



## Conservation Biology Institute

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May 31, 2016

**To:** California Board of Forestry and Fire Protection (BOF):

**Subject:** Comments on Draft Vegetation Treatment Program (VTP) Programmatic Environmental Impact Report (PEIR)

I am Chief Scientist at the Conservation Biology Institute (CBI), a nonprofit research and planning institution that performs applied research in biological conservation and resource management. We also provide scientific guidance and support for large-scale conservation and land management plans.

By training, I am an ecologist and wildlife biologist with over 35 years of research and conservation planning experience in California and the west. Because I combine science and real-world planning experience, I am often asked to lead science advisory processes and collaborations amongst agencies, land managers, academic scientists, NGOs, and other stakeholders to resolve complex and contentious land and resource management issues.

Since the 2003 Cedar Fire disaster in San Diego County (during which I housed evacuated friends, and after which I monitored biological impacts) a passionate goal of my work has been to develop better approaches for reducing wildfire risks to human and natural resources while sustaining natural ecological conditions and biological diversity. Currently, I lead teams of experts from state and federal agencies, academia, and NGOs that are tasked with refining management strategies for Sierra Nevada forests to reduce wildfire risks, restore more naturally resilient forest conditions, and improve habitat for species associated with “fuel rich” forests—especially the Pacific fisher (*Pekania pennanti*; a California Threatened Species) and the California spotted owl (*Strix occidentalis occidentalis*; a Candidate for listing).

Based on this professional experience, and at the request of the Endangered Habitats League (EHL), I offer the following comments on the 2016 VTP PEIR.



*The current Draft VTP PEIR remains fundamentally flawed and inadequate under CEQA.* Numerous substantial comments<sup>1</sup> pointing out errors, fallacies, inadequacies, and other problems with the 2013 Draft VTP PEIR—as well as recommendations from the Fire Science Consortium peer reviewers—appear to have had little influence on the 2016 draft, which still fails to adequately describe the VTP, analyze impacts, develop clear, enforceable and effective mitigation measures, develop an appropriate range of alternatives, or even to justify the purpose and need for the PEIR with any meaningful scientific support.

I understand that the flood of negative comments from scientists, conservationists, and other informed parties in 2013 were largely responsible for the BOF withdrawing and redrafting the PEIR, and obtaining independent scientific peer review by the California Fire Science Consortium. Since 2013, I participated in one meeting with the peer reviewers and several other meetings, workshops, and phone conferences with PEIR participants, scientists, and other experts. Our intent was to provide useful recommendations to CalFire and BOF for improving the VTP and the PEIR. Considering all this expert input during the PEIR revision process, I had hoped that this new draft would be a substantial improvement over the previous. I am disappointed.

Although the PEIR authors did correct some errors and improved much of the content (at least in introductory chapters)—including somewhat improved descriptions of California’s vegetation communities and fire regimes—they failed to adequately apply this scientific information in meaningful ways to actually improve the program or the PEIR’s defensibility under CEQA. In fact, actions proposed in the VTP are often in conflict with the cited science. This results in the PEIR contradicting itself in later chapters, such as the impact and mitigation chapters.

The following issues are fundamental flaws that render the PEIR out of compliance with CEQA.

Misplaced Goals. Despite the PEIR’s *stated* goals (reducing risks to human life, property, and natural resources) its *actual* goal seems to be reducing regulatory hurdles so that CalFire can treat more acres/year—*whether or not the treatments are actually needed and effective*. Note that these different goals lead to very different approaches. If the goal is to treat more acres, there is little incentive to consider more effective, less costly, or more environmentally friendly alternatives. There is no scientific support for acreage quotas.

Insufficient Project Description. The project description is still so vague that the environmental impacts cannot be meaningfully analyzed. The PEIR provides broad categories of vegetation treatments and WUI-based land zones where they may apply, but fails to explain how these would actually be used in the project planning process. For

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<sup>1</sup> My comment letter from 2013 (Attachment A) is incorporated herein by reference, because many of the problems it addressed remain in the 2016 PEIR.



example, the PEIR states that the number and type of vegetation treatments would be selected based on “a number of parameters”—starting with, “the potential for significant adverse impacts”—but it never specifies how the various parameters, criteria, and principles would actually be applied to project planning. It also fails to define key terms, such as “high value asset,” “old growth,” and “forest health,” which are used as loopholes in the already vague principles. Impact findings based on such a loosely described project can be nothing more than simplistic speculations. Consequently, the PEIR defers the analysis of impacts and mitigation to be determined project-by-project in the future.

