CALIFORNIA
NATIVE PLANT SOCIETY

5 21 2021

CAL FIRE - Forest Practice Program Manager
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Santa Rosa, California 95401
santarosapubliccomment@calfire.ca.gov

Subject: **DKY CNPS comments on THP 1-20 -00006 (Caspar 500) Minor amendment Botany Report**

To CAL FIRE, Santa Rosa Forest Practices

The Dorothy King Young (DKY) Chapter of the California Native Plant Society (CNPS)[1] has reviewed the proposed THP **THP 1-20 -00006**, particularly as it relates to potential impacts to native plants and plant communities.

Our expert plant conservation review team has evaluated the THP's preliminary "scoping" (database queries) for sensitive plants, THP botanical surveys, impact assessments, and impact mitigation. Their review is included as Attachment A. A statement of qualifications for the plant conservation team to evaluate botanical survey methodology, interpretation of survey results, and plant conservation within coastal forestlands, is included in Attachment B.

The plant conservation review team evaluation of the THP's botanical assessment is based on criteria set by the California Department of Fish and Wildlife's March 2018 Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (State of California Natural Resources Agency Department of Fish and Wildlife).

The CNPS-DKY supports the findings of the expert review team. The THP fails to meet the standards of CDFW botanical survey protocols for the following reasons:

1. **The report lacks** a vegetation map of the project area using Survey of California Vegetation Classification and Mapping Standards 24 at a thematic and spatial scale that allows the display of all sensitive natural communities.
2. **The report scopes using the Holland 1986 list and the 2010 CDFW** natural communities' **lists**. The appropriate list is **California Sensitive Natural Communities September 9, 2020.**

https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline

3. Because the list used was out of date the report did not include sensitive vegetation that is likely on the site. (Presence of the Mendocino Cypress, Bolander Pine, Labrador Tea, pygmy manzanita, bishop pine, chinquapin and grand fir make it highly that the sensitive vegetation that these specie occur in are on the THP) See Attachment C for a list of the possible sensitive vegetation types that are likely to occur on the THP.

4. The report used out of date references for species lists and rare plant lists (Using 2014 instead of 2021 California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 17 May 2021].

   Using 2019 instead of 2021 :Citation: Jepson Flora Project (eds.) 2021. *Jepson eFlora*, https://ucjeps.berkeley.edu/eflora/

   Using incorrect information. See Lichens of North America by Brodo, Sharnoff and Sharnoff.

We also note that the THP fails to include any monitoring and reporting plan to validate the accuracy of pre-harvest surveys, and the adequacy of post-harvest protection measures for sensitive botanical resources. Without basic monitoring of pre- and post-harvest protections for special-status plants and plant communities, the THP fails to provide CEQA-equivalent environmental review of potential significant impacts.

It is important to also note that retaining Douglas fir, hemlock, and bishop pine within the THP is critical to maintain mycorrhizal diversity. These fungal relationships help give resilience to the entire forest to drought. This feature is critical to decrease wildfire danger in this era of wildfire danger.

Please do not hesitate to contact us at (rareplants@dkycnps.org) if you have questions regarding the review team findings and conclusions.

Respectfully,

Nancy Morin Teresa Sholars

Nancy Morin,
CNPS-DKY President

Teresa Sholars
Teresa Sholars
Teresa Sholars, Rare Plant Coordinator and Vegetation Chair
Dorothy King Young Chapter, California Native Plant Society[1]

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ATTACHMENT A

CNPS-DKY Technical and Scientific Review of THP 1 20 -0006 Caspar 500
Botanical Survey and Impact Assessment

The checklist below is derived from "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities", issued by the State of California Natural Resources Agency Department of Fish and Wildlife, March 20, 2018

1. **Scope for Special-status plants**

"Special status plants" include all plants that meet one or more of the following criteria:

- **Plants Federally listed or proposed for listing as threatened or endangered** under the **Endangered Species Act** or candidates for possible future listing as threatened or endangered under the ESA (50 C.F.R., § 17.12).

