



November 19, 2013

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**SUBJECT:** Mount Laguna / Pine Valley HFRA Objection

**PROJECT NAME:** Mount Laguna / Pine Valley Community Protection and Healthy Forest Restoration Project

**NATIONAL FOREST/RANGER DISTRICT:** Cleveland National Forest / Descanso Ranger District

**RESPONSIBLE OFFICIAL:** Descanso District Ranger

**OBJECTORS:**

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Pursuant to the Healthy Forest Restoration Act (HFRA – 16 U.S.C. § 6501) and its implementing regulations (36 C.F.R. § 218, Subpart A), the California Chaparral Institute (CCI) hereby objects to the Environmental Assessment (EA) for the Mount Laguna and Pine Valley Community Protection and Healthy Forest Restoration Project in the Descanso Ranger District (District) of the Cleveland National Forest. Legal notice of the EA and objection process appeared in the San Diego U-T on October 21, 2013, making this objection timely per 36 C.F.R. § 218.10(a). The Institute provided comments regarding the proposed action on March 31, 2010, May 4, 2010, and January 3, 2011, and filed a timely first Objection on July 15, 2012 and is therefore entitled to object per 36 C.F.R. § 218.6.

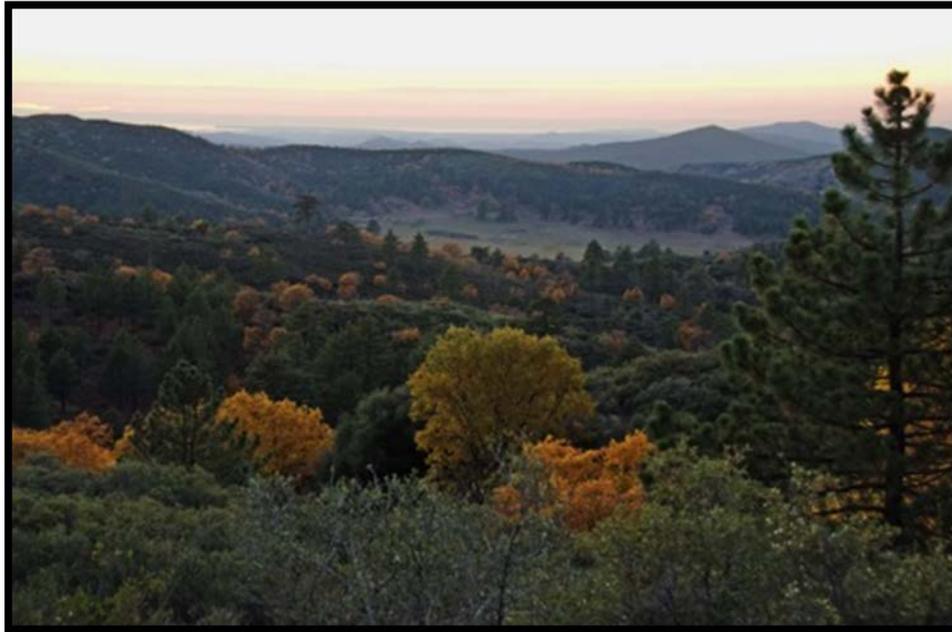
## **OBJECTION NARRATIVE**

### **I. Introduction**

The California Chaparral Institute strongly supports goals of the Mount Laguna / Pine Valley Community Protection and Healthy Forest Restoration Project (Project) to reduce the risk to life and property from wildfire and to improve the effectiveness of fire suppression and firefighter safety in the communities of Mount Laguna and Pine Valley. We appreciate the Forest Service's commitment that treatment activities in the "Defense Zone" would be the highest project priority and implemented before all other project activities. We also appreciate project goals to restore conifer forest health in the Mount Laguna area and particularly appreciate proposed use of prescribed fire in this area.

However, we remain deeply concerned and dismayed with unnecessary and destructive proposed treatments in chaparral habitat. As indicated in our past comments and Objection, we strongly object to most proposed prescribed fire and mastication in chaparral habitat under the Project as harmful and counterproductive to stated wildfire safety goals. In summary, most chaparral treatments beyond 100ft of structures are unnecessary, Forest Service data shows that chaparral in the Pine Valley area is already within the historic fire regime or has burned too frequently, and too much fire, mastication, and other treatments disturbing chaparral can actually increase the risk of wildfire when native shrubs are replaced by highly flammable invasive grasses and weeds in a process known as type conversion. Treatment of chaparral is totally unnecessary and counterproductive to restore "forest health" or the health of chaparral ecosystems. As such, the only legitimate purpose of the project in chaparral must be protection of public safety and the best available information shows that activities to achieve this goal are only effective in the immediate vicinity of homes and communities. Overall, the Forest Service's approach to the biologically rich and unique chaparral ecosystems in the project area appears to be based on significant misunderstandings about chaparral's natural fire regime, a strong bias against shrublands in favor of conifer forests or even individual pine trees, and an unfamiliarity with the Forest Service's own research.

The Project provides an excellent opportunity to begin implementing the Chaparral Initiative (USFS 2013), the Forest Service's new program that recognizes the value of native shrubland ecosystems (please see page 20). Taking such a direction will preserve valuable and beautiful habitats like the one in Photo 1 below, an area currently slated by the Project for the most aggressive and harmful actions of mastication, thinning, pile burning, and broadcast burning.



**Photo 1: Treatment Unit 42.**

Photo 2 below shows the potential outcome if Area 42 is treated as planned. This photo was taken of a vegetation treatment project on the boundary of the Los Padres National Forest. The foreground is just after treatment. The background shows the invasion of non-native weeds two years after treatment.



**Photo 2: Vegetation treatment project on the boundary of the Los Padres National Forest.**

We are pleased that the Pine Valley portion of the Project has been reduced to five, 300-foot wide treatment bands at the Cleveland National Forest (Forest) boundary. This will preserve most of the important old-growth chaparral area pictured in Photo 3 below.



**Photo 3: Old-growth chaparral near Pine Valley.**

However, the Project is still not designed using the best available science and includes excessive treatments of chaparral in both Pine Valley and Mount Laguna that will not increase fire safety, would likely increase the risk of fire ignition in exotic invasive weeds that invade treated areas, and will significantly harm chaparral habitat.

For the purposes of fire suppression to protect public and firefighter safety and private property, chaparral treatments should be strictly limited to the Forest Service’s 100 – 300-foot wide “Defense Zone” near residences and limited, designated, and strategic evacuation and fire access roads, consistent with Forest Plan guidelines. Specific fire suppression activities in these areas should be carried out consistent with California state law (break up vegetation fuel continuity within a maximum of 100 feet of structures with few exceptions for extreme conditions such as steep slopes, remove vegetation immediately adjacent to structures, make the structures fire safe, and remove weeds at least annually from treated areas).

But details matter, and the 100 – 300-foot wide Defense Zone must be measured from residential structures, **not** National Forest property boundaries proposed by the Forest Service that are sometimes located hundreds of feet from any residences. Measuring from residential structures on private property would reduce harm to Forest resources and share the burden of creating defensible space with private property owners who are already required by State law to create their own 100-foot or more of defensible space.

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Many Pine Valley homes were built at or very near the Forest boundary prior to more recent local ordinances requiring defensible space. As such, vegetation modification onto National Forest land in these areas is reasonable and necessary and already authorized by the Forest Service.

However, nearly all structures on private property near Pine Valley Treatment Unit 53 are already located at least 200 feet away from the Forest boundary and treatments onto Forest property are unreasonable and unnecessary. The isolated northern portion of Unit 53 is at least 700 feet from the nearest structures. The southern portion of Unit 53 is adjacent to approximately seven homes, with two homes appearing to be located on or very near the Forest boundary (where treatment should reasonably begin), with other houses located approximately 200 – 450 feet from the boundary. The house that is 450 feet from the Forest boundary appears to only have about 50 feet of defensible space despite its location on a steep hillside. We object to using public funds to compromise public land resources when private property owners have not taken the responsibility to reduce fire risks on their own land.

