



October 1, 2018

Santa Barbara County Board of Supervisors
105 East Anapamu Street
Santa Barbara, CA 93101

Re: **Community Wildfire Protection Plan Update**
October 2, 2018 Agenda Item #5 (18-00796)

Dear Chair Williams and Members of the Board:

As a former member of the Development Team for the Eastern Goleta Valley/San Marcos Pass Community Wildfire Protection Plan (“CWPP”), we thank you for this opportunity to provide some additional background information about our participation in this process and what steps can be taken to improve it as we all seek ways to better protect our communities from wildfire.

Los Padres ForestWatch and Urban Creeks Council were both invited to participate on the CWPP Development Team in January 2017. We believed it would be an excellent opportunity to contribute to an ongoing discussion about how we can best safeguard our communities while protecting the environment and ensuring firefighter and public safety. It also seemed to fit quite well with one of the major goals of our organization — to ensure that our community’s response to wildfire is reflective of emerging science, with a focus on defensible space and reducing structural ignitability.

At our first Development Team meeting, LPFW and UCC both requested that the Development Team include at least one (and preferably more) scientists. The formal participation of a fire scientist early in the process would have ensured that the process was guided by science. Unfortunately, our requests were denied, and from our perspective, science was given a back seat throughout the process.

This failure to incorporate science early in the process made it difficult to change the course of the CWPP as we got further along in the process. The first draft of the CWPP contained a lot of good language on chaparral fire ecology and the need to focus on defensible space and structure hardening. However, the CWPP’s implementation section (Chapter 6) focused nearly exclusively on vegetation clearing to the detriment of many other mitigation methods that science has shown are equally, if not more, effective at protecting our communities from wildfire. These other pieces of the puzzle of keeping our communities safe include:

- Ensuring that homeowners create safe and smart defensible space immediately around their homes and other structures.

- Promoting and facilitating innovative programs to encourage homeowners to retrofit existing homes with fire-safe materials.
- Examining land use practices to determine whether additional controls and building design need to be considered in high fire hazard severity zones.
- Providing firefighters with the tools and technologies they need to detect fires as soon as they start, to rapidly deploy equipment, and to keep firefighters safe.

We expressed our concerns to the Development Team in an email dated August 25, 2017. These early comments outlined seven categories of basic, reasonable, and — we hoped — helpful recommendations that could be incorporated into future drafts of the CWPP. We continued to participate in Development Team meetings but were disappointed when most of these concerns remained unaddressed. In a letter dated January 16, 2018, LPFW formally resigned from the Development Team. And in a letter dated January 21, 2018, UCC formally resigned from the Development Team. We requested that our names be removed from the document that we could not support and that was not supported by the scientific advisors. Both letters of resignation are attached for your review.

The scientific advisors to the Development Team submitted a letter to the remaining team members on March 23, 2018, outlining a series of concerns they held with the current draft of the CWPP. Their letter states in part:

Unfortunately, when it comes to the action plan portion of the CWPP, the document is almost exclusively focused on the older approach — clearance of vegetation. **Although vegetation treatments are an important part of the fire risk reduction equation, they have often failed to protect property and lives when the most dangerous fires have occurred.** We need to think and act differently.

Therefore, we urge the County to request the development team revise the CWPP to emphasize what it already concludes: “... the most important factor in protecting a structure is with the structure itself” (pg. 116). We need to develop a plan that addresses structure and community vulnerability with as much detail and weight as the current draft CWPP does for large vegetation treatments. Anything less provides a false sense of security and fails to address the actual cause of home loss during wind-driven fires.

(emphasis in original).

Protecting our communities from wildfire is an issue that is critically important to us. Many of our staff and Board members have been personally affected by recent wildfires. It was disappointing to have exhausted all of our attempts to incorporate our recommendations into

the process, and even more disappointing to feel like our only option was to resign from the committee to which we had contributed hundreds of hours of staff time.

Issues pertaining to wildfire must be addressed using sound science as our guide. The role of scientists should never be ridiculed. All participants must feel like their recommendations are acknowledged and incorporated to the maximum extent possible. Inflammatory public statements do not help move the conversation forward. These are the sideboards of any collaborative process in which we participate. We hope that the process can incorporate these basic principles of collaboration, and we feel strongly that an independent facilitator would be able to help guide this process moving forward. We would be happy to rejoin the process with some assurances that these steps would be taken seriously by Development Team leaders.

ForestWatch has successfully participated in several collaborative processes and we have achieved successful outcomes in many of them. We understand that not every participant will get every single recommendation included in the final product. These issues are complex and take time, listening, and mutual understanding to address.

Our Recommendations

We do agree with our colleagues on the Development Team that the October 30 date does not provide sufficient time to navigate through the issues outlined in this letter. To that end, we request that the Board take the following actions today:

1. Follow County staff's recommendation (and the groups' request from January) and remove LPFW and UCC from the Draft CWPP document until the organizations approve the document.
2. Express support for a science-driven process that puts all community wildfire protection strategies on equal footing, without emphasizing one to the detriment of others.
3. Consider an independent facilitator that can assist with the development of this and future CWPPs.

We have an opportunity to get this process back on track and we look forward to hearing any ideas your Board may have in how we can restore a sense of collaboration to this process. Thank you for your service to the community.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Kuyper". The signature is fluid and cursive, written in a professional style.

Jeff Kuyper
Executive Director



January 16, 2018

RE: Letter of Resignation from CWPP Development Team

Dear CWPP Development Team,

When I was invited to join the Development Committee for the San Marcos Pass/Eastern Goleta Valley Community Wildfire Protection Plan ("CWPP") in early 2017, I saw it as an excellent opportunity to contribute to an ongoing discussion about how we can best safeguard our communities while protecting the environment and ensuring firefighter and public safety. It also seemed to fit quite well with one of the major goals of Los Padres ForestWatch – to ensure that our community's response to wildfire is reflective of emerging science, with a focus on defensible space and reducing structural ignitability.

I have reviewed the most recent Draft CWPP and we should all be proud of the time, dedication, and commitment that we've contributed as Development Committee members. However, Los Padres ForestWatch continues to have serious concerns about the document in its current form, and it does not appear that there is much interest from the Committee in making any further changes to it. Therefore, I am announcing my resignation from the Development Committee, effective immediately. Please remove our name, and my name, from the CWPP. Our names cannot appear to endorse a document that we do not support.

I have given this decision much thought and I do not take it lightly, particularly given the time and resources our organization has invested in this process. Like many of you, we have reviewed several preliminary drafts of the CWPP, attended many meetings, consulted with experts and other stakeholders, and submitted our input throughout the process. Most recently, we submitted comments to the Committee on August 25, 2017 on the preliminary Draft CWPP. Unfortunately, many of our most basic recommendations were not incorporated.

