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

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

<table>
<thead>
<tr>
<th>Fire Frequency-Severity</th>
<th>Modeled Probability</th>
<th>Pct, All Fires</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement Fire</td>
<td>.024</td>
<td>83</td>
<td>Dominated by relatively short-interval fires in classes A-C (and, rarely, long-interval fires in classes D-E)</td>
</tr>
<tr>
<td>Non-Replacement Fire</td>
<td>.005</td>
<td>17</td>
<td>Patchy fires, generally in C-D</td>
</tr>
<tr>
<td>All Fire Frequency*</td>
<td>.029</td>
<td>100</td>
<td>*Sum of replacement fire and non-replacement fire probabilities.</td>
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</table>

References


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