August 9, 2019

Board of Forestry and Fire Protection
Attn: CalVTP
PO Box 944246
Sacramento, CA 94244-2460

Sent via email to CalVTP@bof.ca.gov

RE: CalVTP Programmatic Environmental Impact Report (State Clearinghouse number 2019012052)

To the members of California Board of Forestry and Fire Protection:

The California Native Grasslands Association works to promote, preserve, and restore the diversity of California's native grasses and grassland ecosystems through education, advocacy, research, and stewardship. The following comments on the CalVTP Draft Programmatic Environmental Impact Report (PEIR) address impacts to and mitigations for native herbaceous vegetation, program objectives, and the associated treatment descriptions, especially regarding fuel breaks and Wildland Urban Interface (WUI) fuel reduction. Our focus is on both "sensitive natural communities" and foundational native herbaceous vegetation in grasslands, shrublands, and woodlands.

1. **CalVTP Objectives – In general, herbaceous native vegetation, both as sensitive natural communities and foundational herbaceous vegetation, needs to be retained to achieve the primary program objective "to reduce risks to life, property, and natural resources by managing the amount and continuity of hazardous vegetative fuels."**

To the extent the program retains native herbaceous vegetation, both a sensitive natural community and as a foundational flora, the project should be able to avoid other significant environmental impacts, such as disrupting ground nesting birds and special-status butterflies

and insects, and soil disturbances that often result in conversion to flashy weed fuels. Flashy weedy fuels commonly fill in if intact herbaceous native grass and forb communities are disturbed, disrupted, or removed to the point of damage by various treatments; weeds grow more quickly and most dry out faster, exacerbating the very issue the initial treatment means to address. We recommend that the PEIR adequately address this concern. Several comments below follow up on this point.

2. **The photo illustrations of fuel break and WUI fuel reduction treatments in the PEIR do not adequately represent treatments that correspond to the minimization and avoidance of environmental impacts described in PEIR, such as to sensitive herbaceous natural communities, to beneficial native grass and forb vegetation, to sensitive natural communities in general, and for project long term effectiveness.**

Below are the visual examples the WUI and shaded and non-shaded fuel break, treatments. These are the only visual examples representing the three main treatment types in the CalVTP. The PEIR photographic examples only portray a "bare earth" model of treatment where all native grasses, forbs, and low groundcover flora are removed.

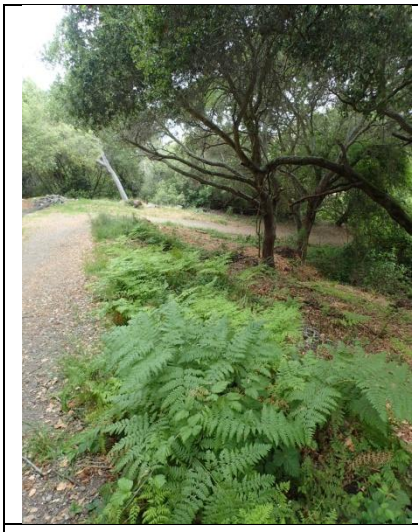
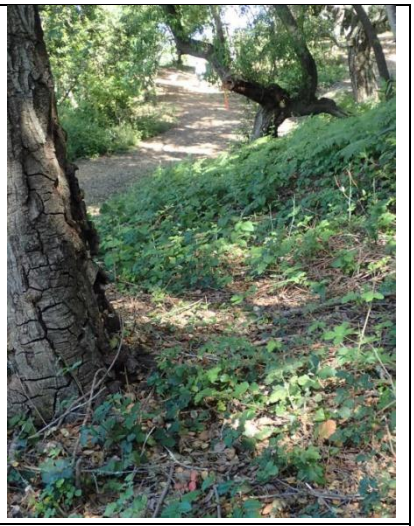
Figure 1. Treatments currently repensented in the CalVTP

		
WUI treatment example (source: CalVTP PEIR, Calfire. 2017)	Non-shaded fuel break example (source: CalVTP PEIR, Calfire. 2017)	Shaded fuel break example (source: CalVTP PEIR, Calfire. 2017)

Example of WUI and non-shaded and shaded fuel break from CalVTP PEIR with no remaining native ground vegetation. The practice of scraping all vegetation down to bare soil is an invitation for re-colonization by flashy weeds, often resulting in more flammable vegetation than by simply leaving the low-growing native vegetation in place.

