to “*consider*” protection, disclosure and mitigation for values related to fish, wildlife, range, forage, aesthetics, recreation and “ecosystem processes and services;” rather, the Forest Practice Act and AB 904 plainly require that the Board “*must provide*” for these, and in a manner that can be consistent, documented, verified, and assured.

The Board has failed to propose rules in this package that would ensure protection of fish, wildlife, and watershed public trust resources, and has failed in the ISOR to provide any evidence to support the presumption that simply requiring a WFMP to comply with the basic provisions of the wildlife regulations in Article 9 of Subchapter 6 and Proposed Rule 1094.6(e)(14) (Contents of WFMP), are adequate to effectuate the legislative mandate and intent in the enactment of AB 904 and the creation of the WFMP program.

3. Rules Fail to Provide Rigorous Timber Inventory Standards That Ensure other Enumerated Long Term Benefits

The subsections of Proposed Rule 1094.6 which are intended to provide the “rigorous timber inventory standards” also fail to provide measures which, if met, would “ensure ... local and regional employment and economic activity, sustainable production of timber and other forest products, aesthetics.” (PRC § 4597(a)(5)). We find only one mention in the ISOR, for example, of “regional employment,” in discussion of subsection (h)(1)-(3), where it is identified simply as a forest value, with no analysis or evidence to show how this value will be “ensured.” (ISOR, at p. 29).

While there is an “Economic Impact Analysis,” it too fails to provide actual evidence as to how the long term benefits of local and regional employment and economic activity” will be ensured. (ISOR, at pp. 103-104). As we read it, the WFMP will have no real effect, one way or the other, on businesses. Nor does the ISOR provide any assurances that “aesthetics” will be ensured. The ISOR simply restates the statute at pages 4 and 5, with no supporting analysis or evidence.

Ultimately, it advises that the “proposed action may have a beneficial effect on the environment...related to...aesthetics.” (ISOR, at p. 104). This does not qualify as satisfying the purpose and intent of AB 904. The ISOR has only conclusory restatements of the statute, or statements that are not consistent with AB 904’s mandate. The ISOR fails to provide actual standards or evidence to support such statements.

While Proposed Rule 1094.6 (h)(3) does mention these values, it provides no standard or basis upon which to show how the subsection will ensure these values as long term benefits. The Board may not simply adopt regulations on the basis of hopes, assumptions or claims and belief not otherwise supported by actual evidence. The rules fail to meet the intent and purpose of AB 904, and the Board does not have authority to undermine AB 904’s mandate as it has done.

V. AVAILABLE SILVICUTURAL SYSTEMS ARE NOT PROPERLY CONSTRAINED

As previously noted, the intent of the Legislature in enacting AB 904 and creating the WFMP program is to ensure, “maintaining, restoring, or creating uneven aged managed timber stand conditions, achieving sustained yield, and promoting forestland stewardship that protects watersheds, fisheries and wildlife habitats, and other important values.” (PRC 4597.1(j)). Assurances of the maintenance, restoration and/or creating of unevenaged timber stands and the achievement of LTSY (with increased inventories over near short term and long term periods) through the application of forest management actions are necessarily tied to the silvicultural systems applied over time. While the legislature made it plain that attainment of the goals of AB 904 was contingent upon a model of unevenaged management, the Board has substantively failed to make plain that only unevenaged silvicultural management systems can be applied under a WFMP.

We have several concerns with the proposed WFMP rules with respect to available silvicultural systems, related post-harvest stocking standards, and the integrity and ability for verification and enforcement of requirements to attain unevenaged management and long-term sustained yield.

The following outlines some of these areas of concern.

A. Failure to Prohibit Application of Evenaged Silvicultural Systems

The Forest Practice Rules break the available silvicultural systems allowed under the Rules into four (4) basic categories. These are: (1) evenaged systems; (2) unevenaged systems; (3) intermediate systems; and (4) special prescriptions. (*See*

14 CCR 913 [933, 953]). The proposed rules do not contain any clear guidance or restrictions as to which, if any of the available silvicultural system categories are available for selection as part of a WFMP. This is important when considering that LTSY (with increased inventories over near short term and long term periods) is to be modeled over a 100-year planning horizon for an in-perpetuity plan that is designed to attain, achieve, and maintain a unevenaged forest stand structure.

Proposed Rule 1094.7 provides that a post-harvest stocking report in conjunction with timber operations for a WFMP is not required to be submitted until five (5) years after harvest. Additionally, Proposed Rule 1094.7 provides, "The minimum acceptable stocking standards on logged areas which were acceptably stocked prior to harvest are those specified in the Coast, Northern, and Southern Forest District rules. If not otherwise specified, then Proposed Rule 1094.7 allows that the minimum stocking standards could be (a) 85 sq ft basal area per-acre for Site Class I lands, and 50 sq ft basal area per-acre for all lower Site Class designations, or (b) a 300 point count."

