

# Forest Plan Revision for the Colville, Okanogan, and Wenatchee National Forests

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## Briefing: Forest Plan Revision & Fuels Management

### An Old Way of Thinking

When forest plans were implemented for the Colville, Okanogan, and Wenatchee National Forests in 1988-1990, the term “fuels management” mainly referred to the treatment/reduction of woody debris that was generated from timber harvest. In the past, vegetation management and fuels management were viewed as separate management programs. The focus of vegetation management in the past was timber production.

### Thinking about Things Differently

Today, we consider vegetation management and fuels management linked very closely to one another. More often than not, both terms mean the same thing. Today’s focus is aimed at reducing the potential for large scale wild fire.

Today, fuels management activities are focused on the lower elevations at forest margins to approximately 4,500 feet elevation. This type of forest is known as the “hot dry forest”. Prior to European settlement, fire was a frequent event in this type of forest occurring every 8-15 years. Due to the relative high frequency of fire in these forests prior to European settlement, there was little build-up of dead or live vegetation (fuel). Fires were generally of low severity causing little adverse effects to wildlife habitat, forest soils, or mortality to vegetation.

Since implementation of the forest plans in the 1980s, many wild fires have occurred within the hot dry forest causing severe impacts to wildlife habitat, soils, and high mortality to forest vegetation. It has become evident that over 100 years of fire suppression/ fire exclusion has caused an unnatural build-up of live and dead fuels in the lower elevation forests. The dry lower elevations of the forest landscape are where the largest change in vegetation condition has occurred in the last 100 years. Fires now burn uncharacteristically with high severity.

**Fuels management within the hot dry forest consists of three components:** management of forest “surface fuels”, “ladder fuels”, and “tree crown density”.

Managing **surface fuels** includes treating dead and down material, accumulated needles, limbs, as well as live ground vegetation. The objective of managing surface fuels is to reduce surface fuels to an amount which does not sustain a hot surface fire of long duration.

**Ladder fuels** are small trees and shrubs that grow in a layer below the larger taller trees of the forest. Ladder fuels can literally function as a ladder by carrying fire from the forest floor to the live crowns of the dominant trees of the forest. The objective of managing ladder fuels is to reduce the continuity of ladder fuels so that fire can not easily transfer from a ground fire to the crowns of trees. The **density of**

**live tree crowns** must be reduced as part of effective fuels management so that a potential wild fire can not spread easily between the crowns of trees within a forest.

### **Risky Business**

Fuels Management is all about managing risk. As explained above, we currently have a high risk of high severity wild fire in much of our dry site lower elevation forests. Since the forest plans were implemented in 1988-90, many people have also moved into what is now known as the wildland urban interface. National forest managers are now faced with managing risk of wild fire in areas where homes are in close proximity to the national forest. If we don't manage and reduce the risk of severe wild fire, there's a higher risk of negative effects to homes, wildlife habitat, soils, and forest scenery.

### **"Tools of the Trade"**

In order to reduce surface fuels, reduce continuity of ladder fuels, and reduce density of live tree crowns within the hot dry forest, a combination of treatments would be implemented as part of fuel management. Depending on specific site conditions, one or more of the following would be used to restore the condition of the hot dry forest to a sustainable condition: commercial thinning, non-commercial thinning, and prescribed fire. On portions of the forest that have already been restored to a sustainable condition, prescribed fire would be used to maintain landscapes in a healthy condition.

**Fire events in the cool moist forest above 4,500 feet in elevation** are generally infrequent and occur every hundred years or longer. Fires which burn in the cool moist forest naturally burn with great intensity and generally cause impacts that can be labeled as high severity. Forests of this type typically require a high severity fire every one hundred years or more in order to be rejuvenated. Fuel management techniques employed within the lower elevation hot dry forest would not be used in the higher cool moist forest.

**"Wildland Fire Use"**, a fuel management tool which takes advantage of natural lightning ignitions has potential for use by managers within the high elevation cool moist forests. Before this tool is can be used, a fire management plan must be in place which contains resource objectives for specific areas of the national forest, as well as certain prescriptive elements. Certain conditions must be satisfied before this tool can be implemented such as: 1) the prescriptive wildland fire can only be used where private property of any kind of structure is not likely to be affected by the fire; 2) wildland fire must be demonstrated to be beneficial to natural resources; 3) fire suppression resources are available nationally to manage the fire.

The revised forest plans will provide guidance on where the Forest Service can implement Wildland Fire Use. Fire management plans currently exist for the Colville, Okanogan, and Wenatchee National Forests.

**Fire suppression** is just one aspect of fuels management that will still continue. However, if a good job of managing fuels is accomplished in the "right" strategic locations, it is expected that fire suppression costs and risk to property and natural resources can be reduced.

Interested members of the public will have opportunities to work with the Forest Service as site specific fuel management activities are proposed in the future.