California  
Great Basin  
Great Lakes  
Northeast  
Northern Plains  
N-Cent.Rockies  
Pacific Northwest  
South Central  
Southeast  
S. Appalachians  
Southwest

Biophysical Site Description
PNVG generally occurs on gentle (<30%) northerly aspects above 2000 feet, gentle southerly aspects in the montane zone, and steep (>30%) southerly aspects in the upper montane zone (FRCC model MGRA1). It is typically dominated by one or more perennial bunchgrasses (e.g. Festuca idahoensis) but may contain a strong forb component on more mesic sites. Its distribution is largely the product of low precipitation caused by the rain shadow of the Cascades Mountains, though timing of precipitation and soils are also important drivers (Daubenmire 1970, Driscoll 1964). Climatically this vegetation zone is arid to semi-arid with warm to hot dry summers and relatively cold winters (Franklin and Dyrness 1988).

Vegetation Description
It is typically dominated by one or more perennial bunchgrasses including Pseudoroegneria spicata, Agropyron inerme (currently Pseudoroegneria spicata ssp. Inermis), Festuca idahoensis, Calamagrostis rubescens, Koeleria creata. This PNVG also includes a strong forb component including Balsamorhiza sagittata, Hieracium cynoglossoides, Lupinus sericeus and Lupinus latifolius.

Disturbance Description
Grasslands retain little evidence of historic fire regimes. Native Americans likely played a role in fire occurrence near populated areas, but the evidence is inconclusive as to their impact at a larger spatial scale and it is likely that fuel conditions and weather were more important drivers of historic fire regimes (Whitlock and Knox 2002). Grasslands in this area dominated by Idaho fescue may have enough fuel to burn annually, but probably did not because of low flammability early in the season and lack of fire starts.
across grasslands late in the season (Agee 1994). Response to fire varies, with Idaho fescue susceptible to mortality if fuel load allows smouldering of the root crown to occur. Following fire, this PNVG typically exhibits an increase in forb cover (Agee 1994).

The rangelands of the planning area and many of the major perennial grasses (e.g. bluebunch wheatgrass and Idaho fescue) did not evolve with substantial ungulate grazing (Daubenmire 1970).

**Adjacency or Identification Concerns**

Many of the soils are suitable for agriculture and approximately 56 percent of the dry grass zone has been converted to agriculture or urban use (Quigley and Arbelbide 1997).

Fire suppression may lead to a shrub dominated type in some areas, particularly in mesic ecotones.

**Scale Description**

This type fingers up into the montane forests on steep southerly slopes and shallow soils. These patches are often too small to map and may be overlooked. Burn size is variable with topography and distribution of rock and riparian areas influencing fire spread.

**Issues/Problems**

This PNVG lacks fire history data.

**Model Evolution and Comments**

**Succession Classes**

Succession classes are the equivalent of "Vegetation Fuel Classes" as defined in the Interagency FRCC Guidebook (www.frcc.gov).

<table>
<thead>
<tr>
<th>Class</th>
<th>10 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early1 PostRep</td>
<td></td>
</tr>
</tbody>
</table>

**Description**

This early seral community follows a topkill event in which cover of bunch grasses and perennial forbs has been reduced. Forb composition is relatively higher in this stage than at later stages with increased occurrence of Colinsia, Lupinus, Epilobium, Balsamorhiza, Geum and Potentilla. Poa and Vulpia may also increase.

**Indicator Species* and Canopy Position**

- PSSP6
- POSA
- EPILO
- FEID

**Structure Data (for upper layer lifeform)**

- Cover: 5 % - 20 %
- Height: no data
- Tree Size Class: no data

- Upper layer lifeform differs from dominant lifeform. Height and cover of dominant lifeform are:

---

*Dominant and Indicator Species are from the NRCS PLANTS database. To check a species code, please visit http://plants.usda.gov.

8/11/2008

Page 2 of 4
**Class B** 70 %

**Description**
Very little bare ground. Litter bare ground cover is high. Plants are vigorous and well established. Fires are rarely lethal, and the community responds quickly to fire. Cover values are high, ranging from 30 to 80 percent.

**Upper Layer Lifeform**
- **Herbaceous**
- **Shrub**
- **Tree**

**Fuel Model** no data

**Structure Data (for upper layer lifeform)**

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>40%</td>
<td>80%</td>
</tr>
<tr>
<td>Height</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>Tree Size Class</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

**Class C** 20 %

**Description**
Open shrubland resulting from long absences of fire. Shrub component has largely encroached from adjacent deciduous shrublands. These sites are more mesic than the similar Class B.

**Upper Layer Lifeform**
- **Herbaceous**
- **Shrub**
- **Tree**

**Fuel Model** no data

**Structure Data (for upper layer lifeform)**

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>20%</td>
<td>60%</td>
</tr>
<tr>
<td>Height</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>Tree Size Class</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

**Class D** 0 %

**Description**

**Upper Layer Lifeform**
- **Herbaceous**
- **Shrub**
- **Tree**

**Fuel Model** no data

**Structure Data (for upper layer lifeform)**

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Height</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>Tree Size Class</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

**Class E** 0 %

**Description**

**Upper Layer Lifeform**
- **Herbaceous**
- **Shrub**
- **Tree**

**Fuel Model** no data

**Structure Data (for upper layer lifeform)**

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Height</td>
<td>no data</td>
<td>no data</td>
</tr>
<tr>
<td>Tree Size Class</td>
<td>no data</td>
<td>no data</td>
</tr>
</tbody>
</table>

*Dominant and Indicator Species are from the NRCS PLANTS database. To check a species code, please visit http://plants.usda.gov.*

8/11/2008

Page 3 of 4
**Disturbances**

<table>
<thead>
<tr>
<th>Non-Fire Disturbances Modeled</th>
<th>Fire Regime Group: 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Insects/Disease</td>
<td>I: 0-35 year frequency, low and mixed severity</td>
</tr>
<tr>
<td>- Wind/Weather/Stress</td>
<td>II: 0-35 year frequency, replacement severity</td>
</tr>
<tr>
<td>- Native Grazing</td>
<td>III: 35-200 year frequency, low and mixed severity</td>
</tr>
<tr>
<td>- Competition</td>
<td>IV: 35-200 year frequency, replacement severity</td>
</tr>
<tr>
<td>- Other:</td>
<td>V: 200+ year frequency, replacement severity</td>
</tr>
</tbody>
</table>

**Fire Intervals (FI):**
- Fire interval is expressed in years for each fire severity class and for all types of fire combined (All Fires). Average FI is the central tendency modeled. Minimum and maximum show the relative range of fire intervals, if known. Probability is the inverse of fire interval in years and is used in reference condition modeling. Percent of all fires is the percent of all fires in that severity class. All values are estimates and not precise.

<table>
<thead>
<tr>
<th>Fire Regime</th>
<th>Avg FI</th>
<th>Min FI</th>
<th>Max FI</th>
<th>Probability</th>
<th>Percent of All Fires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>40</td>
<td></td>
<td>0.025</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>125</td>
<td></td>
<td>0.008</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>All Fires</td>
<td>30</td>
<td></td>
<td>0.03301</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources of Fire Regime Data**

- Literature
- Local Data
- Expert Estimate

**References**


