

**FINAL STATEMENT OF REASONS (FSOR), pursuant to GOV  
§11346.9(a)**

**“STOCKING AND SILVICULTURAL STANDARDS AMENDMENTS, 2019”  
Title 14 of the California Code of Regulations (14 CCR),  
Division 1.5, Chapter 4,  
Articles 2, 3, & 6**

**Amend: §§ 912.7, 932.7, 952.7, 913.2, 933.2, 953.2, 913.3, 933.3, 953.3, 913.4, 933.4,  
953.4, 916.9, 936.9, 956.9, 1072.6, 1080.1  
Adopt: §§ 912.7(e), 932.7(e), 952.7(e)**

**UPDATE OF INFORMATION CONTAINED IN ISOR (pursuant to GOV  
§11346.9(a)(1))**

No information contained in the Initial Statement of Reasons (ISOR) requires an update. All material relied upon was identified in the ISOR and made available for public review prior to the close of the public comment period.

**SUMMARY OF BOARD’S MODIFICATIONS TO 45-DAY NOTICED RULE TEXT AND  
INFORMATION REQUIRED PURSUANT TO GOV §11346.2(b)(1)) (pursuant to GOV  
§11346.9(a)(1))**

The rule text was adopted in its 45-Day noticed form.

**MANDATE ON LOCAL AGENCIES AND SCHOOL DISTRICTS (pursuant to GOV  
§11346.9(a)(2)):**

The adopted regulation does not impose a mandate on local agencies or school districts.

**COST TO ANY LOCAL AGENCY OR SCHOOL DISTRICT WHICH MUST BE  
REIMBURSED IN ACCORDANCE WITH THE APPLICABLE GOVERNMENT CODE  
SECTIONS COMMENCING WITH GOV §17500 (pursuant to GOV §11346.9(a)(2)):**

The adopted regulation does not impose a reimbursable cost to any local agency or school district.

**ALTERNATIVE 3, BOARD’S ADOPTED ALTERNATIVE (update, pursuant to GOV  
§11346.9(a)(1)), of information pursuant to GOV §11346.2(b)(4)): Adopt  
Rulemaking Proposal as Modified Through Formal Public Review and Comment  
Process**

The Board selected Alternative #3 as proposed and modified through the formal public review and comment process. The Board adopted the rule text published with the 45-Day Notice (on July 5, 2019).

The proposed action is the most cost-efficient, equally or more effective, and least burdensome alternative. Alternatives 1 and 2 would not be more effective or equally effective while being less burdensome or impact fewer small businesses than the proposed action. Specifically, alternatives 1 and 2 would not be less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing statute or other law being implemented or made specific by the proposed regulation than the proposed action. Additionally, alternatives 1 and 2 would not be more effective in carrying out the purpose for which the action is proposed and would not be as effective and less burdensome to affected private

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persons than the proposed action, or would not be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law than the proposed action. Further, none of the alternatives would have any adverse impact on small business. Small business means independently owned and operated, not dominant in their field of operations and having less than 100 employees.

**ALTERNATIVES DETERMINATION (pursuant to GOV §11346.9(a)(4) and (5))**

No other alternatives have been proposed or otherwise brought to the Board's attention, except as set forth in the ISOR and provided herein in the summary and responses to comments. Based upon the findings below and a review of alternatives the Board has determined the following:

- No alternative considered would be more effective in carrying out the purpose for which the regulation was intended.
- No alternative would be as effective and less burdensome to affected private persons than the adopted regulation.
- No alternative would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law. (reference ECONOMIC IMPACT ANALYSIS in ISOR)
- No alternative considered would lessen any adverse economic impact on small business. (reference ECONOMIC IMPACT ANALYSIS in ISOR)

