

Wildland Urban Interface and How it Relates to Defensible Space

Many people have heard of the term WUI, but what exactly is it?

WUI is an acronym for Wildland Urban Interface and is a set of conditions under which a wildland fire reaches beyond trees, brush and other natural fuels to ignite homes and their immediate surroundings. WUI is defined by the National Fire Protection Association (NFPA) as "the presence of structures in locations in which the Authority Having Jurisdiction determines that topographical features, vegetation fuel types, local weather conditions, and prevailing winds result in the potential for ignition of the structures within the area from flames and firebrands of a wildland fire."

Though weather conditions play a huge part in defining the WUI, it is commonly associated with one of two general areas:

1) Housing meets or exceeds a density of one structure per 40 acres and more than 50 percent of the area is covered by vegetation. (Intermix WUI)

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2) Area has more than 1 house per 40 acres, has less than 50 percent vegetation, but is within 1.5 miles of a 1,325-acre area that is more than 75 percent vegetated. (Interface WUI)

Why does this matter? Because virtually all of inhabited Grand County meets this definition. If your home is within one mile of a natural area, it is in the Ember Zone; where wind-driven embers, or firebrands, can threaten your home. You and your home must be prepared well before a wildland fire occurs. Ember fires can destroy homes and neighborhoods far from the actual flame front of a wildland fire. Firebrands may cause ignition well after the fire has passed a home.

The National Fire Protection Association reports that during the 2007-2011 fire seasons, on



average local fire departments in the US responded to an average of 915 brush, grass, and forest fires per day. NFPA also says that "nine of the 25 costliest (in terms of property loss) fires in U.S. history were described as forest, wildland or wildland/urban interface fires. The eight costliest fires were in the last two decades." Lastly, Fire-fighter Nation reports that "on average, fires since 2000 have burned twice the number of acres that they burned in the 1990s."

Although these statistics seem staggering, they do not have to mean all doom and gloom for the residents of Grand County. Yes, we do live in the WUI and wildland fire is a risk. However, we can all take steps to protect our homes before wildland fire becomes an immediate threat. First and foremost, you can make sure your home has sufficient defensible space surrounding it.

Defensible space is the space between a structure and the wildland area that creates a sufficient buffer to slow or halt the spread of wildfire to a structure. It protects the home from igniting due to direct flame or radiant heat. To help create defensible space around your home, consider taking actions within the three main zones listed below.

Zone 1 is the area with 0-30' of the home or structure. Within Zone 1, you should...

- Remove all dead or dying trees, shrubs, and grasses

- Trim tree canopies regularly to a minimum 10' from structures AND other trees
- Remove leaf litter (dry leaves/needles) from yard, roof, and rain gutters.

- Relocate wood piles and other combustible materials into Zone 2
- Remove combustible material and vegetation from around and under decks



- "Limb up" low tree branches from the ground up to approximately one third of the total height of the tree

- Create "islands" of vegetation of desirable trees and shrubs (no juniper)

- Within 5 feet of the home, consider taking additional precautions, such as

- Installing concrete walkways or mulch up to the foundation with pebbles or stones
- Using annuals or perennials with high moisture content
- Keeping the area well irrigated

Zone 2 is the area 30-100' out from the structure (or to the property line). In this area, you should...

- Make sure needle litter (duff) is less than 3" deep

- Remove all dead or dying trees, shrubs, grasses

- Remove ladder fuels to create a separation between low level vegetation and tree branches to keep fire from climbing up trees (at least 6' from the ground is ideal)

- Trim annual grass down to a maximum of 4" Zone 3 is 100-200' out from the structure (or to the property line). In Zone 3, you should...

- Create and maintain a minimum of 10' between tree tops

- Remove all dead or dying trees, shrubs and grasses

- Remove ladder fuels to create a separation between low level vegetation and tree branches to keep fire from climbing up trees

Defensible space is essential for survivability of a structure during wildland fire conditions. By taking these proactive steps, you are doing yourself and your home a huge favor in the event of wildfire. Additionally, because some of the Zones may extend beyond your property line, you should talk with your nearest neighbors to also become "Firewise".

For more information about defensible space visit the NFPA's Firewise website: www.firewise.org. There is also a wealth of information about wildfire mitigation, education and other resources on the Colorado State Forest Service website: www.csf.s.colostate.edu. Your Grand County District Forester can be reached at (970) 887.3121.

Resources

<http://www.firefighternation.com/article/wildland-urban-interface/wui-fire-best-practices>

<http://www.nfpa.org/research/reports-and-statistics/outdoor-fires/brush-grass-and-forest-fires>

<http://sitvis.forest.wisc.edu/old/Library/WUIDefinitions.php>

www.bewildfiready.org