There are several problems here. First, the standard of the five (5) year period for filing a stocking report is nothing more than the bare minimum resource conservation standards. (*See*: PRC §4561, 14 CCR 912.7, 1071). No explanation is provided as to why an unevenaged silvicultural system would need five years post-harvest to demonstrate compliance with minimum stocking standards, since the unevenaged systems generally require attainment of minimum stocking levels upon completion of operations. (*E.G.*: 14 CCR 913.2 [933.2, 953.2](a)(2)(A)).

Second, AB 904 provides that one of the goals in enacting the legislation was to "increased productivity of timberland," over time through long-term planning (PRC 4597(a)(3)). The mandate for increased timberland productivity through long-term planning and unevenaged management over time, achieving sustained yield and protection of resources is thwarted by permitting the minimum resource conservation standards. Attainment of an unevenaged stand structure, sustained yield, and increased productivity of timberlands over time necessitates that a Working Forest Landowner do more than simply meet base minimum resource conservation standards at the Working Forest Harvest Notice level.

In this instance, the proposed rules are in direct conflict with the AB 904 mandates and the Legislative intent to create a permitting program to ensure real and long-term social and environmental benefits in exchange for an in perpetuity permitting vehicle. By failing to ensure that only appropriate silvicultural systems are selected and applied, and failing to ensure that the systems applied achieve the mandates of the legislation through increasing post-harvest residual standing inventory over time, the proposed rules are not consistent with AB 904.

B. Failure to Account for Group Openings, Size of Openings, and Stocking of Group Openings

Proposed Rule 1094.27 provides only that the minimum acceptable resource conservation standards (which would not apply to unevenaged management) need to be met to satisfy post-harvest stocking requirements for a WFMP stocking report. Within the silvicultural systems category for unevenaged management and selection harvest is the silvicultural application provisions for group selection. (See: 14 CCR 913.2(a) [933.2(a), 953.2(a)]). Under the group selection silvicultural system, “group openings” can be created from 0.25-acres up to 2.5-acres in size. These “group openings” are not required to meet the minimum post-harvest stocking levels specified for the selection silvicultural system at 14 CCR 913.2 [933.2, 953.2] (a)(2)(A), but instead must only comply with a 300-point count standard. (Ref: 14 CCR 913.2 [933.2, 953.2] (a)(2)(B)(1)-(2)). These “group openings” can account for as much as 20 percent of the total area in which selection silviculture is applied. (*Ibid.*).

There is no guidance provided in 14 CCR 913.2 [933.2, 953.2] or the proposed rules to direct, restrict or constrain a Working Forest Landowner’s application of the group selection silviculture under a WFMP, insofar as “group openings” may span across different “stand types” or “strata” or even different “management units.” Similarly, there is no plain language in the proposed rules to guide a Working Forest Landowner in laying out the spatial extent and location of “group openings” other than the requirements in 14 CCR 913.2 [933.2, 953.2](a)(3) that such openings be separated by a “logical logging area,” which is undefined. Finally, it is entirely unclear from 913.2 [933.2, 953.2], or the proposed rules whether or not the Board intends that the 20 percent of the area in “group openings” should be restocked to the same levels specified for the selection silviculture system, (14 CCR 913.2 [933.2, 953.2](a)(2)(A)), and if so, by what time frame following harvesting operations.

These issues related to selection and group selection silvicultural applications are important in the context of a WFMP because the attainment of unevenaged stand conditions, increases in inventory and LTSY over time must be the product of the “rigorous timber inventory standards,” that are subject to “periodic verification,” by the Department.

First, given that the proposed rule allows for a Working Forest Landowner to defer on achieving or reporting minimum resource conservation standards for a given harvest area for up to five years after timber operations are completed, it is likely impossible that the Department will be able to gain an accurate picture of on-the-ground growth, yield, harvest, and stocking conditions at any discrete individual point in time, let alone to be able to verify that LTSY growth and yield

projections have integrity or are being implemented in accordance with an approved WFMP.

Second, if LTSY modeling does not account for differences in size, stocking, spatial boundaries and extend of “group openings,” or time necessary to achieve desired stocking standards post-harvest in plots not fully stocked upon completion as a result of operations conducted pursuant to the group selection silviculture, the actual on-the-group conditions can vary significantly from the modeling and projections, as well as bedevil anyone trying to verify the existence of a “rigorous timber inventory standard.”

C. Failure to Account for Harvest Conducted Under Exempt Activities within WFMP Footprint

The proposed WFMP rules do not provide a means for the Department to regulate, verify, or enforce the provisions of a WFMP designed to ensure unevenaged management, increase standing timber inventory over time, or attain LTSY by failing to explicitly prohibit or constrain the application of exempt timber harvest activities on the WFMP footprint area pursuant to 14 CCR 1038 exemptions. The proposed rules do not prohibit exempt activities conducted pursuant to 14 CCR 1038. An exempt activity conducted pursuant to 14 CCR 1038 could allow a timberland owner to remove as much as ten (10) percent of the standing timber volume per-acre within the footprint of a WFMP Management Unit.

