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VIA U.S. and Electronic Mail
George Gentry, Executive Officer
State Board of Forestry and Fire Protection
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E-mail: VegetationTreatment@fire.ca.gov

**Re: Draft Programmatic Environmental Impact Report for the
Vegetation Treatment Program of the California State Board
of Forestry and Fire Protection (SCH #2005082054)**

4/2/13

Dear Mr. Gentry:

Marin Chapter of California Native Plant Society (CNPS) takes this opportunity to comment on the Draft Programmatic Environmental Impact Report for the Vegetation Treatment Program of the California State Board of Forestry and Fire Protection (PEIR or VT program). Because the flora of Marin County is unique, and we have previously been involved in studying and commenting on vegetation management proposals (particularly in chaparral), our chapter is writing its own set of comments. We do regret the continued use of the term “fuel” by agencies to describe the very vegetation which makes possible life as we know it.

Marin CNPS supports efforts to preserve and conserve native plant habitat and federally- or state-listed flora and fauna. Commenting on vegetation management plans for Mt. Tamalpais region a quarter century ago, we showed our support for fire-safe landscape in the thirty feet around structures. Recent research shows this remains the critical area for vegetation management.

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Marin's Mt. Tamalpais, with its unique assemblage of plant species, is a biological hotspot for California and the world; this makes a good example of why a statewide, generalized PEIR will not work here, or in other locals. California is very diverse and unique, not as homogenous an environment as many states.

The known flora of Marin County is 1679 species, of which 1096 are California natives. That is some 28.5% of the flora of the State of California in just 520 square miles! The upland grassland (ca. 2000 ft) and chaparral areas have the most uncommon plants.

Mt. Tamalpais (including associated ridges to the north) has 7 endemic species, found growing naturally nowhere else on Earth. A recent Marin Municipal Water District list shows that 890 plant species, mostly natives, grow on its lands, most of which are in the Mt. Tamalpais watershed.

Furthermore, nearly a hundred species reach their southern limit in Marin, and over 30 reach their northern limit, many of them on Mt. Tamalpais. Natural conditions need to be just right to support this mixture. Substantially manipulating Tamalpais' native vegetation would be ecological vandalism.

Marin CNPS fully supports the response of State CNPS to BoF's draft PEIR and VT program. Unfortunately, the approach in your document is outdated and unsupportable in many areas, especially in chaparral.

We agree with Richard Halsey's California Chaparral Institute's well-researched comments on the PEIR; his suggested Wildland-Urban Interface Alternative would make for a suitable and

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effective program. He references US Forest service research scientist Jack Cohen's findings:

“...effective fuel modification for reducing potential WUI (wildland/urban interface) fire losses need only occur within a few tens of meters from a home, not hundreds of meters or more from a home. This research indicates that home losses can be effectively reduced by focusing mitigation efforts on the structure and its immediate surroundings (Cohen 1999).”

Halsey's point that it is impossible to properly evaluate the PEIR due to lack of specificity is a main crux of the problem – which leads to the document's faulty conclusion that there will be no significant impacts from a program to clear more than 2 million acres (of the 38 million “available for treatment” under this PEIR) of incredibly diverse ecosystem per decade. Furthermore, as areas are vague, those whose lands may be manipulated cannot be properly notified.

We also recommend BoF pay close attention to and incorporate the research findings of Jon Keeley and Ray Moritz (example: Keeley et al. 1999, Moritz et al. 2004, NPS 2004), especially as they relate to the “negative ecological effects” of “adding more fire to the landscape through broad-scale prescribed burning”. They reference “recommendations from the U.S. National Park Service to change the fire management program to focus fuel-reduction efforts and prescribed fire on strategic locations such as the wildland–urban interface (NPS 2004)”. Keeley, Cohen, Stratton, Rogers and others have written about the frequent failure of fuel treatments to protect flammable communities (Cohen and Stratton 2008, Rogers et al. 2008, Keeley et al. 2004, Keeley et al. 2009a).

Please carefully consider and respond in detail to our comments, concerns, and questions – both above and below.

