

January 2, 2009

Planning Commission
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Dear Chairman Riess and Members of the Commission:

RE: Vegetation Management Report (Agenda Item 2; January 9, 2009)

The Endangered Habitats League (EHL) commends DPLU, the Planning Commission, and the University of California for conducting two workshops of scientists and fire professional on the subject of vegetation management. While EHL was not in invitee, participants described a most productive discussion. The current draft of the report shows good progress but nonetheless requires considerable additional refinement.

Our comments are below. However, our information on the content of the workshop is necessarily second hand, and should therefore be verified.

Executive Summary

The report is internally inconsistent in that it first calls for “broad application” of vegetation management and then for “strategic fuels treatment.” Because the workshop did not endorse landscape-level manipulation to create “mosaics,” *only the latter* should be prescribed.

~~This report discusses the need for a broad level application of vegetation management to include those lands as well as other publicly owned lands.~~

A subset of these types of vegetation management techniques could be used as strategic fuels treatment in combination with the County building code requirements and property management requirements to reduce impacts of fires to homes and habitat. (p. iii)

It is essential, though, to provide a detailed definition of “strategic,” as this concept becomes the guiding principle of the report. A suggested definition follows:

Within shrub lands, “strategic fuel treatment” means creating spatially limited “fuel breaks” of low fuel volume in topographically advantageous locations where they can be helpful in providing access, serve as anchor points, and offer opportunities for back firing during fire suppression actions.

The current draft's recognition of the need for a holistic approach through building codes, property management, ember reduction, and urban landscaping reform is welcome.

The following recommendations should be modified to conform to the “strategic” and carefully applied approach recommended by the workshop panel:

Board of Supervisors may create a policy that the use of strategic prescribed fire for controlled burns is valuable to the citizens of San Diego County. (p. iii)

Create a [p]ublic [a]wareness campaign that includes a discussion of the need for strategic regional vegetation management including the use of controlled burns in addition to the need to manage clear spaces and structural design defenses that are already being undertaken. (p. iv)

Introduction

The following is a good list of actions but retrofitting of existing homes to “harden” structures against embers should be added, as it is likely to be highly cost effective based on the workshop findings (and which are well described later in the document):

Vegetation management is but one of a number of tools that the County is undertaking to assist in the reduction of loss of lives and property from wildfires. Other actions that the County has implemented include continually updating the building codes both before and after the 2003 fires in order to reduce the combustibility of houses, evaluating the layout of new subdivisions with regard to vulnerability to fires, and regulating landscaping materials and layout. Additionally, there is a strong emphasis on insuring that new developments have included defensible space within the development boundaries and have secondary routes for emergency escape as well as resources for protection of homes and property. These are necessary in the case that escape routes have been compromised and firefighting personnel are not able to reach a property. In addition, retrofitting retrofitting of existing homes to “harden” structures against embers and the reduction of *all* combustible materials – including trash, garden furniture and ornamental landscaping – within defensible space (and as now required by SB 1595) should be employed. (p. 1)

In its purposes, the document refers to “dangerous fuel loads” as though only heavy fuel loads will burn. This is incorrect, as under Santa Ana conditions – the only time catastrophic fires occur – both young and old vegetation will burn. The document needs a systematic editing to correct this.

Provide a description of the types of fuel management tools (manual manipulation, mastication, biological treatment, prescribed burning) that are available to reduce ~~dangerous~~-fuel loads in strategic locations order to create site specific vegetation management plans that address vegetation modification. (p. 2)

It should be noted that the MSCP management plans require wildlife agency approval:

This Report is designed to serve as a guidance document concerning vegetation management policy in San Diego County. It is a stand alone document, but it will also serve as a guide for management of vegetation within lands under the County Multiple Species Conservation Program Plan that are County owned in concert with fuels management in the unincorporated area of the County. These management plans require wildlife agency approval. (p. 3)

The points of consensus that emerged from the workshops resulting should become the basis for the report. A draft understanding of the areas of consensus – which requires further verification – is as follows. Some points are already well incorporated into the current draft, but others are not. For clarity, it is important that these points be presented as concise bullet points rather than as a narrative.