Our hope was that this document would become a model for how communities can emphasize building (and rebuilding) fire-safe communities, focusing on topics like structural ignitability, innovative programs to address and facilitate structural retrofits, and additional steps that our communities can take to become more fire-safe. These are *required* elements of a CWPP, yet we barely devoted any time to discussing them during any of our regular meetings, and they are relegated to a few brief passages towards the end of the CWPP. Most residents won't read that far into this lengthy document, and those who do will not benefit from a comprehensive and balanced discussion on how we can encourage people to take more responsibility for improving the defensibility of their homes. There seems to be a big rush to get this CWPP out the door as quickly as possible amidst the tragedies that have unfolded over the course of the last month.

Furthermore, the deteriorating tone of some Development Committee emails over the past couple of weeks has distracted from the original goals of the Committee. Some committee members have admitted to "tongue biting" during our meetings, and have referred to our science advisors as "experts" in quotes as if they're not really experts. The County's consultant, Geo Elements LLC, has unequivocally questioned the role of fire ecologists in this process. Others have criticized members of the scientific

panel, and have promoted a “we know best” mentality that discounts the contributions of experts from many disciplines who have much knowledge and experience to contribute. We should embrace their input, not shun and ridicule it. The Thomas Fire and subsequent flooding have underscored the importance of working together across multiple disciplines to identify the most effective ways to protect our communities from these disasters.

I have appreciated the opportunity to participate in this process, and I congratulate my colleagues on the Development Committee in achieving this important milestone. While no longer on the Development Committee, ForestWatch will continue to participate in the CWPP process to ensure the best outcome possible for our communities, our first responders, and the environment. Best wishes for us all as this process moves forward.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Kuyper". The signature is fluid and cursive, with the first name "Jeff" being more prominent than the last name "Kuyper".

Jeff Kuyper
Executive Director

From: [Jeff Kuyper](mailto:Jeff.Kuyper)
To: "[Hazard, Rob](mailto:Hazard.Rob)"; "[Philip Seymour \(pseymour@silcom.com\)](mailto:Philip.Seymour@silcom.com)"; "[Kevin Buckley](mailto:Kevin.Buckley)"; "[rt Siegel](mailto:rt.Siegel)"; "[Kendra O'Connor](mailto:Kendra.O'Connor)"; "[Dan McCarter](mailto:Dan.McCarter)"; "susan@epstein.net"; "nelmquist@fs.fed.us"; "[Tan, Fred](mailto:Tan.Fred)"
Cc: "carol@geoelementsllc.com"; "davidkerr@geoelementsllc.com"
Subject: LPFW Preliminary Comments on Draft CWPP
Date: Friday, August 25, 2017 1:39:00 PM

Thanks Rob. Since a LPFW representative cannot attend next week's DevCom meeting, I'll send along some general concerns that have emerged during our initial review of the draft CWPP. Overall it is a good document with some great language on structural ignitability, along with some room for improvement on BMPs, CEQA, monitoring, and recommendations. We'd also like to see a more robust discussion on structure hardening. Thanks, all, for your input and I hope to attend the next meeting in September.

1. The BMPs should be supplemented with additional items outlined in Phil's document. Overall, they also need to be strengthened with mandatory language. Phrases like "should be" "should not" and "is preferred" provides too much discretion, particularly with respect to Environmentally Sensitive Habitat areas. We would also like to see a BMP that addresses the timing of vegetation clearing to reduce the proliferation of yellow-star thistle and other highly invasive weeds. It is vitally important to time this work in a way that does not make the weed problem worse. See, for example, the studies we circulated this summer on the timing of vegetation clearing to reduce emergence of yellow-star thistle. The proliferation of broom along Highway 154 should also be addressed.

2. The BMP to protect nesting birds should incorporate the language that we submitted to the Development Committee this summer. It was vetted by several local experts and the California Department of Fish & Wildlife and is used by local governments throughout southern California. The main differences between it and the language in the draft CWPP are as follows:

a. The proposed BMP specifies that surveys must be conducted within two weeks of initial work, and then weekly as work progresses. The draft CWPP BMP requires surveys to only be conducted once during bird nesting season. So technically, under the language in the draft CWPP, a survey can be conducted once in mid-January (when few birds are nesting) and finding nothing, vegetation clearing could occur in that area throughout the entire season, even during peak nesting season when nests would likely be present.

b. The draft CWPP BMP gives full discretion in establishing the size of buffer zones when nests are found in work areas. The BMP we proposed sets forth very specific buffer zone distances -- 300 feet for non-raptor nests, and 500 feet for raptor nests.

In addition the section of the draft CWPP that initially references the BMPs (6.3.2 on page 109) should clarify that implementation of the BMPs are necessary to reduce or avoid environmental impacts, and the failure to implement them may result in the need to prepare additional CEQA documentation, and could subject operators, landowners, and agencies to civil and/or criminal liability for violations of local, state, and federal environmental protection laws. As currently worded, it is difficult for a layperson to know whether the BMPs are mandatory or optional. The discussion should also be expanded to include not only mitigation to wildfire threat and life safety, but also to the mitigation of environmental impacts.

3. Environmentally Sensitive Habitat Areas (ESH) -- There should be a statement in the CWPP that it will be updated with current ESH mapping in November 2017 or as soon as possible upon completion of updates by the County. It would also be helpful to include a map in the CWPP that overlays the vegetation treatment areas with ESH boundaries, so that we (and the public) can see the extent of treatments proposed in ESH.

4. CEQA -- If CEQA is going to be deferred to the site-specific stage, then there should be some mechanism for notifying the public about projects that are excluded from environmental review when they arise. Past practice has been to exclude these projects and to merely post a notice at the County building. There should be a more effective and open way to keep key interested parties informed so that we can participate in the process and provide constructive input on how to reduce or avoid impacts. Providing advance notice to DevCom members is something to consider.

5. Emphasis on structure hardening and defensible space. We were really hoping that this would be the main section of emphasis in the CWPP, but unfortunately it's been relegated to a few pages (see pages 76-81, and 96-101). The discussion there is quite good, but it seems like we're missing an excellent opportunity to really take a thorough, comprehensive look at some innovative programs that will help landowners retrofit their homes with fire-safe materials, such as the program we discussed on roof retrofits. The only mention of that is a one-sentence bullet point under Section 9.0 CWPP Recommendations. It's great to include this program as a recommendation, but with a little more effort we'd like to see the CWPP used as a vehicle to further define what that would entail, citing to similar programs in other communities.

6. Section 8.0 Monitoring (half-page) should be expanded. Monitoring is perhaps the most critical component of any management plan -- the results tell us, decision-makers, and the public what's working and what needs to be changed. The document states that only the County Fire Marshall will conduct a review, and only at five-year intervals. I would hope that DevCom members would be invited to participate in such a review. The draft CWPP also states that "SBC and USFS should establish a monitoring program to ensure that fuel treatment activities remain effective; however, a sustained monitoring program is often overlooked due to workload or budget constraints." The CWPP should contain the parameters of the monitoring program, if not the monitoring program in its entirety, identifying key monitoring indicators, frequency of monitoring, parties responsible for monitoring, and funding necessary to do so. Otherwise we will just continue to fall into the trap that the CWPP identifies -- failing to conduct sustained monitoring due to workload and budget constraints.