**FINDINGS (BASED ON INFORMATION, FACTS, EVIDENCE AND EXPERT OPINION) TO SUPPORT THE ALTERNATIVES DETERMINATION**

- The Board finds that Public Resources Code § 4561.2 provides the Board the authority to "...adopt alternative stocking standards that meet the purposes of [PRC] Section 4561 if those alternative standards reasonably address the variables in forest characteristics, achieve suitable resource conservation, and contribute to specific forest health and ecological goals as defined by the board."
- The Board finds that the adopted alternative stocking standards both meet the purposes of PRC § 4561 in that the adopted alternative both sets forth resource conservation standards for timber operations, and ensures that a cover of trees of commercial species, sufficient to utilize adequately the suitable and available growing space, will be maintained or established following timber operations
- The Board finds that the adopted alternative is necessary to achieve the ecological goals established by the Board and set forth within the Initial Statement of Reasons.
- The Board finds that the adopted alternative aligns the prescriptive requirements of existing silvicultural prescriptions with the aforementioned ecological goals and are necessary in order to clarify the application of these goals.
- The Board finds the adopted alternative fulfills the obligations of the Board, specified in statute, and represents a product based upon compromise and the greatest degree of consensus achievable at the time the Board authorized noticing of these amendments.
- The Board finds that public and agency representatives reviewed and provided

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input into these amendments.

**BRIEF SYNOPSIS OF ADDITIONAL ALTERNATIVES CONSIDERED AND REJECTED (update, pursuant to GOV §11346.9(a)(1)), of information pursuant to GOV §11346.2(b)(4))**

**Alternative 1: No Action**

The Board considered taking no action, but the “No Action” alternative was rejected because it would not address the problems.

**Alternative #2: Make Existing Regulation Less Prescriptive**

This action could include greatly simplifying the stocking standards by eliminating standards by site, aspect, and or environmental factors to establish a statewide minimum as is common in many states. This would not address resource conservation standards in a manner which took into account variable forest characteristics, which is required by statute, so it was rejected as an alternative.

**SUMMARY AND RESPONSE TO COMMENTS (pursuant to GOV 11346.9(a)(3))**

The comments below are identified in the following format: The letter S or W followed by a series of numbers separated by a hyphen, followed by the name and affiliation (if any) of the commenter (e.g. W1-8: John Doe, Healthy Forest Association).

S: Indicates the comment was received from a speaker during the Board hearing associated with the Notices of Proposed Action.

W: Indicates the comment was received in a written format.

1st number: Identifies the comments in the order in which it was received.

<p><b>WRITTEN COMMENTS AND RESPONSES RESULTING FROM 45-DAY NOTICE OF PROPOSED RULEMAKING PUBLISHED JULY 5, 2019</b></p>
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**Comment W1-1: Helge Eng, Deputy Director, Resource Management, Cal Fire, August 19, 2019**

“The California Department of Forestry and Fire Protection (CAL FIRE) supports the Board's adoption of the rulemaking proposal entitled, "Stocking and Silvicultural Standards Amendments, 2019." The Department has participated in and appreciates the Board's various public workshops and committee meetings that led to the development of this rulemaking proposal.

The Board's review of the longstanding stocking standards supported by the work of the University of California's William Main Seminar Research Group has resulted in valuable amendments to the minimum point count standards. This initial effort will help inform the Board's ongoing review and possible amendment of the minimum basal area stocking standards.”

**Board Response:** The Board appreciated the support of Cal Fire

**Rule Text Change:** No

**Comment W2-1: Rob DiPerna, California Forest and Wildlife Advocate, Environmental Protection Information Center, Daniel Barad, Campaign Representative, Sierra Club California, August 16,2019**

“The Draft Proposed Rule Text constituting proposed changes and additions to the Forest Practice Rules and aspects pertaining to minimum resource conservation standards (stocking standards) for the various silvicultural prescriptions based on Forest District and Site Class, and accompanying proposed-modifications to the point-count requirements to meet minimum stocking standards and the methods for counting “countable” trees based on Forest District and site class appear reasonable.

However, the 45-Day Notice of Proposed Rulemaking and accompanying Draft Rule Text are being proposed in an isolated vacuum. As such, they fail to account for how the implementation of the proposed changes will affect other mandated aspects of the Forest Practice Act and Rules. These documents do not address the existing mandate to attain and ensure attainment of Maximum Sustained Production of High-Quality Timber Products (MSP) and Long-Term Sustained Yield. They also neglect how or if timberlands owners will need to adjust plans or “options” to show MSP in discretionary permitting frameworks like Timber Harvest Plans, Non-Industrial Timber Management Plans, and Working Forest Management Plans.”

