

# Spike-rush -- Alkali Bulrush

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## Description

This community occurs as distinct bands of spike-rush and alkali bulrush in slightly to moderately saline wetlands, with the spike-rush in shallower water grading to more alkali bulrush in deeper water. Some open beach areas are common where lakes are in drawdown, where salinity is extreme and where the slope is so gradual that emergent plants cannot establish and sustain themselves.

Lakes in natural drawdown should not be confused with poor function, unless the plant community has been altered and the soils trampled and compacted. Periodic drawdown allows the bulrush community to reinvigorate itself from dormant seeds found in the wetland soil. Decomposition and the release of bound nutrients also occurs during these dry cycles. Water that is too deep (> 2 m), for too long will thin out the cover of bulrush.

## Location

Southern interior plateau and the Southern Rocky Mountain Trench.

## Representative Reference Area

Two lakes high, Dixon North, Dixon South, Green Lake Six mile

## BEC Correlation

Wm04 in BG, PP, and IDF

## Site Characteristics

### Soils

Soils are slightly to moderately saline and may be heavy textured.

### Elevation range

800 to 1200m.

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## Seral Stages

### PNC Climax & Late Seral



*A saline wetland ringed with beaked sedge, spike-rush and alkali bulrush*

*A large saline waterbody ringed with bog birch, spike-rush, Nuttal's alkali grass, arrow-grass and alkali bulrush. It is too saline for cattail.  
PNC*



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Plant Community PNC & Late Seral	
Species	Canopy cover (%)
Spike-rush	50-100
Cattail	0-5
Arrow-grass	1-100
Alkali bulrush	50-100

## Productivity

100 – 400 kg/ha of spike-rush

## Range Management consideration

Spike-rush is the only palatable forage in this plant community, however cattle will sometimes consume bulrush and arrowgrass. Trampling and drying of the spike-rush zone leads to encroachment by foxtail barley, bluegrasses, and silverweed. Severely trampled sites will go to bare ground.

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## Properly Functioning condition

PNC and late seral sites will score as properly functioning.

## Early Seral



*A wetland and adjacent moist meadow during drawdown that has been altered by heavy grazing. Early Seral.*

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Plant Community Early Seral	
Species	Canopy cover (%)
Spike-rush	<1
Foxtail barley	<40
Alkali bluegrass	<20
Alkali bulrush	<20

## **Productivity**

0-100 kg/ha of foxtail barley

## **Range Management consideration**

If a wetland is in a natural drawdown condition, the seeds of great bulrush can remain dormant in the soil for years, ready to germinate if normal water levels return.

Rest and restoration of natural water levels is the best prescription for recovery of both spike-rush and bulrush. These sites need an opportunity for plants to grow without grazing, to put down litter, and set seed. If rest is infeasible, early spring use is preferred. During spring, other water sources are usually available, upland grasses are lush, hot temperatures are not a factor, and wetland levels are usually at their highest, discouraging cattle use.

## **Properly Functioning condition**

Sites will score as moderate risk to non-functional.