BOARD OF FORESTRY AND FIRE PROTECTION

RPF GUIDANCE REGARDING BOTANCIAL RESOURCE SCOPING AND

SURVEYS FOR SPECIAL STATUS PLANT SPECIES

UNDER THE FOREST PRACTICE ACT AND CEQA

# Introduction

Underlying the Forest Practice Act is a general commitment to avoid or substantially lessen significant adverse impacts of timber harvesting on the environment to the extent feasible and to implement the Act consistent with other environmental laws, such as the California Environmental Quality Act (CEQA).[[1]](#footnote-1) As a certified regulatory program under PRC § 21080.5, Timber Harvesting Plans (THP) and other Plans[[2]](#footnote-2) prepared pursuant to the Forest Practice Act are the equivalent to an Environmental Impact Report (EIR) required under CEQA. A key element in departmental review of Plans prepared by Registered Professional Foresters (RPFs) involves providing CAL FIRE (as lead agency), CDFW (as a review team and trustee agency, and, in some instances, responsible agency), and other review team agencies sufficient information to determine whether potential significant adverse impacts of timber operations on botanical resources are appropriately identified and mitigated.[[3]](#footnote-3) However, existing CAL FIRE and CDFW guidance documents addressing the assessment of botanical resources in Plans provide conflicting standards and expectations in some instances.

In particular, some guidance documents focus not on the minimum requirements of CEQA and the Forest Practice Act but rather on agency-recommended “best practices” that exceed legal requirements. Although CEQA does not enumerate specific minimum standards, recommendations provided by some agencies do not fully apprise RPFs as to their legal and professional obligations because the recommendations do not clearly distinguish between standards that are legally required and those that constitute aspirational “best practices.” Specific examples include recommending use of a minimum nine USGS 7.5’ quad search area for scoping, informally identifying various nonlisted plant species as meeting standards for consideration as rare, threatened, or endangered for purposes of Plan preparation, and requiring the preparation of a full floristic survey for all Plans. Certainly, the Board does not wish to discourage RPFs from *voluntarily* complying with enhanced “best practices” standards for the protection of botanical resources. However, to the extent that the increased time and costs associated with these enhanced “best practices” standards are ultimately borne by an RPF’s client, it is important for RPFs to understand which standards are legal requirements and which allow for some professional judgment by the RPF.[[4]](#footnote-4)

Generalized CEQA guidance encouraging “one size fits all” standards for botanical resources do not always recognize the differences between the variable scope and scale of environmental impacts unique to timber harvesting projects as compared to projects more likely to include permanent transformative uses, such as construction projects. Similarly, “one size fits all” standards can overlook the beneficial impacts that timber harvesting projects can have on special status plant species that are disturbance dependent. The Registered Professional Forester (RPF) plays a critical role in conducting the assessment of botanical resources and describing the specific methods utilized in a clear and thorough manner in the Plan. To facilitate the efficient review and timely approval of Plans, this guidance is directed toward RPFs to provide additional information about what CAL FIRE and the review team agencies may require to properly evaluate the potential impacts of timber operations on botanical resources. The guidance is not mandatory nor intended to have regulatory effect. The guidance is intended to supplement related guidance issued by CAL FIRE and CDFW, but prevails in areas of conflict, consistent with the Board’s authority to approve Plans on appeal.[[5]](#footnote-5)

As a final preliminary matter, the Board wishes to clarify that this memo is limited in scope to Plan consideration of special status plant species. Although this only constitutes a subset of all botanical resources, it represents a primary source of disagreement and confusion underlying the need for this guidance memo.[[6]](#footnote-6) Part of this discord stems from the fact that “special status plant species” is a commonly used term but it lacks legal definition as well as a commonly accepted definition within the botanical community. Informational and guidance documents prepared by other agencies or interest groups sometimes rely on expansive definitions for special status plant species that could be construed as requiring that certain plant species must be evaluated under CEQA as if they are rare, threatened, or endangered, even if such treatment is not legally required under CEQA. For purposes of this memo, “special status plant species” is deemed to include: (1) species that are listed (or proposed for listing) as rare, endangered, or threatened under the California Endangered Species Act or federal Endangered Species Act; (2) plant species formally designated as rare or endangered under the California Native Plant Protection Act (CNPPA); (3) nonlisted species formally recognized in regulation by a state agency as meeting the criteria for rare, threatened, or endangered species within the meaning of 14 CCR §15380; (4) plants that satisfy the criteria of Guideline §15380(d), provided that in the absence of a legally recognized list of such species and recognizing that professional differences of opinion can occur in the absence of such a list, it is appropriate for an RPF to exercise professional judgment, in consultation with a botanical expert as appropriate pursuant to Public Resources Code section 752(b), to determine on a case by case basis whether a plant “can be shown to meet the criteria” for a rare, threatened, or endangered species within the meaning of Guideline §15380(d); (5) plant species classified as Sensitive Species by the Board pursuant to 14 CCR §§ 919.12, 939.12, or 959.12; (6) plants identified for voluntary conservation pursuant to a CDFW agreement under the Natural Community Conservation Planning Act (NCCPA) to the extent the land subject to the agreement overlaps the Plan area. This definition is not intended to be exhaustive, though additions should have support in statute, regulation, or case law. Additional context and guidance for this definition is discussed later in this memo.