**Board Response:** The requirement within the Forest Practice Act (FPA) that the system of timberland regulation ensure maximum sustained production of high-quality timber products while giving consideration to other forest resources (MSP)(PRC § 4513) has been implemented by the Board throughout the Forest Practice Rules, including 14 CCR §§ 913 [933, 953.11], 913.1 [933.1, 953.1] 913.2 [933.2, 953.2], 913.3 [933.3, 953.3], 913.11 [933.11, 953.11], specifically in THPs, NTMPs, and WFMPs within 14 CCR §§ 1034, and 1091 *et seq.*, and in fact Board regulations require disapproval of any plan if implementation would not achieve those goals of the act within 14 CCR § 898.2(g). The proposed action provides a modified minimum stocking requirement to address various ecological goals, but in no-way relieves plan submitters of their obligations to demonstrate the achievement of MSP through proposed projects. Additionally, these revised minimum stocking requirements are intended to improve forest health and resiliency throughout California, which is supported by current literature, and these improvements in forest health will result in improvements to achievement of MSP statewide.

**Rule Text Change:** No.

**Comment W2-2: Rob DiPerna, California Forest and Wildlife Advocate, Environmental Protection Information Center, Daniel Barad, Campaign Representative, Sierra Club California, August 16, 2019**

“Further, the Initial Statement of Reasons (ISOR) does not present any evidence that the Board considered possible adverse environmental impacts that may result from adopting the 45-Day Notice and Proposed Draft Rule Text. The Board should consider how the proposed changes and additions will impact site occupancy and site recapture, water quantity, potential increases in shrub, brush or other early-seral vegetation and corresponding potential increases in wildfire risk and severity. Additionally, the Board should assess the impacts of climate change and of anticipated more frequent and prolonged droughts on the survivability or growth rates

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of trees. Finally, the Board must comply with legislative mandates that it ensure that California timberlands are storing and sequestering carbon dioxide in amounts necessary to contribute to state Global Warming Solutions Act and related climate-policy objectives.”

**Board Response:** The Board evaluated the potential significant adverse environmental effects of the proposed action beginning on page 30 of 31 of the Initial Statement of Reasons. Additionally, the Board developed the proposed action in response to the state’s carbon and climate issues and has developed the prescriptive standards of the proposed action following an extensive review of current and applicable literature on the subjects. The proposed action will result in forests which are more resilient to climate change and have improved rates of carbon sequestration. More information regarding these issues specifically can be found within the “Specific Purpose Of Each Adoption, Amendment Or Repeal (Pursuant To Gov § 11346.2(B)(1)) And The Rationale For The Agency’s Determination That Each Adoption, Amendment Or Repeal Is Reasonably Necessary To Carry Out The Purpose(S) Of The Statute(S) Or Other Provisions Of Law That The Action Is Implementing, Interpreting Or Making Specific And To Address The Problem For Which It Is Proposed” and “Citations and Source References” within the ISOR.

**Rule Text Change:** No.

**Comment W2-3: Rob DiPerna, California Forest and Wildlife Advocate, Environmental Protection Information Center, Daniel Barad, Campaign Representative, Sierra Club California, August 16, 2019**

“If the Board intends for these and other issues to be left to the judgement of Registered Professional Foresters on a plan-by-plan basis when proposing alternative stocking levels to meet “Forest Health” objectives, then that expectation must be explicitly stated in the Draft Proposed Rule Text. If this is not the Board’s intent, there is more work to be done with the Draft Rule Text to make its expectations clear.”

**Board Response:** The process for evaluation and approval of a proposed alternative stocking level is extant and explicit within the rule text. When an RPF proposes an alternative stocking standard pursuant to 14 CCR § 912.7(e), they are required to provide a discussion of how the proposed alternative will contribute to the forest health and ecological goals described within 14 CCR § 912.7 [932.7, 952.7](e)(1)(A) through (F), as well as providing information and descriptions of various site specific elements, pursuant to 14 CCR § 912.7 [932.7, 952.7] (e)(2)(A) through (F). Following this disclosure by the RPF, the Director is then required, pursuant to 14 CCR § 912.7 [932.7, 952.7](e)(3), to verify on site conditions and to that whether the proposed alternative will indeed contribute to those identified and disclosed forest health and ecological goals as a condition of approval.

**Rule Text Change:** No.

**Comment W2-4: Rob DiPerna, California Forest and Wildlife Advocate, Environmental Protection Information Center, Daniel Barad, Campaign Representative, Sierra Club California, August 16, 2019**

“The Board must also ensure a means of monitoring and receiving regular reports on the impacts, level of success, and needed modifications to the Proposed Rulemaking

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once adopted.”