7. Section 9.0 Recommendations. I would like us to consider adding a recommendation for the County to evaluate changes to the General Plan and Zoning Ordinance that would restrict or prohibit construction in areas identified as high-risk fire areas. New home construction is prohibited in flood plains -- why not in high fire risk zones too? If the County continues to facilitate new home construction in high-risk fire areas, it is stretching our firefighting and land management agencies' limited resources even thinner. I hope we can also take an opportunity to recommend measures to further improve fire prevention techniques in the CWPP. For example, let's look at power lines and transmission lines in high-risk areas to determine whether they are properly permitted and in good condition. Are there ways we can increase response time for initial attack? Does the absence of air resources stationed at the SB or Santa Maria airports cause any delay in response time?

Thank you, Carol and Dave, and all DevCom members, for your work on the draft CWPP. I hope there is room to consider and incorporate the initial items we've outlined above -- they are not our formal response to the draft CWPP but I wanted to get you some early thoughts to help guide your discussion next week.

Jeff Kuyper, Executive Director • Los Padres ForestWatch
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805.617.4610 ext. 1 • jeff@LPFW.org

-----Original Message-----

From: Hazard, Rob [<mailto:Rob.Hazard@sbcfire.com>]

Sent: Friday, August 25, 2017 12:09 PM

To: Philip Seymour (pseymour@silcom.com) <pseymour@silcom.com>; Kevin Buckley <buckleydesign@gmail.com>; rt Siegel <rtsiegel@earthlink.net>; 'Kendra O'Connor' <sbbunnys@aol.com>; Dan McCarter <danrmccarter@gmail.com>; susan@epstein.net; jeff@LPFW.org; 'nelmquist@fs.fed.us' <nelmquist@fs.fed.us>; Tan, Fred <Fred.Tan@sbcfire.com>

Cc: 'carol@geoelementsllc.com' <carol@geoelementsllc.com>

Subject: Monday Meeting

Hi All,

I spoke to Nic Elmquist today and he confirmed that he can make the Monday Development Team Meeting at 10:00. I know it's late notice but I think it is important to move the process along. Jeff, can you forward any issues, comments or concerns to Dan as your proxy? At this point I still need comments from Jeff, Nic, Mark, and Kendra. If you can email them to me and cc the group by Sun night that would be great.

Thanks All,

Rob

Rob Hazard

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From: [Dan McCarter](#)
To: rtsiegel@earthlink.net; Rob.Hazard@sbcfire.com; pseymour@silcom.com; buckleydesign@gmail.com;
sbbunnys@aol.com; jeff@lpfw.org; Fred.Tan@sbcfire.com; [David Kerr](#); susan@epstein.net; nelmquist@fs.fed.us;
carol@geoelementslc.com; Steve.Oaks@sbcfire.com
Subject: UCC resigns from CWPP
Date: Sunday, January 21, 2018 9:11:18 AM
Attachments: [UCC resigns from CWPP.pdf](#)
[Untitled attachment 05073.txt](#)

To the Development Team,

Urban Creeks Council, (UCC), combined with Los Padres Forest Watch, (LPFW), had the purposeful intent to represent environmental interests as parties engaged in the Eastern Goleta Valley/ San Marcos Pass Mountainous Area Communities Wildfire Protection Plan, (CWPP).

I have consulted with the UCC Board after reading the resignation letter from the LPFW. UCC had recognized that success of the CWPP process hinged on a collaborative approach. Many of the concerns brought up by Forest Watch in their resignation letter resonate with the UCC; it is clear that our collaborative efforts have failed. The logical conclusion for UCC is to resign as well. It is the Board's wish that you not include my name or UCC's name in the final draft of the CWPP.

I personally enjoyed working with many of you and especially found value in our joint site visits. Thank you for inviting UCC to participate in this process and we wish you the best in reaching your goals.

Sincerely,
Dan McCarter, Vice President
Santa Barbara Urban Creeks Council



March 23, 2018

Santa Barbara County Working Group
Rob Hazard, Deputy Fire Marshal, Santa Barbara County Fire
Mindy Fogg, Santa Barbara County Planning & Development
Allen Bell, Santa Barbara County Planning & Development
CWPP Development Team

Re: Eastern Goleta Valley Mountainous Communities CWPP

Dear CWPP Reviewers,

We have reviewed the current draft of the Eastern Goleta Valley Mountainous Communities Wildfire Protection Plan (CWPP) and believe we can offer valuable input to assist in its goal of protecting lives, property, and the environment from devastating wildfires.

During our participation in helping to shape the CWPP's original draft we have been impressed with the development team's interest in incorporating the latest science as it applies to both community protection and the county's local ecology. The first five sections of the draft include some of the best research available when it comes to why homes ignite, how fires behave, and how the region's chaparral ecosystems respond to fire. We have listed some of the CWPP's statements that reflect the best available science at the end of this letter.

Given the fact that the CWPP acknowledged these important issues, we anticipated that the draft would offer new, innovative strategies to reduce the flammability of communities.

Unfortunately, when it comes to the action plan portion of the CWPP, the document is almost exclusively focused on the older approach – clearance of vegetation. **Although vegetation treatments are an important part of the fire risk reduction equation, they have often failed to protect property and lives when the most dangerous fires have occurred.** We need to think and act differently.

Therefore, we urge the County to request the development team revise the CWPP to emphasize what it already concludes: "... the most important factor in protecting a structure is with the structure itself" (pg. 116). We need to develop a plan that addresses structure and community vulnerability with as much detail and weight as the current draft CWPP does for large vegetation treatments. Anything less provides a false sense of security and fails to address the actual cause of home loss during wind-driven fires.

Improper Focus/Questionable Assumptions

Nearly one third of the document focuses on describing the types and placement of vegetation clearance projects. In addition, by using a poorly defined set of assumptions, the document suggests that up to 300-feet or more of clearance is needed around 13,292 parcels. Suggesting this amount (a football field length) of clearance is needed around the majority of parcels covered by the CWPP is tantamount to eliminating the natural environment near all communities within the planning area.

Not only are such excessive clearances distances incredibly destructive to vital ecosystem services provided by the natural environment, there is no scientific evidence to support such an approach. In fact, in one section the draft appears to dismiss the overwhelming body of scientific evidence showing that huge clearance distances are counterproductive (pg. 92).

Not Focusing on the Cause

Although the CWPP expends significant amounts of space acknowledging the importance of the design and arrangement of buildings to their vulnerability to fire, it offers only three mild recommendations to address these issues: developing an educational tool about retrofitting structures (e.g., a brochure), providing tax structures with incentives for structure hardening, and “consider” applying for a FEMA grant for a roof replacement program (pg. 172).