# Scoping

As with other biological resources, scoping for botanical resources is a process that often involves the identification of special status plant species known to occur in the Plan area and those which may be likely to exist in the Plan area.[[7]](#footnote-8) Once identified, the RPF may need to assess the actual or potential presence of those species, and whether timber operations will have the potential to significantly impact those species. This assessment may determine the need for and the character of a botanical survey, and for the formulation of any avoidance and minimization measures that may be appropriate and necessary. Proper scoping provides critical information regarding known occurrences of and potential habitat for plant species in the Plan area, thereby indicating the full measure of special status plant species that may be significantly impacted under the Plan. The scoping process is an integral part of plan preparation and should be completed prior to Plan review.

## Identification of Plan Assessment Area

Consistent with the requirements of Technical Rule Addendum #2, a botanical assessment area should be established by the RPF. The assessment area should be of sufficient size to assure that all special status plant species with known or potential occurrence in the plan area are assessed. In identifying this area, RPFs are encouraged to utilize all available information about particular botanical resources of concern occurring, or for which appropriate habitat exists, in the Plan area. Given that plant species are biologically dependent on the presence and availability of suitable habitat for establishment, the assessment area identified by the RPF must allow for adequate evaluation of species that could potentially occupy any of the available habitats within the Plan area. In order to address the variety of environmental conditions upon which special status plant species may be dependent, the RPF should include in the botanical assessment area areas such as adjacent planning watersheds, areas within a similar elevation range and ecoregion, areas within a certain distance of the Plan area, or quad maps. For instance, if the Plan area footprint contains atypical soil types or geologic substrates that are more likely to support populations of special status plant species, then areas adjacent to that Plan area should be included to allow comparison to habitats with a similar substrate.[[8]](#footnote-9)

Due to the use of the USGS 7.5’ quadrangle as the basis of storage and retrieval of data held in the California Natural Diversity Database (CNDDB), it is often referred to as a unit describing a scoping area. As described below, CNDDB data is commonly queried in the cumulative effects analysis for a THP for a range of biological information. Though data query and retrieval is on the basis of a topographic quad, it is the RPF’s determination of the appropriate botanical assessment area that guides the number and location of the quad-based data that is queried. CDFW often recommends an assessment area with a 9-quad search but this is not a standard mandated by CEQA and project variables such as project size and harvest intensity may weigh in favor of a smaller (or greater) scoping area under the circumstances of a particular timber harvest project.

**Identification of Special Status Plant Species**

Upon establishing the appropriate assessment area for scoping, the RPF must again exercise prudent professional judgement with respect to the depth of research necessary to identify all special status plant species and suitable habitat that may be significantly impacted by the timber operations. The RPF should rely on a broad spectrum of informational sources.[[9]](#footnote-10) In addition to state and federal agency lists for rare, endangered, or threatened species, examples of appropriate informational resources include, but are not limited to, the California Natural Diversity Database (CNDDB), BIOS, information provided by contacts at state and federal agencies, the Environmental Conservation Online System (ECOS), prior botanical surveys, Natural Community Conservation Plans or Habitat Conservation Plans, California Native Plant Society (CNPS) inventories, CNDDB’s Special Vascular Plants, Bryophytes, and Lichens List, California Consortium of Herbaria, Calflora, environmental review documents for projects in the vicinity, and reports, studies, and similar documents prepared by academic institutions or professional organization.[[10]](#footnote-11)

For purposes of Plan review, as well as potential subsequent appeal, it is in the RPF’s interest to identify a comprehensive list of potential plant species followed by a clearly documented assessment to determine whether there could be a significant impact on each of the identified species. This may include a discussion of the relevant habitat and life history; the availability, quality, and quantity of habitat within the project area and the assessment area; and whether the species is present or potentially present. Omitting potentially relevant plant species at the outset may result in review team agencies seeking additional information during Plan review.[[11]](#footnote-12) Specific information as to why each species was eliminated, along with any relevant data or site-specific information, is likely to facilitate agency review and expedite overall Plan review processes. If an RPF lacks information to decisively eliminate a potential plant species from consideration, the prudent course of action is to include it. Potential justifications for eliminating a species might include lack of suitable habitat or appropriate soil substrate or being located substantially outside of species range.

