

FIRE SAFETY INFORMATION TO KEEP OUR FORESTS HEALTHY AND YOUR PROPERTY SAFE



SAN BERNARDINO COUNTY

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Healthy Forest Initiatives

A Thinner Forest Is a Healthy Forest ...

... and a Healthy Forest Is a Fire-Resistant Forest

Healthy Forest — A Historical Perspective

Prior to the 20th century, many mountain forests in the central and southern regions of California had fewer trees than they do today. This is because a hundred years of fire suppression and timber management allowed more trees to live longer than they ever had before.

These two photos of Yosemite Valley illustrate this concept. (Photos courtesy Gruell, George, "Fire in Sierra Nevada Forests: A Photographic Interpretation of Ecological Change Since 1849," Mountain Press Publishing Company, Missoula, MT, 2001.)

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This photo shows the upper Yosemite Valley in 1899 with meadows occupying much of the valley floor. (Courtesy Robert Gibbens, H.G. Peabody photo) (*Click on the image to enlarge it.*)



This photo shows the same location in 1994 crowded with dense conifers and woody plants. (Larry Davis photo) (*Click on the image to enlarge it.*)

"Today's forests stand in sharp contrast to historic forests that were more open because of lightning strikes and native American-ignited fires," says Thomas M. Bonnicksen, Ph.D., author of "Protecting Communities and Saving Forests" (The Forest Foundation, 2007).

A similar situation occurred in the San Bernardino Mountains, resulting in an overstocked forest that became unable to sustain itself when it was hit with repeated years of drought and the subsequent bark beetle infestation. An overstocked forest is also more susceptible to catastrophic wildfire.



This photo shows Camp Seeley circa 1920, with few trees on the surrounding slopes. (Courtesy Russ Keller) ([Click on the image to enlarge it.](#))



This photo shows Camp Seeley in 2007, the slopes overstocked with large trees. (Paul Mitton photo) ([Click on the image to enlarge it.](#))

Because the moisture content of the trees and brush is so low, it makes them more vulnerable to fire and parasites, such as the bark beetle. Thinning green vegetation not only reduces the fire danger, it helps restore the vigor of the drought-afflicted forest by freeing up more resources — water, minerals and sunlight — for the remaining trees and vegetation.

That's why a thinner forest is a healthy forest.

Thinning Live Trees



Healthy Forest

The problem fire protection officials face is that not only does green vegetation burn, the forest is overstocked — 100 to 200 trees per acre, where a healthy forest has 40 to 60 trees per acre. Thinning green vegetation not only reduces the fire danger, it also frees up resources for the remaining plants and trees, making them more healthy, restoring their

vigor and making them more resistant to fire as well as infestation by bark beetles and other parasites.

That's why the focus of the Mountain Area Safety Task force has shifted from the removal of dead and diseased trees to thinning green vegetation. This includes shrubs, brush and live trees up to 10 inches in diameter.



Overstocked Forest

Although MAST will continue removing dead trees through the end of 2008, property owners also need to thin the live trees and vegetation on their property to gain an upper hand on the bark beetle infestation and reduce the risk of catastrophic wildfires like the Grand Prix and Old fires in 2003.

Thinning green vegetation also helps property owners create a defensible space around their homes. It is recommended that trees be spaced 20 to 30 feet apart (trunk to trunk), depending on the ground slope and other factors. In addition, this will create a park-like environment.



A crown fire flares skyward in an overstocked forest, while a fire in a healthy forest is more likely to remain low to the ground and easier for firefighters to contain.

Forest Care

Forest Care partners, the National Forest Association and CAL FIRE, working under a grant from the USDA Forest Service, will reimburse property owners up to 75 percent of the cost of implementing a qualified tree thinning plan.