

Board of Forestry and Fire Protection

Final Statement of Reasons (FSOR), pursuant to GOV § 11346.9(a)

“WHITE AND BLACK OAK WOODLAND MANAGEMENT SPECIAL PRESCRIPTION”

Title 14 of the California Code of Regulations (14 CCR):

Division 1.5, Chapter 4,

Subchapter 4, Article 3 Subchapter 5, Article 3

Amend: § 913.4 [933.4] Special Prescriptions.

UPDATE OF INFORMATION CONTAINED IN ISOR (PURSUANT TO GOV § 11246.9(a)(1)):

There has been no additional information gained by the Board of Forestry and Fire Protection (Board) that requires updating of the ISOR filed as OAL File No. Z-2016-0418-01, Published on April 29, 2016.

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.

REITERATION OF DISCLOSURES REGARDING THE ADOPTED REGULATION, RESULTS OF ECONOMIC IMPACT ANALYSIS, AND ANTICIPATED BENEFITS:

The results of the economic impact assessment are provided below pursuant to **GOV § 11345.5(a)(10)** and prepared pursuant to **GOV § 11346.3(b)(1)(A)-(D)**. The adopted action:

- (A) will create jobs within California;
- (A) will not eliminate jobs within California;
- (B) will create new businesses;
- (B) will not eliminate existing businesses within California
- (C) will beneficially affect the expansion of businesses currently doing business within California.
- (D) will have nonmonetary benefits.

The types of businesses that will be impacted are industrial and nonindustrial forest landowners, forestry consulting, logging firms, restoration contractors, lumber mills, biogenic energy producers and shavings plants. Therefore, both large and small businesses may have positive economic impacts.

Businesses will be beneficially impacted by the proposed action. Currently, timber harvesting for the purpose of white and black oak conservation is not feasible under current regulations due to state stocking standards requiring stocking be met with Group A conifer species post-harvest (PRC § 4561). Therefore potential projects are not currently implemented and businesses potentially associated with these projects not employed. This proposal would

allow all areas managed under this draft regulatory proposal to meet stocking standards with Group B species making these projects feasible and requiring professional employment and other business activity to implement.

This proposal may create 2-10 project opportunities per county with oak woodland stands in the Northern and Coast Forest Districts (14 counties), which could result in an additional 30-50 THPs, THP amendments or NTMP amendments per year. Thus, new opportunities would be created for the types of businesses listed in this section. The project estimate is partially based on an estimate of potential new projects provided by the U.C. Extension Service.

The oak woodland projects made feasible by this proposal will have lower net return from timber values than the average fully stocked conifer stands. The harvest trees may have a wider spacing than typical harvest stands and therefore more equipment time will be required to remove the same board footage as fully stocked conifer stands. A high percentage of these potential projects will exist on land of lower site quality which means the volume per tree harvested may be smaller. There may also be a higher number of open grown trees on these projects. Open grown trees tend to have a greater number of large branches that produce in larger knots in lumber and thus results in a log with lower value. Together these factors will likely result in a significantly lower return per acre for the landowner than if the harvest occurred on a fully stocked conifer stand.

The economic potential from these projects will be quite variable. It is reasonable to expect a potential harvest of 2.5 to 7.5 thousand board feet (Mbf) per acre. Board of Equalization values for Douglas-fir range from \$100-350/Mbf. That provides a range of gross harvest value of \$250-2,625 per acre. If we assume a log and haul cost of \$175-300/Mbf, it is apparent that not all potential projects will provide a positive economic outcome.

A number of the projects conducted with this proposal will be accomplished with an economic "break-even" outcome. In these instances the landowner is driven to complete the project due to management objectives rather than economic incentive. Management objectives may include: 1) a desire to reduce the risk of large damaging fires, 2) maintenance of biological diversity and wildlife benefits, or 3) increase in range and forage.

Given the many variables for starting and maintaining a business in California, and the limited scope of the proposed action, the number of businesses that may be created as a result of the proposed action is small. Existing businesses may have more work.

The primary benefit of this proposal is increasing the ability of the landowner to commercially manage oak woodlands for their biological diversity, wildlife, range and forage, and water quality benefits.