On Mount Laguna, at the Morris Ranch subdivision, the closest home to the Forest boundary and chaparral vegetation in Unit 36 appears to be approximately 100 feet, with other homes located from approximately 120 feet (Unit 45) to more than 400 feet from the boundary (Unit 44). With the exception of the two houses at or near the Forest boundary in the Pine Valley Unit 53, chaparral vegetation treatments in these Project units will not increase fire safety, will likely increase the risk of fire, and will cause unnecessary harm to chaparral vegetation. Treatments should be removed from these areas with the exception of treatments around the two houses in Unit 53.

Also on Mount Laguna, several other treatment units (or notable portions of treatment units) in chaparral vegetation are located at relatively significant distances from any homes, businesses or facilities and chaparral treatments in these units should be removed from the Project: Units 3, 11, 25, 31, 32, 33, 37, 38, 39, 42, 43, 46, 47, 65. These areas represent some of the best examples of older montane chaparral in the Descanso Ranger District and disturbing these stands via the proposed treatments:

- Would not contribute to structure/community protection or firefighter safety;
- Would harm chaparral wildlife habitat;
- Would likely change the natural fire return interval for these stands by reducing the chances of a high-intensity crown fire that characterizes chaparral ecosystems;

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- Would cause unnatural disturbance and in turn increase the likelihood of invasion of non-native weeds and resulting displacement of native vegetation;
- Would decrease the scenery quality by destroying beautiful, undisturbed chaparral “blanket” cover;
- Would increase risk of wildfire ignition by creating an artificial “mosaic” which in turn would be invaded by non-native weeds (Photo 2); and
- Would not contribute to the restoration of historical conditions in conifer forests.

Aggressive treatment proposed in the Unit 1 area that burned in the Chariot Fire of July 2013 (masticate/thin/pile burn/broadcast burn; Photo 4 below) would significantly harm native vegetation, provide no fire safety benefit, and should be removed from the Project. Any attempt to modify this post-fire environment within the time frame of the Project would be like mugging a burn victim and would seriously compromise recovering chaparral habitat. Any remaining facilities at the nearby Al Bahr Shrine Camp and Laguna and El Prado Campgrounds can be protected with Defense Zone treatments at the perimeter of those facilities.



**Photo 4: Chaparral and oaks recovering from the Chariot Fire in Unit 1, slated for mastication, thinning, pile burning, and broadcast burning.**

Broadcast burning proposed for Unit 56 (Photo 5 below) would also significantly harm native vegetation (including some of the few pinyon pines trees in the District), provide no fire safety

benefit, and should be removed from the Project. Military infrastructure on the mountaintop can be protected with perimeter Defense Zone treatments.



**Photo 5: Old-growth chaparral with pinyon pines in Unit 56 slated for broadcast burning.**

We urge the Forest Service to pursue several alternatives to assaulting chaparral habitat to maximize fire safety in the communities of Mount Laguna and Pine Valley. First and foremost, the Forest Service should continue to work with the local Fire Safe Council to encourage the establishment of proper defensible space around structures on private land and Forest lease cabins. There is no practical reason Forest Service funding for vegetation modification couldn't be reallocated to provide grants to nearby private property owners for fire safe home improvements and creation of defensible space. The Forest Service should also assist in the application of a FEMA pre-disaster mitigation grants that will cover up to 70% of the cost of re-roofing homes with fire safe materials and the installation of ember resistant attic vents.

Information about the grants is available at the link below:

<http://californiachaparral.org/wordpress1/2013/09/18/fire-official-using-science-to-become-a-hero-before-the-fire/>

The Forest Service should also adjust its perspective from a seemingly obsessive focus on natural chaparral vegetation as a public menace and refocus its management priorities on several truly critical fire risks in proximity to the Project and communities of Mount Laguna and Pine Valley.

Illegal campfires and target shooting along several Forest roads (both illegal and designated routes; Photos 6, 7, and 8 below) are a near constant problem and are both major causes of



**Photo 6 (above) and Photo 7 (below): Separate illegal campfires on illegal routes near Deer Park Road, west of Mount Laguna and North of Pine Valley, 11/17/13.**





**Photo 8: Illegal campfire, trash, and target shooting site on Bear Valley Road near Pine Valley.**

wildfire in the region. Forest fire rangers are diligent in their work to rapidly clean and remove illegal campfires after-the-fact but this does little to alleviate the threat when campfires are created again in the same location the very next weekend or the next. Illegal campfires and target shooting are common problems on Bear Valley, Deer Park, Kitchen Creek, and Pine Creek roads (with Bear Valley Road supporting a popular and trashed target shooting site), and all of these roads are located around the perimeter of the Mount Laguna and Pine Valley communities. Two fire rangers and two law enforcement officers are not adequate staff to address these problems, especially on weekend nights, and construction of vehicle barriers to close illegal routes is only occurring at a snail's pace. Some of these roads have been closed in the past through temporary emergency closures during periods of the most extreme fire and weather conditions. But these problems persist and the Forest Service must consider road closures until such time as it has real resources to stop these illegal and dangerous activities.

Power lines are another critical concern. Lines such as that shown in Photo 8 (below) pass over and through highly flammable vegetation, and a downed segment of this particular line near the photo ignited the 1970 Laguna Fire, one of the largest in California history. Yet the line remains a major threat today. The Forest Service is currently reviewing a separate project to consolidate SDG&E power line special use permits and in some circumstances reconfigure power line

infrastructure and locations. The Forest Service should take this as a crucial opportunity to order removal, undergrounding, and hardening of power lines in the Project area.



**Photo 8: Dangerous power line on wooden poles and Unit 39. The Project would aggressively treat Unit 39 chaparral on the hilltop at left with mastication, hand thinning, pile burning, and broadcast burning.**

The science is clear. The most effective way to protect people and property from wildland fire in shrublands is to focus directly on the wildland-urban interface itself and primarily within 100 feet of structures, with limited extensions where steep slopes should to be taken into consideration.

At the end of these comments we provide detailed recommended remedies to maximize the effectiveness of vegetation management in the Forest Service’s designated Defense Zones around at-risk communities, roads, and facilities, as well as to protect chaparral and conifer vegetation resources. Recommended remedies should be incorporated and fully analyzed in a stand alone “Fire Safety and Conservation Alternative” in a required Environmental Impact Statement (EIS) for the Project. By modifying the Project in accordance with the recommended remedies, the Forest Service can change its fire management objective from, “How can we *maybe* stop a fire” to, “How can we effectively protect natural resources and property from fire.”

Please note that the term "chaparral vegetation" is used in these comments to refer to areas that are clearly dominated by any shrub species. The term “conifer forest vegetation” is used to refer to areas that are clearly dominated by conifer trees. Chaparral vegetation with the occasional

scattered conifer tree should be considered chaparral vegetation and should be managed for the benefit of chaparral ecology, not for the protection of isolated conifers.

## **II. Focusing on Assets at Risk**

*There are two types of fires; the ones we prepare for and the ones that do all the damage.* (Fotheringham 2012)

In deciding to implement a modified version of Alternative 2, the “Selected Alternative,” and focusing on fires under 90th percentile fire weather conditions, the Forest Service is continuing to address only those fires that have a reasonable chance of being controlled by traditional suppression methods. Those are not the fires that cause most of the damage.

By changing its fire management objective from “How can we *maybe* stop or manage a fire” to, “How can we effectively protect life, property, and natural resources from a fire,” the Forest Service can reduce the impact of those fires which have most potential of causing the greatest loss of life and property.

Extensive scientific research clearly indicates that the best way to effectively protect lives, property, and the natural environment from wildfire is through a comprehensive approach that focuses on community and regional planning, ignitability of structures, and fuel modifications within and directly around communities at risk.

