



CALIFORNIA
CHAPARRAL
INSTITUTE

...the voice of the chaparral

Santa Barbara County Board of Supervisors
105 E. Anapamu Street
Santa Barbara, CA 93101-2074

March, 12 2011

Dear Members of the Board,

We are deeply concerned over the unnecessary removal of significant amounts of native chaparral habitat in the wildland and urban interface areas of Santa Barbara County, especially in the Santa Ynez Mountains.

We strongly support appropriate vegetation management activities to reduce fire risk, however, many such projects being conducted in the County under the guise of fire risk reduction are in fact,

1. Unnecessarily destroying valuable natural resources
2. May be in violation of state and federal environmental laws
3. Can increase fire risk by causing the spread of flammable, invasive weeds
4. Pose erosion and flooding threats

We are therefore urging you to update the County's "Brushing Ordinance" to,

1. Make the rules enforceable
2. Make "brushing" permits discretionary
3. Lower the permit threshold from 5 to 1 acre
4. Consider the preservation of the region's natural resources
5. Consider renaming the ordinance to reflect the value of native shrublands

As a brief overview of the overwhelming scientific evidence demonstrating how shrubland ecosystems can be properly managed, how chaparral responds to clear cutting and fire, and why the kinds of clearance operations being currently conducted in the Santa Ynez Mountains (such as those in the Painted Cave area) are counterproductive, we would like to offer the information provided on the following pages of our website:

Fire and Science

<http://www.californiachaparral.org/firescience.html>

Threats to Chaparral

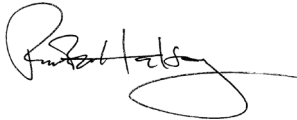
<http://www.californiachaparral.org/threatstochaparral.html>

Protecting Your Home

<http://www.californiachaparral.org/bprotectingyourhome.html>

The mountains above Santa Barbara provide a priceless natural resource. It is critical that local and regional governments protect this resource and ensure that any associated land management actions are based on science. To help facilitate this process, we would be honored to offer our expertise.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard W. Halsey". The signature is stylized with a large, sweeping loop at the end.

Richard W. Halsey
Director

The California Chaparral Institute is a non-profit, 501(c)(3) corporation that specializes in conducting research and educational programs to help the public and government agencies better understand the fire-prone ecosystems in which we live. A major focus of our organization is to communicate the most recent scientific research as it applies to shrubland ecosystems, especially the chaparral.

Suggested References

[Boxall, B. 2006. Logging proponent's credentials questioned. Los Angeles Times. 10/21/2006.](#)

Bradstock, R.A. and A.M. Gill. 2001. Living with fire and biodiversity at the urban edge: in search of a sustainable solution to the human protection problem in southern Australia. *Journal of Mediterranean Ecology* 2: 179-195.

[The California Chaparral Institute v. San Diego County \(2010\).](#)

Cohen, J.D. 1999. Reducing the wildland fire threat to homes: where and how much? USDA Forest Service Gen. Tech. 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](#)
[Cohen, J. and J. Saveland. 1997. Structure ignition assessment can help reduce fire damages in the W-UI. Fire Mgt. Notes 57:19-23.](#)

[Conard, S.G. \(2008\). Comments on Recent Estimates of Greenhouse Gas Emissions from California Wildfires by Dr. Tom Bonnicksen. USFS, Washington, D.C.](#)

[Conard, S. G., and D. R. Weise. 1998. Management of fire regime, fuels, and fire effects in southern California chaparral: lessons from the past and thoughts for the future. Pages 342-350 in Teresa L. Pruden and Leonard A. Brennan \(eds.\). Fire in ecosystem management: shifting the paradigm from suppression to prescription. Tall Timbers Fire.](#)

Dunn, A.T. 1989. The effects of prescribed burning on fire hazard in the chaparral: toward a new conceptual synthesis. Pages 23-24 *in* N.H. Berg (technical coordinator). Proceedings of the symposium on fire and watershed management. General Technical Report PSW-109, U.S. Department of Agriculture, Forest Service, Pacific Southwest Forest and Range Experiment Station, Berkeley, CA.

Dunn, A.T. and D. Piirto. 1987. The Wheeler Fire in retrospect: factors affecting fire spread and perimeter formation. Report on file at: U.S. Department of Agriculture, Forest Service, Forest Fire Laboratory, Riverside, CA.

Fenn, M.E. M.A. Poth, P.H. Dunn, and S.C. Barro. 1993. Microbial N and biomass respiration and N mineralization in soils beneath two chaparral species along a fire-induced age gradient. *Soil Biol. Biochem.* 25:457-466.

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.

Gelbard, J.L. and Belnap, J. 2003. Roads as conduits for exotic plant invasions in a semiarid landscape. *Conservation Biology* 17: 420-432.

Halsey, R.W. 2008a. Fire, Chaparral, and Survival in Southern California. Sunbelt Publications, San Diego, CA. 232 p.

[Halsey, R.W. 2008b. Resolving the Controversy - Why Large Fires in Southern California? The Chaparralian Vol 5, #3.](#)

Hubbard, R.F. 1986. Stand age and growth dynamics in Chamise Chaparral. Master's thesis, San Diego State University, San Diego, CA.