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1. How is your generalized PEIR relevant for California's complex vegetation and microclimates? Santa Monica CNPS recommends the second edition of *Manual of California Vegetation* by John O. Sawyer, Todd Keeler-Wolf and Julie Evens published in 2009 for description of California vegetation. What about cumulative impacts? How can you disregard total impact by saying that your individual treatment areas are (only) about 260 acres? We agree with Halsey's suggestion:

“The first step in determining the cumulative impact of the proposed Program is to conduct a statewide evaluation of native shrublands and provide a reliable estimate of how many acres have been type converted historically, how much is currently threatened, and what impact the Program, development, increased fire frequency, and climate change may have on existing shrublands. Otherwise, any conclusions relating to the cumulative environmental impacts of a vegetation treatment program will be questionable.”

2. How can appropriate vegetation management, or lack of treatment, be conducted if careful analysis of the resources of each site is not done with local input at time of intended action? Where are the specific maps? How will a landowner know of the PEIR to comment, or if his lands are involved, if there aren't detailed maps?

3. How will you know whether there are CA or Federal listed endangered species, especially on private, unsurveyed lands? Have you investigated what particular vegetation alliances are found in areas of concern, including in Marin, using the *Manual of CA Vegetation (2d Ed)*? Have you taken into account the rarity of each alliance? And if not, why not?

4. As this PEIR is intended to last for a decade, and vegetation changes (including from global warming), is it not necessary to have plans and plant lists up-to-date at time of action?

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5. Why is this PEIR weaker than CEQA requires? Why does it not follow proper guidelines for assessing impacts to natural resources, specifically rare plants and chaparral? Why is there no Environmental Checklist in the PEIR, as the Program is supposed to have one to aid with review? Why does the document state that floristic surveys "may be necessary", when CEQA guideline 15125 states that: "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published"?
6. How can vegetation management be evaluated? VT program does not seem to provide oversight or monitoring at the state level to ensure that the agreed-upon treatment and mitigation program is carried out correctly in the short term and over the long term.
7. Why wasn't the PEIR written with major emphasis on land use planning and making defensible space? There is so much that can be done, such as plans that discourage further incursion into wildlands, and requiring use of fire resistant building materials and landscape. Would it not be a good idea to incorporate education on how to build fire-resistant structures in architectural and building curricula – and educate landscapers on fire-resistant plantings?
8. What will be done to protect speciation? For example, Jim Roof, former director of the Tilden Park Botanic Garden and a specialist of the genus, *Arctostaphylos* (manzanita), described the Mt. Tamalpais area as one where manzanita is undergoing a considerable amount of speciation, a hotbed of evolutionary activity. What actions will be taken under the proposed PEIR so that its programs that will not interfere with this evolutionary process?

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9. Frank Almeda, when he was Chairman of the Botany Department at California Academy of Sciences, wrote of Mt. Tamalpais with its rich assemblage of plant and animal species, as one of the unique and well-known natural treasures of northern California, noting that scientists used it regularly as an outdoor laboratory. He wrote of the importance of its “species composition, zonation, and juxtaposition of tracts in various stages of secondary succession to climax woodland” – and thus a less fire prone state. How will the PEIR mitigate for loss of desirable succession?
10. What evidence does BoF have upon which to base increase of burning across the Program area's bioregions by 36%? What effect will this have on watersheds? What will you do when broom and other invasives come in? Burning to control herbaceous and woody species needs repetition at frequencies detrimental to natives. Will you not end up with a more fire prone vegetation? What will you do in the following decade when you see the results of too frequent vegetation manipulation, and you have to write another (P)EIR?
11. Chaparral needs 40 to 100 years to recover from fire – to build up its seed bank, root system and canopy which resists ignition. More frequent burning can set succession back to more fire prone, invasive susceptible vegetation. How will you protect the lifecycle of chaparral?
12. Controlled burns are done at an unnatural time of year, so one cannot expect “normal” post-fire response. Knapp et al. 2005: “The bottom line is that the potential for shifts in the plant community exists when the heat generated by prescribed burning is dissimilar to what would have been experienced with the fire regime that species evolved with”. Keeley, in 2005-6, 2011 & 12, published that use of prescribed fire in chaparral, especially when conducted during the cool season, can lead to type conversion.