**Board Response:** The purpose of the proposed action is to provide amendments to stocking and silvicultural standards to address changing ecological needs of the state. The monitoring of those amendments is outside of the scope of the proposed action. Furthermore, the legislative amendments of AB 1492 (Chaptered 2012), among other items, established the need for evaluation of and reporting on the “ecological performance” of the state Forest Practice Rules, and in 2013 the Board established the Effectiveness Monitoring Committee with the intent of providing “...the Board of Forestry and Fire Protection and the Natural Resource Agencies with a science based committee whose charter is to better understand if specific requirements of the California Forest Practice Rules and other laws and regulations related to forest resources are effective in achieving resource objectives.” The mechanisms and agency to monitor the efficacy of the proposed action are extant; however, their operation is not further interpretation, implementation, or a general rule of application of existing statute and are not suitable for regulation.

**Rule Text Change:** No.

**Comment W3-1: Marily Woodhouse, Battle Creek Alliance & Defiance Canyon Raptor Rescue, Susan Robinson, Ebbetts Pass Forest Watch, August 16, 2019**

“The Draft Rule Text proposes changes and additions to the Forest Practice Rules regarding the stocking standards to be met post-logging. It proposes to modify the point-count requirements by reducing the number of trees planted post-logging, based on the Forest District and site class; further, it presents a methodology to count trees. In themselves, these proposals are not unreasonable. Unfortunately, there are many associated impacts which have been overlooked in the proposal.

Of main concern is the fact there is nothing in the proposed changes that requires any kind of deliverables to ascertain what effects the rule changes have on the forested landscapes of the State. Without both short- and long- term monitoring, analyses, and reports the effectiveness of the rule changes can never be judged and any needed modifications to adapt to changing conditions will not be undertaken.

We recommend that the Board requires annual reports from Cal Fire that will track the use of the new standards by both industrial and non-industrial timberland owners. Evaluations over longer time periods (e.g. 5 years, 10 years) will need to be required also to measure whether stocking at a different level is actually improving forest health and carbon sequestration.”

**Board Response:** Please see response to comment W2-4 above.

**Rule Text Change:** No.

**Comment W3-2: Marily Woodhouse, Battle Creek Alliance & Defiance Canyon Raptor Rescue, Susan Robinson, Ebbetts Pass Forest Watch, August 16, 2019**

“Fire Risk and Severity Under the heading of "purpose" of the proposed action on page 5 of the Notice of Proposed Action one of the bulleted points states: "It is important to reduce the densities of smaller diameter trees, as they can be associated with high severity, large-scale fires that result in the vast majority of carbon storage

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loss and greenhouse gas emissions on forested land." The irony of this statement is that from 1998 to 2018, Cal Fire has approved 8,986 logging plans which cover over 3 million acres (Cal Fire FPGIS 2018). These plans have supplanted grown, diverse forests with a high-density of small diameter trees, otherwise known as tree plantations (Figure 1). The 3 million acre figure does not include the additional acres of logged land that have been cut under emergency exemptions, e.g. post-fire salvage logging. There is nothing in the Proposed Action or citations which disclose or address this aspect, nor do the current and proposed rules reflect that culpability for the problem. We suggest that the Board act on rules that repair these significant issues."

**Board Response:** The purpose of both statutory and regulatory minimum resource conservation standards is to provide adequate stocking of commercial tree species following timber operations. The purpose of the proposed action is, in part, to allow for the reduction in the number of seedlings which are necessary to provide adequate stocking following timber operations. The need for successive regeneration in order to perpetuate biological occupancy of a site is a known and established fact which is supported by the inescapable influence of death over living organisms, including trees, worldwide. The need for active harvesting and management of the forest resources within the state is established throughout the Forest Practice Act, as is the need to ensure adequate site occupancy following such management operations, as described above. The goals of the proposed action, to allow for the reduction in trees which are necessary in order to occupy a site in accordance with changing ecological conditions, are not at odds or contradictory to the actions of individuals who engage in timber operations throughout the state, or the Department which permits those operations in accordance with the Board's regulations. The statutory and regulatory framework of the Forest Practice Act and Rules is intended to provide for this harvesting and regeneration of trees, and the proposed action allows for a reduction in required seedlings in order to address the ecological goals established by the Board, which will in turn, reduce the density of smaller diameter trees following timber operations.

