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Forest Service
Ant Project

Preliminary Environmental Assessment

Viable Ecosystem Specialist Report

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NOTE: Sections/paragraphs in **bold type** are the most that belongs in an EA. The rest is supporting documentation - WYNN

Abstract

SUMMARY

The Ant Analysis Area has surpluses and deficits in relation to the project silviculturist's interpretation of what the Historic Range of Variability (HRV) should be. Any activities which would take the area further away from this Historic Range of Variability should be avoided. Vegetation management which moves stand structure and species composition toward HRV, protects under-represented stand types, or improves declining forest health, should be included in timber stand improvement (TSI) projects within this Subwatershed.

Affected Environment

This report documents the existing condition of the Whiskey Creek and Little Emigrant Creek Subwatersheds, as it relates to the Historic Range of Variability (HRV), and recommends silvicultural treatments to move the subwatersheds toward HRV.

Three sources of information were used for this portion of the report: Emigrant Creek Watershed Analysis (USFS. 1997), acreage analysis of the Snow Mountain side of Emigrant Creek (Ochoco Viable Ecosystems Management Guide (USDA 1994)), and more than 300 personal site visitations by the project silviculturist.

All of the subwatersheds are within the Emigrant Watershed; which is outside the forest conditions called for in the Emigrant Creek Watershed Analysis (USDA 1997). Plant Association Groups are plotted below:

HOT/DRY PAGs (35% of the forested portions of the Emigrant watershed)

	STAND INITIATION		STEM EXCLU. OPEN		Multi-story w/o large trees		Multi-story w/large trees	
	Historic	Current	Historic	Current	Historic	Current	Historic	Current
Hot/PIPO	5-30%	45%	3-20%	45%	20-50%	5%	20-50%	5%
Dry/JUOC	50-80%	26%	5-10%	74%	15-30%	0%	5-12%	<1%

WARM/DRY PAGs (32% of the forested portions of the Emigrant watershed)

	Historic	Current	Historic	Current	Historic	Current	Historic	Current
Warm/ABGR	2-14%	26%	5-20%	37%	6-30%	14%	5-30%	23%
Dry/PSME	1-10%	26%	2-15%	37%	15-40%	14%	10-30%	23%

HOT/MOIST PAGs (32% of the forested portions of the Emigrant watershed)

	Historic	Current	Historic	Current	Historic	Current	Historic	Current
Hot/PIPO	1-10%	21%	2-15%	55%	15-40%	15%	10-30%	9%

WARM/MOIST PAGs (less than 1% of the forested portions of the Emigrant watershed)

	Historic	Current	Historic	Current	Historic	Current	Historic	Current
Warm/PSME	1-10%	70%	2-15%	4%	15-40%	10%	10-30%	16%

Specific acre numbers are not available for the desired ranges, or the existing conditions. The watershed analysis table above, combined with many days in the woods on both sides of the creek, to form the following simple descriptions of conditions:

Surpluses

- **Acres of juniper-dominated woodland**
- **Acres of multi-story stands dominated by trees 10 to 20 inches dbh – both early and late seral**

- **Acres of trees dominated by trees 5 to 10" dbh, multi- and single-story – early and late seral**
- **Acres of forest with a dominant grand/white fir understory**
- **Late seral tree species populations in the "Upper Dry" Grand Fir and Douglas-fir Plant Association Groups (PAGs)**

Deficiencies

- **Acres of true "stand-initiation" (seedlings and saplings) in all Plant Association Groups**
- **Acres in "single-story" stands of trees dominated by stems larger than 10 inches dbh – early and late seral**
- **Early seral tree species populations in the Dry Grand Fir and Douglas-fir PAGs. These are "Upper Dry" in old Burns District documents.**

Observations of stumps and large trees, indicates that 100 years ago the (now forested) ridgetop Ponderosa Pine and Western Juniper PAGs were primarily pine and juniper savannah, with an estimated 5-20 trees per acre. These savannah sites are now overstocked with unsustainable levels of small trees. In the southern end of the analysis area, many acres now forested, were not forested 100 years ago. What we now refer to as "late and old stand structure" (LOS) was restricted to the more moist sites in the canyons, along riparian areas, and on north trending slopes.

OPPORTUNITIES

Treating stands to return the Ant project area to pre-1900 conditions with a single entry, is not consistent with present or forecast management direction. What is needed to move the subwatershed toward HRV and more sustainable fire-tolerant conditions are:

1. **Modification of some multi-storied stands with large trees, toward single-storied large tree dominated conditions, using commercial and precommercial thinning to reduce the stocking of understory trees.**
2. **Using commercial and precommercial thinning to speed the growth of multi-storied stands without large trees, to conditions of domination by large sized trees.**
3. **Using commercial and precommercial thinning to move tree species composition toward HRV.**
4. **Thinning very dry ponderosa pine sites, to start acres toward pine savannah, and increased grass and shrub site occupancy.**
5. **Thinning juniper sites to start toward juniper savannah**
6. **Precommercial thinning in existing large tree dominated stands to increase the sustainability of these conditions.**
7. **Application of prescribed fire to reduce fuel loading, laddering, and seedling density, and return to historic disturbance regimes.**
8. **Aggressive treatment of any resulting slash so prescribed fire can be used in the future to create and maintain historical fire-tolerant stand structure and ground cover plant species.**

References

USDA, Forest Service. 1997. Emigrant Creek Watershed Analysis, Snow Mountain Ranger District, Ochoco National Forest, and Burns Ranger District, Malheur National Forest, Hines, Oregon.

USDA, Forest Service. 1994. Viable Ecosystem Management Guide, Ochoco National Forest (April 1994 DRAFT), Prineville, Oregon.