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.

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

Except as set forth in the ISOR and provided in the summary and responses to comments, no other alternatives have been proposed or otherwise brought to the Board's attention. 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.
- No alternative considered would lessen any adverse economic impact on small business.

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

- 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 the proposed action.
- The Board finds Public and Agency representatives reviewed and provided input into the rules adopted alternative.
- The Board finds the adopted alternative strikes a balance between performance based and prescriptive standards.
- The Board finds that a minimum level of prescriptive standards were needed to implement the statute. The proposed action is, in fact, a mix of performance based and prescriptive standards as are the entire Forest Practice Rules (FPRs). Alternative #3 considered decreasing the specificity of regulatory standards, but was rejected.

Increasing the reliance on performance based standards was not reasonably expected to be as effective and less burdensome.

- The Board finds that current research from the University of California Extension Service shows a clear pattern of encroachment by conifers on Oregon white oak (*Quercus garryana*) and California black oak (*Quercus kelloggii*) woodlands throughout the North Coast Region of California.
- The Board finds that California deciduous oak woodlands provide many ecological, cultural, and economic benefits, and often represent unique plant communities that harbor native rare and declining species.
- The Board finds that fire exclusion in forests in California has resulted in widespread vegetation change, often with notable increases in density and cover of fire-sensitive species.
- The Board finds in Oregon white oak (*Quercus garryana*) and California black oak (*Quercus kelloggii*) oak woodlands, encroachment by the more shade-tolerant native Douglas-fir (*Pseudotsuga menziesii*) is particularly common, and results in the piercing and eventual overtopping of crowns of shade-intolerant trees (Oregon white/California black oak)
- The Board finds that in California, Oregon white oak (*Quercus garryana*) and California black oak (*Quercus kelloggii*) are particularly impacted by encroachment. Studies point to altered disturbance (fire) regimes and the suppression of low-intensity fire in particular, as the primary cause of increased conifer establishment in these oak woodlands.
- The Board finds that some provisions within the existing FPRs, particularly the mandatory post-harvest conifer stocking requirements, are a disincentive to actively manage Oregon white oak (*Quercus garryana*) and California black oak (*Quercus kelloggii*) oak woodlands for the purposes of reducing the conifer encroachment.
- The Board finds the adopted alternative will reduce the negative impacts of conifer encroachment on Oregon white oak (*Quercus garryana*) and California black oak (*Quercus kelloggii*) oak woodlands in the Northern and Coastal Forest Practice Districts (14 CCR §§ 907 and 908).
- The Board finds the proposal will provide minor monetary benefits primarily due to the small number of new projects expected to result from the regulatory proposal.
- The Board finds the proposed regulatory proposal will make some currently cost prohibitive projects to reduce conifer encroachment of some oak woodland economically feasible.

BOARD'S ADOPTED ALTERNATIVE (update, pursuant to GOV § 11346.9(a)(1)), of information pursuant to GOV § 11346.2(b)(4): Take Action as proposed and Modified through the Formal Public Review and Comment Process (Alternative #4)

The Board chose adopt the rule text as presented in the 45-day Notice. No modifications, through the formal public review and comment process, were made.

This alternative would result in making PRC § 4561.2 specific to the maintenance of oak woodlands thereby allowing the project proponent to manage oak stands to maintain the ecological diversity of the oak ecosystems. The proposal establishes alternative stocking standards consistent with the FPA for use with the special prescription. A conifer component may remain in oak stands harvested under the special prescription. However, by removing conifers from the stand under the supervision of an RPF, the oak component will be able to maintain the sought after ecological diversity. Over time there may need to be repeated entries into these stands to keep the ecosystem values provided by the oak component. The proposed action is a mix of performance based and prescriptive standards as is the entire Forest Practice Rules.

This is the preferred alternative as it fulfills the obligations, specified in statute, of the Board and represents a product based upon collaboration and the greatest degree of consensus achievable at the time the Board authorized noticing of the proposed action. Public and Agency representatives have reviewed the proposed action and provided input, which is reflected in the proposed regulation. The Board struck a balance between performance based and prescriptive standards. The Board found that a minimum level of prescriptive standards is needed to implement the statute.