- **Plants State-listed or candidates for as threatened or endangered** under **the California Endangered Species Act** (Fish & Game Code, § 2050 et seq.)
- Plants listed as rare under the California Native Plant Protection Act (Fish & Game Code, § 1900 et seq.)
- Plants that meet the definition of rare or endangered under CEQA Guidelines section 15380, subdivisions (b) and (d), including:
    - Plants considered by CDFW to be "rare, threatened or endangered in California." This includes plants tracked by the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) as California Rare Plant Rank (CRPR) 1 or 25;
    - Plants that may warrant consideration on the basis of declining trends, recent taxonomic information, or other factors. This may include plants tracked by the CNDDB and CNPS as CRPR 3 or 46.
    - **Plants considered locally (regionally) significant plants**, that is, plants that are not rare from a statewide perspective but are rare or uncommon in *a local context such as within a county or region* (CEQA Guidelines, § 15125, subd. (c)), or as designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples that CNPS DKY chapter botanists have found to meet criteria for regionally significant plants include:
        - **plants that are at the outer limits of their known geographic range (peripheral populations, range limits, disjunct populations)**
        - **atypical plant populations** (occurrence on atypical substrates, atypical morphological traits or trait combinations)

The plant species "scoping" (preliminary database query for past reports of special-status plant species) does include all special-status plants that are reasonably likely to occur in the THP area.

2. THP area vegetation description.

The THP does not describe the range and distribution of vegetation or stand types within the THP area, including potential unique or atypical vegetation stands.

The THP does include minimal maps and summary descriptions of the soil series, significant soil inclusions, and other substrate types (sediments, bedrock outcrops, talus, etc.) relevant to plant species distributions.

The THP does not include NWI or equivalent wetland maps, or hydric soil series maps (if present) needed for preliminary identification of areas likely to support wetland plant species or hydrophytic vegetation (pursuant to California State or Federal wetland definitions relevant to CEQA, including seasonal wetlands, not limited to Forest Practice Rule definition of perennial "wet areas".

3. **Field-based botanical survey methodology and reporting**

3.1. **Botanical Qualifications and Experience**. The botanical qualifications of the surveyor or surveyors are not stated regarding

- Plant taxonomy and morphology training or education sufficient to correctly identify most vascular plant genera in the THP vicinity, and all special-status plants in the THP vicinity. Training to recognize a few specific species is described.
- Field experience with plant surveys in the THP vicinity or region.

3.2. **Floristic surveys**.

The THP botanical surveys are floristic, including all vascular plant taxa (native and non-native) identified to the lowest taxonomic level feasible in the THP area.

The botanical surveys are not inappropriately restricted to "focal species surveys" or "focused surveys" (target species lists) in lieu of floristic surveys.

3.2. **Plant taxonomy, nomenclature, and identification.**

The THP botanical surveys do report accurate, unique botanical names under taxonomic treatments that are currently accepted and consistently applied (or with accurate synonyms), with identification to the lowest relevant taxonomic rank.

The THP does include reference to, or append, vouchers specimens or equivalent documentation (photographs) of diagnostic traits of rare, sensitive/special-status taxa or ambiguous taxonomic determinations, to allow for expert verification of plant taxa identified.

3.3. **Timely survey dates**.

The date of completion of botanical field surveys is reasonably current for an ecologically meaningful description of "existing conditions" regarding plant species occurrence within the THP area (standard: completed in the growing season prior to THP circulation, not more than 1 calendar years prior to THP circulation).

Sufficient description and explanation of survey dates were included in the plant survey description.

3.4. **Phenological control of survey dates**.

The seasonal dates of plant surveys do cover the stages of flower or fruit development for most likely seasonal detection and diagnostic identification of all potential special-status plant species, and all vascular plant genera.

Reference sites for flowering or fruiting periods of special-status species were not included to calibrate seasonal timing of plant surveys.

(References sites for the likely *Campanula californica* were not listed)

Sufficient description of phenological controls was included in the plant survey description.

3.5. **Spatial distribution of plant survey sampling**.

The distribution of sample points, transects, releves, was not adequately described and explained in relation to topography, soils, other substrates, soils, drainage patterns within the THP area.

Plant surveys did include a map of survey route and points sampled.

Plant survey information /did not estimate a percentage of total THP area surveyed, and did state that the whole THP area was covered in plant surveys.

