Draft Oak woodland and /grassland/prairie **restoration**

Background:

Oregon white oak (or Garry oak, *Quercus garryana*) woodlands and savannas of the coastal Pacific Northwest are legacies of anthropogenic and natural fire regimes that were altered with European settlement in the mid-1800s, and completely suppressed by the 20th century. Historically, these oak ecosystems had a sparse overstory and heavily vegetated understory dominated by fire-tolerant grasses, forbs and shrubs. Post-settlement fire suppression resulted in widespread invasion and subsequent overstory dominance by conifers in many oak woodlands, causing mortality of shade-intolerant oak trees and decline of shade intolerant, diverse understory plant communities.

Vegetation types dominated by oak trees cover at least 4 million hectares in California (Bolsinger 1988), or roughly 10% of the state's land area. These extensive oak woodlands serve a number of important ecological functions. Oak woodlands play a critical role in protecting soils from erosion, regulating ground water and stream flows in watersheds, and maintaining water quality in streams and rivers. Oak woodlands also have higher biodiversity than most other terrestrial ecosystems in California, and are especially more diverse than neighboring conifer forests. At least 300 terrestrial vertebrate species (Block, Morrison, and Verner 1990), 1,100 native vascular plant species (CalFlora Database 1998), 370 fungal species and an estimated 5,000 arthropod species (Swiecki et al. 1997a) are associated with California oak woodlands. This diversity is not sustained when oak woodlands transition to conifer forest.

In California, over 300 vertebrate species use oak-dominated woodlands for various purposes (Block et al. 1990).

Alternative #4 – This alternative would delete the entire existing section in 14 CCR 939.15 [959.15], Protection of Wildlife Habitat [Northern]. The alternative establishes a new special prescription for Quercus , grassland or prairie restoration under 913.4 [933.4, 953.4], subsection (e). The new subsection establishes performance standards, designed by the landowner or RPF, for timber operations that have a goal of restoring and enhancing the ecological values of Quercus, meadows or wet area habitats. The alternative establishes postharvest measures of success, removes artificial regulatory constraints associated with even-age silvicultural rules allowing a wide range of projects designs, provides clear information about the proposed restoration activity, and requires post harvest monitoring to ensure successful accomplishment of the project.

Some of the core components of the alternative include:

- **Establishes a new silvicultural rule and prescription:** Located in 14 CCR 913.6 (e), this allows CAL FIRE, other public agencies and the general public to have a clear description of the proposed activity and measures of successful implementation.

- **Eliminates ambiguity on which silvicultural activities are intended for the project:** By creating a new prescription there is a clear understanding what silvicultural treatment is intended and eliminates the ambiguous term "harvesting" as proposed in Alternative 1-3.

- **Removes clear-cut and other even age silviculture restrictions that are not consistent with the restoration project:** This eliminates any artificial restrictions on project design such as opening size, adjacency limitations, or conifer re-stocking standards.

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- **Requires an assessment of the condition of Quercus in the project and landscape area:** The assessment includes the extent, vegetation characteristics and significance of Quercus in the project area and the relationship of the project area to the landscape setting or watershed. This will ensure the project is commensurate to the historical presence of the species and proposed treatments are appropriate to stand conditions.

- **Establishes performance-based physical characteristics that demonstrate accomplishment of the restoration project goals:** This includes establishment of measures of success that document characteristics of successful restorations goals.

- **Shifts responsibility for development of appropriate restoration and protection standards to the plan proponent instead of with Cal Fire or other agencies:** The proposed rule focuses on establishing performance standards and shifting the responsibility for project design implementation to meet the performance standards on the applicant.

- **Provides Agency monitoring:** Require a periodic report from the appropriate state agency on compliance of rule requirements with focus on how measures of success where accomplished.

- **Establishes compliance expectations or exemption from standard for FPRs**: Restoration project may need to be specifically designed to standards that do not need current forest practice rules. Field results have shown that activities in watercourse and lake protection zones may be needed to restore Quercus, and these activities should not necessarily have to meet every watercourse and lake protection rule.

Potential regulatory changes are shown below:

Repeal 14 CCR § 939.15 and 959.15

Adopt 14 CCR 913.4 (e) [933.4(e), 953.4(e)]

(e) Quercus, grassland, meadow and wet area restoration.