One common area of confusion pertains to the scope of plants that truly qualify as special status plant species under CEQA that will need to be directly addressed in the Plan. The consequence imposed by CEQA for special status plant species potentially occurring within the Plan area is that the Plan must adequately investigate and discuss the impacts of timber operations on those plant species, including determining the actual significance of the impacts, evaluating the feasibility of alternatives, and identifying and proposing minimization or avoidance measures. For instance, CEQA Guideline §15065 mandates a finding of potential significant environmental impact where substantial evidence indicates the project has the potential to, among other things, “cause a fish or wildlife population to drop below self-sustaining levels … [or] substantially reduce the number or restrict the range of an endangered, rare or threatened species.”

Thus, special status plant species include rare, threatened, or endangered species. Guideline §15380(b) defines what constitutes a rare or endangered species for purposes of CEQA review, including Guideline §15065.[[12]](#footnote-13) Pursuant to Guideline § 15380(c), species formally listed as rare, threatened, or endangered under the state or federal Endangered Species Acts are presumed to satisfy this definition. However, Guideline §15380(d) adds that nonlisted species “shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria” in the guideline’s definition.

Given the rigorous and transparent public process by which plant species are formally listed or designated as candidate species under the ESA or CESA, it makes sense that those official designations qualify as special status plant species under CEQA. The public can have confidence in the propriety of these classifications as the basis for more detailed CEQA review. For the same reason, plant species formally designated as rare or endangered under the California Native Plant Protection Act (CNPPA) or identified for conservation pursuant to a CDFW agreement under the Natural Community Conservation Planning Act (NCCPA) also reasonably qualify as special status plant species.

Less clear for RPF’s, however, is how to proceed with nonlisted plant species that *might* qualify as special status plant species under Guideline §15380(d) as species “that may be shown” to meet the definitions of rare, threatened, or endangered species. CDFW, CNPS, and other entities have relied on Guideline §15380(d) to informally designate nonlisted plant species as being “special status” plant species for purposes of the CEQA review process. For instance, the California Rare Plant Rankings (CRPRs) represent an assessment of plant species rarity via rankings that are the result of a collaborative evaluation process including scientists and professionals from CNPS, state and federal agencies, private industry, and other non-profit groups. However, no statute or regulation delegates authority to a third-party group to adopt the CRPRs as an enforceable legal standard for rarity under CEQA, or recognizes the existing CRPRs as conclusively conferring special status on plant species for purposes of CEQA. Nor has CDFW or any other governmental agency officially “ratified” the CRPRs by adopting a regulation stating that agency’s determination that nonlisted plants that currently have a CRPR designation are special status plant species that satisfy the criteria of Guideline §15380(d). Consequently, these rankings enjoy no formal legal status for determining Guideline §15380(d) equivalency. Nor are they binding or legally enforceable in the same manner as a statute or regulation.[[13]](#footnote-14)

Accordingly, if CDFW and other review team agencies wish to rely on rarity designations adopted by third-party entities as establishing a legally enforceable standard, they should demonstrate their concurrence with those designations by formally recognizing them via the rulemaking process.[[14]](#footnote-15) Where an agency has undertaken such efforts to formally establish the rarity of a plant species, an RPF should respect those designations in the preparation of a Plan.

Nonetheless, as a legal matter, whether a nonlisted plant species meets the criteria of Guideline §15380(d) is an evidentiary matter that can be determined by reference to factual data, as well as by expert opinion supported by facts. As such, it is a matter to be determined based on substantial evidence for CEQA purposes.[[15]](#footnote-16) In other words, in the absence of a plant species being formally listed under ESA, CESA, or the CNPPA, or being formally designated in regulation as a Guideline §15380(d) species, whether or not a plant species should be evaluated as rare, threatened, or endangered in the Plan will be determined on the basis of the RPF’s and review team agencies’ substantial evidence supporting the positions presented.

The Board recognizes that the lack of official legal status for the CRPRs places RPFs in a difficult position with respect to addressing nonlisted plant species in Plan documents. Notwithstanding the lack of official legal status, those rankings may still support the substantial evidence requirements for properly classifying nonlisted species as a special status plant species under Guideline §15380(d) and therefore should be considered as a valuable informational resource for RPFs to rely upon to inform scoping decisions. In theory, the CRPR criteria for Rank 1 and Rank 2 classifications categorically satisfy the requirements for formal listing under ESA or CESA. This means that CDFW can likely substantiate the rarity of a Rank 1 or Rank 2 species as qualifying as a Guideline §15380(d) special status plant species during the Plan review process. Thus, as general matter, an RPF can generally accept a Rank 1 and Rank 2 plant species designation as satisfying Guideline §15380(d). However, since the CRPRs are not directly tied to CEQA standards, there may be outlier plant species where an RPF can legitimately question whether it is necessary to treat a Rank 1 or Rank 2 plant as a special status plant species. For instance, if a plant species has a longstanding rarity rank that has not been reevaluated, additional populations of the plant species may have been recorded that would warrant a revision of the original ranking. This fact paired with substantiating data may be sufficient substantial evidence for an RPF to justify a decision not to scope, survey, or mitigate potential impacts of the Plan on that plant species.[[16]](#footnote-17)