1. *Landscape level fuel modification, for example to create age-class mosaics, is not indicated.*
2. *Fire risk reduction should be focused at the urban-wildland interface rather than in more distant wildlands.*
3. *The entire fire risk equation should be addressed, especially the “hardening” of structures and removal of urban fuels.*
4. *Because wind-driven embers are the primary ignition source for structures, fuel modification beyond 100 feet is unlikely to be of value except in certain topographic situations.*
5. *Thinning and prescribed burns within appropriate conifer forests are a high priority.*
6. *Within chaparral communities, strategic fuel treatments can be an effective way to reduce fire risk. “Strategic fuel treatment” means creating spatially limited “fuel breaks” of low fuel volume in topographically advantageous locations where they can be helpful in providing access, serve as anchor points, and offer opportunities for back firing during fire suppression actions.*
7. *There is little indication for strategic fuel treatment in coastal sage scrub, which is highly depleted.*
8. *Herbivores have little value and mastication has detrimental biological effects.*
9. *Fuel treatments carry significant environmental risks to native ecosystems due to the likelihood of unplanned and repeated burns causing type-conversion to flammable weedy species.*
10. *Monitoring and study of interventions should occur.*

Within the current draft text on workshop results, there are several areas that need modification. The following statement should be modified to accurately state the consensus that treatment in wildlands away from homes is a lower priority than achieving defensible space and hardening of structures.

One of the main topics of discussion was the efficacy and consequences of

vegetation management in wildlands away from homes. There was a consensus that well planned, strategic actions have the potential to lessen the impact of wildfires on property and lives in the nine study areas but is a lower priority than achieving defensible space and hardening of structures. (p. 3)

Also, it should not be implied that chaparral is invulnerable to type-conversion:

Chaparral and Coastal sage scrub appears to be are vulnerable to impacts of frequent fires and should be treated more carefully than other types of vegetation in the study areas. (p. 4)

The sound approach adopted after much study by the Santa Monica Mountains National Recreation Area (SMMNRA) should also be formally adopted by San Diego County. A addition to the description of the SMMNRA preferred alternative is added below, to clarify that prescribed burning is not needed for the health of shrub communities:

- a. Prescribed burning is used to provide resource enhancement in grasslands.
- b. Hazard fuel reduction projects using prescribed fire or mechanical fuel reduction are considered in strategic locations that reduce the chance of wildfires which may damage life and property or impact natural and cultural resources.
- c. Short-term and site specific resource impacts of strategic prescribed fires are weighed against long-term and regional hazard fuel reduction benefits.
- d. Strategic zones are identified using up-to-date analysis of vegetation types, fuel characteristics, fire spread models, and potential hazards to life, property, and natural and cultural resources.
- e. Mechanical or biomechanical fuel reduction is concentrated at the wildland urban interface to protect homes. (p. 6-7)

Fuel Management Tools

The MSCP discussion should add that adaptive management must incorporate new understandings of fire ecology and management. Thus, this section should be qualified:

The existing Framework Management Plan as a basic premise discusses the need for fuel management zones at the edge of urban development and when necessary, to use controlled burning to generate habitat age mosaics to assist in the reduction of catastrophic fires. However, scientific study during the years since MSCP adoption shows that the generation of such mosaics is not a useful tool, and MSCP adaptive management should reflect the current understanding of fire ecology. (p. 11)

Under Prescribed Burning, the following statement should be altered to reflect the fact that prescribed burns are not necessary for the health of shrub communities:

In forest areas ~~in particular, but also in shrub communities~~ it can be strategically used to maintain the health of the vegetation and the associated inhabitants. (p. 15)

This section should be balanced to reflect the larger fire experience:

As an example of its affect on wildfire movement, the Cedar Fire stopped its eastward movement when it burned into an area that had been prescribed burned on East Mesa in Cuyamaca Rancho State Park a few months earlier during the previous summer. However, over large areas, recently burned vegetation did not stop the progression of wind-driven fires. Any benefit of prescribed burning is likely to be short lived due to rapid regrowth. (p. 15)

The following paragraph represents scare tactics and is contrary to the findings of the workshop panel. It should be revised to reflect the consensus on use of more limited, strategic fuel breaks.