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 –

Adoption of this alternative would not have assisted in maintaining oak woodland forest stands and their wildlife and ecological diversity values. The alternative would not have reduced the extent of conifer encroachment on oak woodland forest stands.

The Board rejected this alternative due to the failure to meet the stated purpose of the regulatory proposal.

Alternative #2: Take Action to increase the Specificity of the Regulation Needed to Implement the Statute.

Under this alternative, the Committee would have reviewed the requirements of Forest Practice Rules Section 912.7, [932.7, 952.7] Resource Conservation Standards for Minimum Stocking to identify potential impediments to oak woodland restoration. Upon identifying such impediments, the Committee could have proposed amendments to this and other rule sections within the limits of the Board's statutory authority.

The Board Forest Practice Committee pursued this approach in consultation with the Department and found changes to the forest practice rules would be required in multiple sections including 912.7, [932.7, 952.7], 913.11 [933.11, 953.11], and 913.6 [933.6, 953.6] to establish a winding regulatory pathway for meeting the proposed actions objectives.

Ultimately an alternative prescription approach, as allowed for in other sections of the FPRs, could potentially facilitate the desired oak woodland management; however the submitted projects utilizing this approach could be highly variable and require significant review and discretion by the Department in determining whether they met the intent of the Forest Practice Act.

Ultimately the Board rejected this approach as it would not establish a clear understanding of the regulatory minimum requirements for specific oak woodland management necessary for the Department to review and approve proposed projects in an efficient and consistent manner. Similarly, the Board found that project proponents and the public would not be provided with sufficiently clear direction necessary to develop minimum requirements for an oak woodland special prescription that ensured adequate environmental protection and could be reviewed by the Department and review team agencies in a consistent and efficient manner.

Alternative #3 Take Action to Decrease the Specificity of the Regulation Needed to Implement the Statute.

This alternative would have decreased the specificity of the regulation needed to implement the statute. This alternative would have provided maximum flexibility for participants allowing them to develop performance based standards to implement the statute.

Under this option, the Board would encourage and monitor use of prescribed fire, mastication, lop and scattering, or other vegetation management techniques in oak woodlands to reduce or prevent conifer encroachment. The use of prescribed fire, or other vegetation management techniques in encroached oak woodlands is effective for culling small conifers (e.g., <3-4 meters tall). However, where conifers are older and larger, mechanical removal, or hand felling of encroaching trees is generally necessary to achieve desired effects. Also, application of fire in heavily encroached stands may inadvertently top-kill suppressed, low-vigor oaks. This option would, therefore, be effective in maintaining un-encroached or early-encroached woodlands, but it would be limited in its effect on late-encroached conditions where mechanical treatment is necessary.

The Board rejected decreasing the specificity of the regulation, through performance based regulation, needed to implement the statute because the Board found that a minimum level of prescriptive standards was needed to implement the statute. Performance based regulations would generate broader interpretation by the participants and may result in enforcement complications for the Department, who must have the ability to enforce regulatory prescriptive standards for the protection of the public trust resources.

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's Public Hearing on the 45-Day Notice of proposed rulemaking.

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

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

2nd number (following the hyphen): Represents the specific comment within a written comment or speaker comment. The specific comments are numbered in the order in which they were presented.

Commenter: The person presenting the comment and the organization, if any, with which they are affiliated, follows the comment identifier.

For example, W1-8 would represent the 8th comment within the 1st written comment received, and S5-3 would represent the 3rd comment given by the 5th speaker at the Board's Public Hearing.

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| <p style="text-align: center;">WRITTEN COMMENTS AND RESPONSES RESULTING FROM 45-DAY NOTICE OF PROPOSED RULEMAKING PUBLISHED APRIL 29, 2016</p> |
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W1-1: Sandra Morey, Department of Fish and Wildlife (CDFW)

CDFW recommends the Special Prescription include the methods described in the Survey of California Vegetation (SCV, CDFW 2015) as an alternative to the California Wildlife Habitat Relationships data base for Registered Professional Foresters (RPFs) to identify Oregon white oak and California black oak woodlands. The SCV was prepared pursuant to Fish and Game Code § 1940 and conforms to the National Vegetation Classification System. It relies on measureable and repeatable criteria to assess stand composition, age, and structure for defining vegetation types (e.g. alliances). This system distinguishes among vegetation types that vary by location, stand structure, and composition.

