

## Summer's Coming Get Safe for Fire Season By Scott Berry, Circuit Rider

A few years ago I submitted an article to this magazine outlining what rural water systems can do to prepare for the upcoming fire season. The information in that article was directly responsible for at least one main pump station and primary well surviving a brush fire and for this reason, I think the information is worth repeating.

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 isolate fuels so fire can't get to them.

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 low-growing and well-irrigated? 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.



There are some steps you can take to minimize the impact of a natural cover fire in your service area. These are the same steps you should take as homeowners to improve your chances of surviving a fire.

**Step 1:** Establish a primary fuel break around all structures on the property. This fuel break should extend 30 feet from the walls of the structure and can be as simple as bare earth or green grass. Other options would be asphalt, concrete, wildflowers, clover or any other ground cover that is not readily combustible. Dry grass should be cut to a height of less than 4 inches. Any shrubs or other vegetation in contact with the structure should be removed and trees should be pruned and/or thinned so that fire cannot travel from tree to tree.

**Step 2:** Determine whether it necessary to provide a fuel break around the driveway or access road leading to the property. If the driveway is shorter than 150 feet, a fuel break does not need to be created. If the driveway is longer than 150 feet, a fire break that will easily allow access for a fire truck is required. In the event of a wildfire, the fire

dept. will not risk bringing a fire truck down a narrow road that is chocked with vegetation. The fuel break must extend a minimum of 10 feet from the centerline of the as-traveled roadway. The vertical clearance should be a minimum of 13 ½ feet and the horizontal clearance must be a minimum of 12 feet. Any dead or readily combustible material directly adjacent to the roadway must be removed.

**Step 3:** Remove any limbs or vegetation overhanging the roof of the building. If the roof is constructed of cedar shakes, strongly consider replacing it with composition roofing or other less combustible material. When the fire dept. is deciding which buildings they can save, a significant mark against the building is a shake roof and may be the deciding factor for moving on down the road to the next building that is more “savable”. Remove any piles of leaves, wood, lumber or any other readily combustible material to at least 20 feet away from the building. Seal up any openings under eaves or wooden decks that may allow embers to gain access to the interior of the building.



These steps will go a long way in ensuring that you are able to provide an uninterrupted supply of water to your community when it is needed most. There are other things you can accomplish with just a little work. If you have site-specific questions about what

you should do to protect your infrastructure, you can call me to come visit your site or you can get an evaluation from your local fire department or the Department of Forestry.