Basically, the program seems to boil down to: We’ll determine the impacts of projects as they happen and then figure out mitigation if need be. But it is the purpose of a PEIR to fully analyze and disclose the individual and cumulative impacts of projects it would cover and to prescribe adequate mitigation actions for impacts of those projects. This draft does not do that.

Poor Scientific Justifications. The PEIR often cites references that don’t support its statements, misrepresents some scientific references, uses inappropriate references to justify assumptions and conclusions, and omits a number of cited publications from the References (Chapter 9). Rather than create a lengthy list of these (I trust other scientists will weigh in on this topic as well), here are just a few examples:

Chapter 2 still cites Bonnicksen (2003) to support statements about changes in forest composition, habitat value, and stream sedimentation due to fire suppression (although note that the reference is missing from Chapter 9, References). As pointed out in comment letters on the 2013 draft, Bonnicksen (2003) is not a credible or scientific reference, but rather testimony before Congress by a highly controversial timber products lobbyist whose misrepresentations of science and of his own qualifications have been publicly repudiated, including by the University of California System for Bonnicksen claiming a non-existent university affiliation (Rundel et al. 2006). An EIR must objectively consider the best available information, not cherry pick non-scientific opinions.

The 1.5-mile WUI definition is not supported by any scientific evidence or rationale, but rather by citing the 2004 US Forest Service Sierra Nevada Forest Plan Amendment, which is a federal planning document that used 1.5-miles as an arbitrary distance to roughly assess the number of homes and communities that might be affected by the plan. (Note also that the Amendment has been highly controversial, with implementation impeded up by various law suits.) Something as key to establishing the area within which treatments are planned to meet the VTP’s stated goals (protecting human and natural resources) should be based on sound, objective analysis, not arbitrary analytical thresholds established by another agency for another purpose.

As commented on extensively by various scientists already, and supported by peer-reviewed science, creating and maintaining fuel breaks not immediately adjacent to homes is not an efficient expenditure of funds, provides little if any protection to homes



or other “high value assets” (especially under severe fire weather when most losses occur) and should be assessed as a resource sacrifice rather than a resource benefit (Cohen 2000; Keeley et al. 2009; Syphard et al. 2011, 2012, 2014; Calkin et al. 2013; Penman et al. 2014; Price et al. 2015).

Some conclusions the PEIR draws from the scientific literature are illogical. For example, it cites Safford and Van de Water (2014) to claim that northern California chaparral is not threatened by increased fire frequencies and that therefore fuel treatments in northern chaparral can be used for ecological purposes. First, this ignores that Safford and Van de Water went on to state that “... recent trends in fire activity, burned area, and fire severity suggest that the situation is rapidly changing as climate warms....” Second, it is a non-sequitur to conclude that fuel treatments in northern chaparral may be *ecologically beneficial* just because they aren’t *as threatened* (yet) by type conversion as southern chaparral. *What scientific evidence supports that burning, grinding, or grazing northern chaparral is ecologically beneficial?*

Failure to Adequately Reflect Peer Comments. The PEIR seems to use the CFSC peer review to provide a veneer of scientific respectability, but fails to actually implement the peer comments in meaningful ways. For example, the peer review recommended that the PEIR should “provide an inventory and evaluation of the fuel breaks within the state that includes the development costs associated with continuing to develop and maintain a system... Across all of the Alternatives within the VTPEIR, different levels of investment (capital and maintenance) in fuels breaks should be clearly detailed (Agee et al. 2000).” I have been unable to find such an evaluation in the PEIR.

The review also strongly recommended using a formal adaptive management approach to improve understanding of VTP effects and effectiveness, and use of an outside party to monitor projects to “remove the ability of managers to rely on self-rating checklists that may not always show sound evaluation.” The current draft PEIR defers formal adaptive management to some future date (when more funding hopefully becomes available) and (unless I missed something) it still empowers managers (or the “Project Coordinator”) to use self-rating checklists without third party input, monitoring, or review.

*This is a serious concern that permeates the PEIR:* CalFire and BOF seem to take a “trust us, we’re professionals” attitude about project planning and implementation, while continuing to ignore implications of peer-reviewed science and being less than transparent about methods, guidelines, etc. This approach does not increase trust.

