

March 28, 2008

Honorable Senator Darrell Steinberg  
Chair, Natural Resources and Water Committee  
California State Senate  
State Capitol, Room 4035  
Sacramento, CA 95814

**Subject: Senate Bill 1618 (Hollingsworth)**

Dear Chairman Steinberg and Members of the Committee:

As a group of fire professionals, scientists, and other concerned citizens, we wish to express our opposition to Senate Bill 1618. If signed into law, the bill will have significant negative impacts on:

- Natural resources
- Creating and maintaining fire safe environments
- Community values
- Individual rights
- Citizen compliance with defensible space regulations

SB 1618 codifies the scientifically indefensible position that 300 feet of clearance to bare mineral soil around a home is an acceptable approach to reducing fire risk (see photo, Attachment #1).

By exempting local fire officials from the California Endangered Species Act and the California Environmental Quality Act (CEQA) in order to conduct excessive vegetation clearance operations, SB 1618 would permit up to 1,000 feet of vegetation management around structures without the environmental oversight currently required. This could involve as much as 72 total acres for an isolated home site. Environmental laws are in place to protect California's sensitive natural resources and prevent exactly the kind of unnecessary damage SB 1618 would inflict.

California's current vegetation management regulations calling for 100-feet of defensible space around structures are based on sound scientific research and firefighter experience. Depending on fuels and slope, defensible space may need to be increased slightly on a case by case basis. However, the 300 feet of "clearance" as referenced by SB 1618 is overkill and is consequently unlikely to affect loss of structures due to wildfires. The additional costs of vegetation management beyond 100 feet outstrip the potential benefits.

## The Science

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

*...effective fuel modification for reducing potential WUI (wildland/urban interface) fire losses need only occur within a few tens of meters from a home, not hundreds of meters or more from a home. This research indicates that home losses can be effectively reduced by focusing mitigation efforts on the structure and its immediate surroundings (Cohen 1999).*

Cohen's work is consistent with the research on homes with nonflammable roofs conducted by other scientists. During WUI wildland fire events, the Stanford Research Institute (Howard et al. 1973) found a 95 percent survival rate for homes with a defensible space of 30 to 54 feet, and Foote and Gilless (1996) at Berkeley found an 86 percent home survival rate for homes with a defensible space of 84 feet.

**Although vegetation management is a critical component in reducing fire risk and hazard, excessive clearance distances around structures are unnecessary and create a number of serious problems.**

**1. Creating a False Sense of Security:** One of the key problems with SB 1618's call for excessive levels of clearance is that it distracts attention from changes that will ultimately prove far more important to saving homes. One of the primary reasons homes burn is from burning embers that can be blown a mile or more into the urban environment. By creating such an intense focus on the removal of native vegetation, factors such as ember ignition, flammable ornamental landscaping, un-safe home design, and yard debris are frequently ignored. There is good reason to believe far more homes will be saved by attention to building codes than to excessive clearance.

**2. Costs:** It can cost local jurisdictions or homeowners thousands of dollars an acre to remove vegetation in the manner suggested by SB 1618. The bill would also "increase the level of service provided by a local agency, thereby imposing a state-mandated local program" without the funding to support such a program. Financial resources that could be used to provide proven measures that would decrease losses during a wildfire (such as better planning, retrofitting older structures, and increased funding for local fire departments) would be wasted on implementing SB 1618. Given that reducing vegetation more than 100 feet from a home has little to no effect on home ignition risks, the increased costs are simply not warranted.

**3. Maintenance:** On a long-term cost basis alone, excessive clearing activity is not justified as it easily exceeds the presumed benefits. Once native habitat is cleared, weedy, non-native grasses and forbs invade. These annual weeds must be removed on an annual

basis, requiring the homeowner to conduct clearance operations year after year. A properly thinned, 100-foot vegetation management zone can avoid such a yearly expense.