Meaningful tax relief can only come from the state or federal level. The FEMA grant application process is extremely complex, so providing assistance for navigating this process is essential. The CWPP ignored this issue. Therefore, the only recommendation in the CWPP action plan that directly addresses how to reduce community flammability during a wildfire is the production of an educational brochure.

Although the CWPP mentions that a survey of structures to identify their vulnerabilities to fire is pending, there are no details on how or when such a survey will be conducted. Although a simplistic “*Defensible Space Inspection Worksheet*” is included, it does not address many of the common vulnerabilities listed on CalFire’s Homeowner’s Checklist and, despite its title, does not have space for actually recording the condition of a home’s *defensible space*.

Another significant shortcoming of the CWPP is its lack of detail about evacuation procedures. Compared to 50 plus pages on vegetation management, the document dedicates only about seven pages to arguably one of the most important aspects of natural hazard planning.

Recommendations

The often-stated rationale for focusing on vegetation treatments is that they help control 90% of the wildfires, but it is actually the other 10% of fires that destroy communities.

As a consequence, it is vital that the CWPP addresses the conditions that actually cause the greatest number of lost lives and homes, wind-driven wildfires and the embers they produce that ignite flammable structures.

We implore the County and the development team to reconsider the approach taken by the current draft CWPP. It is critical to spend as much planning time and commit as much financial support to addressing the actual cause of home loss during wildfires (structure flammability) as devoted to vegetation management. Otherwise, we will continue to lose homes and lives during fires that do all the damage – wind-driven fires that cannot be controlled by vegetation treatments (Appendix 1).

We offer the following recommendations to improve the current draft CWPP so it can achieve its stated goal of protecting our communities from wildfire:

- 1. Shift the focus to saving lives, property, and natural habitats rather than trying to control wildfires.** These are two different goals with two radically different solutions. This new focus can help existing communities withstand wind-driven wildfires, instead of continually pouring resources into modifying a natural environment that continually grows back and will always be subject to wildfire.
- 2. Follow the draft CWPP’s recommendation to “Start at the Structure First” when developing plans to protect homes (page 116).** Develop an action plan, similar in scope and detail as developed for vegetation treatments, that addresses the wildfire protection issue from the house out, rather than from the wildland in. As the draft CWPP states, “... the most important factor in protecting a structure is with the structure itself.” Dr. Jack Cohen, as referenced in the draft CWPP, explains this approach in a recent National Fire Protection Association video (https://youtu.be/vL_syp1ZScM).
- 3. Create a comprehensive checklist** that follows CalFire’s Homeowner Checklist to allow for the complete evaluation of a home’s vulnerability to wildfire. Beyond structure flammability, it is imperative that this list covers flammable conditions around the home, such as the presence of dangerous ornamental vegetation, under-eave wooden fences/yard debris, and flammable weeds.
- 4. State an objective and develop an action plan to assist existing neighborhoods-at-risk to retrofit homes** with known safety features (e.g. *external* sprinklers, ember-resistant vents, etc.) (Appendix 2).
- 5. State an objective and develop an action plan to assist community Fire Safe Councils in acquiring grants** to assist homeowners to retrofit their homes to reduce their flammability (Appendix 3).
- 6. Develop clear evacuation/response plans** in the CWPP that communities can understand. Develop a program that will dedicate a regular time each year for communities to practice their evacuation plans.
- 7. Use the state’s fire hazard maps, post-fire debris flow maps, and the County’s expertise to offer assistance in future planning/development/zoning decisions.** One of the primary objectives in land use planning should be to prevent developers from putting people in harm’s way. Beyond restricting development in high fire/flood hazard areas, the County could also internalize the costs of fire protection so developers assume the responsibility for possible losses caused by future wildfires and post-fire debris flows.

Creating incentives to reduce or prevent development in high fire/flood hazard areas is an achievable goal. An example is requiring developers to purchase local Fire Development Bonds for any development approved in a Very High Fire Hazard zone. These bonds could be funded by a significant portion of the tax revenue generated by said development, the developer of the property, and the residents themselves. The bonds would be used to defray the costs of damage caused by a future wildfire.

The City of Monrovia implemented another creative process – creating a wider urban-wildland buffer by purchasing parcels in high fire hazard zones.

Because the city's hillside acreage was both publicly and privately owned, the City Council decided to seek voter approval for two measures. The first designated city-owned foothill land as wilderness or recreational space and limited development on the private property. The other was a \$10-million bond, the revenues from which would be used to purchase building sites from willing sellers. Both passed by a wide margin. In the end, [Monrovia spent \\$24 million for 1,416 acres](#), paying off the bonds with parcel taxes and gaining an added benefit: a deeper urban-wildland buffer. (Miller 2018)

8. Reevaluate defensible space guidelines so treatment and distances are based on science. The guidelines in the draft CWPP are excessive and do not account for the physical impact of bare ground on ember movement, increased flammability due to the spread of invasive weeds, and increases in erosion and sediment movement in watersheds (Appendix 4).

9. Establish an interdisciplinary fire preparedness task force versed in Catastrophic Risk Management (CRM) to review the CWPP each year to assess its success and the failures in dealing with wildfires. Ensure that a majority of task force members can speak freely, enabling them to offer creative solutions. Airlines use CRM through Crew Resource Management programs that allow them to objectively analyze plane crashes, thereby creating safer planes. The success of CRM is owing to the penchant of managers in high-risk organizations to “normalize deviance,” engendering a focus on positive data about operations while ignoring contrary data or small signs of trouble. Small deviations from standard operating procedures are tolerated until disasters, such as the Deepwater Horizon offshore oil platform blow out, the Challenger Space Shuttle explosion, and unprecedented losses caused by the 2017-18 wildfires, necessitate a change in thinking.

10. Conduct a thorough analysis of the long-term impacts of fuel management projects on environmental resources, especially in light of climate change and population growth. Although the CWPP addresses the local planning efforts (such as the Eastern Goleta Valley Community Plan), regulations, ordinances, and laws affecting their fuel management plans, it doesn't analyze the impacts of its proposals on environmental resources. Simply stating that all fire management activities will comply with applicable environmental laws is not adequate.

The question of whether or not plan impacts should be addressed within the CWPP, or if the CWPP itself should be subjected to the CEQA process, should be discussed.

Examining the impacts of each specific action when proposed on a piece meal basis risks violating CEQA.

The flooding and debris flows after fires often have greater effects on people, their property, and native species than the fire itself. As a consequence, the CWPP should provide more information on how the fuel treatments would affect these hydrological and geomorphological processes. Over the longer term, if frequent fuel treatments result in type conversion, the potential for fire increases with many repercussions for watershed hydrology, geomorphology, biology, etc.