Poor and Inappropriate Maps, Data and Analyses. It is surprising that the PEIR relies on outdated and inadequate spatial data, presents almost unreadable, very coarse-resolution maps, and that the “GIS-based” analyses are not described with sufficient detail to judge their merits. This is especially concerning given that GIS experts that are familiar with CalFire’s GIS staff tell me they are highly competent and have updated data layers that could have been used. Why were these resources not meaningfully deployed to update



and refine the analysis and presentation of where fuels treatments would be used or beneficial?

The PEIR does not even seem aware of CalFire's own expertise, data products, and directives. It uses a fire hazard analysis from 2001-2003 and a WUI model based on 1990 census data, despite that updated datasets are available (some produced by CalFire!). The results of the fire hazard analyses were not subject to formal peer review. Nevertheless, Syphard et al. (2012) found that the model outputs had no power to predict housing losses from wildfire. Relying on admittedly outdated, inaccurate, imprecise, and poorly described analyses to prioritize vegetation treatments is not acceptable.

No Evidence the Proposed Treatments Will Be Effective. The PEIR still provides no evidence, references, or research studies demonstrating the effectiveness of the proposed treatments in protecting homes or other resources. Anecdotal case studies do not represent substantial, objective analyses. Cherry-picking case studies, such as cases when a fuel break may have helped stop a wildfire, can be highly misleading, particularly in the face of peer-reviewed studies showing low probabilities of this occurring over a large sample of fires (Syphard et al. 2011, 2012).

Inadequate Range of Alternatives. An EIR must analyze a range of reasonable alternatives that could feasibly attain the project objectives. However, all alternatives in the PEIR are just variations on the theme of treating vegetation on wildlands to reduce fire risks to human or natural resources, despite all the science calling this approach into question. None of the alternatives is likely to achieve the stated objectives; and there are more environmentally friendly and effective alternatives. Reasonable alternatives that would meet the stated objectives would need to take a comprehensive approach to fire management that includes community and regional planning, reducing ignitability of structures, and using strategic fuel modifications and ignition prevention planning within and directly around (e.g., within 100 feet of) the commodities at risk.

During PEIR revision, the Endangered Habitats League (EHL) in collaboration with several scientists, including me, provided CalFire with an alternative to consider that would better achieve the PEIR's stated goals and reduce the VTP's environmental impacts. This proposed approach prioritized treatments (using properly defined WUI) within 100 feet of at-risk structures (highest priority); within 100-1,000 feet of structures where a tactical fire-fighting evaluation and an ecological evaluation agree there would be a positive benefit/cost ratio (moderate priority); and >1,000 feet from structures, or having adverse ecological effects if closer than this (lowest priority). This recommended alternative approach also reflected the prevailing scientific consensus that fuels treatments in chaparral and other shrub-dominated communities should be generally excluded as too costly and ineffective in reducing fire risks or increasing ecological benefits. I don't see due consideration of such logical, science-based prioritization alternatives in the PEIR.



Vague Criteria and Guidelines. The VTP puts a lot of weight on use of various criteria, principles, and guidelines to avoid and mitigate impacts, but does not spell these out with sufficient detail for one to evaluate their effectiveness. For example, the principles for locating and implementing fuel break treatments are so shallow and vague as to be meaningless, and no process is defined for how conflicts between project objectives would be resolved. For example, who decides what to do, and how, when a project might impact a sensitive species?

Moreover, some criteria, guidelines, and principles are nothing but empty promises, such as, treatments shall be designed “to prevent type conversion.” Who determines this, when, how, based on what? And what recourse is there if the finding is incorrect?

Continued Failure to Adequately Analyze Impacts. There is no defensible analysis of VTP impacts for any alternative, nor any meaningful comparison among alternatives. The impact findings are unsubstantiated opinions lacking factual support. In part this stems from the overly vague Project Description and unclear Significance Criteria, which provide no measurable thresholds of significance. For example, concerning biological impacts, the PEIR states that the VTP would have a significant impact if it “contributes to the substantial, long-term decline in the viability of any native species.” How are the terms substantial, long-term, decline, and viability defined and measured? Who makes this determination, when, over what portion of the species population distribution, using what data and logic?

