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Protecting
California's native
flora since 1965

March 29, 2024

United States Forest Service
Stanislaus National Forest
Attn: SERAL 2.0
19777 Greenley Road
Sonora, CA 95370

Submitted electronically via https://cara.fs2c.usda.gov/Public//CommentInput?Project=63557

Re: California Native Plant Society Comments on SERAL 2.0 DEIS

Dear Colleague:

Thank you for the opportunity to comment on the Social and Ecological Resilience Across the Landscape 2.0 project. The following comments are submitted on behalf of the California Native Plant Society (CNPS), a non-profit environmental organization with over 12,500 members in 36 Chapters across California and Baja California, Mexico. CNPS's mission is to protect California's native plant heritage and preserve it for future generations through the application of science, research, education, and conservation. We work closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices.

While efforts to reduce the risk of high severity fire and improve the landscape's resilience are greatly needed, these projects must be implemented in a way that results in the least potential impact to habitats and vegetation. The proposed actions do not provide justification for the selective removal of certain species which could lead to type conversion. Treatments in shrub dominated vegetation outside of the WUI risk increasing fire frequency and may not have any clear benefit to the health and diversity of the vegetation. Ridgetop fuel breaks need to be carefully planned to avoid impacts to special status plant species. Targeted grazing is a useful tool for fuel reduction, but also needs to be carefully planned to avoid unintended impacts. There are several rare plant species present in the project area that are not on the USFS sensitive plants list that should be considered for potential impacts. There are management requirements that should be clarified and requirements that should be strengthened to avoid impacts to botanical resources.

Proposed Actions

Forest Thinning

The DEIS does not justify the reasoning for retaining shade-intolerant species over shade tolerant species, or if some shade tolerant species would be retained. The selective removal of certain species could lead to vegetation type conversion and the loss of ecosystem functions provided by the targeted species. The desired conditions described in the Proposed Action do not mention a need for the removal of certain species to achieve the project's density goals. The forest service manual in section 2070.11 (10) indicates that a management plan "provides for the diversity of plant and animal communities" and "for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan." Forest thinning should retain a diverse mix of tree species unless there is explicit justification for the removal of shade tolerant species.

Fuel Reduction

Outside of areas within 250 feet of the WUI, fuel reduction treatments in shrub-dominated areas should be avoided. Shrub dominated vegetation, known as chaparral, has evolved to be adapted to infrequent high intensity fire events. Many chaparral species have persistent seedbanks that will lie dormant for decades until triggered to germinate by a fire event. There is no evidence that fuel treatments intended to reduce the severity of fire in chaparral have any benefit to the health or persistence of these vegetation types. On the contrary, the introduction of invasive species associated with fuel treatments has been shown to increase fire frequency and, in many cases, has led to the vegetation type conversion of shrublands to invasive annual grasslands.

Fuelbreaks

While ridgelines are opportunistic locations for permanent fuelbreaks, the exposed rock along ridgelines weathers into soils with chemical and/or physical properties that make them unsuitable for many common plant species. Edaphic endemic plants have evolved adaptations to thrive on these unique soil types and many rare plant species rely on these habitats that are inhospitable to other species. The use of heavy machinery in the construction and maintenance of ridgeline fuelbreaks needs to be carefully planned to avoid impacts to special status species and habitat. Locations considered for fuelbreaks and permanent fire control lines should be surveyed for special-status plant species, including CRPR taxa, CESA listed species (see Sensitive and Watchlist Plants below), and all watchlist species, in addition to federally listed or proposed threatened or endangered species and US Forest Service sensitive plant, lichen, and fungi species to ensure that these resources are preserved. While records of rare plant locations in the project area are not comprehensive, a desktop review of the California Natural Diversity Database, internal USFS data, herbarium records, and even iNaturalist could provide a preliminary list of locations to avoid placing fuelbreaks and fire control lines pending more comprehensive surveys. This information could also be shared with the natural resource specialist to help avoid impacts to know special status plant populations during fire suppression activities.

Targeted Grazing

Targeted grazing can be an effective tool for the management of fuels and invasive weeds, but there are many factors to consider to ensure that targeted grazing achieves its goals without causing undesired impacts to vegetation and the environment. The following factors should be considered when developing a targeted grazing plan.

Project Design:

- Goals - The grazing project should have clear and measurable objectives for the desired effects on:
    - the plant community: invasive species, species richness, rare species to protect or enhance, overall cover, and heterogeneity
    - fuel load: fuel type and vegetation class to be reduced, and desired level of reduction
    - soil surface characteristics: reduction of litter layer through trampling.