In our previous comments and Objection we urged the Forest Service to conduct an honest cost/benefit analysis of the proposed chaparral treatments vs. treatments to vegetation immediately adjacent to homes and communities alongside alternatives to vegetation management such as grants for fire resistant retro-fitting of homes.

Establishment and maintenance of defensible space around homes, retrofitting unsafe structures, and supporting community-based fire safety education programs are in the long run much more cost effective in preventing the loss of life and property from wildfire than compromising large amounts of native vegetation in the National Forest. The Project EA contains cursory mention of costs and benefits, but only addresses various vegetation management alternatives and entirely disregards our request for consideration of alternatives such as grants for fire resistant retro-fitting of homes. The Forest Service's statement that, "Vegetation treatment on non-national forest lands to reduce the risk to individual homes is not part of this project and is the responsibility of private landowners," disregards the Forest Service's broad discretion to provide fire safety grants to private landowners or fire safe groups for vegetation management and structural modifications.

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In addition, the Forest Service can assist the local Fire Safe Council with the application of a FEMA pre-disaster mitigation grant for the communities of Pine Valley and Mt. Laguna that will cover up to 70% of the cost of re-roofing homes with fire safe materials and the installation of ember resistant attic vents. Information about the grants is available at the link below:

<http://californiachaparral.org/wordpress1/2013/09/18/fire-official-using-science-to-become-a-hero-before-the-fire/>

Dr. Jack Cohen, a Forest Service research scientist, 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, the Stanford Research Institute found a 95 percent survival rate for homes with a defensible space of 30 to 54 feet (Howard et al. 1973), and Foote and Gilles (1996) at Berkeley found an 86 percent home survival rate for homes with a defensible space of 84 feet.

In discussing a new research paper concerning why homes burn in wildfires, Syphard (2012) concluded, "We're finding that geography is most important—where is the house located and where are houses placed on the landscape."

Syphard and her coauthors gathered data on 700,000 addresses in the Santa Monica Mountains and part of San Diego County. They then mapped the structures that had burned in those areas between 2001 and 2010, a time of devastating wildfires in the region.

Buildings on steep slopes, in Santa Ana wind corridors and in low-density developments intermingled with wild lands were the most likely to have burned. **Nearby vegetation was not a significant factor in home destruction.**

Looking at vegetation growing within roughly half a mile of structures, the authors concluded that **the exotic grasses that often sprout in areas cleared of native habitat like chaparral could 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," said Syphard.

The authors also emphasized the disconnect between vegetation fuel age and home loss to wildfire:

*The importance of historical fire frequency suggests that, at least in non-forested ecosystems, fuel age may not be an important predictor of home loss, despite the fact that fuel age and time-since-fire maps are often used to delineate fire hazard. In fact, substantial property loss occurred when the primary surrounding fuel type was low fuel-volume grasslands. Although this result may seem counterintuitive, herbaceous fuels tend to have low fuel moisture, facilitate high wind speeds and fire spread, and have low heat requirements for ignition, thus promoting longer fire seasons and high fire frequency. Grasslands also tend to ignite quickly, then carry fires into shrublands or woodlands. These results suggest a need to reexamine the assumptions used in existing hazard maps and the management practice of converting shrublands to grasslands.*

For a concise summary of the study please see the [USGS Briefing Paper](#).

### **III. The Effectiveness of Fuel Treatments**

During the 2009 Station Fire on the Angeles National Forest, the Associated Press released an article with the headline, "Feds failed to clear brush in LA area." The article left the impression that the fire had been the fault of the Forest Service because it had not completed a number of planned vegetation management projects. This reflected the depth of misunderstanding the public has about how fire behaves and the efficacy of fuel treatments.

There are approximately 10,000 acres of fuel treatments and more than 160 miles of fuel breaks within the Station Fire perimeter (T.J. Brennan USGS pers. comm.).

Recent research by Syphard (2011) has shown that fuel breaks in southern California national forests are basically only effective if a fire crew is present. The authors wrote,

*In California, the predominant approach to mitigating fire risk is construction of fuel breaks, but there has been little empirical study of their role in controlling large fires. We constructed a spatial database of fuel breaks on the Los Padres National Forest in southern California to better understand characteristics of fuel breaks that affect the behavior of large fires and to map where fires and fuel breaks most commonly intersect. We evaluated whether fires stopped or crossed over fuel breaks over a 28-year period*

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*and compared the outcomes with physical characteristics of the sites, weather and firefighting activities during the fire event. Many fuel breaks never intersected fires, but others intersected several, primarily in historically fire-prone areas. Fires stopped at fuel breaks 46% of the time, almost invariably owing to fire suppression activities. firefighter access to treatments, smaller fires and longer fuel breaks were significant direct influences, and younger vegetation and fuel break maintenance indirectly improved the outcome by facilitating firefighter access. This study illustrates the importance of strategic location of fuel breaks because they have been most effective where they provided access for firefighting activities.*

The failure of fuel treatments to protect flammable communities is a frequent phenomena as demonstrated in the 2007 Grass Valley Fire (Cohen and Stratton 2008, Rogers et al. 2008), the 2003 Cedar Fire (Keeley et al. 2004), and the southern California 2007 firestorm (Keeley et al. 2009). Such observations indicate a clear case for the need to conduct an objective cost/benefit analysis of fuel treatments (Keeley 2005).

In a study of the 2007 wildfires, Keeley et al. (2009) concluded that when homes and communities are not themselves fire safe, whatever benefits fuel treatments might have are compromised significantly. They wrote,

*The Slide and Grass Valley Fires of October 2007 occurred in forests that had been subject to extensive fuel treatment, but fire control was complicated by a patchwork of untreated private properties and mountain homes built of highly flammable materials. In a fashion reminiscent of other recent destructive conifer fires in California, burning homes themselves were a major source of fire spread. These lessons suggest that the most important advances in fire safety in this region are to come from advances in fire prevention, fire preparedness, and land-use planning that includes fire hazard patterns.*

The Angora Fire provides yet another example of why focusing on fuel treatments is not an effective fire protection strategy for communities. In a comprehensive study of the Angora Fire (Safford et al. 2009) that examined the impact of fuel treatments on fire behavior, the authors wrote,

*The Angora fire burned 3071 acres of forest and urban interface, destroying 254 homes and costing \$160 million dollars. The fuel treatments generally worked as designed, significantly changing the fire behavior and subsequent fire effects to the vegetation.*

However, the paper's conclusion is the most relevant when considering the Selected Alternative:

*Many homes burned in the Angora Fire in spite of the fuel treatment network; government efforts to reduce fuels around urban areas and private lands do not absolve the public of the responsibility to reduce the flammability of their own property.*

While we acknowledge that strategic fuel modifications can play a critical role in controlling fire spread, they only do so under certain conditions. This is why an accurate cost/benefit and a thorough tactical analyses of any fuel treatment is essential.

For example, the Tragedy Springs prescribed burn project north of the Pine Valley Project has been credited for allowing firefighters an anchor point to conduct valuable fire suppression efforts. The prescribed burn supported suppression efforts and appears to have been an important variable in successfully keeping the 2003 Cedar fire from burning nearby Mt. Laguna.

However, what is important to recognize is that when the Cedar Fire hit the Tragedy Springs burn area, the flames encountered what was essentially black ground. The two prescribed burns that covered the area had been conducted within the previous two years. In addition, when the fire hit Wednesday morning between 6 and 9AM, October 29, humidity was rising significantly (the date listed on the USFS [2003] “Impact of Tragedy Springs Fuels Project” map is incorrect).