Rank 3 species are defined by their need for additional review. Most of the plants with this ranking have unclear species boundaries that require additional scientific study. Species boundaries issues that would qualify a plant species for Rank 3 include when the species, as defined, contains two or more separate species that would meet the requirements for Guideline §15380(d); the species is potentially a hybrid of more common species; or the diagnostic traits of a species are potentially how a common species appears in specific habitats (higher elevations, with limited access to water, etc.). Another common circumstance resulting in a Rank 3 designation includes reported occurrences of the plant species within California that predate accurate mapping technology.[[17]](#footnote-18) Due to the relatively few species with this ranking – fewer than a hundred Rank 3 species as compared to over a thousand Rank 1 species – an RPF’s most efficient option may be to include these plant species in the scoping process pending the further scientific review. In the alternative, an RPF should consult with CDFW, CNPS, or botanists with local expertise, or independently review additional materials on the CNPS website regarding the bases for a plant receiving a Rank 3 rating, in order to make an informed determination as to whether that plant species should be included in the scoping process pursuant to Guideline §15380(d).

On the other hand, the criteria for Rank 4 designations do not directly track or align with the Guideline §15380(d) criteria. Thus, a Rank 4 designation, by itself, does not obligate an RPF to treat that plant species as a special status plant species pursuant to Guideline §15380(d).

In the absence of the above-described indicators that weigh in favor of classifying a plant species as a special status plant species pursuant to Guideline §15380(d), an RPF must exercise some professional discretion in determining the level of appropriate investigation and discussion in the Plan for nonlisted plants species. To the extent CDFW makes pre-consultation resources available, an RPF may find it useful to inquire about nonlisted species of concern to CDFW early in the Plan preparation process. Considerations that may be relevant to an RPF’s determination of whether and the extent to which nonlisted plant species should be addressed in the Plan include, but are not limited to, a limited number of reported populations, limited population size, high phylogenetic isolation of the species, and Plan areas which contain large populations of the species or are at the geographic limits of the species. Such considerations may serve to preserve the genetic diversity of species, making it more likely that they will survive changes in the environment. In anticipation of requests for additional information during plan review from CAL FIRE, CDFW, or other members of the review team, the RPF may wish to preemptively address the basis for the RPF’s determination regarding these nonlisted plant species in the Plan.

The ultimate goal of the scoping process is to identify special status plant species known to occur in the Plan area, as well as special status plant species which have the potential to occur in the Plan area. Once the RPF has compiled this data through scoping, the RPF may need to take additional steps to assess the actual or potential presence of those species in the Plan area and whether timber operations will have significant impact on those species that must be mitigated.

# Botanical Survey

A botanical survey can provide greater certainty as to the actual presence and precise location of special status plant species within the Plan area. Whether a botanical survey is necessary, and in what form, may be determined by the RPF based on the circumstances of the individual Plan.

The critical question for an RPF to consider is whether the Plan provides CAL FIRE and the review team with sufficient information to properly evaluate the significance of timber operation impacts on special status plant species. The Plan “must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.”[[18]](#footnote-19)

However, court cases addressing the need for detailed surveys have made also made clear that “[u]nder CEQA, an agency is not required to conduct all possible tests or exhaust all research methodologies to evaluate impacts. Simply because an additional test may be helpful does not mean an agency must complete the test to comply with the requirements of CEQA.”[[19]](#footnote-20)

In other words, although some site-specific information will be needed to assess potential impacts of a Plan, CEQA by no means mandates a floristic survey as the only means to satisfy this requirement. For instance, in *Association of Irritated Residents v. County of Madera*, an opponent of a dairy site project claimed the environmental impact report (EIR) lacked substantial evidence to support the EIR’s determination regarding impacts on sensitive species because it did not include a biological resources survey that complied with CDFW’s recommended protocols. The judge rejected the argument as “flawed” and held that a more limited visual inspection of the site during the initial study in combination with CNDDB query data and the resulting analysis and findings constituted substantial evidence and, therefore, satisfied CEQA’s informational requirements without the need for a protocol level survey.[[20]](#footnote-21)

Nonetheless, CDFW, as the trustee agency for the state’s fish, wildlife, and plant resources, often contends that floristic surveys are necessary to adequately disclose the potential for and avoid significant impacts to botanical resources. As such, it is important to remember that CDFW might request that a full floristic survey be completed as a condition of plan approval if the submitted Plan does not provide adequate support for the RPF’s determination that a new floristic survey was unnecessary for the Plan. Thus, it is important for the RPF to document his or her decisionmaking process in the Plan and include substantial evidence in support of the RPF’s determinations that impacts of the Plan will be less than significant.