**4. Fire Risk:** Excessive clearance distances can increase what they are supposedly designed to reduce: fire risk and hazard. While 300 feet of bare, mineral soil will obviously not burn, it sets the stage for another set of problems including:

- The weeds that invade cleared areas create fine, flashy fuels that increase the probability of an ignition. Such fine fuels are more easily ignited than native vegetation and provide a “ladder” for flames to spread into other types of fuels.
- Fine, flashy fuels are a common factor in firefighter fatalities. These fuels dry quickly and can be responsible for rapid ignitions, creating massive amounts of heat instantly. While grassy fuels certainly burn at lower intensities than woody fuels, they are definitely not the benign fuel bed many people think they are.
- Burning embers from both burning vegetation and homes are one of the most common reasons homes ignite during wildland fires. Anecdotal information obtained during the 2007 wildfires appears to indicate that fire-resistant vegetation (properly spaced, thinned, and hydrated trees and shrubs) around a home can act as both an ember catcher and a heat sink, reducing the risk of the home’s ignition. Creating a bare 300 foot zone around a home creates a direct, unimpeded pathway for embers to reach the structure.
- Equipment used in removing weeds is frequently responsible for starting fires.
- Many fires start at the WUI. Increasing the amount of flashy fuels in this high ignition area will likely lead to increased fire events.

**5. Erosion:** Native vegetation is critical for stabilizing slopes, reducing erosion, and preserving natural watersheds and water quality. Excessive vegetation clearance would dramatically increase erosion because shallow-rooted grasses that would likely colonize the site after clearance operations provide less protection than the deeper-rooted natives.

**6. Habitat Loss/Personal Rights:** Current State law permits an effective vegetation management strategy that also preserves the right of individual citizens who enjoy being able to retain valuable, fire-resistant native plant communities near their homes. SB 1618 takes away that right as well as allowing unnecessary damage to as much as 72 acres of native habitat for isolated home sites. Being able to enjoy unspoiled, natural landscapes and visits by wildlife near one’s home are important community values. SB 1618 is inconsistent with those values and will seriously compromise community aesthetics.

**7. Enforcement:** Depending on the jurisdiction, compliance with California’s current defensible space regulations (Public Resource Code 4291) can be marginal at best. Fire service professionals have often expressed frustration over their inability to enforce

current guidelines due to a lack of inspectors and cooperation from homeowners. One solution to this problem is to provide fire protection agencies additional funding to hire more inspectors. Such an approach would be much more effective in reducing fire risk than allowing for greater clearance distances.

In San Diego County, a Memorandum of Understanding (MOU) was signed in 1997 between California Fish & Game, US Fish & Wildlife Service, San Diego County Fire Chief's Association and Fire Districts' Association of San Diego County; this MOU currently permits zoned fuel modification on private and public lands to a maximum of 100 feet from structures without environmental review. In the past, both Fish & Game and Fish & Wildlife Service have clearly stated that they would support doing away with the existing MOU if vegetation management zones were extended. Potential cancellation of this important MOU would mean greatly increased restrictions placed on home owners for fuel modification and clearly endanger currently successful efforts by local Fire Safe Councils to help homeowners manage vegetation around their homes.

### **Concluding Remarks**

We have discussed the implications of SB 1618 with many federal, state, and local fire officials, local Fire Safe Council members, and resource agency representatives. They have uniformly disagreed with the bill's approach (see Attachment #4 for details on Los Angeles County's opposition). They have reaffirmed their support for the current defensible space standards which generally include a three tiered strategy:

- 0-30 feet: mineral soil or fire resistant vegetation (irrigated landscaping).
- 30-100 feet: approximately 50% removal of native vegetation, trees limbed up to 8 to 10 feet.
- If needed (depending on slope and fuels as determined by the local Fire Marshal), 100-200 feet with the removal of usually no more than 25% of native vegetation, trees limbed 8 to 10 feet.