The 2002 Pines fire scar is also credited with helping to stop the Cedar fire’s eastern spread. Again, since much of the Pines fire scar boundary was still black and was generally aligned with ridgeline topography and a road, its efficacy as a fire barrier alone is not particularly compelling. One way to look at the role of the Pines fire scar in stopping the Cedar fire is to consider why the Pines fire terminated where it did in 2002. Fires frequently stop at ridgelines and roads allow for opportunities to light backfires. Would the Cedar Fire have continued burning into the desert if the Pines fire scar had not been present? The presence of the ridgeline and the fact that the humidity was 100% when the Cedar fire reached the area would have likely prevented the flames from going much further.

Is the performance of 1-3 year old fire scars and fuel treatments an adequate way to measure the effectiveness of vegetation management techniques in limiting wildfire spread? Probably not since ground that is maintained in a blackened state or with limited vegetative recovery is not a condition most would be willing to accept. The ecological costs of such habitat loss would be significant as well. Maintaining chaparral stands under the 10 year age class would likely result in the conversion of the system to alien grassland.

Realistically, most fuel treatments are not properly maintained and are allowed to grow back or fill in with non-native weeds. Depending on conditions, there can be sufficient fuel to carry a fire again within a couple years (Halsey et al. 2009). For example, the Cedar fire easily burned

through 3-10 year old vegetation at lower elevations (below 3000 feet) and the 2007 Witch Creek Fire re-burned many areas that had burned in 2003.

We find the failure to address wind driven fires, such as the 2003 Cedar and the 2007 Witch Creek Fires, as one of the major failures of the EA and draft Decision Notice. Research is showing that with proper land planning, much of the risk presented by wind driven fires can be significantly reduced (Syphard et al. 2012, Moritz et al. 2010, Parisien and Moritz 2009).

Without addressing the issue of home and community flammability, the Forest Service will unnecessarily damage native shrubland habitat and waste tax dollars.

#### **IV. Negative Impacts of Unnecessary Fuel Treatments**

Much of the chaparral and sage scrub habitat in the Cleveland National Forest has burned in excess of their natural fire regimes. This has been graphically illustrated by a recent map of the Forest developed by Forest Service scientists (Safford and Schmidt 2008).

While there is clear evidence the conifer forest on Mount Laguna shows a significant positive departure (not enough fire) from its natural fire regime, this is **not** the case for most surrounding chaparral vegetation, especially that near the community of Pine Valley.

Understanding this issue is critical because high fire frequencies are significantly reducing the extent of unique and rich late successional old growth chaparral and leading to the elimination of healthy chaparral to the process of type conversion and the expansion of highly-flammable, weedy grasslands. The Selected Alternative targets several large areas in the Mt. Laguna area for broadcast burning and/or mastication treatments, most of which are relatively distant from any development.

The addition of prescribed fire in chaparral carries the potential to negatively impact natural resources (Keeley and Fotheringham 2003), especially considering that overly frequent accidental wildfires are likely to remain a major problem in the project area into the future. Keeley (2006) succinctly presents the process of type-conversion:

*Typically a repeat fire within the first postfire decade is sufficient to provide an initial foothold for aliens. With the first entry of alien annuals into these shrubland ecosystems, there is a potential shift from a crown-fire regime to a mixture of surface and crown fires, where highly combustible grass fuels carry fire between shrub patches that have not yet attained a closed canopy capable of carrying crown fire under most weather conditions. As fire frequency increases there is a threshold beyond which the native shrub cover*

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*cannot recover. Not only do alien grasses increase the probability of burning, but also the shift from crown fires to a mixture of surface and crown fires increases the probability of alien seed-bank survivorship because grass fuels generate lower temperatures. In these shrublands and in other ecosystems, alien grasses alter fire regimes in ways that enhance their own success, in what has been described as a “grass/fire cycle”, “niche construction”, or “invasive engineering”.*

*In recent years ineffective fire prevention has allowed an unnaturally high number of wildfires on chaparral landscapes, which has resulted in conversion to alien dominated grasslands... Such type conversions not only affect biodiversity, but replacing slopes dominated by natural shrublands with grasslands also makes these landscapes highly vulnerable to major changes in hydrological processes. For example, experimental type conversions performed for fire hazard reduction have resulted in soil slips and other major geomorphological changes.*

“...[A]lien grasses alter fire regimes in ways that enhance their own success...” and “...alien grasses increase the probability of burning” (Keeley 2006). The cycle of overly frequent fire, invasion by highly flammable exotic grasses, and resulting increased fire frequency poses a highly significant threat to public safety, firefighters, property, and natural resources.

Invasive, grassy fuels can create a more dangerous fire environment because they dry out sooner than native plants, ignite more easily, and create massive amounts of heat instantly. One of the common factors in firefighter fatalities is the presence of highly-flammable grassy fuels. As the Jackson fire in Sacramento County clearly illustrated in 2008, grass fires can be extremely dangerous. Five homes were destroyed, 6,400 acres were burned, and a fire captain was seriously injured. The fuel was dried, non-native, invasive grasses. Grass fires that swept across Texas and Oklahoma between December 2005 and April 2006 burned more than two million acres and killed 11 people. The 2006 Esperanza fire in Riverside County that killed five Forest Service firefighters was started and made its initial moves in grassy fuels.

Prescribed fire is also risky because it can escape and become an even more hazardous wildfire (Keeley and Fotheringham 2003). This occurred this past Spring in a prescribed burn conducted by CalFire in the San Felipe Valley California Department of Fish and Wildlife preserve (CCI 2013). The approximately 100 acre prescribed burn escaped and ended up torching more than 2,700 acres, most of which had already burned in the 2002 Pines Fire, thereby placing fragile desert chaparral at great risk for type conversion.

In an attempt to minimize risks, prescribed fire is routinely applied outside the normal fire season and this can produce extreme resource damage (Keeley 2006). Prescribed fire in chaparral is

typically applied during cooler and wetter weather conditions during autumn, winter, and spring where there is a lower risk of wildfire. Yet there is also well documented evidence that cool-season burns can lead to type conversion (Le Fer and Parker 2005). Populations of fire dependent native species can be decimated if timing or heating requirements for regeneration are not met (Odion and Tyler 2002). Such a risk should be fully considered by the District and prescribed fire in chaparral limited.

The following Forest Service document discusses the ecological risks of prescribed fire in chaparral and other plant communities:

*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 (Knapp et al. 2009).*

Regarding mastication, we know such fuel treatments can negatively impact the long-term survival and health of shrubland ecosystems by increasing the population and spread of invasive species (Merriam et al. 2006; Gelbard and Belnap 2003). In addition, masticated areas that burn during a wildfire can have significantly lower rates of recovery for native species (Moreno and Oechel 1994). With implementation of the Selected Alternative, weeds will inevitably continue to spread in the masticated treatment areas (Keeley 2006).

The Selected Alternative does not adequately assess the potential cumulative impacts of proposed multiple treatments of prescribed fire and mastication of chaparral, especially given the possibility that treated areas may burn again prior to full recovery, and considering climate change and long-term drought that may or may not be associated with such change, and increasing human-caused ignitions. Although it is possible that the chaparral burned or masticated in proposed treatments in the Selected Alternative will recover from one treatment, **multiple treatments and the occurrence of additional accidental fires in these same treatment areas in the future during recovery is likely.** The cumulative harm caused by the combination of deliberate prescribed fire and mastication compounded by future accidental fires will almost certainly cause type conversion in the treated areas.

## **V. Chaparral and Fire**

### **a. There is no Strong Relationship Between the Age of Shrubland Fuel and the Probability of Fire**

The age of vegetation (time since last burned) does not have a strong relationship to hazard of burning. Analysis of several hundred fires over a broad expanse of California shrublands has

demonstrated that extreme weather conditions (Santa Ana winds) overwhelm the influence of the age and spatial patterns of fuels (Moritz 2003; Moritz et al. 2004). This has also been demonstrated in Australian shrublands (Bradstock and Gill 2001; Whelan 2002). Such fires can burn easily through 5-10 year old stands (Dunn 1989). A study of the 1985 Wheeler fire in Santa Barbara County concluded that only 14% of the fire perimeter was established due to wildland fuel type changes (Dunn and Piirto 1987). Similar observations have been made regarding the 2007 Zaca Fire in Santa Barbara County where 50% of the fire perimeter stopped at vegetation more than 70 years old (Keeley et al. 2009).