Additional clearance of native vegetation will likely destroy or degrade wildlife habitat. Although the CWPP lists applicable Eastern Goleta Valley Community Plan (EGVCP) policy, it doesn't address the degree to which the CWPP is in compliance with the plan. How will proposed vegetation clearances in the CWPP dovetail with Environmentally Sensitive Habitats (ESH) identified by the County, either under its old ESH map or under the recently-released draft ESH map? The County is currently holding informational meetings on the new draft ESH map, which is based primarily on the delineation of vegetation alliances derived by aerial imagery. However, the draft ESH map only considers one of the seven criteria for designating ESH, so it should be considered incomplete. The CWPP states that it will include the new ESH map and should compare its detailed vegetation clearance plan to the map. Consequently, the CWPP should not be deemed complete until the new ESH map is approved and the CWPP has addressed congruence between their plans and the EGVCP and ESH map.

Sincerely,

Richard W. Halsey
Director
California Chaparral Institute

Dr. Carla D'Antonio
Chair/Professor
Dept. Env. Studies
UCSB

Dr. Scott D. Cooper
Research Professor
Dept. of Eco., Evo., M. Bio.
UCSB

Statements in the draft CWPP that reflect the best available science:

1. "Wildfires are inevitable; however, the loss of human life is preventable and the loss and damage to human development and natural and cultural resources can significantly be reduced through thoughtful planning and careful implementation of hazard mitigation actions."
2. "... in the Planning Area, there is no evidence whatsoever to support the concept of too much fire suppression leading to "fuels build-up" such that fire should be re-introduced. ... fire management and protection of human development must be based on this place-based science, rather than trying to apply science from other regions in California and the western US where ecosystems and fire regimes are considerably different."

3. “WUI fire disasters are most commonly associated with extreme fire behavior conditions that account for the one to three percent of the wildfires that escape control by initial attack resources.”
4. “Intensive vegetation treatment in localized critical areas that are regularly maintained and highly accessible (especially during a wildfire event) coupled with focused efforts to mitigate home construction materials with fire-resistant materials, will likely be the most effective strategy for reducing both impacts to life safety and structure loss.”
5. “Research has shown repeatedly that the main reason for structure loss during a wildfire is the ignitability of a structure itself with burning embers acting as the primary source of structure ignitions in the WUI.”

Appendix 1

Fuel treatments are often ineffective in stopping wind-driven fires

There are dozens of anecdotal stories about fires stopping at previous fire scars. There is no doubt that happens. However, when assessing the use of scarce resources, government agencies must consider the cost/benefit of every action to ensure they are not spending money on efforts that are less effective than others.

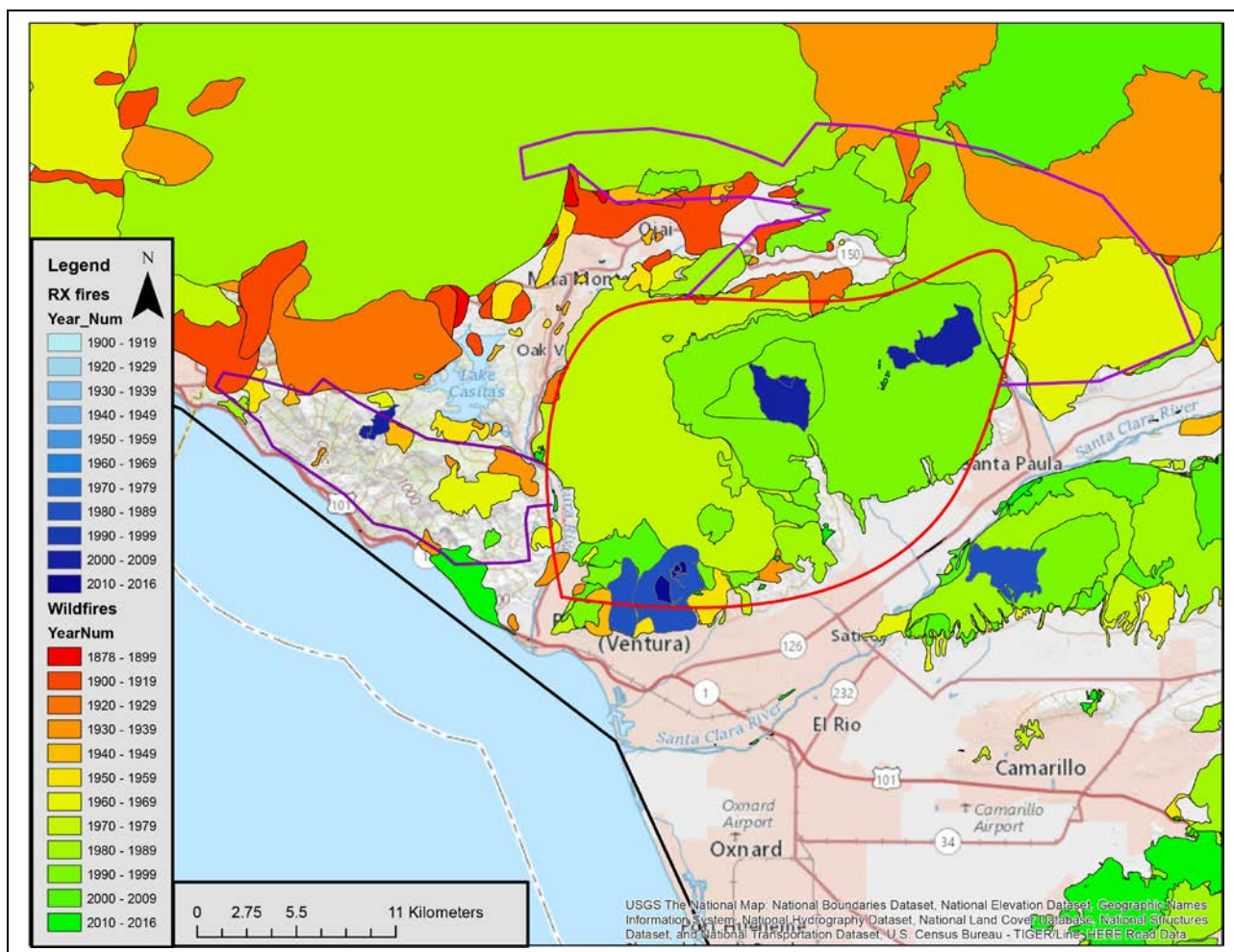


Figure 1. Prescribed burns within the Thomas Fire. The blue polygons show recent prescribed burns conducted by the Ventura County Fire Department. The red outline shows the rough perimeter of the Thomas Fire during its first hours. Source: USGS.

As evidenced in Fig. 1, recent prescribed burn treatments (shown in blue) were not helpful in preventing the spread of the 2017 Thomas Fire (while Ventura County wind patterns differ from those in Santa Barbara, this example remains applicable to wind-driven events like sundowners).