Regarding the potential for repeat fires in a short time interval from impacting the vegetation, [c]oastal sage scrub may be more prone to this concern than [c]haparral. However, in light of the manner in which massive uncontrolled blazes have occurred in recent years ~~due to the build-up of the vegetation; vegetation management needs to occur to in some way alleviate the potential for catastrophic events. Considering the raging infernos that have taken many lives and properties in recent years, doing nothing in an attempt to strategically provide a means to slow or redirect a flame front during a major fire event is not an option.~~, a program of strategic fuel breaks to allow access by firefighters and to create defensible fire lines may be beneficial if carefully selected and planned. (p. 16)

The following statements are problematic in view of the panel's discussion that no treatment in coastal sage scrub (outside of defensible space) is indicated. It also seems to reflect the disfavored landscape mosaic approach rather than the preferred strategic fuel break approach.

Strategic fuels treatments in chaparral would be located to provide the most effective potential for reducing catastrophic fire. ~~If the intent was to use fire to promote vegetation health, it could be utilized when the above ground biomass supports major levels of dead material. For example, if chaparral vegetation reaches a condition that 30-40 % of the above ground biomass is dead material, a controlled burn could be considered, however, it will be at the discretion of a certified fire manager in the preparation of a burn prescription.~~ On the other hand, fuel management in [c]oastal sage scrub ~~may be more reliant upon a combination of treatments over time~~ rarely if ever be indicated outside of defensible space. (p. 16)

The concept of adaptive management to mitigate for weed invasion post burn is

meaningless unless budgeted and enforced.

Monitoring and post burn activities are also included. Monitoring and active restoration is critical to insure that the burns do not replace natural habitats. Such active restoration must be budgeted at the outset in any fire plan and posted as a bond, and required of the fire or management entity, along with an effective enforcement remedy by members of the public. (p. 17)

Under the CEQA section, we do *not* concur with the following. To the contrary, new environmental review is needed to respond to the highly significant new information on burn frequency and type-conversion that has come in existence over the last 10 years. The MSCP management plans are outdated.

~~Under the Multiple Species Conservation Program, the intent is that the use of prescribed fire is covered under the environmental review under the adopted plans and that it is viewed as a means to protect important habitat areas as well as create healthier vegetation. Within the specific County preserves, the intent is that it would not be necessary for additional environmental review for controlled burning activities.~~ (p. 17)

Fuel Management Priorities

Outside of conifer forests, the following FAST criterion is incorrect and should be eliminated, as fuel treatment to manipulate the fire cycle is not needed for ecosystem health. All shrub land areas are within the natural fire regime cycle.

Ecological Sensitivity: Within conifer forests, ~~Is~~ there a need of fuel treatment in the form of manipulation of the fire cycle in order to maintain ecological values? If an area has a known presence of an endangered species or supporting critical habitat, then it will score high. (p. 19)

The following FAST criteria ignores the fact that eliminating high fuel loads will not help in wind driven fires, unless in the immediate post-burn period. Modification is needed.

1. Fuel/Vegetation Degree of Hazard: what is the fuel load in the area? This considers fuel age class and type of fuel. An area with extremely hazardous fuels present will score a 3. Less fuel scores a 1. (p. 19)

In general, the FAST criteria should be reassessed in light of the workshops.