This consequence presents numerous problems, which are not considered or evaluated in the ISOR, as required by the FPA and CEQA. First, an exempt activity conducted pursuant to 14 CCR 1038 does not require the services of an RPF to prepare or submit the notification to the Department. Second, given the potential for participation of multiple landowners, multiple RPFs, and multiple land ownerships, it is entirely conceivable that an exempt activity could occur pursuant to 14 CCR 1038 within the footprint of an approved WFMP Management or Harvest Unit, reduce standing inventory within the exemption area by ten-percent of the volume per-acre, thus skewing the modeling and projections for LTSY. Third, given that any “person” can submit an exemption pursuant to 14 CCR 1038 for a timberland owner, it is entirely conceivable that the “person” responsible for the exemption may not be the same as the RPF(s) or “Designated Agent” responsible for the approved WFMP.

The Board has failed to provide the Department with the tools it needs to monitor, verify, and enforce the “rigorous timber inventory standards” governing a WFMP in the circumstance in which a 1038 exemption could be used. This is a failure to fully effectuate the standards of the Forest Practice Act, and AB 904. To

meet AB 904's mandates, exempt activities must not be allowed in the absence of clear standards adopted by the Board to ensure their use is documented and reviewed to ensure consistency with the WFMP and its stated objectives and projections for LTSY.

D. Inadequate Provisions to Protect Late Successional Forest Stands, Given Exemptions and the "No Net-Loss" Standard

AB 904 requires that management within Late Successional Forest Stands, as defined for the WFMP, shall be conducted under the constraint of "no net-loss." (PRC § 4597.2 (g)(1)). The proposed rules do not effectuate this mandate. First, the proposed regulations fail to breathe specificity into the concept of "no net-loss." What is meant by "no net-loss" in a spatial and temporal sense? Given that a WFMP is designed to demonstrate LTSY over a 100-year planning horizon, it is conceivable that the proposed rules as written would allow a Working Forest Landowner to reduce LSF stands within the Working Forest Harvest Area in the short-term while modeling its regeneration in the future through application of the silvicultural systems and growth and yield constraints proposed in the WFMP. This would be inconsistent with AB 904.

Second, the proposed rules would add the WFMP to the list of circumstances exempt from the provisions of 14 CCR 1038(h)(2). For example, the ISOR states, "the proposed amendment specifies the requirements of 14 CCR § 1038 (h)(2) need not be met if an approved WFMP addresses large old tree retention for the area in which the large old tree(s) are proposed for removal and the removal is in compliance with the retention standards of the approved WFMP and is necessary to prevent the project proponent from duplicating the analysis of large old trees contained in the approved WFMP." (ISOR at p. 11 of 118). This means that the RPF analysis and certification of necessity to remove "large, old trees" pursuant to an exempt activity carried out pursuant to 14 CCR 1038 would not be required in the event a Working Forest Landowner filed such for such an exemption within the Working Forest Harvest Area, even if such activities occur within the boundaries of a LSF stand identified within an approved WFMP, and could result in a "net-loss" of forest stands within the WFMP area classified as LSF as a result of harvesting of up to ten (10) percent of standing volume per-acre. Again, a Working Forest Landowner may file for a 1038 Exemption without necessarily employing the services of an RPF, let alone involving the RPF(s) of record for the WFMP, or the Designated Agent for the WFMP.

The proposed amendment to add the WFMP to the list of circumstances exempt from the requirements of 14 CCR 1038(2)(h) means that the analysis of removal of "large, old trees" a critical component of stand structure in stands classified as LSF, will not be required pursuant to carrying out the exempt activity.

This means it is possible that the RPF and Designated Agent may not even be involved in the application for and implementation of the exemption. Furthermore, there are no requirements for the Working Forest Landowner to: (1) report harvest activities conducted under a 1038 Exemption to the Department in the context of reporting harvesting activities under an approved WFMP; (2) report the conduct of the 1038 Exemption in the context of how or if it may effect projections of growth and yield designed to ensure attainment of LTSY; or (3) consider the timber volume and “large, old trees” harvested pursuant to a 1038 Exemption when calculating the “no net-loss” projections for LSF stands within the WFMP area. In addition, it is thus unclear whether any of these activities would be part of the required 5-year review process.

VI. FIVE-YEAR REVIEW AND COMPLIANCE VERIFICATION IS INADEQUATE

The process and requirements as pertains to the standards, requirements, timelines, and administration of the Five-Year Review process are still inadequate when compared to past iterations of the proposed rules. Here, as elsewhere, the Board has failed to adequately develop standards, criteria and procedures that will allow the Director to effectively exercise professional judgement in determining conformance of a WFMP with the FPA, FPRs and AB 904. Specific concerns pertaining to the Five-Year Review are articulated below.

The proposed rule still does not provide effective public access and review. It is clear from AB 904 that the public is entitled to “notice of the five-year review and a copy of the plan summary.” (PRC § 4597.12(c)). The public is also entitled to submit comments on the five-year review. (*Id.*). AB 904 put no time limit on the ability of the public to submit comment on the available information.

