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County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego CA 92123-1666
Attention: Thomas Oberbauer

July 23, 2010

Re: Negative Declaration for Dead, Dying, and Diseased Tree Removal in the Greater Julian Area and nearby Areas

Dear Mr. Oberbauer,

We thank the county for responding to our original June 24, 2010 suggested points of agreement (please see attachment below). We have modified our comments and proposed points of agreement in consideration of the county's perspective on the use of registered foresters, leaning trees, anchor points, distances, and monitoring. We greatly appreciate the county's commitment to prepare an Environmental Impact Report for future vegetation management activities.

In order to limit environmental harm and extend the extent and effectiveness of limited funding to protect more communities from the risk of wildfire, we are hopeful the county will make an equal effort to incorporate our suggested points of agreement into their final tree removal project.

In order to protect more communities from wildfire and to prevent unnecessary damage to the environment, we urge the county to consider the following comments in its \$7 million dead tree removal project.

1. Reduce the distance of dead tree removal from 500 to 300 feet from structures and 150 feet from roads. By reducing the distance of treatment the county will be able to use tax payer funds in a more efficient and effective manner, dramatically increasing the number of communities it could protect.

Research on the effectiveness of vegetation treatments to create defensible space for firefighters and reducing fire risk around homes and evacuation corridors has clearly shown that diminishing returns increase dramatically the further away the treatment

occurs from the asset as risk. Distances beyond 100 feet are only justified for exceptional situations such as on heavily vegetated, steep slopes.

The county's justification for the 500 foot distance is based on recommended distances for firefighter safety zones, speculation on how far dead trees can roll, and observations of 300 foot flame lengths during the 2003 and 2007 fires. We find these explanations lacking scientific credibility.

First, the intent of firefighter safety zone distances is to provide guidance in the case of an emergency, not as a standard to be applied along the entire Wildland/Urban Interface (WUI). The National Wildfire Coordinating Group has defined safety zone as: "An area (usually a recently burned area) used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe . . . areas that can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity" (USDA/USDI 1995).

The large amounts of vegetation treatment required to apply firefighter safety zone standards along the WUI would be a misallocation of scarce pre-fire management funds, cause unnecessary environmental damage, and may increase fire risk if not properly performed and maintained.

While the USFS Land Management Plan for the California National Forests (USDA 2005) does indeed recommend defense zone vegetation treatment in forested ecosystems up to 1,500 feet "on steep slopes or in areas of significant tree mortality," the agency does not conduct such projects without a complete environmental review including public comment. In fact, such distances have been challenged scientifically as not effective in reducing fire risk around communities. Jack Cohen, the USFS's own fire scientist, has shown that it is best to reduce the flammability of homes themselves, along with their immediate surroundings - an area within about 200 feet of the structure (Cohen 1999).

Second, while it is possible that a dead tree may "fall, roll, slide, or otherwise travel down slope" onto structures or roads from 500 feet away (nearly two football field lengths), conditions that would allow such an event in the region are limited and do not justify the general removal of dead trees as requested in the Negative Declaration.

Finally, as we discuss below, claiming that the dead trees referenced in the Negative Declaration will be responsible for generating 300 foot flame lengths defies the physics of fire.

2. Reevaluate the impact of dead trees on fire behavior. In our suggested points of agreement letter (June 24, 2010), we said that dead trees do not provide fuel for an active fire front. We erred in not qualifying this statement by explaining that the impact of dead trees on the active fire front depends on their condition (please see amended points of agreement on pgs. 8-9 below).

Conifers that have recently died and remain full of needles can obviously impact fire behavior. However, this is not the case for trees of the type illustrated in the Negative Declaration (page 5-6). These trees have been dead for years and have lost their most flammable components - lighter fuels less than 3" in diameter (also see Photo 1 below). It's the lighter fuels (both living and dead) that power the flame front and contribute to huge flame lengths. Although such trees can create hazards for firefighters in the form of falling snags and require extra effort to extinguish after the fire front has passed, the county's claim that such 1,000 hour fuels are responsible for generating flame lengths of 300 feet is not supported by the fundamentals of fire science.

Although the anecdotal evidence cited in the Negative Declaration about the impact of previous fuel treatments (pg. 11) and ember production from dead trees (pg. 13) can be helpful in some circumstances, it is not science. It is imperative that whatever treatment the county conducts, it does so by using objective, scientific research. Such an approach is also required by state environmental laws.

