



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Habitat Conservation Planning Branch
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EDMUND G. BROWN JR., Governor
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November 15, 2018

Mr. Matt Dias, Executive Officer
California Board of Forestry and Fire Protection
PO Box 944246
Sacramento, CA 94244-2460

Dear ^{Matt} Mr. Dias:

2018 PRIORITIZATION OF FOREST PRACTICE RULE UPDATES FOR BOTANICAL RESOURCES

The California Department of Fish and Wildlife (CDFW) requests that the California Board of Forestry and Fire Protection (Board) consider reviewing the California Forest Practice Rules (Cal. Code Regs., tit. 14, § 895.1 et seq.) to augment the rules for evaluating impacts to botanical resources related to timber harvesting. In recognition of the botanical questions that routinely arise during the timber harvesting review process, CDFW convened an internal working group in early 2017 to review the Forest Practice Rules related to botanical resources and the management of botanical resources on private timberlands. The outcome of this working group is CDFW's recommendation to augment the Forest Practice Rules for botanical resources to make the timber harvesting review process more effective and efficient.

Clear direction in the Forest Practice Rules will increase the likelihood that potentially significant impacts to botanical resources will be addressed by applicants prior to timber harvesting plan (plan) submittal, and reduce the time and effort necessary to complete plan review. A significant proportion of CDFW's review effort is dedicated to identifying potential impacts to botanical resource issues, and comments often recommend routine scoping, surveying, or protection. Appendix 3 illustrates some of the potentially significant, adverse impacts that may occur during timber harvesting operations. Many of these impacts could be reduced to a level below significant through routine best management practices implemented during plan preparation and implementation. Augmenting the Forest Practice Rules specific to botanical resources would minimize impacts and increase efficiency for agency and stakeholder plan participants.

More thorough plan disclosure of botanical resources via the Forest Practice Rules has the added benefit of leading to more flexible, effective management strategies for these resources. Thorough documentation of botanical resources, including species' locations and monitoring of known populations, will contribute to a better understanding of how botanical resources respond to timber harvesting. Such information would allow CDFW and stakeholders to focus review and management efforts on a smaller subset of species needing specific protection, resulting in more defensible and effective

management practices over time.

Background and Need

California has more plant species than any other state in the nation (approximately 6,500 native species), and more than one-third of these are found nowhere else in the world (CNPS 2018). However, 284 species, subspecies, and varieties of native plants are designated as rare, candidate, threatened, or endangered by state or federal law (CDFW 2018a), and over 2,000 more plant taxa are considered to be of conservation concern (CDFW 2018b). According to California Natural Diversity Database (CNDDDB) spatial records, approximately 12,904 special-status plant occurrences have been documented in forested ecosystems (see Appendix 1). There is also a high diversity of plant communities in California, in which 53 percent are considered potentially sensitive (1,347 out of 2,555 plant associations are designated a State Rank of 1-3) (CDFW 2018c).

California law related to timber harvesting establishes the Legislature's intent in the Forest Practice Act that timber harvesting be conducted via "an effective and comprehensive system of regulation" while protecting natural resources (Pub. Resources Code, §§ 4512 & 4513). Likewise, the Forest Practice Rules state "the goal of forest management on a specific ownership shall be the production or maintenance of forests which are healthy and naturally diverse, with a mixture of trees and under-story plants..." (Cal. Code Regs., tit. 14, § 897, subd. (b)(1)). In 2012, Assembly Bill (AB) 1492 passed with direction from the California Legislature to identify areas to improve efficiencies and protect natural resources during the timber harvesting review process (Pub. Resources Code, § 4629.2).

Agencies and land managers have tried to address gaps in the current Forest Practice Rules related to botanical resources through development of guidance documents. In 2005 CDFW developed timber-specific botanical survey guidelines (CDFW 2005) to address many of the common botanical issues that arise during reviews and inspections. A 2009 memorandum issued by the California Department of Forestry and Fire Protection (CAL FIRE 2009), describes practices to address "special-status plants" (rare, threatened or endangered listed species, or species that meet the criteria of California Environmental Quality Act (CEQA) Guidelines §15380(d)) during the scoping process for timber harvesting plans. Landowners address botanical resources through various mechanisms, such as project-specific surveys and protection measures, and may also implement property-wide management plans or agreements.