- Baseline conditions - The conditions of the characteristics to be modified should be quantified at the start of the project to provide a baseline for monitoring the progress of the project, including identifying resources that should be monitored to mitigate adverse effects, i.e. rare species, and riparian areas. This should include surveying the area for rare and sensitive plant species if it cannot be shown that the area has been surveyed recently. From the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, "Habitats, such as grasslands or desert plant communities that have annual and short-lived perennial plants as major floristic components, may require multiple annual surveys to fully capture baseline conditions. In habitats dominated by long-lived perennial plants, such as forests, surveys that were not conducted within the previous five years may not adequately represent the current baseline conditions and should be re-conducted."
- Species selection - The project designers/managers should create a scientifically based hypothesis as to which species of grazer, at which duration, density, and time of year would be most effective at achieving the goals of the project, citing evidence that supports the hypothesis.
- Project management - The project designers/managers should create a scientifically based hypothesis as to what active management strategies would be most effective at achieving the goals of the project, including contingencies in the case that monitoring shows that current management practices are not achieving the stated objective. Management strategies should also include techniques to mitigate any negative effects to ecological resources.
- Monitoring - The project should be continually monitored to assess the progress and effectiveness of the treatment informing active management decisions. Monitoring should also evaluate any sensitive plant species or ecological resources in the project area to ensure that these are protected.

Management Strategies:

- Targeted Species - Timing of grazing and species of grazer have a substantial impact on which species are foraged and the effects grazing has on those species. To reduce populations of invasive annual species, grazing should occur while the target species is palatable to the selected grazer and before the target species is able to set viable seed. If grazing when the target species is less palatable, fencing, herding, supplemental feed, or an additional water source may be effective at increasing foraging of less desirable species.
- Vegetation Class - Species selection of the grazing animal will typically have the largest influence on the vegetation class that will be reduced. Lack of more desirable forage would encourage a grazer to consume a vegetation class that would typically be less desirable, and the use of fencing, herding, supplemental feed, or an additional water source may be effective

at increasing foraging of a less desirable vegetation class.

Non-Native Invasive Weed Control and Eradication

We support Proposed Actions to target the eradication of invasive species within the project area. Many similar projects have avoided addressing the issue of invasive species due to fears that these activities could unintentionally cause the spread of these species, however the proactive control is essential to reducing the fire risk associated with invasives as well as improving the ecological health of vegetation communities.

Management Requirements

All Project Treatments

Seed mixes:

This section should offer clarification of what type of seed mix should be used and where it may be sourced. The DEIS states that, "Seed mixes must conform to the Region 5 Policy on the Use of Native Plant Material in Restoration or Revegetation Projects. (FSM 2902(1); FSM 2903(7))." FSM sections 2902(1) and 2903(7) mention limiting the spread of invasive species but does not mention the use of native species, or the source of seed. The Region 5 Policy on the Use of Native Plant Material in Restoration or Revegetation Projects does not appear to be available on the Region 5 website, this information is needed to determine if the regulations included in this policy would be suitable for this project. The seed mixes used should, at a minimum, not include any non-native species and be composed of native species naturally occurring within the project area and should be sourced from individuals within the project area or sourced from nursery produced seed grown from seed collected from individuals within the project area.

Avoidance:

In addition to avoiding volcanic openings, or lava caps, for operating mechanized equipment, vehicle use, parking, skidding, creating piles, and fireline construction other openings such as granitic openings, outcrops, and other sensitive and rare soil types should be avoided as well. This would limit disturbance to sensitive plant species associated with these unique substrates and reduce the likelihood that invasive species would expand into these areas.

Fuelbreaks

Lava Caps:

The DEIS states that, “Lava caps should be avoided, and a physical barrier, such as shrubs, should be retained or installed to protect sensitive lava cap plant species.”

This management requirement should be expanded to include other openings such as granitic openings, outcrops, and other sensitive or rare soil types.

Botanical Resource Specialist:

The DEIS states that: “Where possible and prior to implementation, a botanical resource

specialist will be consulted and will provide the following information to the responsible implementation official:

a. Are any non-native invasive weeds present within the treatment areas?

b. If yes, where? What species?

c. Will the proposed treatment cause the existing infestation to spread? If yes, propose potential remedies to eliminate the risk of spread."