Hubbert, K.R., H.K. Preisler, P.M. Wohlgemuth, R.C. Graham, and M.G. Narog. 2006. Prescribed burning effects on soil physical properties and soil water repellency in steep chaparral watershed, southern California. *Geoderma* 130: 284-298.

[IBHS. 2008. Mega Fires: The Case for Mitigation. Institute for Business and Home Safety, Tampa, FL. 48 p.](#)

Keeley, J.E. 1973. The Adaptive Significance of Obligate-seeding Shrubs in the Chaparral. Master's thesis, California State University, San Diego, CA.

[Keeley, J.E. 2005. Chaparral fuel modification: What do we know – and need to know? Fire Management Today, Volume 65\(4\): 11-12.](#)

[Keeley, J.E. 2006. Fire management impacts on invasive plants in the western United States. Conservation Biology 20: 375-384.](#)

Keeley, J.E. 2009. Environmental Impacts of Vegetation Treatments for Fire Hazard Reduction. Comment letter filed with the San Diego County Board of Supervisors in response to the county's Vegetation Management Report. March 17, 2009.

[Keeley, J.E.; Aplet, G.H.; Christensen, N.L.; Conard, S.C.; Johnson, E.A.; Omi, P.N.; Peterson, D.L.; Swetnam, T.W. 2009. Ecological foundations for fire management in North American forest and shrubland ecosystems. Gen. Tech. Rep. PNW-GTR-779. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 92 p.](#)

[Keeley, J.E. and C.J. Fotheringham. 2001. The historical role of fire in California shrublands. Conservation Biology 15: 1536-1548.](#)

Keeley, J.E., T. Brennan, and A.H. Pfaff. 2005. Fire severity and ecosystem responses following crown fires in California shrublands. *Ecological Applications* 18: 1530-1546.

[Keeley, J. E., C. J. Fotheringham, and M. Moritz. 2004. Lessons from the 2003 wildfires in southern California. *Journal of Forestry* 102: 26-31.](#)

[Keeley, J.E., A.H. Pfaff, and H.D. Safford. 2005. Fire suppression impacts on postfire recovery of Sierra Nevada chaparral shrublands. *International Journal of Wildland Fire* 14: 255-265](#)

[Keeley, J.E., H. Safford, C.J. Fotheringham, J. Franklin, M. Moritz. 2009. Southern California wildfires: lessons in complexity. *Journal of Forestry*. September: 287-296.](#)

[Keeley, J.E. and P.H. Zedler. 2009. Large, high-intensity fire events in southern California shrublands: debunking the fine-grain age patch model. *Ecological Applications* 19: 69-94.](#)

Larigauderie, A., T.W. Hubbard, and J. Kummerow. 1990. Growth dynamics of two chaparral shrub species with time after fire. *Madrono* 37: 225-236.

Le Fer, D. and V.T. Parker. 2005. The effect of seasonality of burn on seed germination in chaparral.: the role of soil moisture. *Madrono*: 166-174.

[Maranghides, A. and W. Mell. 2009. A Case Study of a Community Affected by the Witch and Guejito Fires. National Institute of Standards and Technology Technical Note 1635. US Department of Commerce.](#)

Merriam, K. E., J. E. Keeley and J. L. Beyers. 2006. Fuel breaks affect nonnative species abundance in Californian plant communities. *Ecological Applications* 16:515–527.

Moreno, J.M., and W.C. Oechel. 1994. Fire intensity as a determinant factor of postfire plant recovery in southern California chaparral. Pages 26-45 in J. M. Moreno and W.C. Oechel, editors. *The role of fire in Mediterranean-type ecosystems*. Springer-Verlag, New York.

Moritz, M. A. 2003. Spatiotemporal analysis of controls on shrubland fire regimes: age dependency and fire hazard. *Ecology* 84:351-361.

[Moritz, M.A., J.E. Keeley, E.A. Johnson, and A.A. Schaffner. 2004. Testing a basic assumption of shrubland fire management: How important is fuel age? *Frontiers in Ecology and the Environment* 2:67-72.](#)

Odion, D., and C. Tyler. 2002. Are long fire-free periods needed to maintain the endangered, fire-recruiting shrub *Arctostaphylos morroensis* (Ericaceae)? *Conservation Ecology* 6: 4.

Patric, J.H. and Hanes, T.L. 1964. Chaparral succession in a San Gabriel Mountain area of California. *Ecology* 68: 434-443.

- Safford, H. D., and D. Schmidt. 2008. Fire departure maps for southern California national forests. USDA Forest Service and The Nature Conservancy.
- Spech, T.L. 1969. A comparison of the sclerophyllous vegetation characteristics of Mediterranean type climates in France, California, and southern Australia. I: Structure, morphology and succession. *Aust. J. Bot* 17: 227-292.
- Sugihara, N.G, J.W. Van Wagendonk, K.E. Shaffer, J. Fites-Kaufman, and A.E. Thode, Eds. (2006) *Fire in California Ecosystems*. University of California Press. 596 p.
- Whelan, R.J. 2002. Managing fire regimes for conservation and property protection: an Australian response. *Conservation Biology* 16: 1659-1661.
- Zedler, P.H., and C.A. Zammit. 1989. A population-based critique of concepts of change in the chaparral. In S.C. Keeley (ed.), *The California Chaparral: Paradigms Reexamined*. The Natural History Museum of Los Angeles County, 1986.