11/4/03 DRAFT

Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Steve Barrett **Date:** 8/13/03 **PNVG Code:** MSHB2

Potential Natural Vegetation Group: Mountain Shrubland (Without Trees).

Geographic Area: Intermountain West.

Description: Minor but relatively widespread PNVG occurs throughout the Intermountain West (e.g., Society for Range Mgt. Cover Types 322, 415-417). PVG often occupies xeric, rocky sites in foothills and valley edges, in the transition zone between grasslands and montane forests; PNVG ranges widely in elevation (e.g., 3000-9000 ft) throughout its geographic range, with stands usually occurring on moderately steep- to steep southerly aspects with poorly developed soils. Moderately frequent stand replacement fires promote dominance by grasses, forbs, and shrubs, with generally sparse shrub overstories dominated by xeric-adapted species such as mountain-mahoganies, Artemisia spp., and bitterbrush; rock outcrops also provide fire refugia, where individual mahoganies can reach 300+ years old between infrequent stand replacement fires.

Fire Regime Description: Fire Regime II (and IV), primarily relatively short-interval (e.g., 20-50 yr) stand replacement fires.

Vegetation Type and Structure

Class	Percent of Landscape	Description
A: post replacement	25	Early succession, usually after moderately frequent stand replacement fires; grasses and forbs dominant
B: mid-development closed	25	>10% shrub cover (i.e., line intercept method) by weakly sprouting- and seed producing shrubs; grasses/forbs dominant in scattered openings.
C: mid- open	10	<10% shrub cover, with grasses/forbs dominant in extensive openings
D: late- open	10	<10% shrub cover, with overmature shrubs as patchy dominant overstory (e.g., in rock outcrops); grasses/forbs dominant in extensive openings

E: late- closed	30	>10% shrub cover; all age age classes present but dominated by overmature shrubs (e.g., in rocky draws)
Total	100	

Fire Frequency and Severity

Fire Frequency-Severity	Modeled Probability	Pct, All Fires	Description
Replacement Fire	.024	83	Dominated by relatively short-interval fires in classes A-C (and, rarely, long-interval fires in classes D-E)
Non-Replacement Fire	.005	17	Patchy fires, generally in C-D
All Fire Frequency*	.029	100	

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

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PERSONAL COMMUNICATIONS

6/25/03 personal communication with Dr. E. Durant McArthur, Project Leader, USDA Forest Service Shrub Science Laboratory, Rocky Mountain Research Station, Provo UT.

MODELER FIELD REVIEWS
Barrett, Stephen W.; Private lands near Elmo MT, 2003.