The easternmost prescribed burn in Fig. 1 is off Salt Marsh Road, downwind of the probable origin of the Thomas Fire. The middle burn is in Aliso Canyon. Neither of these appear to have provided anchor points for fire suppression activities.

Wind-driven fire generally spreads faster through grassy fuels than shrub fuels. Consequently, it is reasonable to assume that the fire may have spread faster through these fuel treatments than it might have through the native shrubs that were present prior to treatment. Of course, the high winds and low humidity during this fire insured fire spread regardless of fuel conditions.

The burns near the southern edge of the fire, in Hall, Barlow, and Sexton Canyons, have existed for many years and were intended to create opportunities for controlling a fire, however they did little to stem fire spread.

Initially, the head fire spread 14 miles from its origin outside of Santa Paula to downtown Ventura in about five hours, with spot fires ignited by embers along the entire way. This kind of fire behavior would likely defeat any fuel break.

Obviously, further research is needed to determine all the factors involved in the Thomas Fire's spread, especially in Santa Barbara County, but the consequences are clear from the damage assessment shown in Fig. 2 below. The prescribed burns did little to protect the community. This is especially the case for the southernmost prescribed burn just above the northern edge of Ventura.

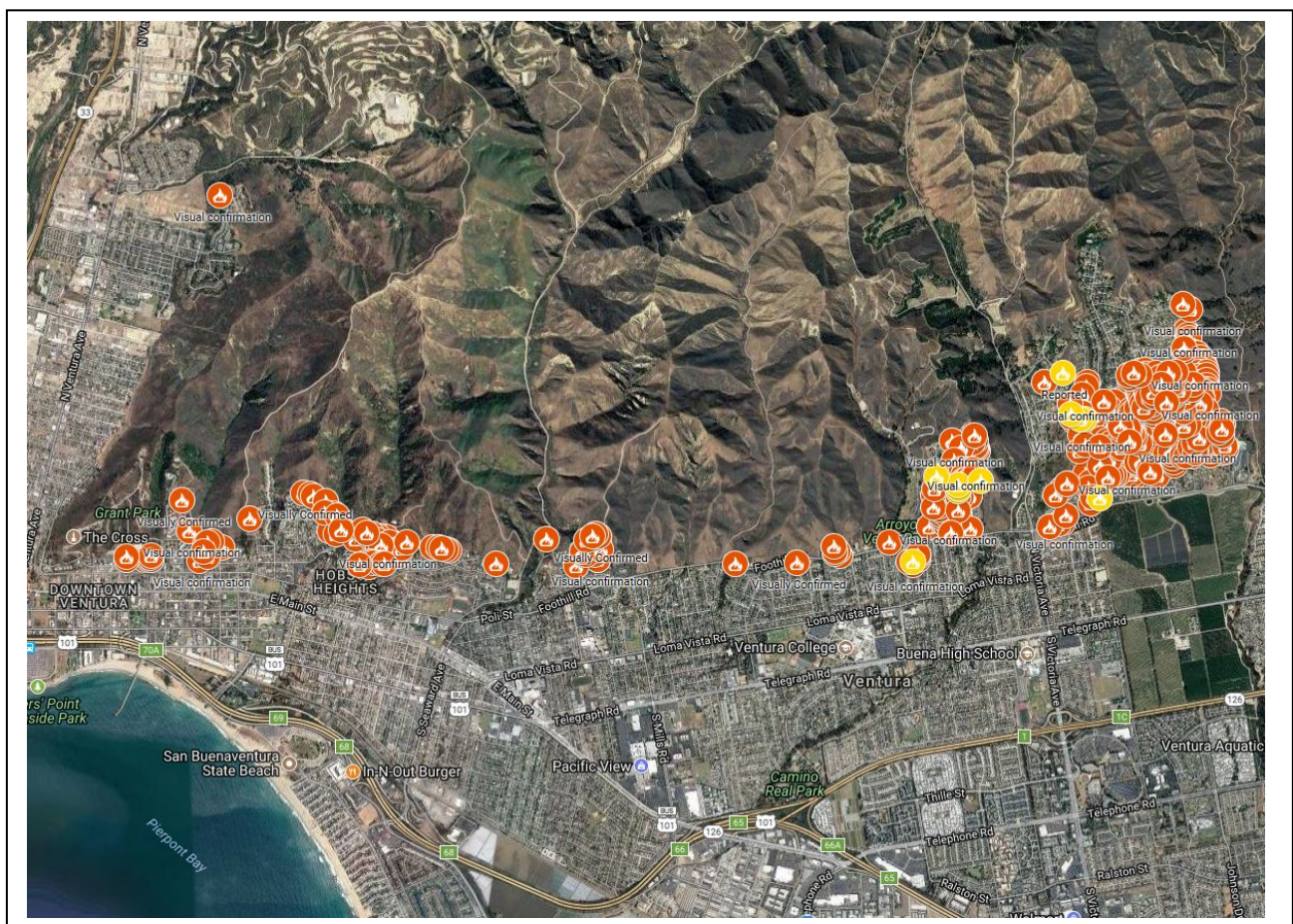
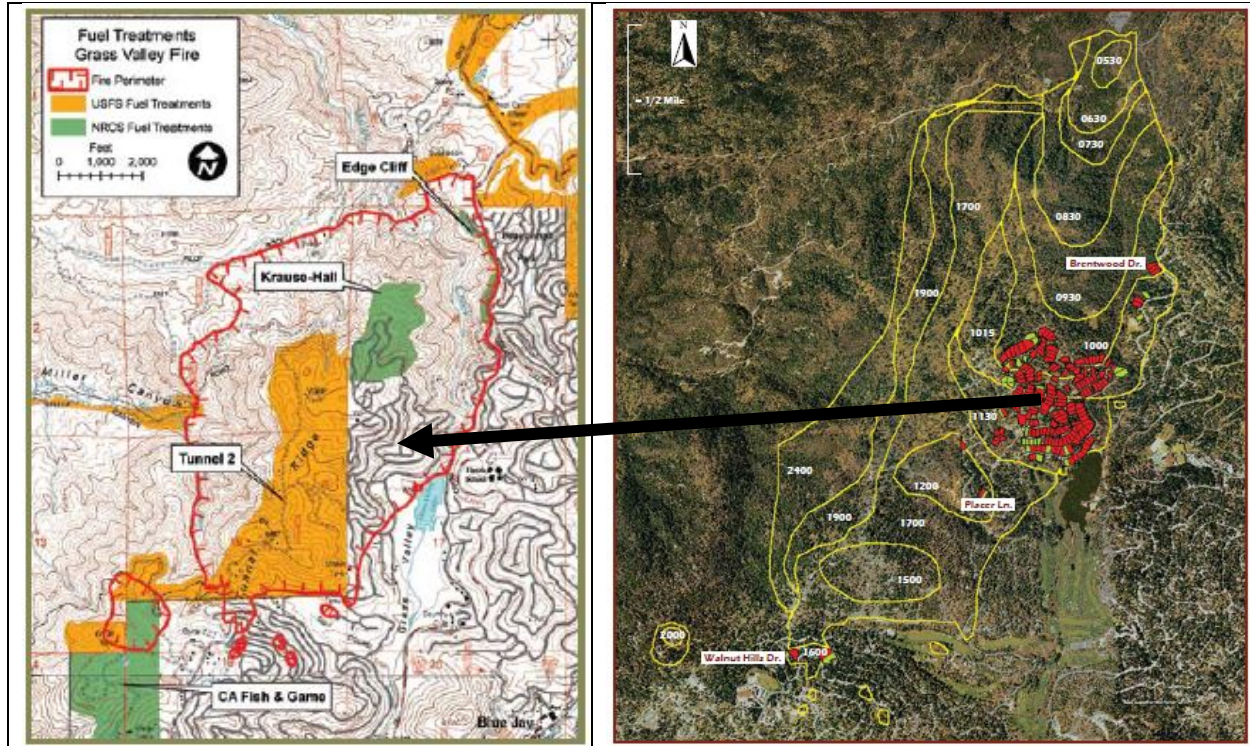


