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Santa Barbara County
Planning and Development
123 East Anapamu Street
Santa Barbara, CA 93101

October 2, 2014

Subject: DEIR for the Goleta Valley Community Plan Update for the Eastern Goleta Valley

Dear Mr. Tetley,

The California Chaparral Institute (CCI) respectfully submits the following comments on the above mentioned document explaining why it is critical to expand protection to the Valley's chaparral covered watershed beyond what is currently described in the DEIR.

CCI is a non-profit scientific and educational organization dedicated to the preservation of native shrubland habitat and helping communities understand the natural environment in which they live and properly prepare for wildland fire. We have worked extensively with the US Forest Service to help create fire management projects that protect both communities and the natural habitats surrounding them. We offer a wealth of information on fire and shrubland habitats to the public on our website at www.californiachaparral.org.

The Setting

Santa Barbara County, and the Goleta Valley in particular, are fortunate to contain some of the richest and healthiest native shrubland habitat in California. This habitat, primarily chaparral, provides not only the natural resources to support the region's unique level of biodiversity, but also to improve the quality of life for residents and all those who come to visit. Chaparral provides critical watershed to protect the region's water supply, moderates local climatic conditions, prevents damaging erosion, and offers the signature backdrop for the one of California's most beautiful locations.

The Threat

Although Goleta Valley's chaparral has been impacted by recent fires, the fires' intensity,

size, and behavior were perfectly natural and were within the habitat's natural fire return interval of 30 – 130 yrs+ (Keeley and Zedler 2009, Lombardo et al. 2009, Mensing et al. 1999). What was not natural was the cause – human activity.

Historically, such fires have not posed serious problems for the watershed as it has been able to recover properly. However, with increasing population and climate change, this will likely change, posing significant risks to native plant communities, local agriculture, and the human population. **These risks include too frequent fires, development, erosion, and unnecessary vegetation clearance operations in the name of fire protection.**

As a consequence, local governments need to implement plans and ordinances to protect the integrity, health, and amount of chaparral within their jurisdictions.

Solutions

To implement the necessary protections to the region's chaparral watershed, the Plan needs to recognize chaparral as a valuable natural resource. The following recommendations would help accomplish this:

1. Designate chaparral habitat as Environmentally Sensitive Habitat (ESH) where it supports sensitive or rare species and where it is within 200 feet of creek beds. These designations are critical because they can provide the analysis needed to protect the Valley's watershed, viewshed, and habitat values since these are mostly composed of chaparral.
2. Rezone the substantial East Camino Cielo acreage near Painted Cave from AG to Mountainous. This will provide additional protection for native shrubland and oak woodland habitats from destructive activities such as clearance and grading.
2. Amend Chapter 9A of the County Code (Brush Removal Ordinance) to lower the trigger for a Brush Removal Permit to 1 acre.
3. Amend the ESH-GOL Ordinance to require a land use permit for ESH removal over 5,000 square feet regardless of whether "development" is also proposed.
4. Amend the ESH-GOL Ordinance in order for a permit to be required for the removal of vegetation over 5,000 square feet on a per project or per habitat basis rather than the current per parcel.

Rationale

A. Climate. Chaparral stores a significant amount of carbon (Lou 2007). It is the region's primary terrestrial carbon sequestration bank. Therefore, any clearance of chaparral

beyond one acre must be subjected to a thorough analysis to measure the cost/benefits of such clearance.

B. Clearance. Clearance beyond 100 foot defensible space zones can actually increase fire risk rather than reduce it. For example, over the past decade, several large areas around the community of Painted Cave have been unnecessarily cleared in the name of fire protection (see Photo 1 below). What has actually been accomplished by the clearance is an increase in fire risk due to the invasion of light, flashy fuels.

Recent research examining fire risk in California by studying vegetation growing within roughly half a mile of structures has found that **the exotic grasses that often sprout in areas cleared of native habitat like chaparral can be more of a fire hazard than the shrubs.** "We ironically found that homes that were surrounded mostly by grass actually ended up burning more than homes with higher fuel volumes like shrubs," lead scientist Alexander Syphard said (Syphard et al. 2012).



Photo 1: Painted Cave clearance operation. The foreground represents the impact of mastication of native chaparral showing significant soil disturbance. In the background, the longer-term impact of earlier treatments shows the invasion and spread of highly flammable, non-native weeds and grasses. This process has increased the ignitability of this area with the addition of flashy fuels. Additional pictorial examples of habitat clearance projects for the purpose of “treating fuels” near and within the Los Padres National Forest can be found in the following online album: <https://plus.google.com/photos/111832478062101189732/albums/5512793492339288961>

Research has clearly shown that a better use of money would have been to help the residents of Painted Cave to retrofit their structures with fire safe roofing, attic vents, and other structural changes.

It is the houses themselves, their location, and the fuels within 120 feet of those houses (including litter in gutters, yard junk, cultivars like palms and acacia, wood piles, etc.), that determine whether the property is vulnerable to fire.

Dr. Jack Cohen (2000), a research scientist with the US Forest Service, has concluded after extensive investigations that home ignitions are not likely unless flames and firebrand ignitions occur within 120 feet of the structure. His findings have shown that,

...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).

