

Upper Wenatchee Planning Area Landscape Evaluation Summary

Total Acres	Forested Acres	Treatment Goal (Acres)
74,778	67,109	15,500 - 27,000



Landscape Highlights

The Upper Wenatchee planning area is one of the highest fire risk areas in eastern Washington. Although recent treatments on US Forest Service and private land have begun to reduce risk, more treatments are needed around many of the homes and communities. Forest land is 85% Forest Service, 13% private, and 2% DNR and State Parks. Treating an estimated 15,000 - 25,000 acres of dense forest would move the landscape into a more resilient condition while also maintaining sufficient dense forest to meet Late Successional Reserve objectives. Treatment needs equate to **23-40%** of the forested area. Maintenance treatments on 500-2000 acres of currently open forest are also recommended.

Treatment Goals

Overarching:

- Improve safety and fire protection for people and homes.
- Create and maintain open canopy, large-tree forests resistant to drought, insects, diseases and wildfire.
- Maintain sufficient large tree, dense forest for wildlife in the least fire and drought prone areas.

Reduce wildfire risk: Extensive treatments on private parcels are needed to reduce the high level of risk to communities (Fig. 1), as well as on adjacent Forest Service land to create defensible space. In most of the remainder of the planning area, fire risk is high to extreme due to high fire probability and high fuel loading. Creating large patches of fire resistant forest over 35-50% of the planning area is recommended to shift the risk of large crown fires. Recently treated areas show beneficial effects as wildfires are predicted to burn as ground fires and further reduce fuels (Fig. 1).

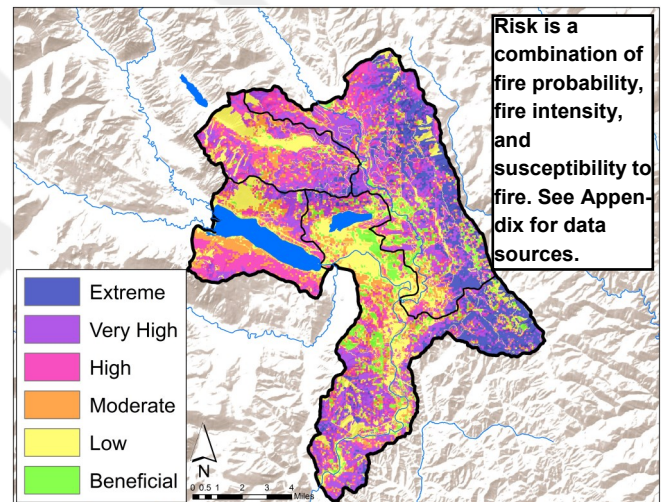


Figure 1. Wildfire Risk.

Prepare for climate change:

Projected warming trends will increase moisture stress and thus probability of wildfire and insect outbreaks. By mid-century, only north slopes and higher elevations are projected to have moisture stress levels currently associated with moist and cold forest (Fig. 2) (see definitions below), while levels associated with woodland and grassland will be much more prevalent. Treatments to reduce density and manage for fire and drought-tolerant species on current and projected future dry sites will help forests adapt to these changes.

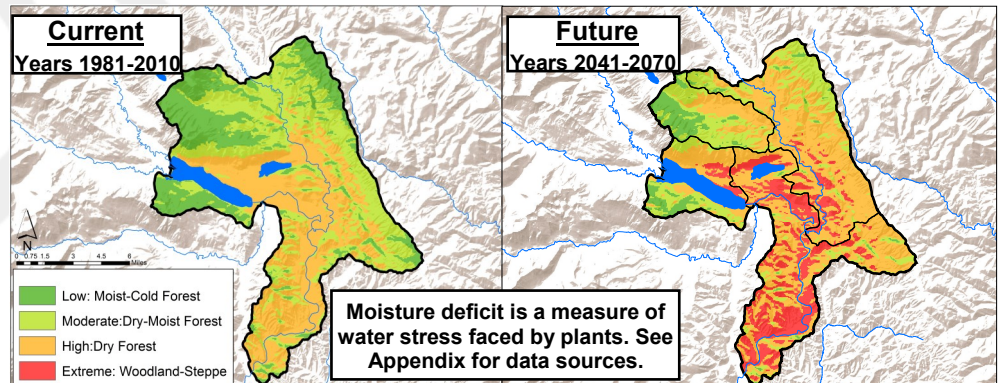


Figure 2. Current and future moisture deficit levels.

Sustain wildlife habitat: 42% of the forested area is in Late Successional Reserve, which is intended to sustain species that require dense forest, such as the Northern Spotted Owl. By creating a mosaic of dense and open patches, treatments can reduce risk to dense forest habitat by slowing spread of crown fires and building replacement habitat.

Provide economic outputs: A large portion of the treatments are commercially viable and have road access. They have the potential to provide substantial volume for existing or new wood processing facilities.