Figure 2. Home losses from the Thomas Fire on the edge of Ventura. Burned homes are indicated by orange dots. A prescribed burn was conducted just above the burned homes in the center middle of the image. Based on visual confirmation as of 12/8/2017: <https://www.google.com/maps/d/viewer?mid=10S-m7mBzbjvG1rjiJ8wFAlbeG-F5VvKS&ll=34.2989948363656%2C-119.20525410881879>



Figures 3 and 4. The 2007 Grass Valley Fire, Lake Arrowhead, California. Map on the left show fuel treatments as orange and green polygons (Rogers et al. 2008). Map on the right shows location of 174 homes burned in the fire (Cohen and Stratton 2008).

In the 2007 Grass Valley Fire, the US Forest Service and the Natural Resource Conservation Service had created several fuel treatments around the community of Lake Arrowhead (Fig. 3). Reportedly, the fuel treatments performed as expected by allowing firefighters to engage the fire directly and reducing the rate of spread and intensity (Rogers et al. 2008). However, the end result for the community was much less positive: one hundred and seventy-four homes were lost (Fig. 4).

The comprehensive analysis of the Grass Valley Fire by US Forest Service scientists (Cohen and Stratton 2008) concluded that,

Our post-burn examination revealed that most of the destroyed homes had green or unconsumed vegetation bordering the area of destruction. Often the area of home destruction involved more than one house. This indicates that home ignitions did not result from high intensity fire spread through vegetation that engulfed homes. The home ignitions primarily occurred within the HIZ due to surface fire contacting the home, firebrands accumulating on the home, or an adjacent burning structure.

Home ignitions due to the wildfire were primarily from firebrands igniting homes directly and producing spot fires across roads in vegetation that could subsequently spread to homes.

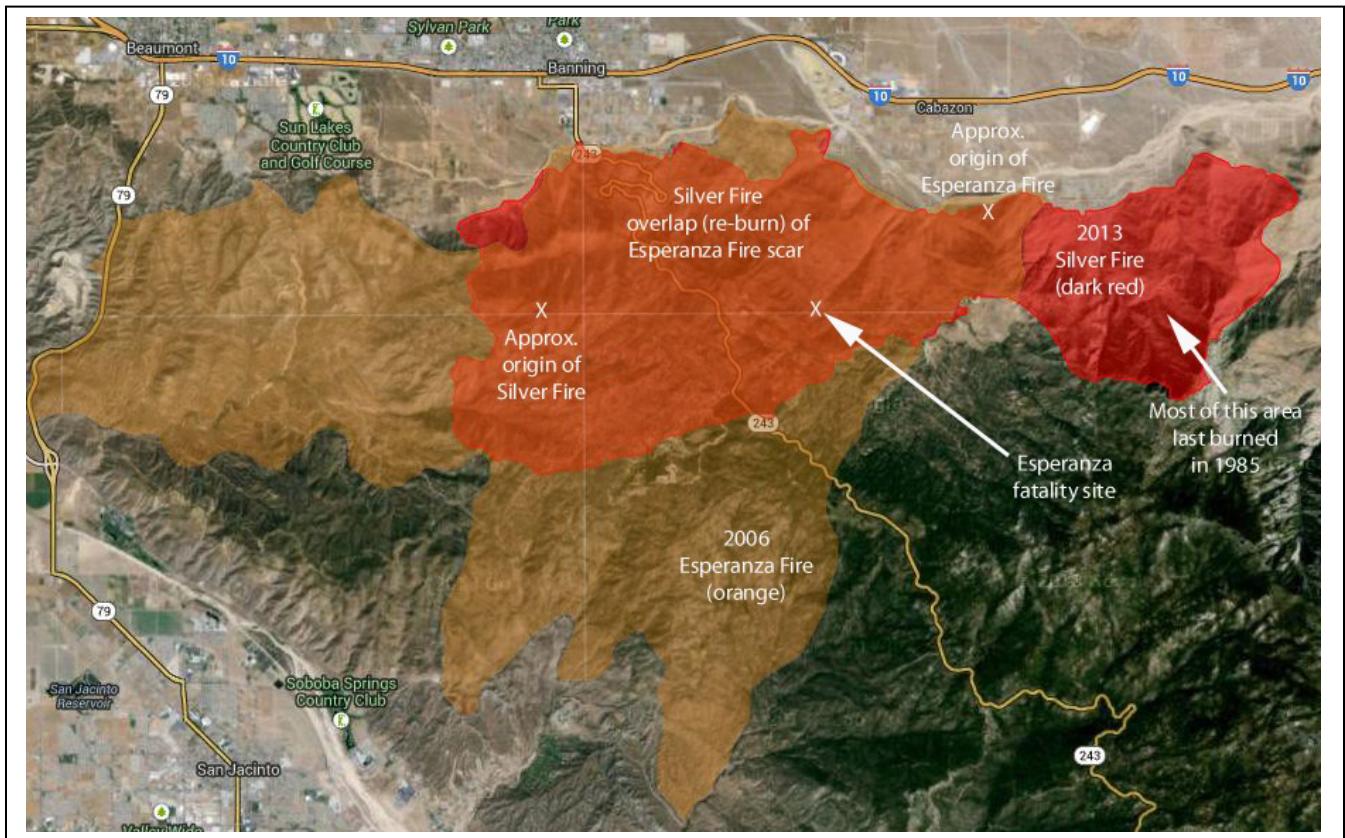


Figure 5. Reburned after seven years. The 2013 Silver Fire reburned almost entirely within the deadly 2006 Esperanza Fire scar near Banning, California.