In some instances, the RPF may have sufficient information from the scoping process to properly avoid or minimize the potential for impact for special status plant species. In this respect, project design can be an effective tool for avoiding or minimizing significant impacts, thereby eliminating the need for surveys, as well as agency-recommended mitigation measures imposed as a condition of Plan approval. Examples of common avoidance and minimization strategies that can be incorporated into the Plan’s project design include avoiding timber operations or establishing appropriate buffer zones near identified populations of special status plant species, including establishing equipment exclusion or limitations zones; directional felling of trees; seasonal avoidance, such as during the growth and fruiting season; use of Habitat Conservation Plans; Watercourse and Lake Protection Zone (WLPZ) measures for riparian and wetland species; the exclusion of timber operations from appropriate habitat for serpentine barren, meadow, and cliff species; retaining overstory canopy for shade dependent species; and the exclusion of site preparation or herbicide application near habitat for special status plant species.

Also, prior botanical surveys may be sufficiently recent and comprehensive to support the RPF’s determination that it is unnecessary to repeat survey efforts. However, additional factors may merit consideration by the RPF when determining whether a new survey is necessary. Relevant circumstances might include the amount of time since the last survey, including whether scoping identified new special status plant species in the assessment area since that survey; how much of the appropriate habitat for special status plant species in the Plan area is covered by prior surveys; whether surveys were performed at appropriate times of year to identify the plant species; whether the survey area has habitat commonly susceptible to year-to-year fluctuations; or whether the survey area has encountered recent management activities, human disturbance, or significant intervening environmental conditions such as wildfire, drought, flooding, or severe climatic conditions associated with climate change. Additionally, the distribution and prevalence of a plant population can vary over time based on many factors including rainfall, temperature, and local disturbance. If a significant period of time has elapsed since the last botanical survey, an additional survey may be necessary to accurately reflect the distribution of special status plant species in the Plan area.

Where the scoping process does not result in adequate information to resolve questions of actual presence of habitat for or occurrences of special status plant species or preemptive mitigation measures for potential presence of those habitat and species, then a botanical survey will be appropriate to ensure that CAL FIRE, as well as the review team agencies, have sufficient information to determine whether sufficient efforts have been undertaken to identify and mitigate environmental impact upon plant species in connection with Plan approval.

Upon determining that a botanical survey is necessary, it becomes necessary to determine how comprehensive of a survey should be conducted. A floristic survey involves identifying every plant taxon to the taxonomic level necessary to determine its rarity and listing status.[[21]](#footnote-22) Such a survey is often favored by agencies on the Plan review team because it is comprehensive and will invariably satisfy CEQA requirements. But, floristic surveys can be costly and time consuming, and, as previously noted, may exceed what CEQA actually requires for Plan approval.

Under some circumstances a focused survey may provide sufficient information to allow CAL FIRE and the review team to assess identification and mitigation of significant impacts on special status plant species. Focused surveys have a more tactical approach, such as being limited to a targeted list of special status plant species or to habitats in the plan area that could potentially support special status plant species. For example, a focused survey might be appropriate for a Plan area that has been previously surveyed but for which scoping identified recently documented occurrences of a new listed plant species in a similar habitat adjacent to the Plan area.

Regardless of whether a floristic or focused survey is performed, the RPF should exercise appropriate care to ensure the integrity of the survey. For instance, the survey should be performed by someone with appropriate botanical education and experience. Nothing prevents an RPF from performing a botanical survey, though RPFs must remain cognizant of their professional obligations under PRC § 752(b) to perform only those services for which they have expertise and should engage the service of a botanist or other qualified expert where the RPF is unable to demonstrate the requisite level of expertise. Appropriate qualifications generally include knowledge of plant taxonomy, familiarity with plants and habitats in the region, experience with generally accepted survey and mapping standards, and knowledge of state and federal laws pertaining to plant and habitat protection. When providing information on qualifications of surveyors, relevant information might include the number of years the surveyor has worked in the region, the number of years of botany/forestry/natural resources experience the surveyor possesses, and relevant education.