However, the Proposed Rule 1094.29 does not provide the public with a clear and meaningful opportunity to review and comment upon the plan summary and the Review Team analysis and development of the 5-year review. It proposes noticing and publication of the “plan summary” 30 days prior to the 5-year anniversary date of the WFMP approval, allowing the public to submit comments in that 30-day period. There is no proposed process by which the public is allowed access to or comment upon Review Team questions, issues, reports, to contribute to the 5-year review conducted by the Review Team and Department. Here is a place where the Board must adopt standards that guide how the Department will receive and process comments on and relevant information for the 5-year review. This is essential under the Board’s rulemaking duties, and to facilitate the public’s role.

Proposed Rule 1094.29(a)(1) fails, rather remarkably, to require that copies of the notice of the 5-year review and plan summary be distributed to Review Team

agencies. It thus appears that the Review Team agencies will not receive notice of the 5-year review, and only receive the plan summary at the time that the Department convenes a meeting for the Review. This is an error which must be corrected. Moreover, while 14 CCR 1037.5(d) permits the attendance of the RPF, supervised designee, land owner, timber owner, and public, there is no requirement in that rule that any of these potential participants are entitled to “notice” of a scheduled meeting. Nor is there any mention of a plan submitter or “Designated Agent” in this rule. Proposed Rule 1094.29(b) has no provision to notice the meeting to be convened by the Department, or to whom the notice must sent, and who may attend the meeting. The Board must fix this and provide a defined procedure.

The purpose of the 5-year review is in essence to determine “if operations have been conducted in accordance with the plan and applicable laws and regulations.” (PRC § 4597.12(a)). AB 904 in its entirety is one of the laws which must be considered in reviewing whether operations have complied with applicable laws. AB 904 is clear that the “rigorous inventory standards” must be subject to “periodic review and verification” in order to “ensure” enumerated long-term benefits, such as “added carbon sequestration...sustainable production of timber and other forest products, aesthetics, and the maintenance of ecosystem processes and services...” (PRC § 4597(a)(5)). Similarly, operations must comply with the Porter Cologne Water Quality Act, and the California Endangered Species Act, among others. (PRC §4597(b)).

Yet, the Proposed Rule 1094.29 has no provisions for reviewing such compliance. Instead, it reviews the “Plan’s administrative record, agency comment, public comment, plan summary, and any other relevant information.” (Proposed Rule 1094.29(b)). The plan summary contains the “number of Working Forest Harvest Notices, acreage operated under each Working Forest Harvest Notice, the number of violations received, the number of substantial deviations received, and the volume harvested in relation to projections of harvest in the WFMP to determine if timber operations under Working Forest Harvest Notice(s) were conducted in compliance with the content and procedures in the WFMP.” (*Id.*, subsection (c)). By definition, all of this information is a matter of public record, and may not be subject to a claim of proprietary information as allowed under subsection (h). The Proposed Rule, however, does not require review of growth and yield projections (which are matter of public record as part of the WFMP content), even though that seems to be the core of what the Board in its ISOR claims to be the “rigorous inventory standards.” To the extent this proposed rule is intended to act as the required periodic review and verification, as required by Public Resources Code section 4597 (a)(5), it is insufficient.

It appears that subsection “e” is intended to provide a process which, if issues of concern are found or presented, defines what the Department is to do. It is very

confusing as written. It is focused first on an indication, from the 5-year review or presentation of a “fair argument,” that “potentially significant adverse impacts to the environment” may occur from continuation of the WFMP. Although not stated, this seems to be focused on whether ongoing WFMP operations may violate CEQA, as that is the classic terminology used in CEQA. While CEQA is an applicable law which must be considered in the 5-year review process, it is by no means the only law. There is no mention or consideration of whether the WFMP is providing, for example, “sustained yield” or “unevenaged management” objectives, promotion of “forest stewardship that protects watersheds, fisheries and wildlife habitats,” and/or “increased productivity of timberland.” (PRC §§ 4597.1(j), 4597(a)(3)). There is no mention of the need to evaluate and review growth and yield projections. This is not captured in subsection (c) of the Proposed Rule. As defined, the WFMP requires specific objectives; the review should be evaluating whether those objectives are being met. Moreover, the review should be looking at “rigorous timber inventory standards” to “ensure” the “long-term benefits” articulated in AB 904. The contents of subsection (e) reveal that the review process is not adequate because it fails to consider the very provisions of AB 904 that must be subject to periodic review and verification.

Subsection (e) is also problematic as written, because it requires the Director to “provide written comments,” but it does not state what is to be done with those comments. Are they to be provided to the Review Team, the public, and/or the plan submitter? The proposed rule must be clearer. This subsection also requires the Department to use its “professional judgment,” yet the Board has failed to provide standards which will guide the Department in that exercise of judgment, as required by Public Resources Code section 4552.

Further, subsection (e) advises that the Department shall “offer to confer with the Designated Agent.” What if there is no designated agent? Who will the Department confer with? The proposed rules do not require one at this stage, and in fact, the Proposed Rule 1094.29 contemplates that a Designated Agent may not exist, as evidenced by the notice provisions under subsection (a), which only require notice to a Designated Agent, “if one exists.” In addition, if a Designated Agent exists, is it qualified to develop provisions in conference with the Department? The proposed rules fail to require any expertise or training for the Designated Agent, yet here the subsection contemplates a Designated Agent may engage in the practice of forestry to develop changes to the WFMP. This is contrary to the law.