The 2013 Silver Fire near Banning, California (Fig. 5) challenged the fundamental assumption of that treating older vegetation is an effective way to prevent devastating wildfires. Most of the fire burned through invasive weeds and young, desert chaparral that was recovering from the deadly 2006 Esperanza Fire. **Twenty-six homes were lost in a fire that was fueled by seven-year-old vegetation.**

There are numerous other examples and a number of solid research papers explaining why and how homes burn. Cohen and Stratton (2008) summarized information from these fires:

These incidents remind us to focus attention on the principal factors that contribute to a wildland-urban fire disaster—the home ignition zone.

We also know of numerous examples where fire suppression has been facilitated when flames meet previous fire perimeters. Suppression of the 2017 Thomas Fire in Santa Barbara County was reportedly aided when its western edge reached the 2008 Tea and 2009 Jesusita Fire perimeters. However, the weather changed at the same time as well.

We are not arguing that fuel modification can be a tool that helps control non-wind driven wildfires. However, the nearly exclusive financial and time focus on fuel modification has failed us. How else can we account for the loss of 45 lives and nearly 10,000 structures in wildfires from October to December, 2017?

Appendix 2

External Sprinklers

A retrofit that is not typically used in California, but has been used effectively in Australia and Canada, is external sprinklers ([Mitchell 2005](#)). Although internal fire sprinklers certainly help save lives within homes, additional external sprinklers can save both lives and homes (Fig. 6 below).

External sprinklers, coupled with an independent water supply (swimming pool or water tank), should be required for all homes within very high fire hazard zones. Clusters of homes could be served by a community water tank and should be required for every planned development.

Many residents have retrofitted their homes with external sprinkler systems to protective effect. For example, under-eave misters on the Conniry/Beasley home played a critical role in allowing the structure to survive the 2003 Cedar Fire in San Diego County. The home was located in a canyon where many homes and lives were lost ([Conniry 2008](#)).



Figure 6. External sprinklers. As a wildfire approaches, external sprinklers wet the structure at risk, the surrounding environment, and increase the local humidity to prevent ignition. Photo: A conference center in New South Wales, Australia.

Appendix 3

FEMA Pre-disaster Grants

Mountain communities can use federal grants to install ember-resistant vents and eliminate wood roofs, vital to reducing home loss during wildfires

In 2013, David Yegge, a fire official with the Big Bear Fire Department, submitted his fourth grant proposal to the FEMA pre-disaster mitigation grant program to pay up to 70% of the cost of re-roofing homes with fire-safe materials in the Big Bear area of San Bernardino County. Yegge also has assisted Idyllwild and Lake Tahoe in applying for grants, including the costs of installing non-ember intrusion attic vents.

Yegge's first \$1.3 million grant in 2008 retrofitted all but 67 of 525 wooden-roofed homes needing retrofits in Big Bear Lake. A forward-thinking, "no-shake-roof" ordinance passed by the Big Bear City Council in 2008 required roofing retrofits for all homes by this year. San Bernardino County passed a similar ordinance in 2009 for all mountain communities, with compliance required by next year. Such "future effect clause" ordinances can be models for other local governments that have jurisdiction over high fire hazard areas.

To qualify for a FEMA grant, a cost/benefit analysis must be completed. "Our analysis indicated that \$9.68 million would be saved in property loss for every \$1 million awarded in grant funds," Yegge said. "FEMA couldn't believe the numbers until they saw the research conducted by then Cal Fire Assistant Chief Ethan Foote in the 1990s. There's a 51% reduction in risk by removing wooden roofs."

"The FEMA application process is challenging, but well worth it," said Edwina Scott, Executive Director of the Idyllwild Mountain Communities Fire Safe Council. "More than 120 Idyllwild homes are now safer because of the re-roofing program."

Additional Information

In California, the state agency that manages the grants is the Governor's Office of Emergency Services (Cal OES), Hazard Mitigation Grants Division. Cal OES is the administrative agency and decides what grant proposals are funded based on priorities established by the State Hazard Mitigation Plan.

The Mountain Area Safety Taskforce re-roofing program:

<http://www.thisisin.org/shake/>

The San Bernardino County re-roofing ordinance:

http://www.thisisin.org/shake/images/DOWNLOADS/ORDINANCES/ord_4059.pdf

FEMA grant program:

<http://www.fema.gov/pre-disaster-mitigation-grant-program>

Appendix 4

The Impact of Improper Vegetation Treatments/Clearance Activities

After investigating why homes burn in wildfires, research scientists Syphard et al. (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/sundowner wind corridors and in low-density developments intermingled with wild lands had the highest probability of burning. **Nearby vegetation was not an important factor in home destruction.**

The authors also 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," Syphard said.

The suggestion in the CWPP that 300 feet or more of clearance is needed around the majority of structures within the planning area is not supported by the science. Creating large areas of clearance with little or no vegetation creates a **"bowling alley" for embers.** Without the interference of thinned, lightly irrigated vegetation, the house becomes the perfect ember catcher.

To make matters worse, when a fire front hits a bare fuel break or clearance area, a shower of embers is often released (Koo et al. 2012).



Figure 7. Three-hundred feet of clearance as suggested by the draft CWPP.



Figure 8. The invasion of non-native weeds resulting from significant soil disturbance caused by an improper vegetation treatment project above the community of Painted Cave.

As shown in Fig. 8 above, a rich, old-growth stand of chaparral has been systematically compromised by clearance activities funded by a local Fire Safe chapter in the community of Painted Cave. The foreground represents the impact of mastication, showing significant soil disturbance. In the background, the longer-term impact of earlier treatments shows the invasion and spread of highly flammable, non-native weeds and grasses. This process has increased the ignitability of this area with the addition of flashy fuels.

Citations

[Cohen, J.D. and R.D. Stratton. 2008. Home Destruction Examination Grass Valley Fire, Lake Arrowhead, CA. USDA, USFS, R5-TP-026b.](#)

[Conniry, S. 2008. Prepared. In R.W. Halsey, Fire, Chaparral, and Survival in Southern California. Sunbelt Publications.](#)

[Koo, E, R.R. Linn, P.J. Pagni, and C.B. Edminster. 2012. Modeling firebrand transport in wildfires using HIGRAD/FIRETC. International Journal of Wildland Fire 21: 396-417.](#)

[Miller, C. 2018. A way to break the terrifying pattern of fire and flood. Los Angeles Times, January 11, 2018.](#)

[Mitchell, J.W. 2005. Wind-enabled ember dousing. Fire Safety Journal 41: 444-458.](#)

[Rogers, G., W. Hann, C. Martin, T. Nicolet, and M. Pence. Fuel Treatment Effects on Fire Behavior, Suppression Effectiveness, and Structure Ignition. Grass Valley Fire. USDA, Forest Service. R5-TP-026a.](#)

[Syphard, A.D., J.E. Keeley, A. Bar Massada, T.J. Brennan, and V.C. Radeloff. 2012. Housing arrangement and location determine the likelihood of housing loss due to wildfire. PLoS ONE 7\(3\): e33954. doi: 10.1371/journal.pone.0033954](#)