3.6. **Plant survey methodology description**. Botanical survey report or equivalent information included?methodology, vegetation, topography, soils description; dates of survey, coverage, findings, conclusions)

4.0 **Plant and vegetation impact assessment**

4.1. **Ecological assessment of impacts to plants and vegetation**. The THP does not include explicit, substantive ecological assessment (sufficient for CEQA equivalency) of direct, indirect,

and cumulative impacts to specific plant populations and vegetation stands caused by timber harvest operations (including but not limited to:

- ground disturbance (log skidding; skid trail density and distribution in relation to sensitive plant populations or vegetation stands; equipment and vehicle operation and exclusion areas; erosion control measures)
- soil compaction (skid trail density and distribution; equipment and vehicle operation and exclusion areas)
- alteration of drainage patterns in relation to depressional topography or potential seasonal or perennial wetlands (skid trail density and distribution, erosion control measures, rock slope stabilization or armoring, in relation to plant populations);
- dispersal of invasive species or pathogens;
- deposition or removal of litter, woody debris, or duff;
- change in competition due to gap size (canopy or other strata openings) or ground disturbance;
- change in average or extreme temperature or moisture conditions; change in herbivory pressure)

4.2. **Existing conditions description of plants and vegetation**. The THP does not include vegetation descriptions with sufficient pre-project baseline data ("existing conditions") for meaningful CEQA-equivalent impact assessment, and comparison of alternatives.

4.3. **Monitoring and reporting of post-harvest plant populations and vegetation.**

The THP does not include a CEQA-equivalent monitoring and reporting plan to objectively document post-THP changes in protected special-status plant populations or sensitive vegetation stands, sufficient to verify the efficacy of mitigation measures or standard FPR protections to minimize or avoid potential significant direct, indirect, or cumulative impacts to them.

Pursuant to CEQA §21081.6 et seq. and Guidelines §15097 *et seq*., a lead state agency must adopt a monitoring or reporting program to ensure project compliance and to mitigate or avoid significant effects on the environment.

Teresa Sholars
Teresa Sholars
Teresa Sholars, Rare Plant Coordinator and Vegetation Chair

Dorothy King Young Chapter, California Native Plant Society[1]

ATTACHMENT B

STATEMENT OF QUALIFICATIONS FOR BOTANICAL EXPERT REVIEWER

Teresa Sholars, MSc

Teresa Sholars is Professor Emeritus of Biology and Sustainable Agriculture, College of the Redwoods, where for over 40 years she has taught students about ecology of mushrooms, lichens, native plants and vegetation on the Mendocino Coast. She is also retired from 40 years as a part time Botanical and Ecological Consultant on the Mendocino Coast. She has been involved with surveying and mapping rare plants and vegetation as a volunteer for CNPS and CDFW for decades. She actively participated in formal vegetation surveys to document and classify Mendocino Cypress Woodland and coastal headland natural communities for the California Department of Fish and Wildlife Vegetation Classification section. She is a CNPS Fellow, and author of *Lupinus* in, the second edition of The Jepson Manual, Jepson eflora, Arizona Flora and co-author for the Flora of North America *Lupinus*. Currently she is an Adjunct Professor, Curator of the Herbarium and Natural History Collection at the Mendocino Coast Campus, of Mendocino College in Fort Bragg. She is one of the co-author's of Reed Noss' book "The Redwood Forest, History, Ecology and Conservation of the Coast Redwood" and co-author with CDFW Clare Golec on a paper "Rare Plants of the Redwood Forest and Forest Management Effects". She also was coauthor with Andrea J. Pickart on the chapter on vegetation of coastal northern California in "California's Botanical Landscapes". She holds a master's degree in Ecology from UC Davis where she worked on the Mendocino pygmy forest and has completed 6 years in the PhD program at UC Berkeley in systematic botany. Teresa owns 40 acers of coastal redwood forest that she has been actively managing for 45 years, she has been a licensed LTO.

[1]The mission of the California Native Plant Society (CNPS) is to protect California's native plant heritage and preserve it for future generations through application of science, research, education, and conservation. CNPS works closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices. A formal cooperative agreement between CNPS and the California Department of Fish and Wildlife (CDFW) is the backbone of California's rare plant and vegetation status review programs. The data compiled and shared by both organizations are used throughout the environmental review process. The Dorothy King Young (DKY) Chapter of CNPS focuses on protecting and providing education about the native plants and natural communities within

coastal Mendocino County and we often work directly with local and Sacramento-based CDFW science staff.

