

2. FIRE PROBLEM

2.1 Analysis of the Problem

The diagram in Appendix A outlines the complexity of issues about structure protection in the wildlands. Many factors affect each other. Intervention to minimize damage can occur in various ways. For example, better roads and/or water systems may be constructed, subdivision review and approval can require mitigation of fire hazards, or vegetation can be modified around structures. However, for an area to be fire safe, most if not all of the factors shown in Appendix A will need to be addressed.

This is a challenging task that requires knowledge of fire behavior, communication with the public and decision-makers, infrastructure, fuel modifications and their environmental impacts.

2.2 Special Fire Problems

California has a disturbance-based ecosystem, meaning among other things, that a significant portion of the state burns every year. On the average, grasslands generally burn every five years, pine forests every ten years and chaparral stands every 40 years. Until the 1970's, fire suppression tended to minimize fire spread, but the 1990's have seen a trend of larger, more damaging fires.

California's forest, grass and brush land ecosystems have adapted to fire, evolving characteristics that make burning part of their survival process. For instance, ponderosa pines have resinous needles that create flammable litter, while chamise retains more and more highly aerated oil as it ages. Millions of years of evolution support California's chances of experiencing fires.

Surprisingly, the vast majority of California's residents do not fully recognize the threat of wildfires. Instead, crime, education and economy top politicians constituency's concerns, since fire does not play a significant role in every area of the state. Accepting the inevitability of fire in California's landscape could be the biggest problem facing fire prevention and protection specialists. Some opposition to fuel management rests on the assumption that fire is a natural occurrence. However, to say, "let nature take its course" may have dire consequences in this situation.

Occasionally nature deals fire safety a bad card. For example, the effects of heavy snow, bent and broken tree branches fueled the huge lightning-caused 1977 Marble Cone Fire in the Ventana wilderness in Monterey County. Broken tree branches and dense brush fields fueled rapid fire growth in the 1991 Oakland/Berkeley Tunnel Fire. Six years of drought in the 1970's, the late 1980's and early 1990's triggered insect infestations, causing trees to die in places where tree density was unnaturally high, such as in the Tahoe basin and throughout the Sierra Nevadas. Natural events such as frost, insect infestations, and blow downs will happen again. The same area affected by snowfall in 1976 was again blanketed with unseasonable snow in 1998. While these events may be short-lived, dead, flammable fuels will remain until they are removed, either by wildfires or by pre-fire management.