Effective treatment for continuity, density, and amount of native vegetation are key to the fuel management tactics stated in the CalVTP. Although site specific and, to a degree, ecoregion
specific - retaining low-growing native herbaceous vegetation as a standard project requirement of WUI or fuel break treatment serves the fuel reduction and environmental objectives of the project. It also greatly minimizes negative aesthetic impacts. The below examples in Figure 1 were taken from combined WUI and fuel break treatment work in the Central California Coast ecoregion where herbaceous native vegetation is retained.

Figure 2. Fuel reduction treatments examples that retain herbaceous native vegetation

		
WUI treatment example (source: CNGA, 2019)	Non-shaded fuel break example. Native Blue Wildrye bunchgrass (*Elymus glaucus*) in the foreground. (source: CNGA, 2019)	Shaded fuel break example (source: CNGA, 2019)

The CalVTP PEIR states that "to counteract decades of fire suppression and mitigate the effects of climate change, vegetation treatments would be designed *to reduce hazardous vegetative fuels*, improve protection from wildfire through strategically located fuel breaks, and mimic a natural fire regime using prescribed burning. Additionally, "vegetation treatment at the landscape scale is focused on *reducing* the likelihood of a ground fire increasing in intensity (note: by reducing amount, density, and continuity of vegetation fuels) and helping fire responders more *easily contain a fire*" (1.1 Purpose of the CalVTP, pg. 1-3, italics added).

Retaining native grasses and forbs serves to reduce the likelihood of a ground fire increasing in intensity by retaining the native vegetation systems that preserve soil moisture and can continue to compete against type conversion to tall, dense, and rapidly drying weeds. In addition, keeping this native flora is in line with the PEIR's intent to maximize "natural habitat conditions, processes, and values", as well as minimizing severe aesthetic impacts.

Severe landscape treatment such as those depicted in Figure 1 may have been traditionally employed, and it may be a necessary outcome in certain situations, but the photographic images in Figure 1 do not adequately model treatment outcomes that fully coincide with the stated fuel reduction, environmental, and aesthetic objectives of the PEIR. Therefore, we recommend that:

a) the PEIR include photographic images that model the PEIR treatment results that conserve special status species, sensitive plant communities, and beneficial native vegetation.

b) if scientific evidence or case studies justify keeping these more severe landscape treatments in certain fuel reduction conditions (such as areas already overtaken by dense and tall invasive weeds), these conditions should be clearly described in the PEIR.

3. **Fuel breaks should not be located in sensitive natural communities. In situations where this is not possible, mitigation measure Bio 3a should be modified so that, instead of removal, no more than 20% of a sensitive natural community may be treated to reduce fuel amount, density, or continuity in a way that retains the functioning of that sensitive natural community consistent with the "ecological restoration" treatment in the PEIR.**

"Mitigation 3c" seems to assume that developing fuel breaks and maintaining intact sensitive native herbaceous vegetation natural communities (as well as sensitive plant communities in general) is incompatible with the objectives and strategy of the CalVPT. The California Native Grasslands Association commends the PEIR program for including specific protective measures for sensitive natural communities, including native perennial grass and forbs. Our position is also that native herbaceous vegetation, both as sensitive natural communities and as foundational vegetation, is an asset toward project objectives, and not an impediment.

Currently, the PEIR Mitigation BIO 3a states that: *To the extent feasible, fuel breaks will not remove more than 20 percent of the native vegetation cover from a stand of sensitive natural community vegetation in sensitive natural communities with a rarity rank of S3 (vulnerable) or in oak woodlands.* In forest and woodland sensitive natural communities with a rarity rank of S3, and in oak woodlands, only shaded fuel breaks will be installed, and *they will not be installed in more than 20 percent of the stand of sensitive natural community or oak woodland vegetation* (italics and underline added).

It is recommended that this Mitigation measure be modified to state that sensitive natural communities be avoided. If unavoidable, no more than 20% would be treated consistent with the PEIR "ecological restoration" treatment. This ecological restoration treatment is described as the process of "re -establishing the composition, structure, pattern, integrity, and ecological processes necessary to facilitate terrestrial and aquatic ecosystem sustainability, resilience, and health currently and in the future. This would involve vegetation treatments that seek to return the landscape closer to native conditions where natural fire processes can be reestablished and habitat quality is improved, including habitat remediation where non-native, invasive plants have spread, and excess fire fuel buildup has occurred" (pg. 2-15).