Subsections (f) and (g) are also unclear and inadequate to satisfy the requirements of AB 904. Subsection (f) refers to “findings of the five (5) year review,” which under subsection (g) shall be distributed on the Department’s website, with notice of the findings provided to the working forest landowner(s). The proposed rules fail to provide any criteria or standards for development of the

findings. Since subsection (e) fails to even mention the provisions of AB 904 for which review is needed, it is not clear at all what “findings” the Department must make, and how it will make them. Findings must be supported by evidence. If the evidence is merely the WFMP record, without evaluation of the key components AB 904 requires to be subject to periodic review and verification, those findings cannot satisfy AB 904. Here again, the Board needs to provide standards for the Department as to what are required findings, so that a clear determination can be made as to whether the operations under the WFMP “have been conducted in accordance with the plan and applicable laws and regulations,” including all provisions of AB 904 and other laws identified in Public Resources Code section 4597(b). (PRC § 4597.12(a)).

The provisions for the 5-year review, as presented in Proposed Rule 1094.29, are inadequate, and in the absence of adequate standards, mean the rules do not satisfy the requirements of all applicable laws, including FPA, Porter Cologne, CEQA and CESA.

VII. PROVISIONS TO ALLOW CHANGES TO WFMP ARE NOT ADEQUATE

A. NTMP Transition to WFMP Must Comply with WFMP Rules

The standards which permit transitioning a NTMP to a WFMP are not adequate to ensure the objectives of AB 904.

Under Proposed Rule 1094.32, a landowner with an approved NTMP may transition to a WFMP, pursuant to the rules which govern a substantial deviation to the NTMP. This means that the noticing and review process and timing is different and less rigorous. (Compare 14 CCR 1090.17 and 1090.18 with Proposed Rules 1094.15 and 1094.16). This also means that the entire process is to be governed by 14 CCR 1090.24, not Proposed Rule 1094.23. Under the Proposed Rule 1094.32(a)(3), the RPF responsible for the preparation of the substantial deviation must review certain WFMP regulations to “assure that all required information is included and addressed in the proposed substantial deviation...” Among those mentioned is Proposed Rule 1094.23, which governs the content provisions for a substantial deviation for a WFMP. This creates conflict, as it is based on the pre-existence of a WFMP. An NTMP is not a WFMP. Moreover, referencing this Proposed Rule 1094.23 does not require the NTMP deviation to be reviewed in the same manner as a WFMP, or a substantial deviation for a WFMP. The rules should expressly state that the rules governing processing of the WFMP shall apply to any NTMP proposed substantial deviation submitted for the purpose of transitioning the NTMP to a WFMP.

B. WFMP Change in Ownership or Size

The Proposed Rules do not have not clear provisions for what happens if one of multiple owners decides to opt out of a WFMP, or conversely, if a new timberland owner seeks to join an existing WFMP. What process is required to evaluate whether an individual landowner within a multiple-landowner WFMP, may be entitled to withdraw from or join the WFMP? What standards will be applied for these kinds of decisions? Will new landowners, for example, be subject to newly adopted rules? The Board must provide direction on this.

Similarly, what standards apply if there is a proposed change in acreage of a WFMP? It appears that under Proposed Rule 1094.32(b), a proposal to increase acreage is to be processed as a substantial deviation, under Proposed Rule 1094.23. Does this mean then that if the landowner can establish expense, it can opt to expand the WFMP, yet be subject only to those rules which were in effect when the WFMP was approved? Since the WFMP is a plan in perpetuity, this means that over time, there may likely be lesser standards than are needed and appropriate according to best available science. This needs to be changed, so that as time passes, improvements in regulations and science are the standards, rather than old outdated rules. We find no provision for the opposite scenario - where the landowners(s) want to reduce acreage. What standards will apply in that circumstance? Will it be treated as a partial cancellation, pursuant to Proposed Rule 1094.31?

Given the WFMP is a plan to exist in perpetuity, and given, among things, the recognized future consequences we anticipate as a result of climate change, it is unconscionable for the Board to not provide standards that will take into account changed conditions and improved scientifically-based provisions to govern logging in perpetuity.

C. Rules Fail to Provide Guidance Standards for WFMP Cancellation

Proposed Rule 1094.31 is intended to address the cancellation of WFMP, and largely regurgitates the statutory language from Public Resources Code section 4597.16. Like many other rules, here the Board has failed to provide the necessary guidance standards to enable the Department to make the determination as to whether a WFMP must be cancelled. The Proposed Rule, subsection (b), mandates that the Department "shall cancel a previously approved WFMP," if "the Department determines that the objectives of Unevenaged Management and Sustained Yield are not being met by a Working Forest landowner(s), or there are other persistent violations detected that are not corrected..." Just how will the Department go about this process? What must it consider in making such a determination? What evidence must it review, and what evidence is not relevant? While the statute permits the Department to cite to the findings of the 5-year

review, it does not require the Department to do so. What is the effect of not using the findings of the 5-year review? Does this apply if only one of the allowed multiple landowners is not achieving the objectives, or has persistent violations? What if the other landowners object? How will the Department exercise its mandatory duty? Are these the only reasons when the Department must cancel a plan? What if the long term benefits articulated in AB 904 are not being provided? Is that a basis upon which the Department must cancel the plan? How is this information to be recorded over time, so that from one administration to the next, the rigorous standards are consistently required? As with so many of the proposed rules, the Board here fails in its duty under Public Resources Code section 4552 to provide necessary guidance to the Department for this rule, and fails in larger sense to articulate the range of reasons why the Department should be granted the right to cancel a WFMP.