Board Response: At the June public hearing Mr. Bill Condon, California Department of Fish and Wildlife (CDFW) testified that CDFW does not recommend use of the SCV as it does not map many of the Oregon white/California black oak stands that need this prescription the most. The Board agreed with Mr. Condon and did not include use of the SCV in the regulatory language.

Rule Text Edit: No

W1-2: Sandra Morey, CDFW: CDFW Proposes relative tree canopy cover be included as an option for RPFs to use when describing oak woodlands. SCV uses relative tree canopy cover to characterize the relative species dominance in a stand. Similar to relative tree canopy cover, the Oak Woodlands Conservation Act (FGC §1360 et.seq.) and the Aspen, Meadow, and Wet Area Restoration Special Prescription [14 CCR § 913.4(e)(4), 933.4(e)(4), 953.4(e)(4)] use "percent canopy cover" and "overstory and understory coverage", respectively. RPFs and land managers could use tree canopy cover of oaks

relative to other tree species to devise management objectives and weigh treatment options.

Board Response: Dr. Rick Standiford, University of California Extension Service (UCE) testified at the public hearing that he considered the CDFW proposal approach to use canopy cover as a stand metric. He stated that he disagrees with folding canopy cover as a stand metric in to the special prescription, as it is nearly impossible using aerial photogrammetry and remote sensing to view the oak stands, owing to the high level of coniferous vegetation piercing through the oak canopies. Mr. Standiford supports the rulemaking text presented at the public hearing. He stated the wording in the text had been promulgated with solid evidence based research conducted UCE Humboldt. The research staff has worked with the Board Forest Practice Committee to develop the currently proposed language. The Board chose to move forward with the currently proposed language, also noting that the current proposed language does not prohibit or otherwise restrict reference to estimated relative tree canopy cover by the RPF in describing stand conditions. Application of the rule will be monitored and later change made if facts support the need for change. The FPA (PRC §4553) requires the Board to continually review and revise the rules as needed.

Rule Text Edit: No

W1-3: Sandra Morey, CDFW: CDFW recommends the Special Prescription include requirements that the RPF state the project goals and success criteria, as well as monitoring and reporting requirements to analyze the effectiveness of oak woodland management. These could be similar to the requirements under the Aspen Meadow, and Wet Area Restoration Special Prescription [14 CCR § 913.4, 933.4, 953.4 (e)(5), (7)]. CDFW is available to assist the Board with crafting language for these additional requirements.

Board Response: The proposed regulatory language requires the RPF to describe the preharvest stand and natural conditions (soil, water, etc.) as well as the post-harvest stand conditions. The stated goal of the regulation, included in the proposed language, is to sustain the viability of specified oak stands by reducing water, light, and nutrient competition from encroaching conifers. These two pieces of information make the purpose of a proposed White and Black Oak Woodland Special Prescription clear. Criteria for defining success, is inherent in the requirements of the proposed prescription itself which are based on well-established scientific principles pertaining to the environmental needs of oak woodland conservation and restoration. The Board chose to retain the proposed regulatory language as presented at the public hearing. As Special Prescriptions are implemented on the ground the need for regulatory change to the proposed rule will be reviewed and changes made as need is identified (PRC § 4553).

Rule Text Edit: No

W1-4: Sandra Morey, CDFW: CDFW's recommendations for the Special Prescription presented above include measures that should be familiar to RPFs as they already occur elsewhere in the California Forest Practice Rules. These include use of canopy cover as a stand indicator and statements of project goals, success criteria, monitoring and reporting. As such, CDFW believes by adopting these recommendations, the Board would not be adding a level of complexity that RPFs would regard as challenging or burdensome.