4. **Standard Project Requirements – qualifications. The RFP and botanist should be able to demonstrate knowledge and recognition of sensitive natural communities, including native grasses and forbs within the ecoregion project area, and also have direct and timely access to botanical expertise and information to assist in identifying the special-status species and sensitive natural communities on the project site.**

Section "2.7.5 Biological Resource Standard Project Requirements (pg. 2-35) states that the: "Qualified Registered Professional Forester (RPF) or Botanist: To be qualified, an RPF or botanist would 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the region, including special-status plants, 3) have experience conducting floristic botanical field surveys as described in CDFW "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (current version dated March 20, 2018), or experience conducting such botanical field surveys under the direction of an experienced botanical field surveyor, 4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version), and 5) be familiar with federal, state, and local statutes and regulations related to plants and plant collecting. The project proponent will review the resume and approve the qualifications of RPFs or botanists." We recommend that 2) be modified to say that be the Forester or Botanist "be familiar with plants of the region, including special-status plants *and sensitive natural communities*".

It goes without saying that the flora of California is diverse, especially for a project of this scale. Also, sensitive natural communities, particularly for native grasses and forbs during dormancy, require skill and experience to recognize in the field. Therefore, it is recommended that the PEIR stipulate that qualified Registered Professional Foresters and Botanists also have direct and timely access to botanical expertise and information to assist in identifying the special-status species and sensitive natural community on the project site. Where reception allows it, this additional technical support may be provided electronically.

5. **Due to the relatively limited scientific evidence and longitudinal experience at the scale of this proposed program , the varied and complex ecoregions of California, as well as the desire to minimize large scale, unintended consequences, it is strongly recommended that a) Adaptive management protocols and practices be incorporated as a necessary, not an optional, feature of the CalVTP, and, b) a three year site treatment follow up "treatment establishment" program be required.**

a) Adaptive management protocols and practices be incorporated as a necessary, not an optional, feature of the CalVTP

It is recommended that adaptive management protocols be firmly in place and funded when CalFire begins to ramp up the scale and pace of vegetation fuel treatments from an estimated initial 25,000 acres of prescribed burning and 20,000 acres of other treatment activities statewide (45,000 acres), to reach approximately 250,000 acres per year in 2024.

Currently, adaptive management efforts are described as follows: "Effectiveness or validation monitoring after application of a treatment *may* be performed to the extent feasible, recognizing fiscal constraints, the need for ongoing access to property, and staff availability" (2.6.1 Adaptive Management - Framework Development and Monitoring, italics added).

The PEIR describes a useful adaptive management framework. However, due to the scale of this project and relatively limited scientific evidence and longitudinal experience to address varying conditions within multiple and complex ecoregions, it is recommended that this section be modified to state that "Effectiveness or validation monitoring after application of a treatment *will* be performed and funded - with staffing. Contracts under the PEIR will require ongoing access to property over a prescribed period (usually up to three years) to perform effectiveness and validation monitoring."

Additionally, it is recommended that a state-funded clearinghouse be set up so that agencies and the public can link to timely and updated information on the new scientific information, and the location, timing, and effectiveness monitoring of treatments. It is recommended that pre and post photographic monitoring be compiled on initial treatments and followed up with post treatment photos for three years. Regarding scientific information, new information is being developed on managing grasslands, including the effects of timing and fire frequency on recruitment and populations of certain sensitive native grass communities. This information builds upon the fire frequency rate information referenced in the PEIR under the Manual of California Vegetation (Sawyer, 2009) and should be made available to CalVTP projects statewide.

b) A three year site treatment follow up "treatment establishment" program is spelled out and required.

