

## Western Ecological Research Center

# Publication Brief for Resource Managers

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## Wildfire Management on a Human-Dominated Landscape

Since 1970, 12 of the nation's 15 most destructive wildfires have occurred in California, costing the insurance industry \$4.8 billion, the most destructive being the southern California firestorms of October 2003. That California leads the nation in fire losses is not surprising, as discussed by USGS research scientist Dr. Jon Keeley and colleague C.J. Fotheringham from the University of California, Los Angeles, in the new Island Press book *Wildfire — A Century of Failed Forest Policy*. According to the authors, the explanation for this is that with more than 33 million people, California has a fire regime that is dominated by human ignitions. This anthropogenic fire regime, coupled with rapid population growth, has resulted in many people at risk to natural high-intensity wildfires, which have characterized this landscape long before human occupation.

The authors maintain that there is a misguided belief by some managers, politicians, and the public that factors affecting western U.S. conifer forests, such as fire exclusion and unnatural fuel accumulation, apply to all of the western United States. However, one critically important difference between these conifer forests and California chaparral shrublands is that fire suppression policy has been differentially effective in these two ecosystems. A century of fire suppression policy has been very effective at excluding fires from many forests in the western United States, but not from southern California shrublands.

Three important points need to be recognized about California chaparral wildfires. Large, high-intensity wildfires are a natural feature of chaparral landscapes. They occurred prior to European settlement and will take place again in the future.

### Management Implications:

- Catastrophic wildfires are an inevitable outcome of the unique vegetation and climate characteristic of southern California.
- Catastrophic wildfires are driven by severe weather, and fire management is unable to prevent or stop such fires.
- Prefire management requires more intensive use of fire prevention techniques and focused fuel modification at strategic locations critical to protecting the wildland-urban interface.

Twentieth-century fire management practices have been ineffective in preventing chaparral wildfires. The historical record shows clearly that southern California landscapes have never experienced a period of fire exclusion and this region has not had an unnatural accumulation of fuels.

The authors believe that if southern Californians are going to live safely in this environment, we need to view chaparral fires as we do other uncontrollable natural disasters and focus on developing human infrastructure capable of minimizing their damage.

*Keeley, J. E. and C. J. Fotheringham. 2006. Wildfire management on a human-dominated landscape: California chaparral wildfires, pp. 69–75. In G. Wuerthner, Editor, Wildfire — A Century of Failed Forest Policy. Island Press, Covelo, CA.*