3. Reevaluate our ability to prevent large crown fires in forested ecosystems.

Although the history of San Diego County's forests has not been fully examined, it is reasonable to conclude that the mixed conifer forest on the Laguna, Cuyamaca, and Palomar mountains have negatively departed from their natural fire regime due to fire suppression. This appears to have led to an unnatural accumulation of vegetative material in some forested areas, creating more flammable conditions.

However, it is not reasonable to assume that large, stand replacing fires of the type that occurred in 2003 are strictly unnatural and are an artifact of fire suppression as postulated by in the Negative Declaration. In fact, as the county learned from research we have cited in our previous comment letters, large fires in the region have occurred long before the era of fire suppression (Keeley and Zedler 2009). In referring to the large fires of 1889, the Julian Sentinel wrote on October 4, 1889,

When we look at the Cuyamaca peaks and see how the pine, cedar and oak trees have been mown down or destroyed by fire, we should have feelings of regret for the great loss we sustain.

While we can certainly thin forested areas near communities and create strategic fuel treatments for back firing operations, potential anchor points, and firefighter safety zones, expanding treatments beyond such areas as a surrogate for the natural fire regime is a questionable use of tax payer funds. Such activity reduces the number of areas that can be treated near communities and may cause significant, unnecessary harm to the environment. While it is clear that forest thinning is useful in modifying fire behavior and preventing crown fires, the relatively small size and isolated nature of the mixed conifer forests in San Diego County require special care when considering such treatments. This is why exemptions from review for fuel treatments in large, commercial timber stands under California Forest Practices Rules should not apply to San Diego County.

Since there is zero tolerance for wildfire in the county because of the region's large population, the risk is too great to allow naturally caused fires to burn anywhere in the region. Consequently, we are likely doomed to live with the fact that our presence on the landscape prevents the return of the natural fire regime in the region's mixed conifer forests. Limited fuel treatments at strategic locations in these forested areas, such as understory burns and mechanical tree thinning, are reasonable projects to pursue, but only if they are part of a complete, regional fire management plan that carefully considers all the environmental impacts and efficacy of treatments (Elliot et al. 2010, Bond et al. 2009).

4. Value the importance of dead trees in forested ecosystems. The county's claim that dead tree removal will "improve forest health" ignores the impact of the loss of habitat such removal will cause. Dead trees and coarse woody debris are two of the most important indicators of a forest's biodiversity.

The wholesale removal of such vital components in the ecosystem (as shown in the before and after photos in the Negative Declaration on pgs. 7-10) **can have a significant negative impact** on the staggering number of organisms that depend on them (S.H. Black et al. 2010, Smith 2000, Unitt SDNHM).

5. Focus on the Entire Fire Risk Reduction Equation.

Although we are aware that the \$7 million grant for this project is specifically designated for dead tree removal, we implore the county to develop a comprehensive fire plan than addresses all risks related to wildfire, and not just depend on priorities determined by funding grants. In this way, the county can lobby the appropriate funding agencies to support a program that can be shown to save lives and property over the long run instead of one that merely funds a series of endless fuel treatment projects.

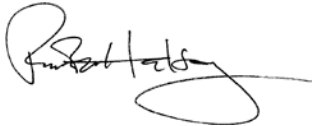
As was shown in both the 2007 Angora Fire and the 2007 Grass Valley Fire, fuel treatments in forests consistently fail to meet expectations when the communities themselves are built to burn (Murphy et al. 2007, Cohen and Stratton 2008).

The recent USFS Palomar Community Defense Zone and Fuelbreak Project Environmental Assessment provides an excellent model for the county to follow for evaluating and designing fuel treatments projects (USDA 2010). The current draft of the Santa Monica Mountains CWPP provides a good example in how the entire fire risk equation should be addressed (SMM 2010).

We also strongly suggest the county conduct a monitoring program that not only examines the impact of fuel treatments on the ecosystem, but also whether or not a fuel treatment actually accomplished its goals - improving fire safety. The current Draft Monitoring Plan does not meet the basic scientific standards to produce useful information (Please see our comments on the draft plan below in our amended points of agreement on pg. 9).

