

THOMAS CREEK FOREST VEGETATION

Dave Powell, Forest Silviculturist, February 23, 2012

This document provides results from a preliminary analysis of forest vegetation conditions for the Thomas Creek Young Stand Development project, Walla Walla Ranger District, Umatilla NF.

- Preliminary analysis area (as of February 2012) includes approximately **20,030 acres**.
- Analysis area mostly includes **moist forest (79%; 15,818 acres)**, followed by nonforest vegetation (17%; 3,503 acres), dry forest (2%; 405 acres), and cold forest (2%; 304 acres).
- Dry forest and cold forest have minor representation in the analysis area. *Forest policy is that an RV analysis will not be done for any forested biophysical environment with less than 1,000 acres, so RV results are reported below for moist forest only.*
- A diverse array of vegetation cover types is present in the analysis area. The most abundant cover type is **ponderosa pine (30%)**, followed by grand fir (25%), nonforest vegetation (shrubs, herbs) (17%), Douglas-fir (15%), spruce-fir (6%), and other types occupying less than 5% of the area (in order of abundance): western larch, lodgepole pine, bare ground, and western white pine.
- When forest cover types are examined in detail *for moist-forest sites*, results suggest that there is too much **ponderosa pine** and too little **lodgepole pine** or **western larch**:

| Cover Type | Historical Range (%) | Current Amount (%) | Interpretation |
|--------------------|-----------------------------|---------------------------|--------------------------|
| Ponderosa pine | 5-15 | 38 | Well above RV |
| Douglas-fir | 15-30 | 17 | Within RV |
| Grand fir | 15-30 | 30 | Within RV (at upper end) |
| Western larch | 10-30 | 5 | Below RV |
| Lodgepole pine | 25-45 | 2 | Well below RV |
| Spruce-fir | 1-10 | 8 | Within RV |
| Western white pine | 0-5 | <1 | Within RV |

- A diverse array of forest structural stages is present in the analysis area. The most abundant structural stage is **stem exclusion (57%)**, followed by old forest multi strata (35%), old forest single stratum (4%), stand initiation (2%), and understory reinitiation (2%).
- When forest structural stages are examined in detail *for moist-forest sites*, results suggest that there is too much **stem exclusion** and **old forest multi strata**, and too little **stand initiation, understory reinitiation, and old forest single stratum**:

| Structure Class | Historical Range (%) | Current Amount (%) | Interpretation |
|---------------------------|-----------------------------|---------------------------|-----------------------|
| Stand initiation | 20-30 | 2 | Well below RV |
| Stem exclusion | 20-30 | 57 | Well above RV |
| Understory reinitiation | 10-20 | 2 | Below RV |
| Old forest multi strata | 15-20 | 35 | Above RV |
| Old forest single stratum | 10-20 | 4 | Below RV |

- A diverse array of stand density classes is present in the analysis area. The most abundant stand density class is **high (63%)**, followed by low (24%) and moderate (13%).
- When stand density is examined in detail *for moist-forest sites*, results suggest that there is too much high stand density, and too little moderate stand density:

| Density Class | Historical Amount (%) | Current Amount (%) | Interpretation |
|---------------|-----------------------|--------------------|----------------|
| Low | 20-40 | 23 | Within RV |
| Moderate | 25-60 | 13 | Below RV |
| High | 15-30 | 64 | Well above RV |

- Land use summary (using the same categories as in Rainville et al. 2008: *Assessment of Timber Availability From Forest Restoration Within the Blue Mountains of Oregon*; General Technical Report PNW-GTR-752):

| | <i>Umatilla NF</i> | | <i>Thomas Creek</i> | |
|--|------------------------|--------------|---------------------|--------------|
| <i>NFS ADMINISTERED lands</i> | <i>1,408,171 acres</i> | | <i>20,030 acres</i> | |
| NONFOREST <i>(Rock, water, grasslands and shrublands, tree canopy closure <10%, roads)</i> | 188,408 | 13.4% | 3,503 | 17.5% |
| RESERVES (Forest Land) <i>(Wilderness, Forest Plan management areas with no regulated harvest)</i> | 482,532 | 34.3% | 829 | 4.1% |
| RESTRICTED (Forest Land) <i>(Roadless, riparian reserves, Forest Plan Amendments since April 1990)</i> | 180,114 | 12.8% | 2,544 | 12.7% |
| ACTIVE FORESTRY | 557,117 | 39.6% | 13,154 | 65.7% |