From the "Program Description" (Section 2.3.2 - Proposed CalVTP Implementation or 2.6 – Implementation Framework) it is not apparent that follow up to initial treatments is included in the PEIR. Assuring that "adaptive management" becomes a key component of the PEIR allows the State and the public to use the ramping up period to follow up on, and attempt to repair if necessary, treatment approaches in different ecoregion situations. It is recommended that the Program Description include provisions for a three year follow up review, with follow up treatment as needed, for each unique treatment in each unique ecoregion landscape situation. If the follow up review of the treatment shows that the treatment is meeting fuel reduction and standards, and either enhances or is benign to ecological diversity and functioning, it can be added to the "lessons learned" data base in the PEIR's adaptive management component. If the treatment is not achieving fuel reduction and results in significant environmental impacts for the particular landscape situation, follow up fuel treatment and any compensatory environmental mitigation will be needed, The treatment will be modified or abandoned for that situation. Information on both outcomes is vital to achieving success and avoiding massive unintended consequences as the project ramps up to a quarter-million acres of treatment per year.

6. It is recommended that avoiding impacts in sensitive soil substrates be added as a Standard Program Requirement

Section 2.7.5 “Biological Resource Standard Project Requirements” provides for identifying and minimizing impacts to Coast Zone ESHAs (SPR BIO-9). Serpentine, sands, rock outcrops, and other sensitive soil substrates often support special status plants. To enhance the protection of special status plants, especially since equipment or other disturbance could, and often does, occur when the special status plants may be dormant, we recommend that a Standard Program Requirement be added to identify and avoid impacts to sensitive soil substrates. These substrates tend to be thin soils that do not support dense vegetation.

7. **It is recommended that a Certified Rangeland Manager (CRM) is consulted when prescribed grazing is being considered as a treatment.**

The PEIR currently states that consulting with a Certified Rangeland Manager (CRM) is *advised* when prescribed grazing is being considered as a treatment. We recommend that a CRM is consulted because of the reasons explained in the PEIR – “Effectiveness of these treatments depend on a number of things that CRMs have familiarity with, including the palatability of plant species on the site to the animals available for use; how terrain, water availability, and environmental conditions during the grazing period are likely to influence animal behavior; and other potentially complicating factors like predators (including domestic dogs); public access; and setting up adequate facilities up for gathering and loading animals arriving at or being removed from the site.” The CRM should also be able to advise the project on needed measures to avoid the spread of invasive weeds.

8. **It is recommended that the Section 3 - Ecoregion tables of “Vegetation and Habitat Types within the Treatable Landscape” be updated as new information on sensitive natural communities becomes available.**

The California Native Plant Society, the California Department of Fish and Wildlife, and other partners have developed valuable mapping classifications of plant alliance and sensitive natural communities to describe the state’s rich and diverse vegetation. PEIR projects may uncover sensitive natural community alliances where they have not been evident before, or potential sensitive natural community alliances that have yet to be fully analyzed and classified. Therefore, we recommend that the ecoregion tables of “Vegetation and Habitat Types within the Treatable Landscape” be updated if and when this occurs. This is a long term project and updated environmental resource information should be available to contractors, agencies, and the public through an online clearinghouse as recommended in comment “5a” above.

9. **CalVTP vegetation treatments are suggested stated as one element of a system of increased fire resilience in California (VTP objectives #1). Additional details are needed to describe how CalVTP will help inform the public and public officials about the role of home hardening, improving escape routes, improving communications systems, etc. so that the CalVTPs is understood as one of many practices needed to achieve to improve fire resilience in California.**

The PEIR Introduction describes the proposed CalVTP "as one component of the range of actions being implemented by the state to respond to California's wildfire crisis." Also that "the state's approach to the crisis includes an array of strategies, such as cost-effective home hardening, expanded evacuation capacity, comprehensive emergency planning, and improved land use practices, as well as investment in new suppression and response equipment and resources, use of technology tools, and establishment of strong utility oversight." The Program Description describes numerous ways that the CalVTP would interface with the public to minimize nuisance, inform the public of upcoming prescribed burn days, etc. However, there is inadequate information provided about how CalVTP will also help inform the public and local government that vegetation fuel reduction is just one component and that the public and local government have a role in improving fire resilience in California, too.

Because of the numerous interactions with the public, other agencies, and local government, CalVTP will become a very visible program in locales where vegetation fuel treatments are taking place. Therefore, it is recommended that CalVTP projects communicate all the ways to limit fire risk as an adjunct to regular contact with local government, neighborhood associations, and the public at large.

Thank you for the opportunity to comment on the draft PEIR and for your consideration of our comments.

Sincerely,

Andrea Williams

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