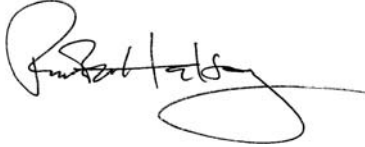
Fire risk cannot be reduced by any single approach (SDRFSF 2008). It involves a multitude of variables, the most important being location (where the structure exists), design (how, and with what materials, the structure is built), and fuel management (including not only vegetation, but flammable yard material). Protecting homes in the wildland-urban interface from wildfire requires working **from the structure out, not from the wildland in, stripping the landscape unnecessarily**. Unfortunately, in advocating excessive clearing of wildland vegetation, SB 1618 reverses these priorities and removes homeowner incentives for choosing more effective and less damaging solutions.

Suggesting, as SB 1618 does, that 300-foot clearance or 1,000-foot vegetation management zones are reasonable approaches to fire risk reduction demonstrates a failure to understand the true nature of fire and the importance of natural resources.

We urge you to reject SB 1618 and affirm the balanced approach to fire risk reduction represented by the currently accepted 100-foot defensible space guidelines, efforts to improve building design, and fire safe land planning.

Thank you for your interest in enhancing fire safety in California.

Sincerely,



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Also signed on behalf of:

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**Jeffrey Bowman**, retired Fire Chief, San Diego City Fire and Rescue Department and Chairman of the San Diego Regional Fire Safety Forum

**William Middleton**, retired Assistant Fire Chief, San Diego City Fire and Rescue Department, member of the San Diego Regional Fire Safety Forum

**David C. Bacon**, Chief (retired), Aviation and Fire Management-Cleveland National Forest, USDA, Forest Service

**Herbert A. Spitzer Jr.**, retired Assistant Fire Chief, Forestry Division, County of Los Angeles Fire Department.

**Timothy Ingalsbee**, Ph.D., Executive Director, Firefighters United for Safety, Ethics, and Ecology

**Rich Fairbanks**, Fire Program Associate. California Nevada Region, The Wilderness Society

**Michael Archer**, Publisher/Wildfire Consultant, Firebomber Publications, member of the San Diego Regional Fire Safety Forum

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**Wayne Spencer**, Ph.D., Senior Conservation Biologist, Conservation Biology Institute

**Jeff Kuyper**, Executive Director, Los Padres ForestWatch, Santa Barbara, CA.

Signatures continued on next page

**Carrie Schneider**, California Native Plant Society, San Diego Chapter  
**Greg Rubin**, owner of California's Own Native Landscape Design.  
**Lori L. Paul**, RVT, wildlife biologist  
**Kit Wilson**, GIS/land planning/fire map consultant

Attachments:

1. Photo of 300 feet of clearance
2. References
3. Fuel management position paper from the San Diego Regional Fire Safety Forum
4. Los Angeles County Report and Recommendations on SB 1618
5. Preventing Disaster by Dr. J. D. Cohen



Attachment #1: Example of the impact of 300 feet of clearance that will be authorized by SB 1618. Photo taken near Valley Center, California, by Richard W. Halsey.

## Attachment #2 References

- Cohen, J.D. 1999. Reducing the wildland fire threat to homes: where and how much? USDA Forest Service General Technical Report PSW-GTR-173, pp 189-195.
- Cohen, J.D. 2000. Preventing disaster: home ignitability in the wildland-urban interface. *Journal of Forestry* 98: 15-21.
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- Foote, E., J.K. Gilless. 1996. Structural survival. In Slaughter, Rodney, ed. California's I-zone, 112-121. Sacramento, CA: California Fire Service Training and Education System.
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- LAC. 2008. Report and Recommendations – SB 1618 (Hollingsworth) Defensible Space (Item No. 26, Agenda of March 25, 2008). Los Angeles County Board of Supervisors.
- SDRFSF. 2008. Land Use/Fuel Management position paper #3 from the San Diego Regional Fire Safety Forum. <http://www.sdfiresafety.org/Vegetation.pdf>
- USFS. 2007. An Assessment of Fuel Treatment Effects on Fire Behavior, Suppression Effectiveness, and Ignition on the Angora Fire. USDA. R5-TP-025. 32 p.