Board Response: Refer to responses W1-1 through W1-3. The Board developed the proposed regulatory language in the Forest Practice Committee meetings over the last year with participation of the CDFW and the UCE, Humboldt staff who conducted Oak Woodland research in Humboldt and Mendocino Counties. The Oak Woodland research conducted by UCE, Humboldt was relied upon during the committee language development process. The current regulations are an impediment for landowners who wish to manage for the retention or restoration of the oak woodlands. The development of regulatory language that would encourage the retention or restoration of oak woodlands was a major consideration of the Committee in the development of new language.

The Board has the ability to ask the Department for a report on the results of implementation for this regulatory proposal without including specific language in the regulatory proposal. The Board considered the request but believes that it can get sufficient information on the effectiveness of the oak woodland special prescription through administrative requests for information to the Department. No new language was adopted by the Board. Additionally, monitoring and reporting for oak woodland retention and restoration will need to target the long-term, thus would outlast the life of either the THP or NTMP notice of operations. A onetime 5 year report on the results of the special prescription may not be sufficient to properly judge management results.

Rule Text Edit: No

W1-5: Sandra Morey, CDFW: CDFW appreciates and supports the Board's efforts to help conserve Oregon White oak and California Black oak woodlands, including the promulgation of these Special Prescription rules.

Board Response: The Board appreciates the CDFW support for the regulatory proposal. The Board will continually review application of this rule according to PRC §4553 using information provided by the Department upon Board request. If the need for rule modification is identified the Board will undertake revisions identified.

Rule Text Edit: No

W2-1: Yana Valachovic, UCE, Humboldt:

Our office, in conjunction with a team of researchers from UC Berkeley and Humboldt State University, has just completed a three-year research project that quantified the effects of Douglas-fir conifer encroachment into Oregon white oak and California black oak woodlands. The study included ten sites (90 plots) across Humboldt and Mendocino

counties, and looked at age structures of oaks and conifers, tree health, and understory diversity across a spectrum of open to encroached oak stands.

Preliminary project findings show clear patterns of encroachment in Oregon white oak and California black oak systems throughout the North Coast region, with oaks being consistently and significantly older than neighboring conifers. Even conifers that are much bigger than these oak species are typically much younger. Our data show that Douglas-fir stand dominance can occur in as little as fifty years, and leads to accelerated oak mortality. Further, preliminary findings demonstrate decreased understory diversity and severely compromised oak health in encroached stands, supporting previous work by others throughout the range. To learn more visit:

http://ucanr.edu/sites/oak_range/Conifer_Encroachment/

Some say that landowners should accept conifer encroachment because it is a natural succession process in these landscapes. However, while conifer establishment is natural, it would naturally be limited by disturbances like fire, which have been largely been eliminated from these forest types. Rather than dwell on historical reference conditions and definitions of what's natural, I would like to focus on the values that we want to maintain on the landscape, and support landowners to actively conserve and promote those values into the future. Oak woodlands are hotspots of biodiversity, providing essential habitat for a wide range of flora and fauna, and they are also fire- and drought-resilient communities. Landowners are seeking restoration tools to be able to manage conifer encroachment in their oak woodlands in order to promote and protect the great ecological and economic values of these important ecosystems.

Board Response: Ms. Valachovic participated with the Board Forest Practice Committee in the development of the proposed regulatory language. The research conducted by Ms. Valachovic is relied upon by the Board as TECHNICAL, THEORETICAL, AND/OR EMPIRICAL STUDY, REPORT, OR OTHER SIMILAR INFORMATION in the Initial Statement of Reasons. The Board appreciates the guidance and support provided by Ms. Valachovic in the development of this regulatory proposal to retain and restore Oregon white/California black oak woodlands.

Rule Text Edit: No

W2-2: Yana Valachovic, UCE, Humboldt: The draft “White and Black Oak Woodland Management Special Prescription” creates a clear direction that post-project stocking can be met with two Group B species (i.e., Oregon white oak and California black oak), defines the amount of oaks required to be eligible for the prescription, and eliminates the need to restock the stand with conifer seedlings. This option would most likely be utilized when other THP activities are occurring and when there are conifers of merchantable size, as the full THP development elements and costs apply. I have heard tremendous landowner

enthusiasm and appreciation for this Oak Woodland Special Prescription and they see it as a critical tool to help achieve their management goals.

