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Ms. Edith Hannigan, Board Analyst
Dr. J. Keith Gilless, Chair
Mr. Matthew Dias, Acting Executive Officer
California Board of Forestry and Fire Protection
P. O. Box 944246
Sacramento, CA 94244-2460

Re: Draft Programmatic Environmental Impact Report for the Vegetation Treatment Program

Dear Ms. Hannigan, Dr. Gilless, Mr. Dias, and Board of Forestry Members:

Thank you for the opportunity to provide comments on the Draft Programmatic Environmental Impact Report (PEIR) for the Vegetation Treatment Program (VTP). I have sent comments and participated in local meetings on several earlier versions of the draft PEIR, and appreciate the Board's revisions that provide some additional detail. Yet many of the comments raised by scientists and the public have not been addressed, and the DPEIR is incomplete and inadequate for the 30 million acres of State-responsibility Areas it covers.

**Protection of lives and property.**

Whereas the DPEIR identifies the wildland-urban interface (WUI) as a primary vegetation treatment objective, it fails to address the overriding influence of structure ignitability to wildfire risk reduction. As the emphasis of the Department of Forestry and Fire Protection (CalFire) shifts more to "fire protection" than "forestry," it is astounding that protection of lives and property is not the focus of this document. At the very least, a clearly articulated and analyzed alternative needs to be presented, that features structure- and community-based actions to reduce wildfire actions.

Scientific research and decades of experience of wildland firefighters have shown that the most effective way to prevent the loss of life and property from wildland fires is to work from the house out, to reduce home flammability with non-flammable materials and features, ember-resistant vents, removal of debris from roofs and adjacent to the structure, and more. Properly maintained defensible space (within 100 feet of structure) is the other important half of the fire risk reduction equation. Wildland fuel treatments (beyond the defensible space zone) offer the least effective strategy to protect communities from wildfire.

There is no rationale for the 1.5-mile-wide WUI, either in the DPEIR or the scientific literature. Embers can definitely be carried that distance in high winds, but such vast areas of ember-free fuel reduction could never be developed or maintained around every at-risk community. Structures need to be built or retrofitted to resist ignition by embers, not rely on "ember-free" WUI zones. The defensible space around communities is generally accepted to be about 300 feet, and that is primarily to create fuel breaks for structure protection, not to eliminate embers.

The rationale, establishment, and maintenance of WUI treatment areas should be developed, publicly reviewed, subjected to CEQA analysis, and approved in the Community Wildfire Protection Plans. The project-level analysis to would follow the PEIR, for part of a fuel reduction zone in the WUI around a community, would be incomplete and misleading.

**Program description.**

Although the vegetation treatments are described in greater detail than in earlier drafts, there is limited and inadequate scientific basis for their effectiveness, and many claims are made without references. The series of case studies, although interesting to read, do not provide the scientific evidence for the applicability and outcome of the vegetation treatments.

Recent modeling of the effects of fuel reduction and other factors on wildlife ignition, suppression, and spread are extensive and still have not been incorporated into the program description. Alex Syphard and others have analyzed the CalFire databases and other spatial data to assess the effectiveness of structure location, fuel reduction volume and distance, predicted fire behavior, firefighter access, and other wildfire conditions.

These analyses show that strategic fuel modification helps to stop fires in "fire weather" if fire suppression forces can quickly and safely access them. Remote fuel breaks have not significantly reduced total annual area burned in southern California. As a minimum, these two references need to be incorporated and cited:

> Syphard, A.D., Brennan T.J., Keeley J.E. (2014) The role of defensible space for residential structure protection during wildfires. *International Journal of Wildland Fire* 23, 1165–1175.
>
> Syphard, A.D., Keeley, J.E., Brennan, T.J. 2011. Comparing the role of fuel breaks across southern California national forests. Forest Ecology and Management 26: 2038-2048.

**Fuel breaks.**

The vegetation treatment objective of altering fuel configurations (fuel breaks) needs to build on and be limited to the fuel breaks identified in the Unit Fire Plans. The description in the DPEIR is vague, does not, and should not strategically determine where each should be located. The at-risk resources, expected fire behavior, fire suppression strategies, establishment, and maintenance of these fuel breaks should be developed, publicly reviewed, subjected to CEQA analysis, and approved in the Unit Fire Plans. The DPEIR should cover the long-term impacts of repeated vegetation treatment (such as chaparral type conversion to grasses), and emphasis placed on why and how those fuel breaks would be established and maintained.