The inability of younger age classes to stop a fire was also shown during both the 2007 Witch Creek and Poomacha fires in San Diego County. Of the total acreage burned in the County's 2007 firestorm, **more than 20% or approximately 70,000 acres was 4 year-old vegetation recovering from the 2003 firestorm.** In the Witch Creek Fire hundreds of acres of overgrazed pasture land in Pamo Valley burned despite the fact that very little vegetation was present.

Regarding the efficacy of fuel treatments during conditions when the most damaging fires occur, researchers have written,

*The extent to which landscape level fuel treatments are effective is a function of weather conditions during the fire event. Under extreme weather conditions, there is overwhelming evidence that young fuels, or even fuel breaks, will not act as a barrier to fire spread (Keeley et al. 2004).*

#### **b. Chaparral Fire Regimes**

Chaparral has a crown fire regime. By definition, low and moderate intensity fires are not associated with crown fire regimes. **The natural pattern in the chaparral ecosystem is for infrequent, high intensity, crown fires to burn through vast areas, especially under severe weather conditions.** In fact, high intensity fires are vital for the proper recovery of chaparral plant communities. Extensive research has shown that older chaparral stands with high "fuel loads" show significantly greater seed recruitment levels for many obligate seeding species after a fire than do younger stands (Keeley et al. 2008). Such high intensity fires also destroy the seeds of invasive species, allowing the recovering chaparral to resist the colonization of non-native weeds. Old-growth chaparral stands remain dynamic, healthy plant communities (Fenn et al. 1993; Halsey 2013; Hubbard 1986; Keeley 1973; Larigauderie et al. 1990; Patric and Hanes 1989; Spech 1969; Zedler and Zammit 1989). One sign of a healthy, chaparral ecosystem that is recovering from a fire are large areas of blackened ground (punctuated with resprouting shrubs and tiny shrub seedlings) remaining long after the first rainy season. **Attempts to alter the**

**chaparral's natural fire regime through prescribed fire will risk its ecological health and alter its natural successional processes.**

In fact, fuel treatments in shrubland ecosystems involving mastication or prescribed burning should only be conducted with the recognition that the resource is being sacrificed for fire hazard reduction. This is why it is so critical to limit such treatments to the absolute minimum necessary to protect lives and property. Dr. Jon E. Keeley (2009) addressed this issue in a comment letter to San Diego County where he wrote,

*When treatments such as mastication are applied to shrubland ecosystems they have major environmental impacts on both the flora and fauna. Some have suggested that these impacts are temporary and the systems will recover to form perfectly natural functional ecosystems after a period of years. There is no scientific evidence to support such allegations. In addition, that sort of thinking is inconsistent with the purpose of using these treatments, which is typically to produce permanent fuel breaks.*

**c. Chaparral as a Valuable Natural Resource**

A common fire management approach to chaparral, seeing it as a “fuel” rather than a valuable natural resource, has been a systematic problem within the Forest Service.

However, the new Forest Service Ecological Restoration Implementation Plan and Chaparral Initiative (USFS 2013) for Region 5 has changed this overarching paradigm by recognizing the natural resource value of chaparral and the need to develop strategies to protect and restore this valuable and fragile ecosystem. Specifically, the Plan states,

*There is an additional crisis taking place in our Southern California Forests as an unprecedented number of human-caused fires have increased fire frequency to the extent that fire-adapted **chaparral can no longer survive and is being replaced with non-native annual grasses at an alarming rate.** To counter these trends, forest managers will need to significantly increase the pace and scale of the Region's restoration work. Only an environmental restoration program of unprecedented scale can alter the direction of current trends.*

*From this point forward, **Ecological Restoration will be the central driver of wildland and forest stewardship in the Pacific Southwest Region, across all program areas and activities.** Future Land and Resource Management Plans, other strategic plans and project plans will identify Ecological Restoration as a core objective. (Emphasis added)*

In addition, the Plan states the USFS intends to achieve the following goal in the next 15-20 years:

*Work with key partners in Southern California to expand fire prevention efforts in order to retard the loss of native ecosystems like chaparral and coastal sage scrub.*

The Selected Alternative does not appear to recognize the intrinsic natural resource value of chaparral and is patently counterproductive to the progressive goals of the Forest Service's own Ecological Restoration Implementation Plan. Fuel treatments to protect conifer forest should be conducted entirely **within** the forest stand itself and exclude chaparral patches to ensure the protection and integrity of valuable old-growth chaparral stands.

Rather than just seeing chaparral as "fuel," old growth chaparral in the project area presents a significant conservation opportunity consistent with the new Chaparral Initiative. Accidental wildfires in this area will inevitably occur, and are likely to occur with increasing frequency with growing nearby populations, and harm from these accidental fires should not be deliberately compounded by application of multiple treatments of prescribed fire or mastication in the Projects.

## **VI. The Project is Inconsistent with the Forest Plan**

According to the *Land Management Plan Southern California National Forests Vision* document, "The long-term goal of vegetation management is to perpetuate plant communities by maintaining or re-introducing fire regimes appropriate to each type while at the same time protecting human communities from destructive wildland fires."

According to the Forest Service's *Guidelines for Development and Maintenance of WUI Defense and Threat Zones* (Appendix K of the Land Management Plan Design Criteria document), "There is no need to maintain any area in a less-flammable state within the Threat Zone. The object is to complete enough tree thinning and surface fuel management over time to reduce the potential for stand replacing fires in the Threat Zone. Emphasis will usually be the reduction of ladder fuels and periodic reduction of surface fuels. **In vegetation types such as grass and chaparral, there may be no need to conduct extensive treatments in the Threat Zone.**" (Emphasis added)

According to the Cleveland National Forest Land Management Plan, the desired condition for the Laguna Place is maintenance of this area as a natural appearing landscape and preservation of valued attributes such as vegetative diversity - especially mature over-story trees - and special botanical features that add diversity to the landscape. Vegetation is to be intensively managed **in**

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**a healthy and sustainable condition** to provide increased protection from wildfires. Program emphasis for the area includes protection of the Laguna Place's unique scenic attributes and ecosystems, protected viewsheds (particularly along the Sunrise Highway), and improved forest health. The desired condition for the Sweetwater Place is maintenance of this area as a natural appearing landscape and preservation of valued attributes such as the undeveloped character of Forest Service land that remains in this otherwise highly developed rural area and opportunities for unobstructed, panoramic views from the Interstate 8 corridor especially on the eastern side. Program emphasis for the area includes reducing the danger of fire and floods by managing vegetation in community threat zones, minimizing fire danger and resource degradation, increasing fire prevention by reducing ignitions, and emphasizing species conservation and control or eradication of noxious weeds.

According to the project description,

*Chaparral vegetation within WUI Defense Zones would initially be reduced to several inches above ground level through mastication and/or prescribed broadcast fire. ... These chaparral areas would be retreated on a regular basis during the term of the project (i.e. approximately every three years) to retain a maximum 18-inch height 100 to 300 feet beyond structures... Annual treatment could occur in those areas of National Forest land within 100 feet of structures. ... For units with mixed conifer stand and chaparral components, masticate chaparral within 100 feet around the conifer stand edges. ... For units made up of chaparral, (i.e., units 48, 49, 51, 52) 50 to 70 percent of the vegetation would be masticated with untreated islands of shrubs (generally no greater than 0.25 acre in size.*

The Selected Alternative for the Project would significantly undermine the Forest Plan and desired conditions for the Laguna and Sweetwater places by conducting overly aggressive prescribed fire and mastication in chaparral vegetation in both the Defense and Threat zones and by cutting large mature trees and snags among other problems. Mastication in Units 1 and 48 would also violate the Back Country Non-Motorized Land Use Zone.