All post-settlement conifer trees within Quercus stands (defined as a location with the presence of living true oaks (Quercus), grassland, meadows and prairies may be harvested or otherwise treated in order to restore, retain, or enhance these areas for ecological or range values. Primary goals of oak woodland restoration projects are to restore vigor of existing oaks and enable successful regeneration and recruitment of Quercus into larger size classes. Projects using this prescription shall be designed to balance the protection and regeneration of oak woodland stands and associated grassland, and prairie habitats in California's forest ecosystems with the other goals of forest management as specified in 14 CCR § 897 and meet the following requirement:.

(1) The RPF shall state in the plan each project type(s) that is being proposed. (Quercus and /or, grassland / prairie encroachment).

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(2) Each project type shall be shown on the plan map, consistent with 14 CCR § 1034 (x), and at a scale that shows the locations of planned operations.

(3) *The plan shall describe the extent of the area proposed for harvesting or treatment and the types of harvesting or treatments. Describe the general physical and vegetation characteristics and conditions of each oak woodland and delineate woodland boundaries on aerial photos.*

(4) The RPF shall assess the condition of oak woodland, grassland/prairie in the project area. (might need tech guidance for this)

(A) For Quercus stands, the condition assessment shall include, but is not limited to, the determination of whether the Quercus stands are upland stands, whether there is a historical mix with conifers, or riparian/wet meadow. The condition assessment shall also include, but is not limited to, spatial extent, species composition, and stand structure (including overstory/understory coverage) in the project area; and the relationship of the project area to the planning watershed or biological assessment area.

(B) For grasslands or prairies , the conditions assessment shall include vegetation characteristics stated in (4)(A), relevant watercourse condition factors stated in Technical Rule Addendum #2, and other factors indicative of meadow or prairie condition.

(5) The RPF shall state the project goals and the measures of success for the proposed Quercus, meadow, or prairie restoration project. For purposes of this subsection, measures of success means criteria related to a physical condition that can be measured using conventional forestry equipment or readily available technology to indicate the level of accomplishment of the project goals.

(A) Quercus, meadow or wet area project goals and measures of success shall be based on the condition assessment required in 14 CCR § 913.4 (e)(4) and identification of problematic Quercus, meadow or wet area conditions and their agents/causes. Information shall include a description of factors that may be putting Quercus stands, meadow, or wet areas at risk, and presence of any unique physical conditions. Projects shall be designed to rectify factors that are limiting restoration, to the extent feasible.

(6) For projects 20 acres or less 14 CCR § 913.4 [933.4, 953.4], subsections (e) (4) and (5) are not

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required. These projects shall include RPF consultation with DFG prior to plan submittal and, if wet areas are proposed, the RPF shall also consult with the appropriate RWQCB in those locations where the applicable basin plan identifies wet areas as a beneficial use.

(7) The Department, or other appropriate agency, shall review post harvest field conditions of the portions of plans using the Quercus, grassland/prairie and restoration silvicutural prescription and prepare a monitoring report every five years for the Board. The monitoring report shall summarize information on use of the prescription including (i) the level of accomplishment of the approved measures of success stated in 14 CCR § 913.4 (e)(5), (ii) any post harvest adverse environmental impacts resulting from use of the prescription, (iii) any regulatory compliance issues, and (iv) any other significant findings resulting from the review. The review shall include photo point records.

(8) Exemptions from other FPRs:

(A) Silvicutural standards for opening size, adjacency requirements, or conifer stocking standards in 14 CCR §§ 913.1 – 913.3 [933.1-933.3, 953.1-953.3]; 913.6 [933.6, 953.6]; and 913.8 do not apply to use of this prescription.

(B) Minimum resource conservation standards in 14 CCR § 912.7 [932.7, 952.7] do not apply to use of this prescription.

(C) For purposes of this prescription, timberland productivity and MSP requirements as stated in 14 CCR § 913.10 [933.10, 953.10]; 913.11 [933.11, 953.11], subsection (a), and 1034 (m) are met by implementing actions that contribute to attaining the measures of success approved by the Department for this prescription.

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