Board Response: The Board appreciates Ms. Valachovic's effort to reach out to effected landowners and pass on their view of the Board regulatory proposal.

Rule Text Edit: No

W3-1: Yana Valachovic, UCE, Humboldt:

Ms. Valachovic submitted a letter dated November 19, 2013 supporting the need for the Board to address the encroachment of conifers on Oregon white/California black oak Woodlands. This was before the Board had developed a regulatory proposal on the topic in the Forest Practice Committee. As a result of this and other communication Ms Valachovic was consulted with extensively during the Forest Practice Committee development of a regulatory proposal.

Board Response: The research and consultation provided by Ms. Valachovic, UCE, is relied upon by the Board as technical support for the regulatory proposal.

Rule Text Edit: No

W4-1: Helge Eng, California Department of Forestry and Fire Protection (Department)

CAL FIRE supports the proposed regulation that would provide for a new type of silvicultural prescription under 14 CCR §913.4[933.4] to allow for the management of oak woodlands.

Board Response: The Board appreciates the Department support for the Oregon white/California black oak woodlands special prescription regulatory proposal.

Rule Text Edit: No

W4-2: Helge Eng, California Department of Forestry and Fire Protection; this special prescription will provide a valuable silvicultural treatment to help maintain, enhance, and restore a unique and valuable California resource. The conservation and management of native oak woodlands is important for their ecological and cultural values relative to biodiversity, food source, habitat, range, recreation, cultural and aesthetic qualities.

Board Response: The Board appreciates the Department support for the Oregon white/California black oak woodlands special prescription regulatory proposal.

Rule Text Edit: No

**SPEAKER COMMENTS AND RESPONSES RESULTING FROM PUBLIC
HEARING CONDUCTED JUNE 15, 2016**

S1-1: Bill Condon, California Department of Fish and Wildlife (CDFW)

Mr. Condon noted that CDFW recommended use of methodologies described in SCV as an alternative to the commonly used California Wildlife Habitat Relationships Database. CDFW recommend methodologies be used as an option, but not the classification, as the SCV does not map many of the Oregon white/California black oak stands that need this prescription the most.

Board Response: The Board agreed with Mr. Condon's comment and did not include use of the SCV as a classification system in the regulatory language. The adopted language does not require use of a specific classification system, but leaves the stand description open to the RPF to use a description of stand composition, diameter, basal area, and other physical site conditions that are clearly understood by the RPFs and reviewing agencies.

Rule Text Edit: No

S1-2: Bill Condon, California Department of Fish and Wildlife (CDFW)

The second recommendation is that in addition to describing the pre and post-harvest conditions by species composition, basal area, spacing, diameter and distribution, DFW would like to see stands under this prescription being characterized by relative canopy cover. Canopy cover is readily used in conjunction with aerial photography/remote sensing and is an expedient way to assess the relative dominance of oak woodlands.

Board Response: Dr. Rick Standiford, University of California Extension Service (UCE) testified at the public hearing that he considered the CDFW proposal approach to use canopy cover as a stand metric. He stated that he disagrees with folding canopy cover as a stand metric in to the special prescription, as it is nearly impossible using aerial photogrammetry and remote sensing to view the oak stands, owing to the high level of coniferous vegetation piercing through the oak canopies. Mr. Standiford supports the rulemaking text presented at the public hearing. He stated the wording in the text had been promulgated with solid evidence based research conducted UCE Humboldt. The research staff has worked with the Board Forest Practice Committee to develop the currently proposed language. The Board chose to move forward with the currently proposed language.

Rule Text Edit: No

S1-3: Bill Condon, California Department of Fish and Wildlife (CDFW)

The third recommendation Mr. Condon stated was that he would like RPFs to document success criteria before application of this special prescription, similar to the FPRs

aspens/wet meadows special prescription (14 CCR §913.4 [933.4, 953.4]). Adequately assessing, characterizing and describing these oak woodland stand conditions before the special prescription application, specifically conifer and hardwood stocking, could help determine if this special prescription is actually working to help conserve oaks from conifer encroachment.