The Forest Service's own research and documents show that chaparral vegetation is well within its natural fire regime or has burned too frequently in the Laguna and Sweetwater places. Forest Service research also shows that the best means to protect lives and property from wildfire is by creating defensible space in the immediate vicinity of structures and roads and by addressing the vulnerability of structures themselves. Prescribed fire in chaparral vegetation is therefore an ineffective or harmful method of achieving project goals. Proposed prescribed fire and mastication in the Threat Zone would directly contradict the Forest Service's own WUI guidelines that there may be no need to conduct extensive chaparral treatments there.

Chaparral vegetation, especially old chaparral vegetation is an extremely valuable component, both ecologically and scenically, of vegetative diversity in the Laguna and Sweetwater places and old chaparral is a special botanical feature of this area. Prescribed fire or mastication of hundreds of acres of chaparral outside of the Defense Zone is not a healthy or sustainable method of fire suppression, would undermine forest health, would eliminate special botanical features, would not project vegetative diversity, would not protect unique scenic attributes and ecosystems, and would leave a scar of vegetation destruction visible from Interstate 8 and the Sunrise Highway. The extensive and unnecessary mastication of chaparral as proposed would also be extremely ugly in violation of Forest Plan Scenic Integrity Objectives. The project description to leave undulating edges in masticated areas "to provide a natural appearance" and to retain islands of differing plant species "to maintain diversity" are difficult to take seriously and would not address major discrepancies between the proposed project and the Forest Plan.

## **VII. Preparation of an Environmental Impact Statement is Required**

In our previous comments and Objection, the Institute articulated extensive rationale in support of a request for preparation of a full Environmental Impact Statement.

NEPA's fundamental purposes are to guarantee that: (1) agencies take a hard look at the environmental consequences of their actions before these actions occur; and (2) agencies make the relevant information available to the public so that it may also play a role in both the decision-making process and the implementation of that decision. See e.g. 40 C.F.R. § 1500.1. To assure transparency and thoroughness, agencies also must "to the fullest extent possible ... [e]ncourage and facilitate public involvement" in decision-making. 40 C.F.R. §1500.2(d). The public must be given adequate information about the project, specific treatments, and the environmental effects, to be able to provide input prior to the issuance of a Decision Memo.

The purpose of an Environmental Analysis ("EA") is to assist the action agency in determining whether the project **may** significantly affect the environment and therefore require a full EIS. 42 U.S.C. §4332(2)(C); 40C.F.R. §1508.9. NEPA requires federal agencies to prepare an EIS for all "major federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C); see also 40 C.F.R. § 1501.4. A full EIS is required if "substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor." *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1149-50 (9th Cir. 1998). To trigger this requirement, the plaintiff "need not show that significant effects will in fact occur;" but rather is "raising substantial questions whether a project may have a significant environmental effect is sufficient." *Id.* (emphases in original).

Whether an action may have “significant” impacts on the environment is determined through by consideration of the “context” and “intensity” of the action. 40 C.F.R. § 1508.27. “Context” means the significance of the project “must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.” *Id.* § 1508.27(a). Intensity of the action is determined by considering the following ten factors: (1) impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial; (2) the degree to which the proposed action affects public health or safety; (3) unique characteristics of the geographic area such as proximity to ecologically critical areas; (4) the degree to which the effects on the quality of the human environment are likely to be highly controversial; (5) the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks; (6) the degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration; (7) whether the action is related to other actions with individually insignificant but cumulatively significant impacts; (8) the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources; (9) the degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the federal Endangered Species Act (“ESA”); (10) whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. 40 C.F.R. § 1508.27(b)(1)-(10) (emphasis added). NEPA defines a “cumulative impact” as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7. If the combination of these cumulative effects would result in significant impacts to the human environment, the Forest Service must prepare a full EIS. *Inland Empire Public Lands Council v. Schultz*, 992 F.2d 977, 981 (9th Cir. 1993).

In the case of the Project, the applicability of at least four of the significance factors (public safety, unique geographical characteristics, controversy, and cumulatively significant impacts) clearly indicates that the Forest Service must prepare a full EIS. See, e.g. *National Parks & Conserv. Ass’n v. Babbitt*, 241 F.3d 722, 731 (9th Cir. 2001) (either of two significance factors considered by the court “may be sufficient to require preparation of an EIS in appropriate circumstances”); *Anderson v. Evans*, 350 F.3d 815, 835 (9th Cir. 2003) (presence of one or more factors can necessitate preparation of a full EIS).

**a. The Project Would Result in Significant Adverse Impacts to the Environment**

Please see sections I – VI above.

**b. The Project Would Significantly Affect Public Safety**

According to the EA, the communities of Mount Laguna and Pine Valley are at "high risk" of wildfire. The purpose of the project is to treat vegetation to "...enhance community protection and reduce the risk of loss of human life, structures, improvements, and natural resources from wildland fire and subsequent floods." The purpose of the project is also to improve "...opportunities for fire fighter tactical operations and safety near structures, improvements, and high value resources" and to provide "...defensible space that will enhance public and fire fighter safety."

Taking the Project description at face value, the Project appears intended to significantly and beneficially affect public safety. (A significant effect may exist for the purposes of NEPA review even if the Federal agency believes that on balance the effect will be beneficial.) From an alternative perspective, considering that a major project element is treatment of chaparral vegetation away from structures without frequent follow-up maintenance to remove inevitable invasions of highly flammable invasive weeds, the Project would significantly adversely affect public safety. Please see sections I – VI above for additional discussion of harm to public safety.

**c. The Project Would Significantly Affect unique geographical characteristics**

Old growth chaparral is a limited and therefore unique geographical characteristic on the Cleveland National Forest and Descanso Ranger District due to increasing losses of this resource to unnaturally frequent wildfire, vegetation modification projects, development, and other harmful activities. The Project would further reduce, and therefore significantly adversely affect, this unique geographical characteristic through harmful and unnecessary mastication and prescribed burning. Please see sections I – VI above for additional discussion of significant Project harm to old growth chaparral.

**d. The Project is Highly Controversial**

Vegetation modification projects to improve fire safety, and this Project in particular are subject to extreme emotions, conflict, and controversy. CCI and other groups have asked the Forest Service to reduce the extent of unnecessarily harmful vegetation modification while still acting to improve public safety. Property owners frightened by wildfire, anti-environmentalists, and others in turn have routinely accused CCI of favoring nature over people and public safety. Obviously this is an emotionally charged and highly controversial issue.

The Forest Service proposes treatment of hundreds of acres of chaparral in disregard for the best available science that such treatments are not only unnecessary but are actually harmful to public safety and natural resources. Most chaparral treatments would occur in the Threat Zone far from the actual wildland/urban interface through multiple treatments of mechanical mastication and prescribed burning, spreading weeds, maintaining a harmful and unnatural fire frequency, and causing significant harm to soils, watersheds, and water quality. These activities are highly controversial, especially when they are unsupported by the best available science.

**e. The Project Would Result in Cumulatively Significant Impacts**

The Cleveland National Forest is implementing vegetation modification projects on a scale that clearly requires increased scrutiny of cumulative effects of the Project in an EIS, including the cumulative effects of other National Forest and State and local activities as well as accidental fires, predicted climate change, and associated long-term drought.

The Project EA contains a list and discussion of cumulative effects and states that the "change agents related to cumulative effects" for Alternative 1 would be the same for Alternative 2. While the list of **potential** cumulative effects of the Selected Alternative may be the same as Alternative 1, the **actual** cumulative effects of the Selected Alternative would obviously be different from the no action Alternative 1. Yet the EA contains no discussion of the actual cumulative effects of the Selected Alternative and instead jumps immediately to design features purported to reduce cumulative effects. This is not a legitimate analysis of the possible significance of cumulative effects of the Project.

