

The “Wooley”

by Carolyn Mehl

In recent years, the term Wildland Urban Interface, or its acronym WUI (pronounced woo'ey), has been used more and more frequently in discussions of wildfire risk reduction and fuel mitigation for communities lying within forested landscapes. Many who hear the term “wooley” for the first time may envision some large beast out of Star Wars stalking our Valley. But as it represents an important term in the vocabulary of our local fire fighting agencies, it is important for people to know what it references. So where did this term come from and how does it influence us our community?

With the increase in wildfire occurrence over the last 10 years, particularly in the western states, wildland fire policies and legislation have evolved to promote collaboration for wildfire management among federal agencies, state agencies, and local communities and to encourage preparedness through the development of Community Wildfire Protection Plans (CWPPs). The primary goals of a CWPP are to improve wildfire prevention and suppression, reduce hazardous forest fuels, and promote community involvement in the process. Federal and state fuel reduction grants and programs give higher priority to communities that have developed a CWPP. The Seeley Lake and Condon communities prepared their first CWPP in 2004. This document is referred to locally as the “Seeley-Swan Fire Plan” and has very recently been updated and revised to include, among other things, better information on vegetation densities and new structures.

As part of the CWPP process, the WUI is delineated as an area where structures or other human developments are within the “vicinity” of forests and other wildlands. What qualifies as vicinity has not been well defined but many communities, including Seeley Lake, have selected a 1.5 mile buffer around the majority of existing structures to delineate the boundaries of the WUI. Within the WUI, priorities for fuel reduction projects are identified using a combination of information on vegetation density, housing densities, and topographic features that contribute to the rate of fire spread. This analysis is developed in a geographic information system (GIS) where the results can be mapped and quantified. Federal and state agencies can use this information to prioritize fuel mitigation projects within the WUI and assess funding needs for future projects.

For the Clearwater region, the delineated WUI currently includes nearly 98,000 acres of the region's 269,000 acres or 36% of the total. Of the acres within the WUI, roughly 20,000 (20%) of these were identified in the Fire Plan as high priority and 40,000 (40%) were identified as moderate priority for future fuel reduction projects. Landowner representation of these high and moderate priority acres consists of 45% owned by the US Forest Service, 24% owned by the State of Montana, 11% owned by Plum Creek Timber Co., and 20% owned by private individuals.

Clearly there are many benefits associated with the delineation of the WUI in communities like Seeley Lake. But as with most things, there are two sides to every coin. So while the WUI can provide benefits to our community by reducing risks from wildfires, it also presents several challenges. One challenge is minimizing the potential ecological impacts that could be associated with managing forests for only one objective – fuel reduction.

Fuel reduction objectives within the WUI usually target reducing fuel loadings on the ground surface, reducing ladder fuels that allow fire to move off the ground and into the crowns of overstory trees, and reducing the number of trees with inter-locking crowns that contribute to crown-fire initiation and

crown-fire spread. As discussed in a previous article in the Eye on the Environment, these objectives are reasonably compatible with ecological restoration objectives in low elevation forests such as ponderosa pine and western larch occurring on drier sites. However, fuels thinning are not as compatible for high elevation subalpine fir and mid-elevation moist Douglas-fir and western larch forests.

When you consider that we currently lack most of the low density, large diameter ponderosa pine and western larch stands characterized by grassy understories and low fuels that were so common in the low elevation forests of the region historically, you can understand how fuel reduction projects can benefit these forest ecosystems and the wildlife species that use them. With the final result being that we get both fuel reduction benefits and ecosystem restoration benefits, in these forests.

Mid-elevation forests were historically characterized by a patchy mosaic of stand structures and species compositions. These included varying sizes of forest patches with structurally diverse conditions containing downed wood and shrubs in the understory and dense multi-aged trees in the overstory. Many wildlife species depend on these patchy and diverse conditions and would be negatively impacted by extensive acres of fuel reduction projects that did not consider the ecology of the underlying forest type.

High elevation subalpine fir forests would be even more ecologically affected by fuel reduction projects. These forests were historically very dense in the overstory and structurally diverse in the understory. Fuel reduction objectives in these forest types would produce conditions that did not typically occur historically. As with mid-elevation forests, wildlife species that depend on high elevation forests would be negatively impacted by extensive acres of fuel reduction projects.

While delineating the WUI is an important tool to reducing the potential impacts of wildfire in our community, we need to make a concerted effort to balance the benefits of fuel reduction within the WUI with the potential impacts of the WUI on our valued forest and wildlife resources. For this reason, any expansion of the WUI should be carefully considered. With each new structure being built in our valley, the WUI may continue to expand, going further and further into our mid and high elevation forests and increasing the ecological concerns and economic costs of addressing fuel mitigation.

As with many of our natural resource management tools and processes, there is always a need to balance human need with the ecological needs of our forests and wildlife. Delineating the WUI is a good thing for our community but understanding the full range of its benefits and impacts will help us make informed decisions for its future use and expansion in our incredible valley.

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