



Coffee Break Training - Community Risk Reduction

Introduction to Understanding the Wildland Urban Interface

No. CR-2014-1 March 19, 2014

Learning Objective: The student will be able to describe the importance of fire as a tool for maintaining and enhancing overall forest health.

Wildland Urban Interface (WUI) — Fire-Adapted Communities (FACs) is the first of a series of discussions about creating FACs in the WUI. In the 2012 Annual Report released by the National Association of State Foresters, 72,397 communities are at risk from wildland fire.

Historical Perspective: Wildfire has been part of our history since the first lightning strike. Fire is a natural disturbance force that affects and defines ecosystems. For many years, wildland fire was aggressively excluded to protect both public and private investments and to prevent what was considered the destruction of forests, shrub lands, grasslands, etc.

Conditions mounted over many decades by the accumulation of naturally occurring forest debris, slash from logging operations, and trees destroyed by insect infestations. When these fuels ignite, they burn hotter, spread faster, last longer and cover more area. There is a growing recognition that past land use practices, combined with the effects of fire exclusion, have resulted in heavy accumulation of dead vegetation, altered fuel arrangements, and changes in vegetative structure and composition. When dead, fallen material accumulates on the ground, it creates a continuous arrangement of fuel.

Fire in areas of altered vegetation can adversely affect other important ecosystem components:

- Insects and disease.
- Wildlife population.
- Hydrological processes.
- Soil structure and mineralogy.
- Nutrient cycling.

Any of the components, if altered by severe fire, can diminish the long-term sustainability of the land.

Although restoring fire to ecosystems has gained broader acceptance, several factors hinder its use on an ecologically significant scale:

- Slow public acceptance of fire as a legitimate wildland fire management tool.
- Lengthy time periods required to reach agreement on treatments and required actions.
- Increasing presence of human communities within wildland fire environments.

Grazing, mechanical cutting or mowing, or chemical treatment may be employed to restore ecosystems and reduce hazardous wildland fuels. While these methods can be helpful, they cannot always replace the role and value of fire in maintaining overall health and balance of an ecosystem. The use of fire will continue to be an important tool in maintaining and enhancing overall forest health.

In addition to unprecedented amounts of accumulated wildland fuels, the population of the United States has shifted. More people are moving from urban to rural areas prone to wildland fire. Why the shift?

- Rural areas generally offer more affordable housing than urban areas.
- General increase in desire to live away from urban area.
- The technological boom of the 1980s created more financial resources, so people purchased second and third homes in rural areas.
- Many of the “rural immigrants” often “expect” urban-level services in their rural living environment.

Sources: <http://headwaterseconomics.org> and <http://silvis.forest.wisc.edu/maps/wui/state>.

Stayed tuned for the soon-to-be-released, recently developed U.S. Fire Administration’s course, “Wildland Urban Interface: Fire-Adapted Communities,” offered at the National Fire Academy.

For archived downloads, go to:

www.usfa.fema.gov/nfa/coffee-break/