

Ecological site R226XB002AK

Ephemeral Lake (AK653 St Paul Island - project ecological site)

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

In shallow water and at the waterline, this site supports aquatic vegetation in and around temporary and fresh water lakes. Typically the area is a lake in the spring and becomes muddy and partly vegetated in late summer as the season progresses.

Table 2. Representative physiographic features

Landforms	(1) Lake
Ponding duration	Brief (2 to 7 days) to long (7 to 30 days)
Ponding frequency	Rare to frequent
Elevation	5–100 ft
Slope	0–2%
Aspect	Aspect is not a significant factor

Climatic features

Table 3. Representative climatic features

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

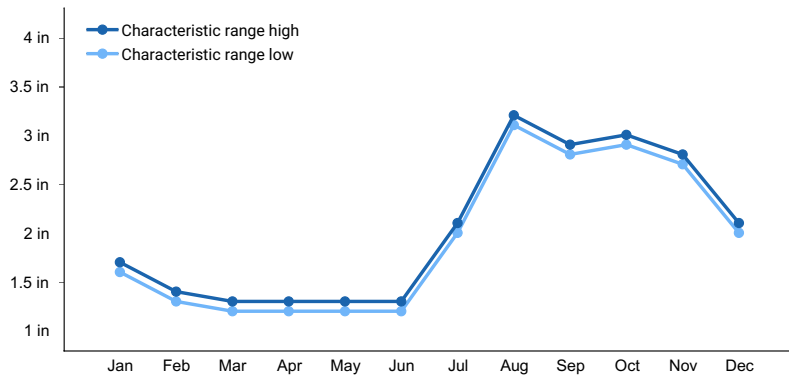


Figure 1. Monthly precipitation range

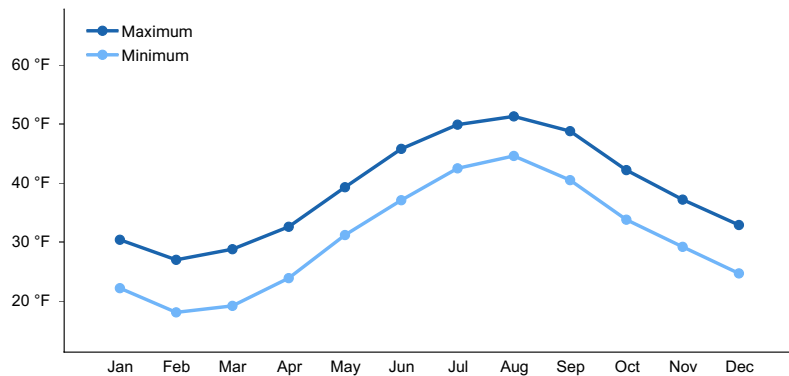


Figure 2. Monthly average minimum and maximum temperature

Influencing water features

Soil features

Ecological dynamics

Composition varies considerably but generally this site is dominated by either sedges and/or grasses. Total annual vascular herbage production varies widely depending upon whether or not plants have a suitable substrate. Production is from 0 to 500 pounds/acre.

State and transition model

Ecosystem states

1. *Carex aquatilis*/Juncus spp.

State 1 submodel, plant communities

1.1. *Carex aquatilis*/Juncus spp.

State 1

Carex aquatilis/Juncus spp.

Community 1.1

Carex aquatilis/Juncus spp.

Additional community tables

Animal community

Although this site does not provide much reindeer forage, it is valuable to reindeer attempting to escape insect harassment. This site has minor grazing value in late summer as the water recedes. The highest value season of use for reindeer to utilize the shallow aquatic fringe areas is winter when the site is frozen and covered with a shallow layer of snow. The lower green portions of sedges during the winter period are preferred winter forage for reindeer. Access for grazing is difficult during spring because of high water, but improves as water levels drop throughout the early part of the summer.

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:**

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

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

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

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

6. **Extent of wind scoured, blowouts and/or depositional areas:**
-
7. **Amount of litter movement (describe size and distance expected to travel):**
-
8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**
-
9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**
-
10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**
-
11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**
-
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:
-
13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**
-
14. **Average percent litter cover (%) and depth (in):**
-
15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**
-
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:

17. **Perennial plant reproductive capability:**