The impact analysis for each biological resource basically says there is no significant impact because the projects are relatively small (estimated average = 260 ac), and Standard Project Requirements (SPRs) will minimize and mitigate any impacts (despite how vague, unmeasurable, and unenforceable they appear to be; see below). In fact, the PEIR concludes, the SPRs are likely to *benefit* resources by reducing wildfire size and severity (despite scant scientific support for these assumptions). This is pure speculation without scientific support.

Then, for cumulative impacts, the analysis concludes the program is so “large and complex” that the impacts can’t really be assessed, but we assume they are not significant at the regional scale. Which is it, too little area or too much area? This does not represent an adequate analysis of either project or program impacts.

Continued Reliance on Vague and Ineffective Mitigation Concepts. The PEIR relies on vague, unmeasurable, unenforceable, and probably ineffective mitigation concepts to reduce project and cumulative impacts to less than significant. In some cases, the “mitigation” is simply to “identify issues” and “take necessary actions.” How is “identifying issues” mitigation? What “necessary actions”? Again, the mitigation statements seem to be based on a “trust us, we’re professionals” attitude.

As an example, the PEIR proposes that the “Project Coordinator” will perform a CNDDDB search for sensitive species in and near a proposed project area. Really? CNDDDB is a



positive-only database that includes data only from areas where surveys have been performed (not to mention it is notoriously out of date, sometimes inaccurate, and does not adequately account for recent taxonomic or status changes, etc.). What are the qualifications of the Project Coordinator? Are they a biologist familiar with the nuances, inadequacies, and interpretations of CNDDDB or other biological data sources? I have seen way too many cases of state agencies (and others) misusing CNDDDB to draw grossly inappropriate conclusions about project impacts to accept this approach. As pointed out in previous comment letters, there are better, newer, more efficient and informative ways to assess potential resources at risk; and trusting an unnamed “Project Coordinator” to make this determination based on a CNDDDB search is not even close to adequate.

The PEIR also seems to imply that simply identifying a problem makes it go away. Identifying issues is not mitigation. What is the resolution when a potentially significant impact is identified by the Project Coordinator and the outcomes of discussions with resource agencies? The PEIR does not describe how resource conflicts will be resolved, projects declined or altered, or mitigation prescribed.

#### No Consideration of Other Land and Resource Management Plans

As an ecologist with a long history of involvement in California’s landscape-scale conservation planning efforts, I am especially concerned that the PEIR seems blind to the progress we have made in establishing ecosystem reserves and how to manage them. I cannot even begin to document this in this letter due to time constraints, but it is unbelievable that a state-wide VTP PEIR would fail to address how its actions relate to existing preserve management guidelines that apply to large areas of conserved land that fall within the State Responsibility Area. This is a major problem that CalFire needs to coordinate much more closely with the California Department of Fish and Wildlife, the Natural Communities Conservation Program, and numerous Habitat Conservation Plans, Conservation Strategies, and other progressive land and water conservation and management plans in this state.

CalFire needs to engage with other agencies—state, federal, tribal, and local—to collaboratively determine how best to manage vegetation and fire issues on our landscape. On its own, CalFire has shown it is not sufficiently informed and competent to meet its stated objectives. Collaboration, science, and logic are needed. I suggest that that it would be fruitful for CalFire and BOF to coordinate with organizations like the California Landscape Conservation Cooperative (CA LCC: <http://californialcc.org/>) to improve coordination of the VTP with US and California collaborative efforts to conserve biological diversity in the face of climate change using best available science and decision-support tools. CA LCC has representation from all pertinent state and federal agencies and NGOs, except for CalFire. CalFire should catch up with the rest of state government to get on board with efficient, collaborative, science-based programs. The current VTP is not it.



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## Conclusions

The VTP PEIR remains fundamentally flawed, should not be certified, and needs to be completely redone once a much more scientifically valid approach to wildfire management replaces the current VTP. I again recommend that the program be rethought from the ground up in collaboration with scientists, stakeholders, and other appropriate experts to develop a strategy that might actually achieve the goals of reducing risks to human and natural resources. All this PEIR does is try to justify increasing the acreage of vegetation treated by various means, without sufficient guidance or oversight, in the misguided assumption this will solve the problem. Contacting the California LCC for assistance might be a fruitful first step.

Sincerely,

A handwritten signature in blue ink, which appears to read "Wayne D. Spencer". The signature is fluid and cursive, with the first and last names being more prominent.

Dr. Wayne D. Spencer  
Chief Scientist, Conservation Biology Institute



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