Additionally, surveys should be methodical and systematic to ensure that results are thorough and complete for areas where impacts are likely to occur from timber operations. Reports on the results of botanical surveys should provide sufficient detail to allow the review team to determine that adequate evaluation of impacts to botanical resources has occurred. This could include a description of the scoping process used, a general description of habitats found within the plan area, locations of potential habitat for special status plant species, locations surveyed, survey and visit dates, recent climate conditions, and the names and qualifications of surveyors.[[22]](#footnote-23) The survey results typically also include relevant information regarding any special status plant species found on site, such as their location, distribution, population size, and relevant site-specific characteristics. Notes on the potential impacts of recent weather conditions on special status plant species presence might include whether it was an unusually wet, dry, hot, or cool year.

When describing habitats within the Plan, notes on the plant species found within those habitats can provide support for habitat descriptions. Notes on habitats within the Plan area can provide support for scoping decisions to exclude potential special status plant species from survey efforts based on lack of appropriate habitat. If surveys are targeted to specific habitats or if protection measures are used to protect potential special status plant species populations in certain habitats, a map with the locations of those habitats can be useful to the review team agencies.

Notes on how survey and visit dates overlap with the bloom period of special status plant species can provide evidence that the species would have been identifiable if it were observed. If the timing of the bloom period is in question, consider visiting known populations to confirm bloom status and to get an accurate search image for the plant. Including notes on visits to known populations outside the plan area in reports on surveys can provide supporting evidence for the efficacy of the survey.

Finally, in terms of timing, botanical surveys are most helpful if submitted at the time of Plan review.[[23]](#footnote-24) This provides maximum opportunity for CAL FIRE and the review team to fully evaluate environmental impacts, their levels of significance, and proposed mitigation measures. However, the Board recognizes that this may be impractical or infeasible under the facts of a particular Plan. Where this is not feasible, the survey must be completed prior to commencement of timber operations, and should be stated in the Plan. In the event that a survey is not completed prior to submittal of the Plan, an RPF may wish to proactively include within the Plan protection measures that will apply in the event a special status plant species is identified, in order to ensure that if the survey identifies that plant species the Plan will have enforceable avoidance or minimization measures in place. Under these circumstances RPFs are also encouraged to ensure that, in addition to CAL FIRE, review team agencies are also notified of completion of the survey. Often, this can be accomplished formally by filing the completed survey as a minor deviation to the approved Plan, which may be accessed via CalTrees, where the approved Plan has assessed the potential impact of Timber Operations on the possible presence of those plant species and those impact avoidance or mitigation measures present in the plan address the scope and scale of the results of the survey. However, in cases where the botanical survey results may result in a substantial deviation from those activities proposed in the Plan, a minor deviation would not be suitable. In these cases, the processes for incorporating a substantial deviation must be utilized and the potential impacts of timber operations on those resources identified in the botanical survey must be fully addressed.

# Appendix A: Description of Botanical Scoping References

**Biogeographic Information and Observation System (BIOS)**: CDFW’s GIS interface for various environmental databases including CNDDB, Vegetation Community Mapping (incomplete), critical habitat for federally endangered species, and terrestrial significant habitats (meadows, emergent wetlands, ponds, riparian habitat). The BIOS viewer does not include information on plants with a CRPR of 3 or 4. Plant occurrence location data is available at the population level. (with some older records the location information is less fine-grained.) Some datasets on this tool are free, while access to others require a CNDDB subscription. <https://wildlife.ca.gov/Data/BIOS>

**California Native Plant Society (CNPS) inventories**: This website shares information on populations of plants tracked by CNPS, a nonprofit organization focused on preserving native plant diversity in California. Allows generation of scoping lists for plants based on California Rare Plant Rank (CRPR), federal protected status, or state protected status on a 1-quad or 9-quad level. Contains information on potential habitat (using the Holland and Sawyer 1986 habitat classification), number of existing populations, and bloom period. All plants with a CRPR can be viewed using map tools. Plant occurrence location data is available at the 7.5-minute quad resolution. This tool is free. <http://www.rareplants.cnps.org/>

**Calflora**: A nonprofit organization that provides a website with comprehensive information about plants that grow wild in California. It provides information on the distribution of plants throughout the state. Information is sourced from the California Consortium of Herbaria, CNPS inventories, iNaturalist, public agencies, non-profits, and direct reports to Calflora. Contains information on all plant species reported in an area regardless of status, as well as information on the potential habitat for those species (using the Munz community 1968 habitat classification), bloom period, local plant lists and maps of unusual soil substrate types. All plants that grow wild in California, including plants with a CRPR, can be viewed using map tools. Plant occurrence location data is provided at the population level although older occurrence data may be imprecise. This tool is free. <https://www.calflora.org/>

**California Consortium of Herbaria**: An organization that supports all herbaria in California by providing online access to information about plant collections. Information is sourced from California herbaria. Contains information about all plant species that have been collected by botanists throughout the state. Contains information on all plant species reported in an area regardless of status. All plants that grow wild in California, including plants with a CRPR, can be viewed using map tools. Plant occurrence location data is provided at the population level although older occurrence data may be imprecise. This tool is free. <https://ucjeps.berkeley.edu/consortium/>