**Rule Text Change:** No

**Comment W3-3: Marily Woodhouse, Battle Creek Alliance & Defiance Canyon Raptor Rescue, Susan Robinson, Ebbetts Pass Forest Watch, August 16, 2019**

"Herbicides There is nothing in the proposed changes that evaluates the potential for increased use of herbicides by timberland owners. Our experience of land that has been logged and replanted is that many invasive weeds inhabit the sites for many years post-logging at the current point-count in the FPRs. It is reasonable to suppose that at a lower point-count, there will be an increase in both invasive weeds and the native brush species (which are important for habitat) that industrial timberland owners prefer to kill with chemicals. (Figure 2.) Higher herbicide use activates a slew of associated impacts on soil, water, fire danger, and the community health of people, animals, and plants. These rule changes must address those potential impacts also, and include measurements in annual reports to track if herbicide use is increased due to these rule changes."

**Board Response:** The proposed action seeks to modify the minimum resource conservation standards with regard to point-count, specifically those minimum point count standards related to seedlings. While adjustments were made to the point-count

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values of larger diameter trees, those adjustments are intended to maintain similar requirements for the representation of those trees, but adjust for their sampling value to accommodate the lower value of necessary seedlings. The application of herbicide to treat unwanted vegetation in California's forests is generally used to reduce competition for seedlings following timber operations and the removal of commercial trees. The proposed action does not increase or decrease the number of commercial trees which are permitted for removal and as such, does not increase, decrease, or otherwise affect the application of herbicide following timber operations to provide for the release of seedlings.

**Rule Text Change:** No.

**Comment W3-4: Marily Woodhouse, Battle Creek Alliance & Defiance Canyon Raptor Rescue, Susan Robinson, Ebbetts Pass Forest Watch, August 16, 2019**

**Biodiversity** The proposed rule changes do nothing to encourage or emphasize the importance of diversity of species and structure in forests. Both the present and proposed stocking standards ignore this important aspect of forest health. Gough et al. (2019) states "Forests that were more structurally complex, had higher vegetation area indices, or were more diverse absorbed more light and used light more efficiently to power biomass production, but these relationships were most strongly tied to structural complexity.

...We recommend that the BOF addresses biodiversity in its rule changes, rather than ignoring the ongoing cumulative impacts to forests that have been allowed under the current rules."

**Board Response:** The proposed action seeks, primarily, to reduce the minimum point-count requirements for seedlings following timber operations in order to address the ecological goals established by the Board. With regard to the diversity of these seedlings, the Forest Practice Rules state that the maintenance of genetic diversity is a primary objective for forest management in conformance with Forest Practice Act (14 CCR § 897(b)(1)(D)), and the proposed action does not seek to alter this objective. Additionally, the reduced requirements for seedlings are intended to result in healthier, more resilient forests as they develop, an intent which is supported by the available body of evidence. These healthier, more resilient forests are more likely to withstand a variety of stressors, which may prevent large-scale or extreme disturbances which create large, homogenous patches of forest type, age and structure, thereby promoting biodiversity in forests statewide. Outside of this effect, regulations which would impose prescriptive or performance based requirements on structural or biological diversity are outside of the proposed action, which is the modification of the minimum resource conservation standards to address the ecological goals as established by the Board.

**Rule Text Change:** No.

**Comment W3-A1 through A4: This material was provided as supporting documentation for the parent comment letter and does not address the proposed action.**



**VERBAL COMMENTS RECEIVED DURING THE PUBLIC HEARING CONDUCTED  
AUGUST 21, 2019**

**Comment S1: Larry Camp, Forest Landowners of California**

Mr. Camp would like to thank the Department of Forestry and Fire Protection, the William Main Group, and George Gentry for their support and efforts in the development of the regulations.

**Board Response:** The Board acknowledges the support and efforts of those parties as well.

**Rule Text Change:** No

**Comment S2: George Gentry, California Forestry Association**

Mr. Gentry would like to thank Bob Ewing, Bill Steward, and Rachel Hedges for their efforts in this rulemaking developments and stated that the revisions to outdated regulations will assist small landowners throughout the state.

**Board Response:** The Board acknowledges the efforts of those parties as well.

**Rule Text Change:** No.