

# Ready or Not...2004

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In the spring 2003 issue of H2Oregon, we featured an article that dealt with Wild Land Fire Pre-Planning for the rural water utility. That article was credited with motivating at least one system operator to take proactive actions and it saved a critical part of their infrastructure.

In this issue, we will once again discuss pre-planning and structural triage. Almost any structure can be saved from wild land fire if there is enough time before the fire reaches it. That is where pre-planning comes in

Step-One is a site-by-site survey. Your local fire department may already have a structural triage checklist available that will give you an indication of what they look for, specifically what their criteria is for a "Defendable or Non-Defendable" structure. You must provide yourself with an adequate defensible space. The size of the defensible space area is usually expressed as a distance extending outward from the sides of the house. This distance varies by the type of wildland vegetation growing near the house and the steepness of the terrain. For example, if your property is surrounded by wildland grasses such as cheatgrass, and is located on flat land, your recommended defensible space distance would extend 30 feet from the sides of the house. If your house is on a 25% slope and the adjacent wildland vegetation is dense tall brush, your recommended defensible space distance would be 200 feet.

Step-Two: Is there any dead vegetation in your defensible space? Dead vegetation includes dead trees and shrubs, dead branches lying on the ground or still attached to living plants, dried grass, flowers and weeds, dropped leaves and needles, and firewood stacks. In most instances, dead vegetation should be removed from the recommended defensible space area.

Step-Three: Is the vegetation in your defensible space sparse or continuous? Sometimes wildland plants can occur as an uninterrupted layer of vegetation as opposed to being patchy or widely spaced individual plants. The more continuous and dense the vegetation, the greater the wildfire threat.

If this situation is present within your defensible space area, you should "break-it-up" by providing a separation between plants or small groups of plants.

Step-Four: Are there "Ladder Fuels" within your defensible space? Vegetation is often present at varying heights, similar to the rungs of a ladder. Under these conditions, flames from fuels burning at ground level, such as a thick layer of pine needles, can be carried to shrubs, which can ignite still higher fuels like tree branches. Vegetation that allows a fire to move from lower growing plants to taller ones is referred to as "ladder fuel." The ladder fuel problem can be corrected by providing a separation between the vegetation layers. Within the defensible space area, a vertical separation of three times the height of the lower fuel layer is recommended. For example, if a shrub growing adjacent to a large pine tree were three feet tall, the recommended separation distance would be nine feet. This could be accomplished by removing the lower tree branches, reducing the height of the shrub, or both. The shrub could also be removed.

Step-Five: Is there a minimum of 30 feet of green belt around your facilities? The area immediately adjacent to your pump house is particularly important in terms of an effective defensible space. It is also the area that is usually landscaped. Within an area extending **at least** 30 feet from the house, the vegetation should be kept to little or no readily combustible vegetation. Make sure that all vegetation is green and healthy and remove all dead limbs and needles.

Step-Six: Is your defensible space well maintained? Keeping your defensible space effective is a continual process. At least annually, review these defensible space steps and take action accordingly. An effective defensible space can be quickly diminished through neglect.

### **Some other considerations in helping your facilities survive a fire are:**

How a house is designed, where it is built, materials used in its construction, landscape and access to the home all influence survivability during wildfire. Presented below are recommendations that will make your facilities much easier to defend and will improve its chances of surviving a wildfire.

#### **1. Roof:**

- Your roof is the most vulnerable part of your house in a wildfire. If you have a wood shake roof

consider replacing it with class C or better fire resistant roofing.

- Remove dead branches hanging over your roof.
- Clean all dead leaves and needles from your roof and gutters.

### **2. Construction:**

- Build your facilities at least 30 feet from your property line.
- Box your eaves.
- Use fire resistant building materials.
- Install only dual-paned or triple-paned windows.

### **3. Access:**

- Design road width, grade and curves to allow access for large emergency vehicles.
- Construct driveways to allow large emergency equipment to reach your facility.
- Make sure dead-end roads and long driveways have turnaround areas wide enough for emergency vehicles. Construct turnouts along one-way roads.
- Clear flammable vegetation at least 10 feet from roads and five feet from driveways.
- Cut back overhanging tree branches above roads.
- Post your facility address at the beginning of your driveway, or on your facility if it is easily visible from the road.

I hope that you have a good idea of where you stand now with your fire planning. For more information, contact your local fire department, Department of Forestry office, USFS, BLM, BIA, or contact us and we will point you in the right direction for more information.