The Project EA does not adequately assess the potential cumulative impacts of Selected Alternative multiple treatments of chaparral including mastication, tinning, pile burning, and broadcast burning, especially given the likelihood that treated areas may burn again prior to full recovery. The Project EA also fails to adequately address the cumulative effects of Selected Alternative activities alongside the potentially catastrophic effects of predicted climate change and long-term drought (California Natural Resources Agency 2009; Lenihan et al. 2003; San Diego Foundation [2008]; Williams et al. 2012) and increasing anthropogenic wildfire ignitions. Selected Alternative multiple treatments of chaparral **alongside future accidental fires in these same treatment areas and climate change and long-term drought are likely to preclude recovery and will almost certainly cause type conversion in treated areas.**

The EA for the Project also totally neglects to address the cumulative effects of the aggressive Selected Alternative treatments in Unit 1 alongside the recent accidental Chariot Fire. The cumulative effects of the Chariot Fire alongside the Selected Alternative proposal to conduct

multiple treatments of mastication, thinning, pile burning, and broadcast burning in Unit 1 would seriously compromise recovering chaparral habitat, oak woodlands, and other vegetation.

According to the Project EA fire history map, over the last twenty years the Descanso District has implemented numerous prescribed fire projects. Other recent prescribed fire projects in Project Units 64, 31, and 34 are not shown on this map. The Descanso District has also conducted large-scale vegetation modification projects using mechanical methods and prescribed fire including the Corte Madera and Horse Thief projects. The Descanso District has also already carried out several elements of the proposed project in units 7, 30, 31, 32, 51, 52, 61, 62, and 64, apparently either without any NEPA review whatsoever or under some separate undisclosed project<sup>1</sup>. Mastication, hand thinning, and pile burning that has and is continuing to be implemented in these units are not addressed as cumulative effects of the Project. All of these activities have unnecessarily harmed chaparral vegetation as discussed in sections I – VI of this Objection.

The District also manages grazing in this area, and grazing compounds harm to chaparral vegetation and can directly facilitate unnatural conifer stocking. Past wildfires, some of which are among the largest in California history have burned enormous acreages on the Descanso District and future large fires in the Project area are a near certainty during the life of the Project. The effects of Forest Service activities and many other similar State and local projects alongside past wildfire have and will continue to result in significant cumulative harm to chaparral vegetation that is entirely dismissed in the Project EA.

**f. The Forest Service Must Provide a Public Comment Period on a Draft EA or EIS for the Project**

The Forest Service must provide a public comment period on a draft Environmental Assessment (EA) or draft Environmental Impact Statement (EIS) for the Project.

Failure to provide a public comment period on a draft EA or EIS would violate the NEPA and the Healthy Forest Restoration Act (HFRA). *See* Citizens for Better Forestry v. U.S. Dept. of Agriculture, 341 F.3d 961, 970 (9<sup>th</sup> Cir. 2003); Anderson v. Evans, 314 F.3d 1006, 1016 (9<sup>th</sup> Cir. 2002); 40 C.F.R. §§ 1501.4(b), 1506.6; 16 U.S.C. § 6515(a)(3); *see also id.* at § 6514(g). As recognized in Sierra Nevada Forest Protection Campaign v. Weingardt, 376 F.Supp.2d 984 (E.D. Cal. 2005), the Forest Service is not allowed under NEPA to simply accept comments during the initial scoping process and then produce a final EA.

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<sup>1</sup> Letter to Mr. Owen Martin and Ms. Marian Kadota, Forest Service, from David Hogan, California Chaparral Institute dated May 4, 2010

The HFRA requires the Forest Service to comply with NEPA in developing fuel reduction projects. 16 U.S.C. § 6514(a). The Forest Service is in fact specifically required to prepare an EA or EIS for each authorized hazardous fuel reduction project. *Id.* at § 6514(b).

NEPA, meanwhile, requires that the public be provided an opportunity to submit comments on a draft EA. In fact, the HFRA itself recognizes that public comment must be allowed for a draft EA or draft EIS, as persons are eligible to file administrative objections if they provided written comments either during the public scoping process “or during the public comment period for the **draft** environmental analysis.” 16 U.S.C. § 6515(a)(3) (emphasis added); see also *id.* at § 6514(g). Therefore, the Forest Service’s regulation at 36 C.F.R. § 218.6(a), which incorrectly states that draft EAs do not need to be circulated for public comment, is directly contrary to the underlying statute, in violation of NEPA, and is invalid.

## RECOMMENDED REMEDIES

### I. Implement Effective Vegetation Treatments to Protect the Public, Firefighters, and Private Property

For the purposes of fire suppression to protect public and firefighter safety and private property, fuels reduction activities in both chaparral and conifer forest vegetation should take place only within the actual wildland/urban interface, identified by the Forest Service as the “Developed Area Interface Land Use Zone” in the Land Management Plan - Part 2 Cleveland National Forest Strategy.<sup>2</sup> Chaparral treatments should be strictly limited to the 100 – 300-foot Defense Zone from residential structures. Vegetation treatment and fuels reduction activities may also be appropriate along limited, designated, and strategic evacuation and fire access roads.

Fire suppression activities in these areas should be carried out consistent with California state law (Public Resources Code 4291). Specifically, break up vegetation fuel continuity within a maximum of 100 feet of structures with few exceptions for extreme conditions such as steep slopes. Remove vegetation immediately adjacent to structures, make the structures fire safe, and remove weeds at least annually from treated areas. Focus chaparral vegetation treatments solely within the Developed Area Interface Land Use Zone **and** the Defense Zone within 100 feet of structures with few exceptions. Treatment areas must be measured from structures, **not** National Forest property boundaries.

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<sup>2</sup> Conifer forest restoration activities may take place beyond the Developed Area Interface Land Use Zone.

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The Forest Service must anticipate the inevitable problem of colonizing exotic invasive weeds and grasses as a part of the Project and go beyond monitoring to include a long-term plan for at least annual treatment of weed infestations. Deferring this crucial project element to a future project or decision will greatly increase the risk of harmful wildlife to both people and chaparral and forest vegetation and violate NEPA. Monitoring for weeds should occur for at least the life of the project.

## **II. Provide Grants to Homeowners for Effective Fire Safety Activities – Reduction of Vegetation and Landscaping Fuels Near Structures and Retrofitting Homes with Fire Resistant Materials**

The Forest Service should utilize its broad discretion to provide fire safety grants to private landowners or fire safe groups for vegetation management and structural modifications on private property in lieu of ineffective vegetation modification for fire safety away from homes and communities. Establishment and maintenance of defensible space around homes, retrofitting unsafe structures, and supporting community-based fire safety education programs are in the long run much more cost effective in preventing the loss of life and property from wildfire than compromising large amounts of native vegetation in the National Forest.

In addition, the Forest Service can assist the local Fire Safe Council with the application of a FEMA pre-disaster mitigation grant for the communities of Pine Valley and Mt. Laguna that will cover up to 70% of the cost of re-roofing homes with fire safe materials and the installation of ember resistant attic vents. Information about the grants is available at the link below:

<http://californiachaparral.org/wordpress1/2013/09/18/fire-official-using-science-to-become-a-hero-before-the-fire/>

## **III. Protect Valuable Chaparral Vegetation**

- Eliminate proposed Selected Alternative broadcast burning treatments in chaparral vegetation with few exceptions so as to retain the unique and valuable stands of this natural community in the Project area and to reduce future fire risk from highly flammable, colonizing exotic weeds and grasses. Environmental review documents should consider the high likelihood of a wildfire within treated areas prior to full recovery of chaparral vegetation and the resulting likelihood of harmful type conversion.
- Specifically eliminate harmful and unnecessary proposed Selected Alternative treatments of mastication, thinning, pile burning, and broadcast burning under the proposed Selected Alternative in the following units: 1, 3, 11, 25, 31, 32, 33, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 53 (with the exception of treatments around the two houses, 56, and 65).