Botanical scoping and survey processes, and the application of protection measures to avoid significant adverse impacts to botanical resources have been employed inconsistently in timber harvesting plans. In 2016, 44 percent and in 2017, 37 percent of first review comments from CDFW's Region 1 Interior Timberland Conservation Program, were specific to eliciting information about botanical resources missing from

applicants' plans. Commonly addressed topics are shown in Appendix 2.

It is unclear whether botanical resources are being adequately addressed during plan review process and if plan-specific protection measures are effective. Because the Forest Practice Rules do not contain disclosure and protection standards specific to botanical resources, protection measures have been applied inconsistently. Further, landscape-level data for plant populations and plants' responses to timber harvesting is either not collected or is inefficiently used to guide management recommendations. As submitted to CAL FIRE, plan-specific botanical protection measures often employ a one-size-fits-all approach, which may not reflect the diversity of California's native plants and plant communities and their varied responses to timber harvesting.

Healthy plant communities are heterogeneous and resilient environments, adapted to dynamic ecological conditions. In recognition of changing landscape conditions associated with timber harvesting, as well as with other factors such as climate change and severe fires, botanical best management practices need to evolve. While there will always be a need for botanical surveys (i.e. when new species are described, to determine if plants have colonized unoccupied habitat, or when projects are proposed in areas that have never been surveyed) many timberland owners have already expended considerable effort to locate botanical resources on their properties. Having years of botanical surveys on many areas of private timberlands available can allow for a shift in resources towards the active management of botanical resources. Active management practices, compared to common hands-off approaches will benefit the plants while also allowing flexibility in conducting timber operations. CDFW suggests the Board develop a framework for botanical surveys, and shift the focus of botanical resource protection from comprehensive inventorying and avoidance of species, to targeted studies and active management.

Conclusion

California has many unique and rare botanical resources that are in need of protection and management. However, the current Forest Practice Rules' omission of scoping, mitigation, and management practices for botanical resources creates uncertainty and results in avoidable impacts to these resources. Augmenting the Forest Practice Rules to recommend routine scoping, surveying, and protection of botanical resources will provide clear direction to applicants prior to plan submittal, reduce the time and effort necessary for CDFW and other review team agency staff to complete plan review, and lead to more flexible, effective management strategies for these resources.

CDFW asks that the Board consider this request to prioritize the evaluation of existing Forest Practice Rules pertaining to botanical resources during the 2019 rule-making session. CDFW has been working to evaluate botanical regulatory changes for several months and would welcome the opportunity to discuss our findings with the Board. CDFW is committed to working with the Board and stakeholders to develop efficient and

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effective botanical rules.

Please see the CDFW Native Plant Program website at:
<http://wildlife.ca.gov/Conservation/Plants> for more information on rare plant biology,
laws, and best management practices. Additional information specific to timber
harvesting review is provided at: <http://wildlife.ca.gov/conservation/timber>.

If you have questions about this letter or would like further information, please contact
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Sincerely,



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California Department of Fish and Wildlife