The aggressive approach to burning chaparral in Palomar Mountain is not supported by the workshop panel or the SMMNRA study:

3.1 Priority Area #1: Palomar Mountain

Palomar Mountain received the highest priority for a vegetation management project area. It contains a combination of issues that include safety concerns for

the residents and properties, a high level of flammability due to age of vegetation and need for maintenance of the forest. Vegetation management techniques including controlled burns and manual thinning of trees are needed to protect sensitive habitat areas, ancient trees and even some outstanding old but healthy chaparral. The risk is the occurrence of a massive forest destroying fire like the Cedar Fire in Cuyamaca. The Dead, Dying and Diseased Tree program removed dead trees within 200 feet of structures and roads from 2004 to 2006 on Palomar Mountain. This action allowed for fire crews to stop the Poomacha Fire from entering into the communities of Birch Hill and Bailey Meadows on Palomar Mountain and prevented the fire from destroying the forest in Palomar Mountain State Park and Palomar Mountain County Park. However, the majority of the forest on the mountain, both on private and public land, still sustains standing dead trees and tree density that is far too high. The threat of an all consuming fire traveling from the northeast with a strong Santa Ana wind event through very old growth Chaparral into the weakened forest and the populated communities is critically high. Furthermore, once the forest vegetation on Palomar Mountain is brought back to a more stable configuration, it will be necessary to sustain controlled burns and regularly manage the vegetation in perpetuity. Strategic fuel breaks in chaparral may be indicated following further careful evaluation using the approach of the Santa Monica Mountains National Recreation Area. Specific segments of this project area and their scores are listed in the following table: (p. 21)

The following needs rewording in view of the workshop panel and the SMMNRA study:

3.2 Priority Area #2: I-8 Laguna Fire

Prior to the fires of 2003 and 2007, the largest fire recorded in San Diego County was the Laguna Fire of September 1970. It consumed close to 175,400 acres, nearly 400 homes and was one of the largest in the State at that time. It began from a wind downed power line in the Kitchen Creek area of Mount Laguna and burned to the southwest through parts of Alpine, Crest and Dehesa carried by 60 mph winds. It burned over a distance of 30 miles in 24 hours. The path of the Laguna fire has not had significant fires or fuel treatment since then leaving a bed of nearly 40 year old vegetation that has like the rest of the County endured a 10 year drought period. Furthermore, in the nearly 40 years since the Laguna Fire, many more homes have been constructed within its path. It is a well known fact in California that the paths of fires may be repeated. The advancing age for this vegetation combined with the drought is creating a situation that is becoming gravely dangerous. This area would be served through strategic fuels treatment to break up the large swath of old age class vegetation with possible augmentation through the use of other tools such as masticators.

Portions of this project area were treated in the Dead, Dying and Diseased Tree removal program. However, with the continued drought, there have been a large number of additional trees that have died, particularly oak trees in the area around and north of Descanso.

One portion of this project area that was not directly burned in the Laguna Fire is Guatay Mountain. It contains some of the oldest Chaparral in the region and the oldest stand of Tecate Cypress in San Diego County at approximately 100 years. ~~Controlled burns, chaparral cutting, and masticators would be necessary to manage the surroundings in order to protect this area.~~ Strategic fuel modification may be indicated following further careful evaluation using the approach of the Santa Monica Mountains National Recreation Area. (p. 22)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.3 Priority Area #3: Southeastern County

The southeastern part of the County from Jacumba to Potrero along Highway 94 and south of Interstate 8 and the area north of Interstate 8 in the area of the Tecate Divide contain old and severely drought stressed Chaparral. While the County and Southern California as a whole have suffered a long period of drought, this portion of San Diego County has been particularly hard hit. The Chaparral vegetation has a significant level of standing dead material. This portion of the County has also exhibited greater numbers of residences. Fires carried by an east wind event would be very destructive to the communities of Tierra del Sol, Bankhead Springs, Boulevard, Campo, Morena Village, Potrero and Buckman Springs. Following careful evaluation according the Santa Monica Mountains National Recreation Area approach, This area would be served through strategic fuels treatment to break up the large swath of old age class vegetation with possible augmentation through the use of goats and masticators may be indicated. Specific sites and their scores within this project area are listed in the following table: (p. 22)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.4 Priority Area #4: Greater Julian