Cohen's work is consistent with the research on homes with nonflammable roofs conducted by other scientists. During WUI wildland fire events, Foote and Gilless (1996) at Berkeley found an 86 percent home survival rate for homes with a defensible space of 84 feet.

Although vegetation management is a critical component in reducing fire risk and hazard, excessive clearance beyond reasonable defensible space zones is unnecessary and can create a number of serious problems including increased flammability due to weeds, erosion, and loss of habitat.

C. Accelerating Loss. Based on predictions, we will likely lose about half of California's native shrublands due to climate change (Lenihan et al 2003). Much of this will be facilitated by too frequent fires (Keeley and Brennan 2012, Keeley et al. 2005).

For example, as shown in the map below (Photo 2), many of the shrubland areas within the surrounding Los Padres National Forest are at risk of type conversion to non-native weeds due to increasing fire frequency (Safford and Schmidt 2008). Any fire return interval under 15-20 years in the chaparral can cause the elimination of the habitat through type conversion (Jacobson et al. 2004).

While type conversion is not a significant problem at the present time for most of the chaparral areas covered by the Plan, population growth (more possible ignitions) and climate change will likely change this and increase the risk of habitat elimination.

As a consequence, it becomes imperative to protect the chaparral covered watershed to the greatest extent possible.

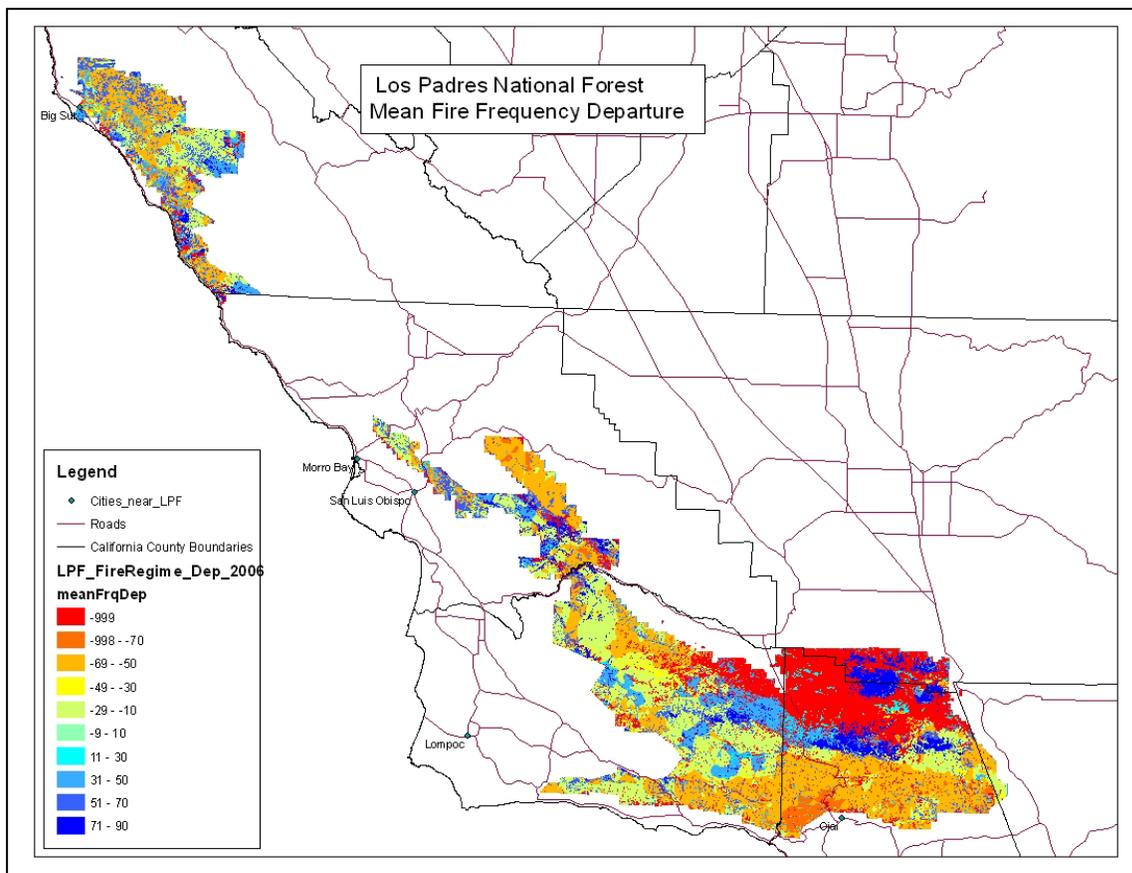


Photo 2. Los Padres Fire Departure Map. Hot colors (orange, yellow, red) show areas where there has been more fire on the landscape than the ecosystem was historically exposed. These areas are at risk of type-conversion to highly flammable, non-native weeds if fire frequencies continue to increase. From Safford and Schmidt (2008).

We appreciate the opportunity to comment on the Plan and look forward to further collaboration with the Santa Barbara County planning process.

Sincerely,

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