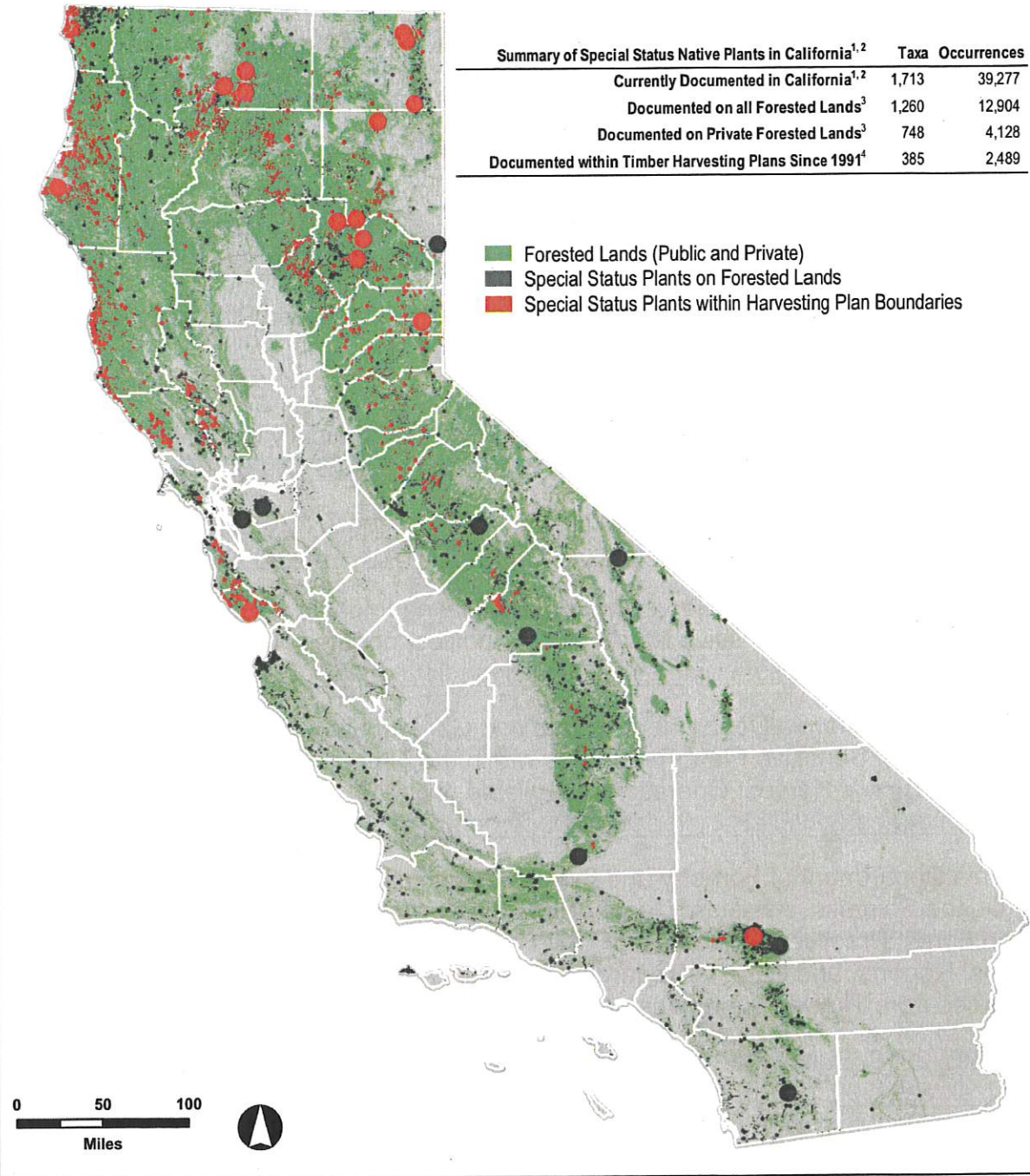
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Appendix 1. Special Status Native Plants Documented on Forested Lands in California 1, 2



- 1) Data derived from the California Natural Diversity Database (CNDDDB), accessed 6/29/2018 (CDFW, 2018d). The CNDDDB is a presence-only database, no inference can be made regarding lands that have never been surveyed. For more information regarding the CNDDDB see Bittman's article in Fremontia (2001).
- 2) Special Status Plants in this map include plants listed or proposed for listing under the Federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA) and/or California Rare Plant Rank (CRPR) Rank 1 and 2. See CDFW's 2018 protocols for more in-depth description of "Special Status Plants" (CDFW, 2018d).
- 3) Data are approximate, private forested lands derived from subtracting public lands (BLM, 2018) from forested lands (USGS, 2016).

