

Ecological site R226XY052AK

Wet Lake Bed (Juncus) (AK653 St Paul Island)

Accessed: 05/02/2024

General information

**Provisional.** A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs in nearly level depressions between dunes and in sandy plains. This site occurs near the coast.

Table 2. Representative physiographic features

Landforms	(1) Lakebed
Flooding duration	Very brief (4 to 48 hours) to brief (2 to 7 days)
Flooding frequency	Rare to occasional
Elevation	0–50 ft
Slope	0–3%

Climatic features

Table 3. Representative climatic features

Frost-free period (average)	120 days
Freeze-free period (average)	100 days
Precipitation total (average)	24 in

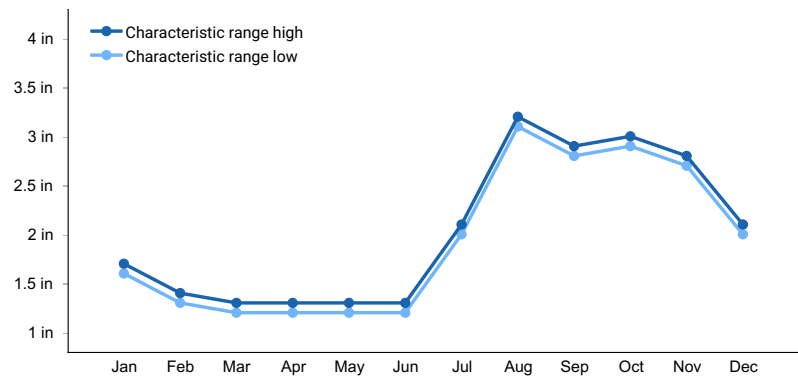
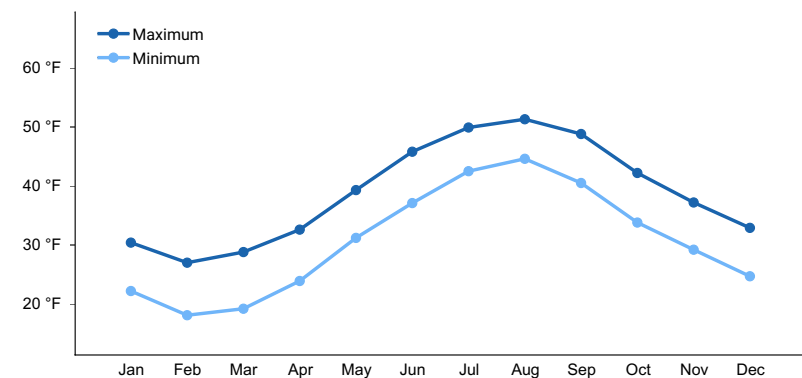


Figure 1. Monthly precipitation range



**Figure 2. Monthly average minimum and maximum temperature**

## Influencing water features

### Soil features

**Table 4. Representative soil features**

Surface texture	(1) Peaty sand
Family particle size	(1) Sandy
Drainage class	Poorly drained
Permeability class	Rapid
Soil depth	40–60 in
Surface fragment cover ≤3"	0%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	3.1–3.3 in
Calcium carbonate equivalent (0-40in)	0%
Electrical conductivity (0-40in)	0 mmhos/cm
Sodium adsorption ratio (0-40in)	0
Soil reaction (1:1 water) (0-40in)	2
Subsurface fragment volume ≤3" (Depth not specified)	0%
Subsurface fragment volume >3" (Depth not specified)	0%

## Ecological dynamics

### State and transition model

#### Ecosystem states

1. <i>Juncus ambiguus</i> / <i>Salix ovalifolia</i>
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## State 1 submodel, plant communities

1.1. *Juncus ambiguus*/  
*Salix ovalifolia*

## State 1

### *Juncus ambiguus*/ *Salix ovalifolia*

#### Community 1.1

### *Juncus ambiguus*/ *Salix ovalifolia*

Sedges and grasses make up 65%, 3% forbs and 28% of the composition. Total annual vascular herbage production is 1120 pounds/acre.

## Additional community tables

Table 5. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
<b>Shrub/Vine</b>					
1				340–350	
	oval-leaf willow	SAOV	<i>Salix ovalifolia</i>	340–350	–
<b>Grass/Grasslike</b>					
1				725–775	
	seaside rush	JUAM3	<i>Juncus ambiguus</i>	450–465	–
	sedge	CAREX	<i>Carex</i>	160–165	–
	Lyngbye's sedge	CALY3	<i>Carex lyngbyei</i>	90–95	–
	Bering hairgrass	DEBR2	<i>Deschampsia brevifolia</i>	30–35	–
	bluegrass	POA	<i>Poa</i>	0–5	–
<b>Forb</b>					
1				20–35	
	sudetic lousewort	PESU	<i>Pedicularis sudetica</i>	20–25	–
	Kotzebue's grass of Parnassus	PAKO3	<i>Parnassia kotzebuei</i>	0–10	–
	field horsetail	EQAR	<i>Equisetum arvense</i>	0–5	–
	buttercup	RANUN	<i>Ranunculus</i>	0–5	–

## Animal community

Excellent winter range because of succulent green sedge shoots and roots covered by snow that may be available. Poor in spring because of wetness limitations. During periods of heavy rain or high tide, the site may be flooded.

## Contributors

Swanson

## Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be

known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

## Indicators

1. **Number and extent of rills:**  

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2. **Presence of water flow patterns:**  

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3. **Number and height of erosional pedestals or terracettes:**  

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4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**  

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5. **Number of gullies and erosion associated with gullies:**  

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6. **Extent of wind scoured, blowouts and/or depositional areas:**  

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7. **Amount of litter movement (describe size and distance expected to travel):**  

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8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**  

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**  

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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**  

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11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be**

mistaken for compaction on this site):

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12. **Functional/Structural Groups** (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant:

Sub-dominant:

Other:

Additional:

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13. **Amount of plant mortality and decadence** (include which functional groups are expected to show mortality or decadence):
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14. **Average percent litter cover (%) and depth ( in):**
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15. **Expected annual annual-production** (this is TOTAL above-ground annual-production, not just forage annual-production):
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16. **Potential invasive (including noxious) species (native and non-native).** List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:
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17. **Perennial plant reproductive capability:**
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