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We agree with Halsey's comment that "The suggested mitigation to properly "time" or adjust the "intensity" of a prescribe burn is unrealistic and is only in reference to special status plants, not plant communities". Type conversion from wet seasons burns was discovered on Mt. Tamalpais a quarter century ago (Keeley, Ross). Can this serious concern truly be mitigated, and how?

13. Is not the title "No Herbicide Treatment" misleading when the plan is to treat 300% more acres with herbicides than the status quo? How will an herbicide be evaluated for its residual impact on future plant cover? How will an herbicide's impact on humans be evaluated when products change and research seems to be turning up more and more reasons not to use them?

Marin CNPS joins the Los Angeles/Santa Monica Mountains Chapter in their suggestions dated 2/19/13:

"Recommendation for an environmentally superior alternative to this draft PEIR:

- 1) A vegetation treatment plan that incorporates Alternatives 2, 3 and 4.
- 2) A vegetation treatment plan that recognizes the need to map vegetation alliances and faunal habitats on the proposed treatment site, the fire frequency and dates of the last wildfires affecting the site, then use this data to select the best management practices (not necessarily the cheapest or most expedient), mitigations, and monitoring schedules to preserve and conserve those natural resources both short term and long term.
- 2) A vegetation management plan that emphasizes education and creates demonstration landscaping of defensible areas around selected structures (e.g. fire stations) in all parts of the State, working with State and local fire jurisdictions, Fire Safe Councils, local garden clubs, landscapers, and the local chapters of the California Native Plant Society.

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- 3) Judicious use of various methods permitted by regional and local air and water quality agencies to remove weeds, dead material and careful pruning of trees and shrubs, preserving seed banks, seedlings and young growth (fresh canopy), thinning out dense stands and training some native shrub species to grow in such a way as to eliminate fire ladders.
- 4) A vegetation management plan that has accurate maps on a scale where landscape features are clearly delineated with clear and complete legends identifying all colors and lines used on the map. Those maps will clearly locate all areas and jurisdictions covered by the plan.
- 5) A vegetation management plan that works with local planning agencies, air quality and regional water quality agencies, fuel modification inspectors, parkland planning and maintenance staff, conservancies and watershed councils to develop best management practices for vegetation treatment and natural resource conservation in their areas.”

Marin CNPS would add the very important request that exemptions are needed for areas of important flora and fauna. For example, Marin County's flora is one of state's rich centers for endemism and floral richness resulting from the overlapping of ancient floras, one from the north and another from the south. The flora of Mt Tamalpais is unique and is, in a sense, a living museum. The extent of endemism and the origins of this world-famous flora are detailed in part in J.T. Howell's *Marin Flora*. It would be a biological crime to destroy it.

To quote from Peter Raven and Ann Ehrlich's book ***Extinction...the diversity of plants is the underlying factor controlling the diversity of other organisms and thus the stability of the world ecosystem. On these grounds alone, the conservation of the plant world is ultimately a matter of survival for the human race.***

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Marin CNPS agrees with State CNPS that “the PEIR fails to provided substantial evidence to support conclusions that adverse effects to botanical resources from Program implementation will not be significant for any treatment type, in any bioregion”.

Importantly, the PEIR also fails to prove that action is better than status quo.

With the above in mind, Marin CNPS believes, along with others, that our state flora would be best off if California State Board of Forestry and Fire Protection withdrew this PEIR for Vegetation Management Program, and started over.

We recommend working closely with State CNPS to understand the life cycles of California flora, and how or if it can or should be “managed”, and to have access to local wisdom about the flora and its needs and resilience. Researchers like Jon Keeley, Jack Cohen, and Ray Moritz have a lifetime of experience from which any vegetation management program would greatly benefit.

Thank you for your consideration,

Sandy Ross, Ph.D., for Marin Chapter, CNPS

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