Attachment C

The following sensitive vegetation associations were not on the scoping list. They contain species that are on the floristic list so it is reasonable to assume that it is likely that some of these associations occur within the THP boundary

Mendocino coast Rare Forest plant communities (alliances and associations)

Compiled by Teresa Sholars

From Rare California Natural Community List Wednesday, September 9, 2020
https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline

This document provides the current list of vegetation Alliances, Associations, and Special Stands. State and Global rarity ranks are indicated for Alliances and some Associations; those with ranks of 1-3 are considered Sensitive. Associations considered Sensitive are marked with a Y in the rightmost column. A "?" indicates our best estimate of the rank when we know we have insufficient samples over the full expected range of the type, but existing information points to this rank.

Hesperocyparis pygmaea Alliance Rarity Rank: G1/S1[1]

Mendocino cypress woodland (Pygmy cypress)

Associations within this Alliance:

1.Hesperocyparis pygmaea - Pinus contorta var. *bolanderi / Rhododendron columbianum* Association
2.Hesperocyparis pygmaea - Pinus contorta ssp. *bolanderi - Pinus muricata / Rhododendron macrophyllum* Association
3.Hesperocyparis pygmaea - Pinus muricata / Arctostaphylos nummularia Association

Bishop Pine- Monterey Pine Pinus muricata - Pinus radiata Alliance

4.Pinus muricata - Notholithocarpus densiflorus Provisional Association S3G3

5. Pinus muricata - Chrysolepis chrysophylla / Arctostaphylos nummularia Association S2G2

Redwood Forest Sequoia sempervirens Alliance

6. Sequoia sempervirens - Hesperocyparis pygmaea Provisional Association S1G1

Sequoia sempervirens - Pinus muricata Provisional Association

Chinquapin Chrysolepis chrysophylla Alliance S1G1

7.Chrysolepis chrysophylla / Vaccinium ovatum Association S2G2

Manzanita Arctostaphylos (nummularia, sensitiva) Alliance

8. Arctostaphylos nummularia Association S2G2

Labrador Tea Rhododendron columbianum Alliance S2 G4 ?

Non-Mendocino cypress or oligotrophic sensitive associations

9. Abies grandis – Picea sitchensis / Gaultheria shallon / Polystichum munitum G1 S1

10. 88.100.01Y S1G2 *Abies grandis – Tsuga heterophylla / Polystichum munitum* G1S1

11. 87.070.01Y *Pinus muricata – Pseudotsuga menziesii* G3S3

12. 87.070.04YS2G2 Provisional *Pinus muricata / Arctostaphylos glandulosa* G2S2

13. 87.070.07Y *Pinus muricata / Xerophyllum tenax* sensitive not ranked

14, 87.070.09YS2G2 *Pinus muricata – Chrysolepis chrysophylla / Arctostaphylos nummularia* G2S2

15. 87.070.11YS3G3 Provisional *Pinus muricata – Notholithocarpus densiflorus* 87.070. G3S3

16. 73.100.03 *Notholithocarpus densiflorus – Arbutus menziesii* G3 S3 Y

17. 73.100.14 *Notholithocarpus densiflorus – Chrysolepis chrysophylla* Y

Bishop Pine- Monterey Pine Pinus muricata - Pinus radiata Alliance

18. Pinus muricata - Notholithocarpus densiflorus Provisional Association S3G3

19. Pinus muricata - Chrysolepis chrysophylla / Arctostaphylos nummularia Association S2G2

Redwood Forest Sequoia sempervirens Alliance

20. Sequoia sempervirens - Hesperocyparis pygmaea Provisional Association S1G1

21. *Sequoia sempervirens - Pinus muricata* Provisional Association

Chinquapin Chrysolepis chrysophylla Alliance S1G1

22. Chrysolepis chrysophylla / Vaccinium ovatum Association S2G2

Manzanita Arctostaphylos (nummularia, sensitiva) Alliance

23. Arctostaphylos nummularia Association S2G2

24. Labrador Tea Rhododendron columbianum Alliance S2 G4 ?