**California Natural Diversity Database (CNDDB)**: CDFW’s inventory of the status and location of rare plants and animals in California. Information is sourced from CNDDB form submissions and information sharing agreements with other institutions. Contains information about all state-listed and federally-listed Threatened, Endangered, and Rare plants, as well as plant species with a California Rare Plant Rank (CRPR), Bureau of Land Management Sensitive plants, United States Forest Service Sensitive plants, and plants with a NatureServe rarity ranking of G3/S3 or lower. All plants with a CRPR are recorded in the database, but only plants with a state listing, federal listing, or CRPR of 1 or 2 are visible on the maps. Plant occurrence location data is provided at the population level although older occurrence data may be imprecise. This tool requires an annual subscription or the purchase of map overlays for each 7.5-minute quad. <https://wildlife.ca.gov/Data/CNDDB>

**CNDDB’s Special Vascular Plants, Bryophytes, and Lichens List**: A list of plants (and mosses and lichens) tracked by the CNDDB for CDFW. Contains information on the species tracked by CNDDB including whether plants are state-listed and federally-listed Threatened, Endangered, and Rare, plant species with a California Rare Plant Rank (CRPR), Bureau of Land Management Sensitive plants, United States Forest Service Sensitive plants, and plants with a NatureServe rarity ranking of G3/S3 or lower. There is no plant occurrence location data. This tool is free.

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>

**Environmental Conservation Online System (ECOS)**: A website tracking U.S. Fish and Wildlife Service Threatened and Endangered Species and their critical habitats. Allows generation of scoping lists based on county. Contains information about federally-listed and candidate species, their habitat, conservation plans, range, and relevant biological opinions. Plant occurrence location data is available at the 7.5-minute quad resolution. This tool is free. <https://ecos.fws.gov/ecp/>

**Habitat Conservation Plans (HCPs)**: These plans, adopted pursuant to the federal Endangered Species Act of 1973 (16 U.S.C. § 1531 et seq.), conserve the ecosystems upon which listed species depend. HCPs near Plan areas will have comprehensive scoping information about potential special status plant species. Lands included in HCPs are frequently also included in NCCPs. These reports are publicly available.

**Natural Community Conservation Plans (NCCP)**: These agreements entered into pursuant to the Natural Community Conservation Planning Act (Fish and Game Code § 2800 et seq.) conserve the ecosystems upon which listed species depend as well as special natural communities. NCCPs near Plan areas will have comprehensive scoping information about potential special status plant species. Lands included in NCCPs are frequently also included in HCPs. These reports are publicly available.

**United States Department of Agriculture Web Soil Survey**: This service maps soil types and characters throughout the US. It can be used to determine if soil substrates that support specific special status plant species are present in the Plan area. This tool is free. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

**United States Geological Services National Geologic Map Database**: This service maps geologic features throughout the US. It can be used to determine if geologic substrates that support specific special status plant species are present in the Plan area. This tool is free. <https://ngmdb.usgs.gov/Prodesc/proddesc_333.htm>

1. See, e.g., 14 CCR §§ 896, 897, PRC §§ 4512, 4513, 21002, 21002.1. [↑](#footnote-ref-1)
2. As defined in 14 CCR § 895.1, “Plan” additionally includes Nonindustrial Timber Management Plans, Program Timber Management Plans, and Working Forest Management Plans. [↑](#footnote-ref-2)
3. 14 CCR §1034(w) requires a Plan to include “Information on the presence and protection of known habitat or individuals of any Listed Species and information on the presence and protection of non-listed Species which may be significantly impacted by the Timber Operation.” [↑](#footnote-ref-3)
4. The references to the “professional judgment” of an RPF throughout this memo do not mean that the RPF has unfettered discretion. As a licensed professional, it is incumbent on the RPF to prudently exercise his or her knowledge, skills, and abilities in the preparation of Plan documents. An RPF’s decisionmaking process should be well documented in the Plan and decisions must be supported by substantial evidence. [↑](#footnote-ref-4)
5. 14 CCR § 1053 *et seq.* [↑](#footnote-ref-5)
6. Although treatment of non-special status plant species is deliberately omitted from this guidance memo, that does not reflect any Board position as to the applicability of CEQA to significant impacts of a Plan on non-special status plant species. [↑](#footnote-ref-6)
7. Concepts such as “sensitive natural communities” are deliberately omitted from the scope of this memo. Sensitive natural communities are not a term or concept recognized in statute or regulation. Consequently, there are no legal authorities that define the term, establish criteria for designating plant communities as such, or clarify the manner and extent to which such communities are subject to CEQA. The Board declines to offer guidance regarding sensitive natural communities due to the lack of legal authority, as well as commonly accepted criteria or standards, for sensitive natural communities. [↑](#footnote-ref-8)
8. Specific uncommon substrates include, but are not limited to, serpentine/ultramafic soils and outcrops, gabbro soils, Ione soils, soils with a restrictive layer that results in vernal wetlands, limestone outcrops, and granite outcrops. [↑](#footnote-ref-9)
9. RPFs must remain cognizant of their professional obligations under PRC § 752(b) to perform only those services for which they have expertise. It may be appropriate for an RPF to consult with a botanist or other qualified expert during the scoping process. [↑](#footnote-ref-10)
10. See Appendix A for brief description of these informational resources. [↑](#footnote-ref-11)
11. PRC §21160 authorizes a state agency to request additional data or information that may be necessary to properly inform the state agency’s determinations as to whether the proposed timber operations will have a significant adverse effect on that nonlisted plant species. 14 CCR §1037.5(g) provides the process for seeking such information and requires that the request include reasons supporting the request. Such a request may constitute substantial evidence in favor of the need for additional information for a particular plant species, which may be sufficient legal grounds to invalidate a Plan that fails to specifically address that species. (*Sierra Club v. State Board of Forestry and Fire Protection* (1994) 7 Cal.4th 1215.) [↑](#footnote-ref-12)
12. “(b) A species of animal or plant is:

