

Ecological site F224XY362AK Till Slopes, Wet Boreal-forested silty wet till slopes

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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.



Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	(1) <i>Picea glauca</i> (2) <i>Betula neoalaskana</i>
Shrub	(1) <i>Alnus sinuata</i>
Herbaceous	Not specified

Physiographic features

This site is on nearly level to moderately steep, very poorly drained, very deep soils on on depressions on mountains, and swales on hills, and swales on till plains, and depressions on hills, depressions on till plains, occurring in MLRA 224 Cook Inlet Lowlands, located in South Central Alaska

Table 2. Representative physiographic features

Landforms	(1) Mountain (2) Hill (3) Till plain
Flooding frequency	None
Ponding frequency	None

Elevation	207–3,168 ft
Slope	0–20%
Water table depth	0–10 in
Aspect	N, NE, NW

Climatic features

Influencing water features

Soil features

Boreal-Forested Silty Wet Till Slopes component is on depressions on mountains, and swales on hills, and swales on till plains, and depressions on hills, depressions on till plains. The parent material consists of volcanic ash and/or silty loess over loamy drift and/or gravelly till. The depth to restrictive layer is 31 to 47 inches to strongly contrasting textural stratification. It is very poorly drained. The slowest permeability of the soil material is moderately slow. Available water capacity is very high and shrink swell potential is moderate. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. There are no saline horizons within 30 inches of the soil surface.

Table 3. Representative soil features

Surface texture	(1) Silt loam (2) Mucky silt loam
Family particle size	(1) Loamy
Drainage class	Poorly drained
Permeability class	Slow
Soil depth	31–47 in
Surface fragment cover ≤3"	0–6%
Surface fragment cover >3"	6–5%
Available water capacity (0–40in)	9–12 in
Calcium carbonate equivalent (0–40in)	0%
Electrical conductivity (0–40in)	0 mmhos/cm
Soil reaction (1:1 water) (0–40in)	3.7–6.5
Subsurface fragment volume ≤3" (Depth not specified)	5–30%
Subsurface fragment volume >3" (Depth not specified)	10–20%

Ecological dynamics

State and transition model

Contributors

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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):**
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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:

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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