Portions of this project area burned in several different fires, the Pines fire of 2002, the Cedar Fire of 2003, and the Volcan Fire of 2005. The Sunset fuel break was installed in the eastern portion of Julian and it has served to limit the spread of destructive fires into the community. Other areas such as portions of Pine Hills have not burned in many years and have not had vegetation treatment. In many of these areas, dead tree skeletons still stand serving as a safety hazard. In others, conducting tree thinning would be necessary for forest health. Prescribed fire may not be necessary except in areas that were not involved in the fires of the last five years. Furthermore, other areas are Chaparral of older age. This project area is also quite heavily populated with residences located in potential fire hazard areas. Following careful evaluation according the Santa Monica Mountains National Recreation Area approach, strategic treatments in this area would

~~might be employed include all of the tools, controlled burning, mastication and possibly goats,~~ but also additional dead tree removal both for standing skeletons of fire kill and drought kill. The specific study areas involved and their rankings are as follows: (p. 23)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.5 Priority Area #5: San Luis Rey West

The area from Rainbow, Pala, Pauma Valley, Bonsal, Lilac, Valley Center to Twin Oaks and Jesmond Dene has a large coverage of old growth chaparral of ~~mixed health~~. This area has also been subject to a large amount of residential development over the past two decades. The Merriam Mountains and San Marcos Mountains have little history of fire ever occurring there leaving old growth and somewhat drought stressed vegetation that contains significant standing dead material. Homeowner landscaping and management of vegetation around structures may also contribute to residential fire hazards. A wildfire through this area ~~without specific treatment~~ could be quite destructive. Following careful evaluation according the Santa Monica Mountains National Recreation Area approach, strategic ~~controlled~~ burns could be used to some degree, but because of the urbanized nature of much of this area, it may be necessary to utilize masticators instead to a larger degree. Specific sites and their scores within this project area are listed in the following table: (p. 23)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.6 Priority Area #6: Rancho (Santa Fe)

Portions of this project area burned in the Witch Fire of 2007 and previously in fires in the 1990's. This area is a challenge due to its relatively high number of residences, but also because of the intermixing of landscaped properties in the midst of areas with Chaparral and Coastal sage scrub vegetation. Along the San Dieguito River and in many of the undeveloped areas, concentrations of rare, endangered and otherwise sensitive species exist. The combination of flammable landscape material in the midst of large residential properties and hills and slopes of natural habitat make this an area that, after careful evaluation according the Santa Monica Mountains National Recreation Area approach, may needs continual strategic treatment to protect the properties as well as the sensitive resources. For the areas that recently burned, treatment may not be necessary for a while, but it will always be important to maintain modified and irrigated spaces around buildings and communities. (p. 24)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.7 Priority Area #7: Santa Margarita

The area east of Camp Pendleton extending east to Rainbow and south to Camp Pendleton and Fallbrook includes numerous groves and old age chaparral. The DeLuz area has been gradually expanding in population. The potential is great for a fire to ignite north of the County line in the western portion of Temecula and spread with a Santa Ana event into DeLuz and the back side of Camp Pendleton and Fallbrook. Again, following careful evaluation according the Santa Monica Mountains National Recreation Area approach, strategic fuels treatment in this area ~~would~~ may involve controlled burns and mastication. The individual site areas would include De Luz and Rainbow. (p. 24)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.8 Priority Area #8: Northeast County – Warner Springs