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- Address the critical wildfire threat of illegal campfires and target shooting in proximity to the Project and communities of Mount Laguna and Pine Valley. The Forest Service must consider closures of Bear Valley, Deer Park, Kitchen Creek, and Pine Creek roads until such time as it has real resources to stop these illegal and dangerous activities. Increase the pace of construction of vehicle barriers to block illegal routes in these areas.
- Address the threat of fire from power lines with removal, undergrounding, and hardening of power lines in the Project area.
- Bar use of mechanized masticators and other heavy equipment outside of the designated Defense Zone and on any slopes exceeding 20 percent grade to protect soils.
- Apply only one primary treatment to chaparral vegetation (i.e. mastication OR broadcast burning) to reduce the likelihood of type conversion.
- Retain all monarch shrub specimens where any portion of the stalk is 6 inches or greater in diameter.
- Suspend cattle grazing in treated areas to limit the spread of weeds and facilitate ecological recovery.
- Anticipate, monitor, and provide for perpetual treatment of weed infestations anywhere within the project area using hand tools and hand-held power tools.
- Disclose and address the effects of all chaparral treatment activities that have taken place within the project area prior to NEPA review for the Project, especially those that were not subject to a separate NEPA review process.

#### **IV. Implement Beneficial Vegetation Treatment to Protect and Restore Conifer Forests**

- Retain all larger diameter trees and snags greater than 14 inches diameter at breast height (dbh) outside the Defense Zone. Forest Service and other research does not support any need to cut trees or snags outside the Defense Zone larger than 14 inches dbh with the possible exception of trees leaning over structures or roads. Environmental review documents should address the scientific literature showing that wildfires may burn hotter, kill more trees, and be a greater threat to lives and property in areas where conifer tree density and canopy has been overly thinned. The project description statement that, "Within all treatment areas, trees that

pose a hazard to firefighter and public safety would be cut" does not provide adequate information on what is considered a hazard tree and would likely result in an unnecessarily significant reduction in ecologically valuable snag habitat for forest wildlife species.

- Selectively thin and remove conifers less than 14 inches dbh and shrubs less than 6 inches (at largest diameter of stalk) in and immediately surrounding conifer forest vegetation using hand tools or hand-held power tools. Retain all oak species where any portion of the stalk is 6 inches or greater in diameter. After initial thinning treatments use prescribed fire for maintenance in accordance with the natural fire regime.
- Selectively remove actual hazard trees near homes, along limited/designated/strategic fire evacuation and access roads, and recreation areas. However, given extensive past and ongoing removal of hazard trees and snags around Mount Laguna, **all** larger diameter snags greater than 14 inches dbh should be retained away from homes, fire access roads, and developed recreation areas. Snags should be retained near trails.
- Bar use of mechanized masticators and other heavy equipment outside of the Defense Zone and on any slopes exceeding 20 percent grade to protect soils.
- Suspend cattle grazing in treated areas to reduce unnatural conifer density, limit the spread of weeds, and facilitate ecological recovery. Environmental review documents should address the conclusions of scientific literature that cattle grazing encourages unnaturally dense conifer forest vegetation by reducing competition from grass and herb species.
- Anticipate, monitor, and provide for perpetual removal of weed infestations anywhere within the project area using hand tools and hand-held power tools.
- Disclose and address the effects of all conifer forest treatment activities that have taken place within the project area prior to NEPA review for the Project, especially those that were not subject to a separate NEPA review process.

#### **V. Implement California Spotted Owl Protection Measures**

- Treat current, modeled, or past recorded occupied California spotted owl habitat as occupied for the purposes of identifying vegetation treatments. For example, the La Posta Creek headwaters spotted owl territory should be treated as occupied for the purpose of identifying vegetation treatments in Project units 12 and 36.

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- Prohibit treatments in current, modeled, or past recorded occupied California spotted owl nest stands outside the Defense Zone.
- In current, modeled, or past recorded occupied California spotted owl Protected Activity Centers outside the Defense Zone, retain all trees greater than 9 inches and snags greater than 12 inches. Please note that Mexican spotted owl PACs have a 9 inch diameter limit, and that the 2001 Sierra Framework California spotted owl PACs had a 6 inch limit when mechanical treatments were determined to be absolutely necessary (mechanical treatments in PACs were discouraged). For PAC stands with canopy cover over 70%, do not reduce to below 70%. For stands with canopy cover between 50% and 70%, do not reduce to below 50%.
- In current, modeled, or past recorded occupied California spotted owl Home Range Cores outside the Defense Zone, retain all trees greater than 12 inches and snags greater than 14 inches. For stands with canopy cover over 50%, do not reduce to below 50%. For stands with canopy cover between 40% and 50%, do not reduce to below 40%.
- Prohibit tree cutting and other proposed treatment activities in any California spotted owl habitat during the breeding season.

#### **VI. Implement other resource conservation measures**

- Do not treat Riparian Conservation Areas outside the Defense Zone to protect water quality and geomorphology.
- Assess the status of weed invasions in previously treated areas within the proposed project. Treat weed invasions in these areas prior to conducting additional vegetation management activities.
- Prior to treatment identify suitable habitat and conduct surveys (to protocols where available) for all other Endangered, Threatened, Candidate, and Regional Forester's Sensitive species as well as sensitive species identified in the California Natural Diversity Data Base and by the California Native Plant Society. Do not treat occupied habitat for these species outside of the Developed Area Interface Land Use Zone.
- Collect and present population trend data on any Management Indicator Species in any NEPA documentation.

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- Flag and avoid areas within 33 feet (10 meters) of pack rat middens as pack rats obtain much of their nest material from this perimeter (Newton 1990). Trees should not be felled across rocky outcrops or downed logs.

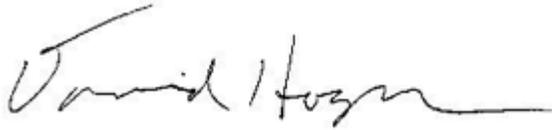
## **VII. Support Full Public Participation and Environmental Review**

- Do not undermine public participation and environmental review of the Mount Laguna / Pine Valley project by continuing to process the project under the Healthy Forest Restoration Act.
- Prepare an Environmental Impact Statement for the Project. NEPA requires preparation of an EIS for a project of this magnitude where there are likely to be significant impacts to the environment.
- Fully disclose and analyze the cumulative environmental effects of the Project alongside other vegetation management and hazard tree removal activities in the Project area by the Forest Service, CalFire, the County of San Diego, private property owners, and others, as well as alongside likely accidental fire and predicted climate change and long-term drought.
- Prepare a Cleveland National Forest-wide fire and vegetation management plan and EIS.
- Provide a figure showing proposed project activities in relation to the Cleveland National Forest Mean Fire Frequency Departure Map (Safford and Schmidt 2008).

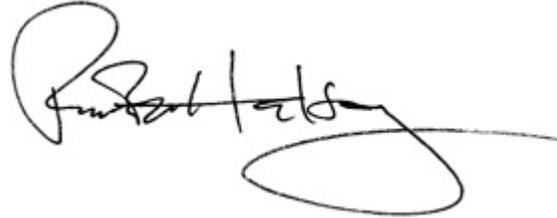
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Thank you for your consideration. Please contact David Hogan with any questions at 760 809-9244.

Sincerely,



David Hogan  
California Chaparral Institute



Richard Halsey  
Director  
California Chaparral Institute



Robert F. Guy Jr.  
Research Associate  
California Chaparral Institute

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