VIII. THE ISOR DOES NOT PROVIDE A REQUIRED CEQA ANALYSIS

The ISOR has a very narrow and limited CEQA review discussion, with a discussion of alternatives on pages 107-109, and “possible significant adverse environmental effects and mitigations” on pages 112-118. This discussion does not meet CEQA requirements.

The discussion of significant environmental effects relies on the THP review process, set forth on pages 114-117. The WFMP is *not* a THP; it has a different review process, and is required to be subject to different and higher environmental standards. In fact, some of the provisions referenced would not even apply to a WFMP. The ISOR then merely lists rule provisions which the ISOR claims are designed to prevent significant adverse or cumulative effects. (ISOR, at p. 115). The ISOR concludes, without evidence, that “the adopted regulations, when combined with the existing Forest Practice Rules as a whole along with CEQA Guidelines, provide adequate standards to evaluate impacts on the environment as proven by decades of THP and NTMP implementation.” (*Id.*) This is insufficient.

The Board has an obligation to support its conclusions with evidence that analyzes the proposed project. As established in this letter, there are numerous places where the proposed rules fail to implement AB 904 as directed by the Legislature. There are numerous instances where the proposed rules are in contradiction to AB 904, either because they completely fail to provide standards consistent with AB 904, or they permit standards which are insufficient and inadequate to meet the requirements of AB 904. The ISOR fails to deal with these inadequacies and discrepancies. It is this lack of compliance, as well as the ambiguity of the rules, that must be evaluated under CEQA. As just one example, raised above, is the need to understand the potential significant adverse environmental effect associated with permitting multiple landowners. The proposed rules have created a provision that is not only not allowed under AB 904, but will

have significant problems. The Board has failed to provide adequate standards as to how multiple landowners, with, for example, distinct RPFs, LTOs, annual notices, varying operations and objectives, different time frames for harvest completion, will be regulated to ensure that the statutory mandates will be met in perpetuity. There is no discussion of this anywhere. Nor is there any discussion of the likely very expensive and staffing resources which will be needed by the Department and review team agencies to effectively regulate multiple landowners. Nor is there any discussion of the cumulative impacts that currently exist from other projects. For example, there is no expose of what problems and deficiencies continue under the NTMP program. The Department has previously discussed this with the Board, yet the Board has failed to consider it in the development and CEQA review of the proposed regulations.

There is no mention of the Board's failure to provide for the long term benefits required by statute, or its failure to satisfy the FPA's rulemaking requirements, as outlined above. CEQA requires that analysis now; it is not sufficient to rely on a contemplated CEQA review at the time of implementation. The proposed rules themselves must be given scrutiny under CEQA, and the ISOR fails to provide that level of scrutiny. Instead, it merely concludes there will be no significant impact. And with this summary conclusion, the ISOR then fails to provide any discussion of potential mitigation measures that would eliminate impacts. This too is a failure under CEQA.

The ISOR's discussion of alternatives is better than the discussion of environmental effects, but still lacks the rigor required under CEQA. We recognize that the Legislature has directed the Board to adopt regulations to implement AB 904, so we accept that a "no project" alternative is not a viable alternatives. However, we do not accept the discussion of Alternatives 2 and 3, because neither provide the actual alternative which the Board has rejected. What is meant by "increasing" or "decreasing" the "specificity of the regulation needed to implement the statute?" The ISOR provides no evidence as to what exactly the Board considered, and then rejected. This makes it impossible to evaluate the Alternatives 2 and 3.

With respect to Alternative 4, the proposed rules, we reject the proposed action as the most viable and environmentally compliant alternative under CEQA and the FPA. While the alternative analysis claims that the "Board struck a balance between performance based and prescriptive standards" (ISOR, at p. 108), we do not find any such distinction elsewhere in the ISOR in its presentation of the basis for each proposed rule. It is entirely unclear, and unsupported, as to what "balance" is being achieved, and what constitutes "performance based and prescriptive standards." The Alternative 4 discussion states that the proposed rules permit "RPFs to develop alternative prescriptions, practices, mitigations, to take the place

of certain prescriptive standards.” (*Id.*) We have previously objected to this scheme, particularly in terms of the use of so-called “standard operating procedures” allowed under Proposed Rules 1094.6(jj) and 1094.8(t). We maintain that objection, because this, like use of other in lieu practices, will not provide the higher standards embodied by AB 904. If nothing else, the ISOR must evaluate the potential significant adverse impacts associated with providing blanket in lieu options, which can continue in perpetuity, The ISOR simply fails to evaluate and take these problems into account in proposing Alternative 4.