    (1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or

    (2) "Rare" when either:

    (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

    (B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act. (14 CCR §15380(b).)” [↑](#footnote-ref-13)
13. The Board acknowledges that Section IV of the checklist form in CEQA Guideline Appendix G queries impacts for any species identified as “special status species … by the California Department of Fish and Game or U.S. Fish and Wildlife Service.” Setting aside any potential legal issues pertaining to identifying special status species outside of the agency’s rulemaking process, Guideline §15063(f) makes clear that the Appendix forms are “only suggested, and public agencies are free to devise their own format for an initial study.” Accordingly, the Board does not view Appendix G as imposing an affirmative legal obligation to treat “special status species,” as informally designated by CDFW or USFWS, as mandating a finding of significant adverse environmental impact similar to formally listed rare, threatened, or endangered species. [↑](#footnote-ref-14)
14. This should not be confused with the regulatory process for formally listing plant species as rare, threatened, or endangered. Rather, it contemplates formally establishing an inventory of nonlisted plant species that “can be shown to meet the criteria” for listing as described in Guideline §15380(d). Compliance with the rulemaking provisions of the APA would reduce confusion as to what nonlisted plants satisfy Guideline §15380(d) and provide a basis for recognizing the CRPR determination as an enforceable legal standard for purposes of special status plant species determinations under CEQA. [↑](#footnote-ref-15)
15. Guideline §15384 defines substantial evidence as “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.” That guideline additionally specifies that substantial evidence includes “facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts“ and that “[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence.” [↑](#footnote-ref-16)
16. Even in this situation, an RPF may conclude that disputing a CRPR Rank 1 or Rank 2 designation requires more effort than accepting the rank, especially for purposes of ensuring a more timely and efficient approval of the Plan by the review team. [↑](#footnote-ref-17)
17. It is unlikely that these species would be rediscovered in California but, should that occur, they would likely satisfy Guideline §15380(d) as a Rank 2-eligible species. [↑](#footnote-ref-18)
18. *Association of Irritated Residents v. County of Madera* (2003) 107 Cal. App. 4th 1383 ,1398. [↑](#footnote-ref-19)
19. *Save Panoche Valley v. San Benito County* (2013) 217 Cal. App. 4th 503, 524; *Association of Irritated Residents v. County of Madera* (2003) 107 Cal. App. 4th 1383, 1396. [↑](#footnote-ref-20)
20. *Association of Irritated Residents v. County of Madera* (2003) 107 Cal. App. 4th 1383, 1393-98. [↑](#footnote-ref-21)
21. This level of review is referred to as a “botanical inventory” by the United States Fish and Wildlife Service. [↑](#footnote-ref-22)
22. An additional site visit(s) may be required if the scoping process indicates a variety of special status plant species or potential habitat in the Plan area if those species are not generally evident and identifiable at a common time. [↑](#footnote-ref-23)
23. Although technically beyond the scope of this guidance document, the Board recognizes and wishes to publicly acknowledge that the scientific value of botanical surveys extends far beyond the Plan for which it is prepared. RPFs are therefore highly encouraged to submit survey results for inclusion in CNDDB so that the data may be relied upon for future Plans, as well as other non-forestry botanical projects. Concurrently, as the agency responsible for managing CNDDB, CDFW is encouraged to commit appropriate resources for maintenance and ongoing review of CNDDB data and to consider database improvements that address participation disincentives reported by the RPF community. [↑](#footnote-ref-24)