

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

MARINE SCIENCE INSTITUTE
SANTA BARBARA, CALIFORNIA 93106-6150
PHONE: (805) 893-3511
FAX: (805) 893-4724

<http://RIVRLab.msi.ucsb.edu/>
Ph. 805-893-2911
tdudley@msi.ucsb.edu

31 May 2016

Re: Draft Programmatic EIR for the Vegetation Treatment Program
California Board of Forestry and Fire Protection
Attn: Edith Hannigan, Board Analyst
Email: VegetationTreatment@bof.ca.gov

Dear Ms. Hannigan and Members of the Board,

I am a researcher with the University of California studying vegetation and fire in southern California, specifically the role of non-native, invasive plant species in changing wildfire dynamics and including the use of prescribed fire for reducing wildfire risks. Thus, I was very hopeful that the updated Draft Programmatic Environmental Impact Report (DPEIR) for California's Vegetation Treatment Program would bring a fresh and scientifically-sound approach to these serious issues. Furthermore, I live within the chaparral vegetation type above Santa Barbara, and have been involved with our local Volunteer Fire Department, so these issues are both professional and personal.

Instead of being satisfied with the BOF re-analysis of wildfire preparation planning, I am deeply concerned that this report is inadequate, repeating many of the same short-comings as previous reports and ignoring the input of scientists, conservationists and others. Therefore, I ask that the whole program be over-hauled to correct unsupported statements, that in many cases run counter to current scientific knowledge regarding how to manage and reduce wildfire risks and better protect infrastructure, communities and ecosystems. These misrepresentations are more fully detailed in the response of the the California Chaparral Institute, so I will not repeat them here because I am a co-signer on that document.

Of particular concern is the promotion of the obsolete approach of clearing large areas of native shrubland vegetation, whether by mastication or by prescribed fire, with the intent of altering fire severity and proximity. As the BoF should be fully aware, the most serious wildfire impacts in shrublands (chaparral ecosystems) are during 'fire weather', when vegetation volume is of relatively little significance in determining fire intensity and spread rates. Thus, massive clearing does not have a substantial impact to fire return intervals nor the risk fires pose to communities.

Instead, these disruptive measures tend to promote proliferation of non-native, fire-prone ruderal plants, as we have outlined in a recent publication in the plant science journal *Madroño* (Lambert, A.M., C.M. D'Antonio and T.L. Dudley. 2011. Invasive species and fire in California ecosystems. *Madroño* 38:29-36). Intact vegetation assemblages are destroyed, particularly by repeated use of these vegetation management methods, and are replaced by weeds that increase

probability of fire ignitions. Attempts to manage fire severity have the perverse effect of leading to more ignitions, particularly when conducted along access routes that are where human activity, and thus likelihood of ignition sources, are concentrated. For example, we have observed adjacent to our community at the WUI, a fire that started along a ridge route presumably by cigarette or sparks from a passing vehicle, that burned the approx. 200 feet of adjacent vegetation that had been managed for 'fuel reduction' and then stopped cold at the edge of the undisturbed, mature chaparral vegetation. It bears repeating, vegetation removal promotes weed proliferation, which in turn increases likelihood for ignitions and does little to prevent either fire spread (embers or firebrands cross 100's of meters easily during 'fire weather' conditions when the risks of fire are most severe).

It is a serious failing that the current DPEIR circumvents CEQA requirements by inadequately evaluating significant effects of recommended treatments on natural resources and environmental quality, and mitigation measures to address damage that recommended treatments would impose on our landscape. This is in addition to those recommendations being inappropriate and unnecessarily destructive to ecosystem processes and biodiversity in the first place.

I am especially concerned, and in fact dismayed, that BOF and CalFire continue to promote obsolete and destructive measures that alter entire landscapes, when modern information highlights that fire risk is best addressed at the WUI itself rather than by causing massive alteration of surrounding landscapes. Scientific data indicated that not only is it the Best Management approach to work on vegetation management from the structure outward, rather than from the surrounding landscape inward. That is where protection efforts should be focused, on the structures themselves and the immediately surround vegetation, not away from the WUI. Furthermore, clearing the massive areas at the WUI is also unjustified, as data on vegetation relationships with wildfire show that there is no significant benefit from clearing vegetation further than 100 feet away from structures, yet this DPIER promotes the unjustified idea that it is necessary to destroy natural vegetation many hundreds of feet away from structures. The data simply do not support these larger mass clearing efforts, as and noted earlier, INCREASE rather than diminish fire risk because they invariably promote invasion and proliferation of highly flammable weeds.

Clearings furthermore remove the protection that shrubland vegetation provides to soils, which otherwise lose organic content, and are exposed to erosion and mass wasting from rain and other forces. They severely reduce the quality of habitat for sensitive wildlife species, and damage watershed resources by enhancing sediment entrance and transport through stream systems, many of which contain Endangered Southern Steelhead Trout and other sensitive and formally protected species.

So, my cursory analysis of the draft PIER document leaves me very concerned that it represents an incomplete, and rather obsolete, assessment of best practices for managing wildfire risk for the future. In particular, there is abundant emphasis on costly and often counter-productive vegetation removal approaches, especially in shrubland environments such as California chaparral ecosystems. The document largely ignores current scientific understanding and policy recommendations that would be at the same time be more cost-effective, less damaging to natural ecosystems and native biodiversity, and finally, a safer and more realistic approach to managing wildfire risks in California. Management efforts should be more carefully

targeted at the real wildfire concerns in the interest of best protecting lives, property, and the natural environment through an integrative and comprehensive approach focused on the at-risk human communities and immediate surroundings, rather than an unfocused effort to fundamentally alter the natural communities adapted to function in the context of fire. The planning effort should truly be focused instead on fuel modifications within and directly around communities at risk, on ignition sources and potential points of wildfire ignition including the role of flammable non-native plants, on protection of structures via better flammability inhibition, and on comprehensive community and regional planning to improve communication and planning among all stakeholders.

This PIER process requires an unbiased and scientifically justifiable re-consideration, with greater attention of input from independent fire researchers and the conservation community...which has NOT been the case to-date.

Sincerely,

Tom Dudley, PhD

Dir., Riparian Invasion Research Laboratory
& Affiliate, Cheadle Center for Biodiversity and Ecological Restoration

Marine Science Institute
University of California, Santa Barbara 93106-6150