FIRE SAFE MARIN

MARIN WILDFIRE PREVENTION AUTHORITY

Marin Wildfire Prevention Authority Releases New Study on the Value of Shaded Fuel Breaks

As Shaded Fuel Breaks become an integral part of Marin County's wildfire response plan, we wanted to share some of the evidence from Marin Wildfire's newly published white paper that has been found related to the effectiveness of this strategy. Over 72 miles of Shaded Fuel Breaks have already been completed in Marin County.

Shaded Fuel Breaks are extremely effective at reducing fire severity and the rate of spread of the fire.

A meta-analysis of 1,200 research studies showed that fuel treatments reduce fire severity by an average of 60%, and reduce flame lengths by 2 feet.

A computer modeling study found that if Paradise, CA had fuel breaks residents would have had twice as much time to evacuate the Camp FIre.

By reducing surface fuel levels and increasing vertical spacing of vegetation, Shaded Fuel Breaks dramatically reduce the potential of crown fire, which reduces the most dangerous wind and ember spotting behavior

Shaded Fuel Breaks dramatically reduce the potential of a crown fire.

Shaded Fuel Breaks not only do minimum ecological harm, but actually help restore fractured and fire suppressed ecosystems.

Shaded Fuel Breaks closely mirror the structure of woodlands in pre-colonization California, where frequent, low-severity fire kept understory fuel levels low and created spatial, temporal, and biological diversity. The science is clear that mild to moderate amounts of disturbance makes ecosystems in coastal California more diverse and resilient.

By removing massive amounts of invasive, hazardous understory plants such as broom, Shaded Fuel breaks give a competitive advantage to native plants and animals to establish themselves.

From the meta-analysis, the single greatest predictive factor of fuel treatment effectiveness is the diameter of the residual trees, showing that large, healthy, widely spaced trees are critical in reducing fire severity.

Shaded Fuel Breaks work in coordination with Defensible Space and Home Hardening Improvements to improve structure survival.

Shaded Fuel Breaks work by reducing, not eliminating, flame lengths and ember spotting that allow defensible space and home hardening improvements to be more effective.

In the 2013 Mountain Fire, the Keenwild Ranger Station withstood extreme fire behavior unharmed without firefighter intervention because an encircling fuel break worked in conjunction with defensible space improvements.

By reducing flame length and rate of spread, Shaded Fuel Breaks create more opportunities for firefighters to directly fight fire and stage operations.

Shaded Fuel Breaks create more opportunities for firefighters to directly fight fire.

To learn more go to firesafemarin.org