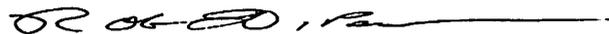
We have presented extensive comments here which identify specific problems with the chosen alternative, and in some cases, identify changes which are needed. Please provide a response to all these comments within the context of the ISOR’s alternatives analysis.

We submit each and every point raised in this letter, with all of the accompanying attachments which we have placed on the enclosed flash drive, as thorough comments documenting the failure to comply with CEQA in this rulemaking process.

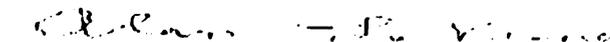
CONCLUSION

The Board has failed in its duties to promulgate rules to effectuate the statutory mandates and intent of AB 904, and has failed to take seriously its responsibilities to ensure long term benefits contemplated in the legislation in exchange for an in-perpetuity harvesting plan permit framework. The proposed rules, and the ISOR upon which the proposed rules are predicated are not adequately explained or supported by evidence in light of the whole of the record, and are in many ways directly contradictory to the mandates of AB 904, CEQA, the FPA, and other applicable state and federal laws. EPIC and CAG therefore recommend that the Board decline to adopt the proposed rules as noticed and again recommend that the Board remand the rules back to either a Management Committee under different leadership, or to a jointly-administered committee process so as to provide adequate oversight from the full Board.

Please do not hesitate to contact us should there be questions.



Rob DiPerna
Environmental Protection Information Center



Alan Levine
Coast Action Group

Attachments and Enclosures

Attachment 1: LeBlanc, John, *What Do We Own: Understanding Forest Inventory*, U.C. Cooperative Extension, 1998.

Attachment 2: Hansen, James, et al., *Assessing 'Dangerous Climate Change': Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature*," PLOS ONE, Vol. 8, Issue 12, 2013.

Attachment 3: Van der Werf, G.R. et al., "CO2 emissions from forest loss," *Nature Geoscience* 2, 2009.

Attachment 4: Forest Ethics, "*Climate Destruction – Sierra Pacific Industries Impact on Global Warming*," undated.

Attachment 5: N. L. Stephenson et al, *Rate of tree carbon accumulation increases continuously with tree size*," *Nature*, Vol. 507, Issue 7420, 2014.

Attachment 6: Van Pelt, Robert, et al., "*Emergent crowns and light-use complementarity lead to global maximum biomass and leaf area in Sequoia sempervirens forests*," *Forest Ecology and Management*, Vol. 375, pp. 279-308, 2016.

Attachment 7: Krankina, Olga N., "*Forest Management and mitigation of climate change in search of synergies*," 2008.

Attachment 8: U.S. Forest Service report entitled "*Measurement Guidelines for the Sequestration of Forest Carbon*," 2007,

Attachment 9: EPIC Petition to Delete 14 CCR 919.9 [939.9(g)], February 6, 2013.

Attachment 10: Regulatory and Scientific Basis for U.S. Fish and Wildlife Service Guidance for Evaluation of Take for Northern Spotted Owls on Private Timberlands in California's Northern Interior Region, U.S. Fish and Wildlife Service, 2009.

Letters, Attachments and References Previously-Submitted

Attachment 11: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. June 4, 2015.

Attachment 12: Richard Wilson Letter to Chairman J. Keith Gilles regarding WFMP Regulations. November 6, 2015.

Attachment 13: EPIC Letter to Chairman J. Keith Gilles regarding WFMP 45-day Notice of Proposed Rulemaking. March 2, 2015.

Attachment 14: EPIC Letter to Chairman J. Keith Gilles regarding WFMP 45-day Notice of Proposed Rulemaking. June 15, 2015.

Attachment 15: EPIC Letter to Management Committee Chairman Farber regarding WFMP Regulations. April 7, 2014.

Attachment 16: EPIC and Coast Action Group Letter to Chairman Gilles regarding WFMP Board Workshop. January 15, 2016.

Attachment 17: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. June 4, 2014.

Attachment 18: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. June 17, 2014.

Attachment 19: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. August 20, 2014.

Attachment 20: Coast Action Group Letter to Regulations Coordinator Thembi Borrás regarding WFMP Regulations. February 5, 2015.

Attachment 21: Coast Action Group Letter to Regulations Coordinator Thembi Borrás regarding WFMP Regulations. May 20, 2015.

Attachment 22: EPIC and CAG Letter to Chairman J. Keith Gilles, re: WFMP Guiding Principles. March 24, 2016.

Attachment 23: Comments from the California Geological Survey, dated March 2, 2015.

Attachment 24: Comments from the North Coast Regional Water Quality Control Board, dated April 4, 2014.

Attachment 25: Comments from the North Coast Regional Water Quality Control Board, March 2, 2015.

Attachment 26: Comments from the California Department of Fish and Wildlife, dated June 16, 2014.

Attachments and Enclosures

Attachment 1: LeBlanc, John, *What Do We Own: Understanding Forest Inventory*, U.C. Cooperative Extension, 1998.

Attachment 2: Hansen, James, et al., *Assessing 'Dangerous Climate Change': Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature*," PLOS ONE, Vol. 8, Issue 12, 2013.

