

Evaluate your property

Fuel breaks around structures

Research has shown that fuel reduction around a structure can significantly increase the structure's chance of surviving a wildfire.

Fuel, to a wildfire, is anything that can burn — needles, leaves, dry grass, firewood, cedar shake roofing, wood siding, wooden decking. Fuel reduction means to lessen the amount of fuel available to a fire, to increase the distance between fuels, and to insulate fuels so fire can't get to them.

In another way, fuel reduction **does not** mean cutting down all trees and shrubs around a structure, or creating a bare-earth ring around a home. It **does** mean to arrange trees, shrubs and other fuel sources in a way that makes it difficult for fire to transfer from fuel source to fuel source.

For example, a continuous carpet of ponderosa pine needles is a source of fuel for a fire. If this carpet of pine needles leads, unbroken, from the yard to the underside of a wooden deck, the needles act like a fuse to dynamite. If the wooden deck catches fire, the entire house is jeopardized. However, by raking foot-wide fuel breaks through the carpet of needles, and removing burnable debris from beneath the deck, the fire-transmission problem is dramatically reduced. The fuels have either been dispersed or eliminated.

Fuel reduction in regard to trees and other plants means to favor plants that are fire-resistant, and to reduce — and isolate — plants that are more vulnerable to fire.

When evaluating the area around structures on your property, focus on the first 30-50 feet from the structure's outside walls and think

like a fire. What will burn easily and spread fire rapidly?

Is the ground cover around the structure green, well-watered lawn? Or is it tall, dry grass? If it is green lawn, it is fire resistant (especially when frequently watered). If it is dry grass, it will ignite easily and carry fire rapidly.

Are the trees fire-resistant species, or are they fire-vulnerable? Ponderosa pine, Douglas-fir and quaking aspen are three fire-resistant species. Western juniper, on the other hand, is fire-vulnerable. In general, favor trees that are mature and in good health. Consider removing trees that are suppressed or damaged, or that can act like a ladder for fire — transferring ground fire to the crowns of taller trees. Remember to consider the role a tree may play if fire threatens your property. If the tree is large, healthy and green, it can shield a structure from intense radiant heat and airborne embers. Strongly consider retaining such trees, but help them by removing fuel sources that may transmit flames to their branches and crowns.

Shrubs can help protect taller trees and structures if the plants are fire-resistant, kept in a healthy condition, and are well-watered. Examples of fire-resistant shrubs are Pacific rhododendron, Oregon boxwood and mockorange. Shrubs that are more fire-friendly include bitterbrush, manzanita and ceanothus. Also, ornamental junipers are hazardous because they catch fire easily

and create intense flames quickly.

When evaluating trees and shrubs around a structure, take into account the plants' species, health and size. Also, imagine how fire would behave if it were in the yard.

Ask yourself:

- will thinning (not eliminating) the trees around the structure help to keep fire from transferring to other trees?
- will thinning shrubs from beneath trees help to keep fire from climbing into the crowns of trees? Or will removing the lower branches of trees accomplish this better?
- are there fire-vulnerable plants next to the house?

One helpful resource about selecting native, fire-resistant landscaping plants is this brochure. To get a copy, write, visit or call the Oregon State University Extension Service office nearest to you. Or, download a copy from the OSU Extension Service World Wide Web site at extension.oregonstate.edu/emergency/wildfire.php



The roof

A home's rooftop is a large landing zone for airborne embers and glowing ash — even surprisingly large chunks of cone and slabs of bark — propelled aloft by a nearby wildfire. Accumulations of dry needles, leaves and twigs on a roof can be easily ignited on a summer day. Finding and eliminating rooftop fuels is a big step toward protecting a home against wildfire damage.

Gutters are excellent catch-basins for tree needles and leaves — which, when dried in a few hours of sun, are easily ignitable. Once a gutter fire gets started, the flames can get beneath roofing material — even

nonflammable roofing — and ignite plywood sheathing, tar paper, or the ends of wooden stringers that support tile and slate.

Are there hidden accumulations of dry needles and leaves on the roof? Look in downwind collection points. As wind travels around and over a house, it wraps around rooftops, chimneys and walls. It eddies in sheltered areas and drops whatever it has been carrying. Find these wind-borne fuel deposits and clear away potentially flammable debris — because the next summer wind could bring hot embers, and the wind will drop them in exactly the same place.

Open attic and soffit vents should be covered so burning debris can't get in. During a wildfire, a blizzard of glowing embers can be unleashed. It doesn't take long before a quantity of this hot stuff finds its way through attic openings, and settles down to start fires in the very dry lumber supporting your roof. Firefighters may overlook a germinating attic fire — their attention occupied with more visible fires at the ground level. It may take hours before an attic fire becomes visible, but by that time it is often too late to save the home from severe damage.

Last but not least, assess the flammability of your home's roof covering. If the material is metal, tile or slate, it will be nonflammable. Asphalt shingles are also resistant to burning. Untreated cedar shakes, conversely, are highly flammable.

Wind and slope

If your home sits on a slope, pay particular attention to fuels on the downhill side of the house because fire burns rapidly upslope. Take note, too, of the prevailing wind direction during the hot months of summer. If a hot summer wind could push a fire toward your house, you'll likely want to increase your fuel reduction efforts on the upwind side of your home.

Likewise for homes sited on a steep slope, the fuel reduction emphasis should be on the downslope side of the home.

Access

Firefighters can't defend a home against a wildfire if they can't get to the home. The driveway is an important factor in helping firefighters in their endeavor to protect your home.

Is your driveway able to accommodate a fire truck? The minimum width necessary is 12 feet, and the minimum overhead clearance is 13 ½ feet. Clearing away excess brush and tree branches also helps firefighters see up the driveway. If they can see where they're going, firefighters can be more certain that they have a safe environment to make a stand against the wildfire.

The driveway is also important for the residents. Oftentimes, when a large wildfire threatens homes, the residents are asked to evacuate the area. Once an area is evacuated, firefighters are able to perform their tasks without having to worry about residents becoming trapped by the flames. However, if residents are unable to leave their homes because escape routes are blocked or otherwise unusable, then residents may have little choice but to stay home.

If you have a long driveway and it is bordered by trees and brush, strongly consider these actions:

- meet or exceed the driveway and structure fuel break requirements of the Oregon Forestland-Urban Interface Fire Protection Act
- meet or exceed the act's standards for primary and secondary fuel breaks around structures on your property
- invite a member of your local fire department to evaluate your driveway and the area surrounding your home for access and defensibility.

Other considerations

Well-established and maintained fuel breaks around structures and driveways are strong steps toward protecting your home and property against severe wildfire damage. Here are some additional steps that will make your home and the area around it more fire-resistant:

- cover under-deck openings with screening or skirting
- move firewood and lumber piles away from structures, or fully enclose the piles
- remove dead branches overhanging the roof, and clear all branches away from chimneys

Also ...

- develop a water source that isn't dependent on municipal power for flow and pressure
- employ fire prevention practices and follow local restrictions when burning debris
- dispose of fireplace and barbecue ashes in a safe place
- keep hoses and sprinklers where you can easily find them, and decide where to set them up to do the most good (i.e. on top of a cedar shake roof, or a wooden deck)
- practice what you and your family will do, and where you will go, in a fire emergency
- follow American Red Cross guidelines for packing an emergency survival kit
- if you have pets or livestock, plan how to care for them during a fire emergency, or find out whether there is an animal evacuation center in your area
- review insurance policies you have purchased on your home and its contents. What are the conditions for replacement? Are the dollar amounts sufficient to rebuild?

Planning for a fire emergency will help to keep it from turning into a disaster. ❁