The area ranging from the forested Hot Springs Mountain through Warner Springs and Chihuahua Valley to Oak Grove has had various fires over its history including those in the last decade that burned parts of Hot Springs Mountain in the Los Coyotes Indian Reservation and Bucksnot Mountain. However, the majority has not burned in many decades. Very old growth Red shank chaparral reportedly exists near Warner Springs that may still be healthy and viable and worthy of consideration for protection from fire. The majority of the Chaparral is of varying health and vigor with some drought affected vegetation supporting standing dead material. If ignited, ~~T~~his region could be the ~~ignition~~ source for a major fire that could burn into the back side of Palomar Mountain but take the entire forest. Following careful evaluation according the Santa Monica Mountains National Recreation Area approach, ~~P~~portions of this project area ~~would~~ may be strategically treated ~~to restore vegetation vigor and health~~ through controlled burns or other measures, ~~but also~~ to prevent a wide fire front from gaining momentum as it moved through the area to the west or even to the east into Anza Borrego State Park. Specific areas that support healthy chaparral of old age should also be identified in order that treatment may occur in the surroundings to help prevent its loss during a fire. Individual site areas are as follows: (p. 24)

The following section should be modified to reflect the workshop panel and the SMMNRA study:

3.9 Priority Area #9: Cuyamaca - Laguna

The Cedar Fire impacted a major portion of this project area causing what is potentially a conversion of a coniferous oak forest to an oak, Chaparral community. The State Park is exploring means for re-establishing the primary coniferous trees including Jeffrey Pines and Sugar Pines. Vast areas of standing dead tree skeletons remain. Re-establishment of forests will require specific treatments for removal of the invading Chaparral shrubs and modifying the

understory of the replanted and seedling conifers as they grow. This will require treatment for many years in the future. The area of Cuyamaca cypress on the west slope of Cuyamaca Peak was burned in the Cedar Fire and risks replacement by chaparral if fires re-occur there in the next 30 years. This area ~~will~~may need strategic treatment by either controlled burns or mastication to prevent fires from burning the stand before the trees are mature enough to generate adequate cones and seeds for reproduction.

Portions of the Mount Laguna area burned in the Pines fire as well. However, the central and western part of Mount Laguna has not been burned for many years. Following careful evaluation according the Santa Monica Mountains National Recreation Area approach, ~~T~~treatment of the forest to sustain forest health ~~will~~may require application of controlled ground fires and some of the large chaparral expanses may need to be treated with strategic fuel breaks through controlled fire or other means to reduce the mass of fuels ~~as well as restore health.~~

Overall, this project area will need treatments of various types for the foreseeable future. They will be necessary in order to allow for the forest and woodland vegetation to become re-established and then to grow in a healthy and vigorous manner so that unanticipated fires do not heavily alter the vegetation in the future. (p. 25)

We agree with the following statement concerning the above prescriptions, which is why those sections should be modified so as to not reach predetermined conclusions:

This is intended only to provide a broad outline of the project areas. For each of these project areas, the specific sites will be mapped and processed for treatment. In those treatment studies, the specific tool, controlled burns, hand modification, mastication, or grazing animals, will be identified. (p. 25)

Potential Future Options

The benefits of fuel management should not be oversold.

5.4 Community Support for Prescribed Burns

The acceptance of the use of controlled burns and prescribed fire by the public will require extensive public relations and media programs. The public may be concerned about the risk of a fire escaping and the potential for smoke, but they will also need education about the value of conducting prescribed fire to facilitate environmental health and public safety in addition to the efforts that individual property owners must make to fire harden their homes. The theme may be that fire is a natural process and that the vegetation that we have is adapted to fires and furthermore, if it is not applied under strategic controlled conditions, there is a higher chance ~~it is likely~~ that it will occur with disastrous results such as those from the 1970, 2003 and 2007 fires. (p. 31)

We concur with funds for retrofitting:

5.7 Work on Urban Landscaping issues

It is apparent that specific plantings in the urban fringe area may generate large embers that carry fires deep into the residential community. It will be important to evaluate means to reduce the effects of such plantings including potential inspections and planting limitations with conditions. Also, the County should continue to seek funds for retrofitting structures to harden them against fire. (p. 32)

In conclusion, we commend the progress toward a consensus approach to vegetation management and the full integration of treatments to retrofit structures to reduce ignition through burning embers. There is still considerable work to do on the report, and we again offer our assistance to the Commission and DPLU.

With best regards,

Dan Silver, MD
Executive Director

cc: Eric Gibson
Jeff Murphy
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Interested parties