Attachment 3: Van der Werf, G.R. et al., "*CO2 emissions from forest loss*," Nature Geoscience 2, 2009.

Attachment 4: Forest Ethics, "*Climate Destruction – Sierra Pacific Industries Impact on Global Warming*," undated.

Attachment 5: N. L. Stephenson et al, *Rate of tree carbon accumulation increases continuously with tree size*," Nature, Vol. 507, Issue 7420, 2014.

Attachment 6: Van Pelt, Robert, et al., "*Emergent crowns and light-use complementarity lead to global maximum biomass and leaf area in Sequoia sempervirens forests*," Forest Ecology and Management, Vol. 375, pp. 279-308, 2016.

Attachment 7: Krankina, Olga N., "*Forest Management and mitigation of climate change in search of synergies*," 2008.

Attachment 8: U.S. Forest Service report entitled "*Measurement Guidelines for the Sequestration of Forest Carbon*," 2007,

Attachment 9: EPIC Petition to Delete 14 CCR 919.9 [939.9(g)], February 6, 2013.

Attachment 10: Regulatory and Scientific Basis for U.S. Fish and Wildlife Service Guidance for Evaluation of Take for Northern Spotted Owls on Private Timberlands in California's Northern Interior Region, U.S. Fish and Wildlife Service, 2009.

Letters, Attachments and References Previously Submitted

There is no Attachment 11.

Attachment 12: Richard Wilson Letter to Chairman J. Keith Gilles regarding WFMP Regulations. November 6, 2015.

Attachment 13: EPIC Letter to Chairman J. Keith Gilles regarding WFMP 45-day Notice of Proposed Rulemaking. March 2, 2015.

Attachment 14: EPIC Letter to Chairman J. Keith Gilles regarding WFMP 45-day Notice of Proposed Rulemaking. June 15, 2015.

Attachment 15: EPIC Letter to Management Committee Chairman Farber regarding WFMP Regulations. April 7, 2014.

Attachment 16: EPIC and Coast Action Group Letter to Chairman Gilles regarding WFMP Board Workshop. January 15, 2016.

Attachment 17: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. June 4, 2014.

Attachment 18: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. June 17, 2014.

Attachment 19: Coast Action Group Letter to Executive Officer George Gentry regarding WFMP Regulations. August 20, 2014.

Attachment 20: Coast Action Group Letter to Regulations Coordinator Thembi Borrás regarding WFMP Regulations. February 5, 2015.

Attachment 21: Coast Action Group Letter to Regulations Coordinator Thembi Borrás regarding WFMP Regulations. May 20, 2015.

Attachment 22: EPIC and CAG Letter to Chairman J. Keith Gilles, re: WFMP Guiding Principles. March 24, 2016.

Attachment 23: Comments from the California Geological Survey, dated March 2, 2015.

Attachment 24: Comments from the North Coast Regional Water Quality Control Board, dated April 4, 2014.

Attachment 25: Comments from the North Coast Regional Water Quality Control Board, March 2, 2015.

Attachment 26: Comments from the California Department of Fish and Wildlife, dated June 16, 2014.

Attachment 27: Comments from the California Department of Forestry and Fire Protection, dated April 8, 2014.

Attachment 28: Comments from the California Department of Forestry and Fire Protection, March 2, 2015.

Attachment 29: Comments from Richard Gienger, dated March 2, 2015.

Attachment 30: Forsman, E.D., R.G. Anthony, K.M. Dugger, E.M. Glenn, A.B. Franklin, G.C. White, C.J. Schwarz, K.P. Burnham, D.R. Anderson, J.D. Nichols, J.E. Hines, J.B. Lint, R.J. Davis, S.H. Ackers, L.S. Andrews, B.L. Biswell, P.C. Carlson, L.V. Diller, S.A. Gremel, D.R. Herter, J.M. Higley, R.B. Horn, J.A. Reid, J. Rockweit, J. Schaberel, T.J. Snetsinger, and S.G. Sovern. 2011. Population Demography of the northern spotted owls: 1985-2008. Studies in Avian Biology.

Attachment 31: National Marine Fisheries Service. 2014. Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service. Arcata, CA.

Attachment 32: U.S. Fish and Wildlife Service, 2014b. Draft Species Report Fisher (*Pekania pennanti*), West Coast Population. January 13, 2014. Raphael, Martin G.; Falxa, Gary A.; Dugger, Katie M.; Galleher, Beth M.; Lynch, Deanna; Miller, Sherri L.; Nelson, S. Kim; Young, Richard D. 2011. Northwest Forest Plan—the first 15 years (1994–2008): status and trend of nesting habitat for the marbled murrelet. Gen. Tech. Rep. PNW-GTR-848. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 52 p.

Attachment 33: NOAA Fisheries 2009. Letter to Mr. Stan Dixon, Chairman Board of Forestry and Fire Protection. September 9, 2009.

Attachment 34: Comments from the California Geological Survey, dated June 15, 2015.

Attachment 35: Comments from the North Coast Regional Water Quality Control Board, dated June 15, 2015.