Fire Regime Condition Class (FRCC) Interagency Handbook
Reference Conditions

Modeler: Wendel Hann    Date: 7/22/03    PNVG Code: PGRA2

Potential Natural Vegetation Group: Northern Plains Grassland With Trees

Geographic Area: Northern Plains

Description: Gentle to rolling savannah conifer (< 5% tree cover) herbaceous dominated (<5% shrub cover) uplands and some breaklands that have inclusions of rocky areas and ridges that have scattered young to mature trees and sagebrush protected from fire by rocks and sparse grass fuels. These areas as well as the savannah conifer cover provide a tree and shrub seed source for encroachment into herbaceous dominated areas in the absence of fire. Typical patch sizes for the uplands range from 100-500 acres with breakland inclusions of 25-50 acres. Typical fire regime landscapes correlate with watersheds ranging from 5000 acres in complex terrain to 25,000 acres in gentle terrain.

Fire Regime Description: Frequent mixed regime – Fire Regime Group III - 10 year average frequency for all fires; 55% replacement fires that maintain herbaceous dominated classes A, B, and C or replace B, C, D, or E to produce A; 45% mosaic fires that parallel alternate succession of B or C to D or maintain D in D. *SHOULDN'T THE FIRE REGIME BE "I"?

Vegetation Type and Structure

<table>
<thead>
<tr>
<th>Class</th>
<th>Percent of Landscape</th>
<th>Description</th>
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<tbody>
<tr>
<td>A: post replacement</td>
<td>8</td>
<td>Within 0-3 years postfire – contains resprouting western wheatgrass, blue grama, and other northern plains cool and warm season midgrasses with some grass seedling establishment in moist years; many post-fire adapted forbs; scattered resprouting shrubs such as silver sage, serviceberry, chokecherry and buckbrush &lt; 5% cover</td>
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<tr>
<td>B: mid-development closed</td>
<td>35</td>
<td>Young and vigorous green needlegrass, western wheatgrass, blue grama, and other cool and warm season midgrasses and intermingled forbs with canopy cover &gt; 35%; scattered individuals or small patches of sagebrush and other shrubs &lt; 5% cover; typically on flat to gentle terrain with productive</td>
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soils that have low cobbles and gravel content; in moist years tree and sagebrush seeds dispersed from young to mature trees and sagebrush on adjacent rocky areas or ridges can get established as seedlings, particularly if correlated with a short period of high intensity grazing or post-fire; however, these seedlings are typically killed by fire at the next return interval

C: mid- open 15 Western wheatgrass, blue grama, and other cool and warm season midgrasses and scattered forbs with canopy cover < 35%; scattered individuals or small patches of sagebrush and other shrubs < 5% cover; typically on steeper slopes and less productive soils than class B with higher content of cobbles and gravels; tree and sagebrush seedlings can get established from seed sources on adjacent rocky areas and ridges, but typically die as a result of drought or the next fire return interval

D: late- open 40 Grass-tree savannah with < 5% canopy mid to large tree ponderosa pine or pole to mid size juniper typically in rocky areas protected from fire scattered across relatively large patches of mature green needlegrass, western wheatgrass, blue grama, and other cool and warm season midgrasses; scattered patches of sagebrush and other shrubs < 5% cover

E: late- closed 2 Dense, but small patches of ponderosa pine or juniper pole, sapling, and seedlings with < 5% total cover of the whole area located in areas skipped by fire as a result of lack of fine fuels (large ungulate grazing pattern, low productive soils, rocky areas) or random fire weather patterns

<table>
<thead>
<tr>
<th>Fire Frequency and Severity</th>
<th>Modeled Probability</th>
<th>Pct, All Fires</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Replacement Fire</td>
<td>.055</td>
<td>55</td>
<td>Primarily consuming grass or shrub-grass upper layer</td>
</tr>
<tr>
<td>Non-Replacement Fire</td>
<td>.045</td>
<td>45</td>
<td>Mosaic maintenance fires in D</td>
</tr>
<tr>
<td>All Fire Frequency*</td>
<td>.10</td>
<td>100</td>
<td>10 year mean fire interval from</td>
</tr>
</tbody>
</table>
combination of lightning and Native American fires

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

References


PERSONAL COMMUNICATION:
Larry Rau – Miles City BLM
Kenny Rich – Rancher in Missouri Breaks

MODELER FIELD REVIEWS:
VDĐT Results: *NEEDS GRAPH OF SUCC CLASSES