Nuttall’s Alkali Grass

Description
In the reference condition, Nuttall’s alkali grass forms a good ground cover of closely spaced bunchgrass plants in pure stands. Considerable surface litter protects the soil and aids in reducing compaction. Sites degrade to foxtail barley if the soil is compacted or if the site dries because of changes in hydrology (loss of connectivity to upland recharge areas). They further degrade to Nevada sedge, gumweed and dandelions. This plant community is rare because of the impacts of historic grazing and changes in the hydrology of wetlands.

Location
Southern interior plateau

Representative Reference Area
Goose Lake

BEC Correlation
GS02 in BG, PP and IDF zones

Site Characteristics
Soils
Typically heavy textured clays with high salt content, but they are never solonetzic.

Elevation range
500 – 1400m

Seral Stages
PNC Climax & Late Seral

Goose Lake exclosure, the wetland is fringed with Nuttall’s alkali grass.

Late Seral
A close-up for a pure stand of Nuttall’s alkali grass. Late seral.

### Productivity

450 – 600 kg/ha

### Range Management consideration

Soils are subject to compaction if grazed when wet. Nuttall’s alkali grass is a bunchgrass that decreases with drying, soil compaction and moderate to heavy yearly use. Soil compaction and drier hydrological conditions favour foxtail barley, field sedge, bluegrasses, dandelion, pussytoes and gumweed.

### Properly Functioning condition

PNC and late seral sites will score as properly functioning.
Early Seral

Degraded site now dominated by foxtail barley.
Early Seral.

Degraded site now dominated by foxtail barley.
Early Seral.
Nuttall’s Alkali Grass

Productivity
50 – 350 kg/ha

Range Management consideration
The key to recovery on these sites is rest, incorporation of litter to ameliorate soil compaction and restoration of natural water levels. These sites respond relatively quickly to rest.

Properly Functioning condition
Sites will score as moderate risk to non-functional. Low scores are due to soil compaction, poor rooting depth, loss of animal habitat, lack of litter and erosion.

<table>
<thead>
<tr>
<th>Plant Community Early Seral</th>
<th>Canopy cover (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Species</strong></td>
<td></td>
</tr>
<tr>
<td>Foxtail barley</td>
<td>60-75</td>
</tr>
<tr>
<td>Field sedge</td>
<td>20</td>
</tr>
<tr>
<td>Gumweed</td>
<td>1-5</td>
</tr>
<tr>
<td>Bluegrasses</td>
<td>1-10</td>
</tr>
<tr>
<td>Yarrow</td>
<td>1-5</td>
</tr>
<tr>
<td>Alkali saltgrass</td>
<td>5-20</td>
</tr>
<tr>
<td>Dandelion</td>
<td>1-5</td>
</tr>
<tr>
<td>Pussytoes</td>
<td>5</td>
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</tbody>
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