Definitions (see Appendix for data sources and methods):

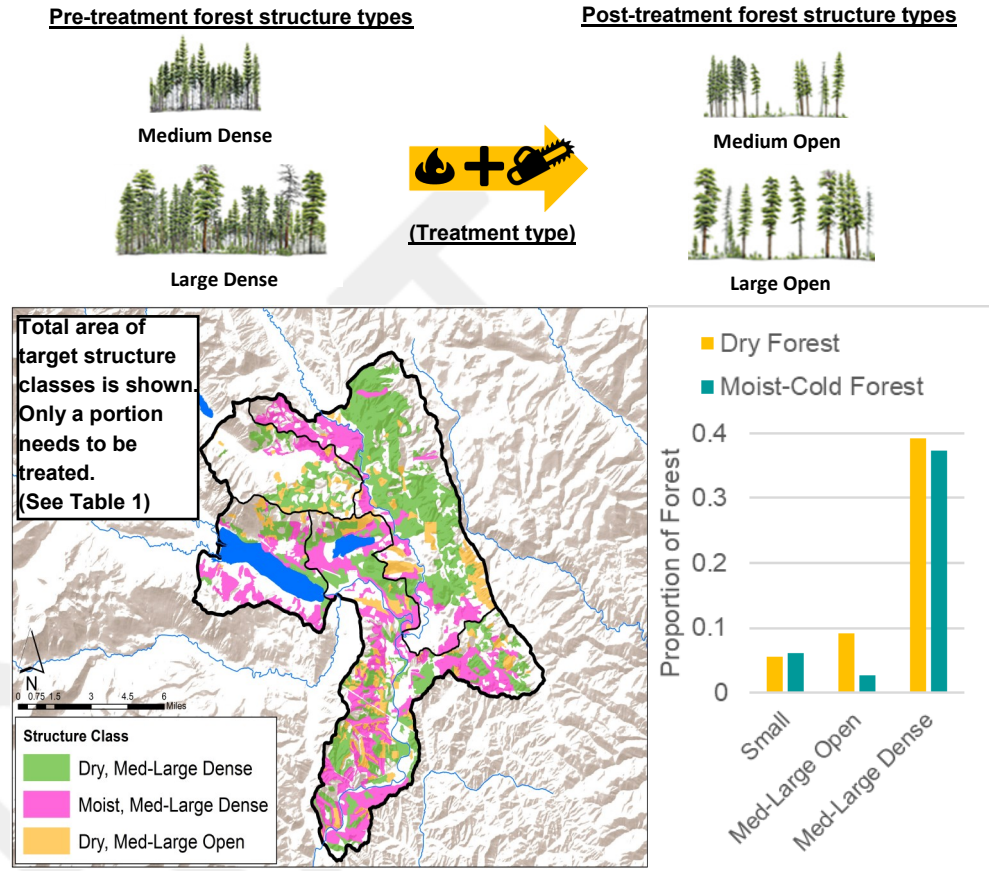
Dry: Low to mid elevation ponderosa pine and Douglas-fir dominated forests that historically supported ground fires every 5-20 years.

Moist: Mid-elevation forests that historically had mixed severity fires and were dominated by Douglas-fir, western larch, and ponderosa pine, plus other fire-intolerant conifers. **Cold:** Upper elevation mixed conifer forests with high severity fires every 80-200+ years. **Woodland/Steppe:** Grass and shrublands that may have oak woodlands or up to 10% cover of conifer trees. **Size classes:** Large: overstory diameter (OD) > 20"; Medium: OD 10-20"; Small: OD < 10". **Canopy cover classes:** Open: <40%; Dense: >40%. **Ground Fuels:** shrubs, grasses, small trees, duff, and dead woody material.

Treatment needs: Upper Wenatchee Planning Area

Dry forest: Treating 12,000 - 18,000 acres of dense, dry forest acres (Table 1) is recommended to shift the landscape from being dominated by dense to open conditions (see definitions, page 1). Treatments will shift open, medium-large tree structure from 9% of the landscape (Fig. 4) to 29-38% on dry sites. Dense forest will be reduced from 39% to 10-20%, and large patches will be broken up. Large tree structure exists in most places, and can be converted to fire and drought resistant forest by removing smaller trees and treating fuels with prescribed fire or mechanical methods. The highest priority treatments are on private and US Forest Service land near homes.

Moist and Cold forest: Treating 3,000-7,000 acres of dense, moist forest acres will shift the landscape from 3% to 8-14% open forest. Dense forest on moist sites will still occupy 26-33%. If a fire burns up existing large-tree, dense forest, treated areas can be left to develop into and replace this important habitat. Cold forests occupy a small portion of the area and don't require treatment.



Maintenance treatments: A portion of existing open forests need prescribed fire or mechanical methods to maintain open conditions by reducing ground fuels and excessive small trees that have grown in. The US Forest Service has already burned many of their recent treatments.



Overall treatment needs: An estimated 15,000 to 25,000 acres of commercial thinning, followed by prescribed fire or mechanical fuel reduction, are needed. Some acres may be non-commercial, fire only in areas with limited road access, or regeneration to address species conversion or major disease issues. Maintenance treatments on 500-2000 acres are also recommended. Table 1 displays these estimates by forest type and structure class. Individual landowners will conduct their own field assessments, planning, and regulatory processes to determine acres and types of treatments they can carry out to meet overall landscape goals while achieving their own management objectives.

Table 1. Treatment Needs and Landowner Acreages.

Forest Conditions that need Treatment		Treatment Need Acres	Current Acres by Major Landowner*		
Forest Type	Structure Class		USFS	Private	State
Dry	Med.-Large Dense	12,000-18,000	21,230	2,386	830
Moist	Med.-Large Dense	3,000-7,000	13,156	1,686	240
Dry	Med.-Large Open	500-2,000	5,007	707	4
Total Acres		15,500-27,000	*These are total current acres, not targets.		
Anticipated Treatment Type	Commerical thin + fuels treatment. (Maybe regeneration, non-commercial, or fire only in some cases)				
	Maintenance: prescribed fire or mechanical fuels treat.				