We supported the county's past efforts to remove hazard trees along roads and near communities because the distance was generally limited to under 200 feet (Photo 2 below). Since trees in the region are nearly all well below this height, the county was able to remove trees that posed direct hazards to citizens. The requested expansion of dead tree removal to 500 feet is not justified from a fire safety basis, is a poor use of tax-payer dollars, and based on our review of the literature and observations of previous county dead tree removal efforts, **may cause significant impacts to the environment.**

Sincerely,



Director
California Chaparral Institute

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Photo 1 above shows trees on Volcan Mountain that were killed in 2003 by fire. These trees do not possess the fine fuels that typically fuel a fire front. However, they provide vital habitat for a staggering array of organisms and their removal would cause significant negative impacts to the environment.

Photo 2 below shows the results of dead tree removal next to an established evacuation route in the Cuyamacas. This is a reasonable use of tax payer funds.



Suggested Points of Agreement

Amended 7/23/10

These points of agreement are based on the assumption that the proposed \$7 million project will be focused exclusively on treatment of dead and dying trees as stated in the Draft Mitigated Negative Declaration and will not treat chaparral, coastal sage scrub, or any other vegetation.

- To provide for protection of **assets at risk, strategic back firing locations, strategic firefighting anchor points, and firefighter safety zones**, conduct the following activities:
 - **Around occupied structures and facilities**, remove dead and dying trees up to 300 feet from building.
 - **In strategic locations** remove dead and dying trees up to 300 feet from existing road pavement and/or vehicle accessible road shoulders.
 - Strategic locations for firefighting activities and safety zones are naturally limited by terrain such as steep slopes and canyons, vegetation composition and density, the density of adjacent structures, and other factors. *These strategic points will constitute a relatively small portion of the total treatment area.*
- To maintain **evacuation routes and ensure emergency vehicle ingress and egress** in other roadway areas conduct the following activities:
 - Remove dead and dying trees at risk of falling onto existing roads only when the trees are located within 150 feet of road pavement and/or vehicle accessible road shoulders.
- Before removal, “dead and dying trees” must be identified as such by a Registered Forester.
- Prior to treatment, identify suitable habitat and conduct seasonally appropriate surveys (to protocol level where available) for all special status sensitive species as well as species identified in the California Natural Diversity Data Base in order to time/conduct treatments to prevent harm to said species.
- To protect habitat, trees should not be felled across identified habitat areas such as rocky outcrops, downed logs, or wood rat middens. Acknowledge the significant ecological values of dead standing trees with the clear intent to retain any within the treatment area that do not pose a hazard.

- Maps of the proposed treatment areas and approximate dates of treatment should be readily available to the public on the county's website.
- As per the county's 2009 Vegetation Management Report (Section 5), a before and after monitoring program needs to be established to measure "the effects of the treatment." This protocol should meet the appropriate scientific standards for research. The Report estimates that the funding allocation for such monitoring will be approximately 4% of the overall treatment costs.*
- Prior to conducting any future vegetation management activities or pursuing grants and other resources for such activities, prepare a comprehensive Environmental Impact Report addressing all potential vegetation treatment activities planned by the county and the cumulative effects of these activities alongside those conducted by other state and federal agencies.
- Do not pursue legislation that in any way attempts to exempt vegetation treatment activities from CEQA or any other environmental laws. This and other vegetation treatments proposed by the county do not warrant emergency exemptions from CEQA.

*** We strongly suggest the county conduct a monitoring program that not only examines the impact of fuel treatments on the ecosystem, but also whether or not the fuel treatment actually accomplished its goals - improving fire safety.** Neither can be adequately determined under the current Draft Monitoring Plan and within the two year period preferred by the Department of Planning and Land Use.

The Draft Monitoring Plan will certainly generate some data but not necessarily useful information. It is indeed feasible to design a monitoring program for this objective: "The Fuel Reduction Project is required to follow best forest management practices, and this survey will monitor each treatment area to assure compliance in addition to parameters that may be affected by treatments" (page 1 of Draft Monitoring Plan). However, a photograph and a one-paragraph narrative as specified in the Plan do not constitute a "monitoring program."

The existing current timber study at Palomar Mountain has generated little information or analysis in the four or five years since it was begun by the Forest Health Committee of the Forest Area Safety Taskforce. It was never properly funded and lacks quality control procedures for the sampling procedures and data. The survey methods are taken directly from standard practices, and describe far more observations than could ever be collected or analyzed or related to the proposed action. The document states that a long list of information will be collected, but there are no treatment objectives and no criteria for what constitutes "healthy" for these observations: crown status and condition, tree damage, tree mortality, down woody debris, vegetation diversity and structure, lichen communities, amount of invasive weeds, etc.