11/4/03 DRAFT

Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Wendel Hann **Date:** 9/7/03 **PNVG Code:** AMDW

Potential Natural Vegetation Group: Alpine Meadows - Barren

Geographic Area: Northern, Central, and Southern Rocky Mountains, Cascade Range, and Sierra-Nevada Ranges

Description: The alpine meadows and intermingled barren rock ridges and cliffs typically occur above 11,000 to 12,000 feet in California, the Southern Great Basin (S. NV), and the Southwest (AZ, NM), dropping to 10,000 to 11,000 feet in the Northern Great Basin (N. NV, UT) and Central Rockies (CO, WY, S. ID), to 7,500 to 8,500 feet in the Northern Rockies (N. ID, MT), and to 5,500 to 6,500 in the Cascades (OR, WA). The ratio of alpine meadows to barren rock varies depending on the local topography.

Fire Regime Description: Primarily fire regime group IV, infrequent replacement, with some group V, rare mixed. Role of fire in alpine meadows primarily depends on the fire regime of the next lower zone and influence of drought. This type can burn, particularly when influenced by cumulative drought and a high intensity fire in the next lower zone.

Vegetation Type and Structure for Alpine Meadows Fire Regime Group IV

Class	Percent of Landscape	Description
A: post replacement	2	Alpine bluegrasses and forbs or resprouting willow and sedges
B: mid-development closed	20	Alpine willows, sedges, and wet site forbs with canopy cover greater than 40 per cent
C: mid- open	78	Bentgrass, hairgrass, fescue, timothy, or alpine bluegrasses with associated alpine forbs; typically on upland and other well drained landforms; canopy cover typically less than 40 per cent
D: late- open		
E: late- closed		
Total	100	

Fire Frequency and Severity for Fire regime group IV

Fire Frequency-	Modeled	Percent	Description

Severity	Probability	, All Fires	
Replacement Fire	.0066	80	Fires in upper layer of grasses
Non-Replacement Fire	.0017	20	Fires creeping and torching in grasses or willows
All Fire Frequency*	.0083	100	Mean frequency of 60 years generally associated with cumulative drought cycle

*Sum of replacement fire and non-replacement fire probabilities.

References

Brown, James K.; Smith, Jane Kapler, eds. 2000. Wildland fire in ecosystems: effects of fire on flora. Gen. Tech. Rep. RMRS-GTR-42-vol. 2. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 257 p.

Küchler, A. W. 1964. Potential natural vegetation of the contermi-nous United States (manual and map.) Special Publ. 36, 1965 rev. New York: American Geographical Society. 116 p.

Schmidt, Kirsten M, Menakis, James P., Hardy, Colin C., Hann, Wendel J., Bunnell, David L. 2002. Development of coarse-scale spatial data for wildland fire and fuel management. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.

U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, December). Fire Effects Information System, [Online]. Available: http://www.fs.fed.us/database/feis/.

MODELER FIELD REVIEWS:
Wendel Hann – Mt Massive, CO 2000 and 2001; Mt Elbert, CO 2001; Weminuche Wilderness, CO 2001.

VDDT Results

(*NOTE: VDDT modeling is infeasible for this PNVG*).