



DESIGN FOR A FIRE WISE LANDSCAPE IN THE 100-FOOT DEFENSIBLE ZONE

Lynn Lorenson, Nevada County Master Gardener

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The first regulations requiring a 30-foot clearing around structures in the State Responsibility Areas (SRA) became effective in 1982. The State Responsibility Areas are areas in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state. The purpose of this law was to protect the wild lands from a structure fire. By 2004 building in the wildland-urban interface had exploded. Forest firefighters now found themselves needing to protect structures. The Public Resources Code 4291 took effect January 2005.

This code states that Any person who owns, leases, controls, operates, or maintains a building or structure in, on, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, or grass-covered lands must maintain a 100-foot defensible space or to the property line. The code may have additional requirements added by local jurisdictions. Insurance companies may also increase the required clearing depending on slope and vegetation type.

All of Nevada County and Placer County east of Roseville fall into areas of high to very high fire danger zones.

The first goal of firefighters is to save lives. Firefighters need defensible space around structures for their protection and that of residents. Too many lives have been lost in trying to defend structures that were not adequately protected.

Look at your property through a firefighter's eyes. In the event of a wildfire would it be safe for you to evacuate or a fire crew to come in?

Let's start with the landscape functions provided by plants. There is often a conflict between needing to maintain the 10-foot road clearance and the desire for screening from the road or drive. In advance of a wildfire decisions are made as to whether a crew will try to defend a property or not. Firefighters will not risk entering an overgrown road or drive.

You can find help in choosing screening plants in the Nevada County Fire Safe Council booklet, *Fire Wise Plants for Nevada County*. Information on choosing and planting shrubs for screening can also be found in the article "Foothill-Friendly Shrubs" in the Fall 2007 *Curious Gardener*.

How you plant screening shrubs makes a difference. Stagger the shrubs in a zigzag pattern, leaving spaces of at least 10 feet between the mature sizes of the plants. An unbroken line of shrubs creates a fire pathway that carries fire across a property. Homes destroyed in a wildland fire may be a mile or more from the leading edge of the fire. A wildfire creates its own wind and may be accompanied by strong winds that fling burning brands ahead of the fire. The flaming brands may rain down for hours, piling against the foundations of a structure. Traditional landscape design uses extensive foundation plantings. This is definitely not a good choice in a fire-prone area. The first 10 feet from the structure should be as lean as possible. Consider placing walkways next to the structure and moving plants six to ten feet from the foundations. Avoid using junipers next to a structure. These plants can be fully engulfed in flames in only seconds then igniting a structure in less than one minute!

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PLACER COUNTY

11477 E Avenue
Auburn, CA 95603
(530) 889-7385

E-Mail: ceplacer@ucdavis.edu

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NEVADA COUNTY

255 So Auburn
Grass Valley, CA 95945
(530) 273-4563

E-Mail: cenevada@ucdavis.edu

Placer County Hotline: (530) 889-7388. Visit us online at <http://pcmg.ucanr.org>

Using low growing plants that are well irrigated can lessen the danger of planting next to a structure. Trees provide many benefits. Maintain healthy, beautiful trees by limbing them up 8 to 10 feet from the ground. Make sure that all dead limbs are removed from trees that are within the 30-foot zone around a structure. Tree limbs should not touch structures and be trimmed at least 10 feet from a chimney.

Structures are often consumed in a wildfire from radiant heat produced by the 100-foot wall of flames in nearby vegetation. Tradition landscape design relies on a layering of plants with perennials and shrubs under the trees. This creates a fire-ladder that will carry flames from the ground to the tree crowns. Only the lowest growing plants, 12-inches or less, should be planted under trees and shrubs. A burning plant creates a flame length of 3 times the height.

As you move into the 30- to 100-foot zone from a structure a 10- to 40-foot space should be maintained between individual plants or groupings of plants. In all cases, fuel reduction means arranging the trees, shrubs and other fuels in a way that makes it difficult for fire to jump from one fuel source to another. Imagine a park-like vista with open and shaded areas, clumps of shrubs and trees, wildflowers and maybe even a meadow and pond. A fire-wise landscape can support a diversity of wildlife, be beautiful and protect lives and structures.

For more information:

- Fire Safe Council of Nevada County, 530-272-1122
- Placer County Fire Alliance, www.placerfirealliance.org

References

Curious Gardener, Fall 2007

Fire Safe Council of Nevada County, www.firesafecouncilnevco.com

"General Guidelines for Creating Defensible Space." State of CA Board of Forestry & Fire Protection.

Lynn Lorenson 3-2009

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