We feel that this should be a requirement, as understanding the potential impacts of fuelbreak treatments would be essential to ensure that treatments do not lead to the proliferation and spread of invasive species, and that the botanical resource specialist identify any special status plant species that could be impacted by fuelbreak construction or maintenance.

Sensitive and Watchlist Plants

For many sensitive and rare plant species a ten-foot buffer has no rational or scientific justification. Buffers should be prescribed on a species-by-species basis supported by the best available science. Creating a buffer sufficient to maintain the hydrology and habitat conditions needed for a special status plant population to persist is essential to avoiding impacts. There is abundant precedent within California and in other states, and from projects on public and private lands, that support the adoption of buffers for rare plant populations that exceed 10 feet. For example, the California Vegetation Treatment Program in Mitigation Measure BIO-1a: Avoid Loss of Special-Status Plants Listed under ESA or CESA and Mitigation Measure BIO-1b: Avoid Loss of Special-Status Plants Not Listed Under ESA or CESA requires a buffer of a minimum of 50 feet. The California Department of Fish and Wildlife requires that "Locations of special-status plant populations will be clearly identified in the field by staking, flagging, or fencing a minimum 100-foot wide buffer around them prior to the commencement of activities that may cause disturbance. No activity will occur within the buffer area." in their Conservation Measures for Biological Resources That May Be Affected by Program-level Actions, with a range of larger buffers depending on the species. Dust deposition from project activities is another reason to increase buffers to a reasonable distance as it reduces photosynthesis, affects stomata function, and can inhibit reproduction on vegetation resources[1]. Depending on the site conditions and characteristics a much larger buffer may be necessary for species dependent on hydrology.

Several rare plant species, listed in the CNPS Inventory of Rare Plants (RPI), that have California Natural Diversity Database documented occurrences in the project area are not on the FS sensitive plants list and have not been included for analysis. These include *Claytonia crawfordii* (Crawford's spring beauty) 1B.2, *Eryngium pinnatisectum* (Tuolumne button-celery) 1B.2, *Navarretia miwukensis* (Mi-Wuk navarretia) 1B.2, *Rhynchospora alba* (white beaked-rush) 2B.2, and *Schoenoplectus subterminalis* (water bulrush) 2B.3.

The Forest Service is required by CEQ regulations "to consider state requirements imposed for environmental protection to determine whether the action will have a significant impact". Sierra Club v. U.S. Forest Serv., 843 F.2d 1190, 1194 (9th Cir. 1988). 40 C.F.R. 1508.27(b)(10). For

[1] Farmer, A.M., 1993. THE EFFECTS OF DUST ON VEGETATION A REVIEW. *Environmental Pollution, 79*, pp.63-75.

the purposes of California's environmental protection act – CEQA – Cal. Code Regs. tit. 14 § 15065(a) requires that where a project threatens to "substantially reduce the number or restrict the range of an endangered, rare or threatened species", the lead agency must prepare an EIR and implement feasible mitigation measures to avoid the net loss. Cal. Code Regs. tit. 14 § 15380(d) states that a species need not be listed to be considered "endangered" or "rare". If information suggests that "its survival and reproduction in the wild are in immediate jeopardy from one or more causes" or "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", it will be considered endangered or rare for the purposes § 15065(a). According to the RPI, there may be several species meeting this standard in the project footprint. Thus, in order to adequately determine the significance of the impact of the proposed project, the impact on endangered, rare or threatened species should be analyzed, and any discovered impacts mitigated.

By requiring project planners to work cooperatively through the comment process, and to make use of available relevant information, CEQ and the USFS Handbook ensure that locally sensitive species will not be significantly impacted by government action. Absent analysis on these species, or planning to mitigate any potential impacts, it is impossible to adequately gauge whether or not the actions proposed in the project will significantly harm any at-risk species.

To accurately describe the potential impacts of this project and to avoid USFS actions causing impacts that could harm known sensitive species or lead to the Federal Endangered Species Act listing of known sensitive species, we would recommend that species listed in CESA and the CNPS RPI with the potential to occur on the project site be analyzed for potential impacts.

In conclusion, several of the proposed actions in the project should be clarified to justify the purpose and need of these actions and how they would achieve the goals laid out in the desired conditions. The management requirements should be amended to avoid additional habitat types and to improve buffers for special status plant species. The proposed actions to eliminate and control invasive species populations are very important and we greatly appreciate these goals. Thank you for the opportunity to comment on this project and please contact me if you have any questions.

Sincerely,

Brendan Wilce
Conservation Program Coordinator
California Native Plant Society