**Project level analysis.**

The purpose of a programmatic EIR is to provide sufficient detail about a "program" (a group of related actions) such that CEQA analysis does not need to be done for each project. Yet the DPEIR defers to managers at the individual project level, to provide rationale and evidence for a checklist that extends to 18 pages and could require 100 pages to write for each project.

The Standard Project Requirements are extensive, yet most are vague and there is no supporting evidence that they are feasible and effective. Impacts are well established for WUI defensible space and suppression-related fuel breaks—type conversion will occur in chaparral. These impacts need to be declared and dealt with, in the DPEIR. It is reasonable to expect that detailed project-level analysis is needed for treatments conducted for ecological restoration.

The purpose and outcomes of consultations with the California Department of Fish and Wildlife (CDFW) and the California Native Plant Society (CNPS) need to be specified.

**Accuracy and currency of spatial data.**

The DPEIR relies on outdated and inadequate spatial data. The analysis is based on the fire hazard analysis from 2001-2003 (2-17), which used a WUI model based on the 1990 census. CalFire developed the Fire Hazard Severity Zone maps in 2007, based on 2000 census data, and they were reviewed by local firefighting agencies. CalFire continues to update the analyses and maps, and they should be used in the DPEIR.

CalFire has assembled and analyzed considerable spatial data on fire hazards and current vegetation conditions, and these data layers need to be accessible and incorporated into the DPEIR (not just low-resolution .pdf images inserted into text pages). The experts in Geographic Information Systems (GIS) can and should contribute current data and analysis to the DPEIR, and that data should be easily accessible online by the public.

**Future conditions.**

The DPEIR needs to address future conditions. Yet the Change-Related Standard Project Requirements (7.2.1.5) only state that the greenhouse gas emissions, carbon sequestration measure, and air emissions be considered, not that climate change will likely alter impacts of vegetation treatments. Vegetation conditions, response of vegetation to prescribed fire, and regrowth after mechanical or other treatments may be different in a future changed climate, than historical experience and evidence.

Vegetation treatment may be applied as an adaptation measure for climate change, and that needs to be addressed in the DPEIR. Fuel reduction projects can both enhance adaptation or increase the vulnerability of forests and vegetation to drought stress, invasive species, wildlife risks, and more. Treated plant communities may type convert to low carbon-sequestering grasslands.

**Scientific basis for treatments and analyses.**

The DPEIR still has inconsistencies, statements unsupported by scientific literature, misrepresentations of citations, contradictory statements, and undefined terms. A number of experts have invested time to identify these over the past several years, and have provided extensive literature that applies to the proposed actions. To ignore all this information, and release such an inadequate DPEIR, is almost inconceivable.

The DPEIR needs to be based on published literature, not references that are unpublished, statements in legislative hearings, internal agency notes (such as Beyers 2000 and Zedler 2000), or written 40 to 70 years ago (DeBano 1976, Hanes 1971, Horton 1955, Sampson 1944).

Important terms are not defined, allowing for inconsistent implementation and unknown impacts of projects. Examples are as old growth chaparral, critical infrastructure, and forest health. Many of the impact statements of “less than significant” are unsupported by scientific evidence.

**Public Review.**

The public notification and opportunity for involvement needs to be realistic and robust. Informing the public through local newspaper notifications is totally inadequate and outdated,. Notices can be placed on CalFire websites that are kept updated and organized so that communities can identify projects that will affect them. CalFire needs to maintain an online list of

proposed, current, and completed projects in each unit, with the draft project plans and schedule of public meetings and comments.

The Project Scale Analysis (PSA) needs to be available for public review, to ensure that each project is consistent with the final approved PEIR for vegetation treatment. Project managers need to identify, reach out to, and work with stakeholders in their community. These can be identified from participants in CalFire workshops and other public meetings. In addition, interested stakeholders need to be kept informed as a proposed project moves forward, including modifications made to the project plan or implementation, completion of the project, and outcomes from the vegetation treatment.

**Closing.**

I have participated in meetings, submitted letters, read letters that others have submitted, reread some of the scientific literature, browsed the level of spatial data available, and refered to the strategic plan and other CalFire documents about wildfire property risk reduction. And it is now frustrating to read this DPEIR that has addressed and corrected only some of the recommendations that experts and the public have made in those meetings and letters.

Fuel treatments are important but insufficient tools to reduce property risks in the WUI, to provide for ecological restoration in selected ecosystems, and to establish and maintain strategic fuel breaks for fire suppression. The programmatic DPEIR is a valid approach, but needs to provide far more evidence for the program description and the location of treatments in the 30 million acres of land and hundreds of communities.

Thank you for this opportunity to comment on documents relating to the DPEIR for the Vegetation Treatment Program.

Sincerely,

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