Appendix 2. Topics Commonly Addressed by CDFW During Plan Review for Botanical Resources	
Botanical report general	<ul style="list-style-type: none"> • Missing prior consultation information or incorrect information provided • Report mistakenly truncated
Scoping	<ul style="list-style-type: none"> • Entirely missing from plan • Coverage inadequate and missing plants (a minimum 9-quad search is recommended; however, plants other than those captured in the 9-quad search may have potential to occur in the plan area) • Suitable habitat disclosure inadequate/rationale inaccurate • Sensitive natural communities not addressed • Includes incorrect species' names and/or rankings • Missing, or unclear • Not conducted to most current CDFW protocol level, or of equivalent quality • Spatial coverage omissions, e.g., proposed roads, harvest units, and or high potential habitat omitted, meadow restoration • Density too sparse throughout habitats • Timing inadequate • Sensitive natural communities likely present and need further assessment and disclosure • Resulting survey plant list includes incorrect species' names and/or rankings
Sensitive species	<ul style="list-style-type: none"> • CEQA Guidelines §15380 species inadequately addressed vs. Federal and State listed species • Disclosure of California Rare Plant Rank (CRPR) 3s and 4s lacking
Positive findings	<ul style="list-style-type: none"> • Disclosure details inadequate/missing - CNDDDB form (or equivalent population data) submission required to CDFW per CEQA (Pub. Resources Code § 21003 subd. (e)). • Mitigation measures inadequate/unclear, CDFW suggests consultation to help address this • Adequate defaults needed for future surveys or if additional rare plants found during future operations, until consultation with CDFW occurs • Sensitive natural communities mitigation measures inadequate, CDFW suggests consultation to help address this • Maps of positive findings inadequate or unclear • Maps with positive findings missing or not included in Section II

Noxious weeds	<ul style="list-style-type: none"> • Present and need to be addressed to assess potential significant adverse impacts
Plan other	<ul style="list-style-type: none"> • General disclosure inadequate, what operations will occur on non-timbered habitat, CDFW cannot assess risk to plants • General format issues, discrepancies between botany in different sections (I - V) of the plan
Cumulative impacts	<ul style="list-style-type: none"> • Herbicide cumulative impacts and/or other concerns • Revise plan to include impacts to botanical resources in Section IV
NTMP	<ul style="list-style-type: none"> • Section II need provision or clarification for subsequent NTMP scoping/survey updates in Section II
Reports not submitted with plan	<ul style="list-style-type: none"> • Missing specification that report will be amended into the plan appropriately • - Missing specification that botanical report will be submitted to CDFW, a sufficient number of days prior to operations to allow agency review of the botanical report or as soon as complete • Missing language specifying CNDDDB forms (or equivalent population data) will be submitted to CDFW per CEQA [Pub. Resources Code §21003 subd. (e)]. • NTMP missing provision for subsequent NTMP scoping/survey updates in Section II • Clarification needed that botanical reports are required for negative surveys

Appendix 3. Examples of Adverse Impacts of Timber Operations on Special-Status Plants	
Timber Operation	Impact
Road/ landing/ crossing construction	Crushing with equipment → direct mortality or injury Permanent or temporary loss of habitat
Timber felling	Crushing with equipment or felled trees, or trampling → direct mortality or injury
Tractor yarding	Crushing with equipment → direct mortality or injury Soil disturbance → creates conditions favorable to weeds Soil compaction → physiological stress ^a ; creates conditions favorable to weeds
Tree removal ^b	Reduced shade → physiological stress Vegetation community changes → loss of host species for special-status parasitic plants Vegetation structural changes → increased mammalian herbivory; modification of fire frequency and intensity Decreased relative humidity → physiological stress
Use of logging roads	Dust → reduced photosynthesis, reduced pollination
Water drafting	Reduced water availability → physiological stress
Herbicide application	Direct mortality or injury
Pile burning	Direct mortality or injury
Soil ripping	Direct mortality or injury
Replanting	Eventual excess shade if tree density increased → physiological stress
Construction spoils disposal	Plants buried → direct mortality or injury Introduction of weed seeds
Rock quarry	Permanent or temporary loss of habitat Dust → reduced photosynthesis, reduced pollination
Notes:	
a. Physiological stress can lead to plant mortality.	
b. Some environmental changes, such as tree canopy removal, may be beneficial to some species in some circumstances.	