Board Response: The proposed regulatory language requires the RPF to describe the preharvest stand and natural conditions (soil, water, etc.) as well as the post-harvest stand conditions. The stated purpose of the regulation is to retain a healthy hardwood stand component or reverse conifer encroachment of existing oak woodland stands. These two pieces of information make the purpose of a proposed White and Black Oak Woodland Special Prescription clear. The Board chose to retain the proposed regulatory language as presented at the public hearing. As Special Prescriptions are implemented on the ground the need for regulatory change to the proposed rule will be reviewed and changes made as need is identified (PRC § 4553).

Rule Text Edit: No

S1-4: Bill Condon, California Department of Fish and Wildlife (CDFW)

He also wants to see this prescription have a reporting standard like the aspen/wet meadow rules (14 CCR §913.4 [933.4, 953.4]), which mandates CAL FIRE reporting to the Board every 5 years to determine if the intent of the rules are being achieved. He recommends that this reporting could be handled by the Board's EMC advisory committee. The EMC Committee could report to the Board on grant funded experiments or monitoring results, to help the Board determine this rulemaking's efficacy.

Board Response: The Board developed the proposed regulatory language in the Forest Practice Committee meetings over the last year with participation of the CDFW and the UCE, Humboldt staff who conducted Oak Woodland research in Humboldt and Mendocino Counties. The Oak Woodland research conducted by UCE, Humboldt was relied upon during the committee language development process. The current regulations are an impediment for landowners who wish to manage for the retention or restoration of the oak woodlands. The development of regulatory language that would encourage the retention or restoration of oak woodlands was a major consideration of the Committee in the development of new language.

The Board has the ability to ask the Department for a report on the results of implementation for this regulatory proposal without including specific language in the regulatory proposal. The Board considered the request but believes that it can get sufficient information on the effectiveness of the oak woodland special prescription through administrative requests for information to the Department. No new language was adopted by the Board. Additionally, monitoring and reporting for oak woodland retention and

restoration will need to target the long-term, thus would outlast the life of either the THP or NTMP notice of operations. A onetime 5 year report on the results of the special prescription may not be sufficient to properly judge management results.

Rule Text Edit: No

S2-1: Dr. Rick Standiford, University of California Cooperative Extension (UCE)

Dr. Standiford stated that he worked closely with Yanna Valachovic and associated scientists from HSU, UC Extension and CAL FIRE to conduct research on conifer encroachment on *Q. kelloggii* and *Q. garryana* stands in northern California. He fully supports this rulemaking package and believes that this special prescription promulgated by the Board meets the recommendations provided from the research outcomes. Additionally, he added that there is support from a wide cross-section of people in many different occupations and fields of research. The conditions of these hardwood stands are very poor, potentiated by conifer encroachment that is severely suppressing oak health, growth and structure.

Board Response: The Board appreciates Dr. Sandiford's support for the regulatory proposal and the technical support provided by the Humboldt State University, University of California Extension Service office and staff.

Rule Text Edit: No

S2-2: Dr. Rick Standiford, University of California Cooperative Extension (UCE)

Although he has considered Mr. Condon's and DFW's approach of using canopy cover as a stand metric, he disagrees with folding it in to the special prescription, as it is nearly impossible using aerial photogrammetry and remote sensing to view these oak stands owing to the high level of coniferous vegetation piercing through the oak canopies. He wants to vouch for the current rulemaking text, stating that it has been promulgated with solid evidence-based research.

Board Response: The Board considered the CDFW request to include canopy cover as a metric in the regulatory proposal but chose not to do so based on Dr. Standiford's statement.

Rule Text Edit: No

S2-3: Dr. Rick Standiford, University of California Cooperative Extension (UCE)

He further adds that there may be future amendments needed to help this rulemaking package reach its goal of protecting the distribution and size of oak stands, but does not want it done now as it would hold up the regulatory process. He urges the Board that this special prescription is needed as soon as possible, as the loss of these oak stands is rapidly accelerating.

Board Response: The Board chose to move forward with the regulatory proposal set forth in the noticed regulatory language.

Rule Text Edit: No

DRAFT