USDA Natural Resources
Conservation Service

Ecological site R023XY506OR
SUBALPINE MEADOW

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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.

Associated sites

R023XY418OR	**ASPEN 16-35 PZ** Aspen 16-35" PZ
R023XY502OR	**LOAMY 25-35 PZ** Loamy 25-35" PZ

R023XY509OR	**SUBALPINE SLOPES 16-35 PZ** Subalpine Slopes 16-35" PZ

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on swales and long drainages in mountianous areas. Slopes range from 10 to 30%. Elevation ranges from 7900 to 8800 feet.

Table 2. Representative physiographic features

Landforms	(1) Mountain (2) Swale
Elevation	2,408–2,682 m
Slope	10–30%
Aspect	Aspect is not a significant factor

Climatic features

The mean annual precipitation is 25 to 35 inches. Most of the precipitation occurs as snow during December through March. Mean annual air temperature is 40 to 43 degrees F. The typical frost free periodis 30 to 60 days. The soil temperature regime is cryic. The period of primary plant growth occurs between June and August.

Table 3. Representative climatic features

Frost-free period (average)	60 days
Freeze-free period (average)	0 days
Precipitation total (average)	889 mm

Influencing water features

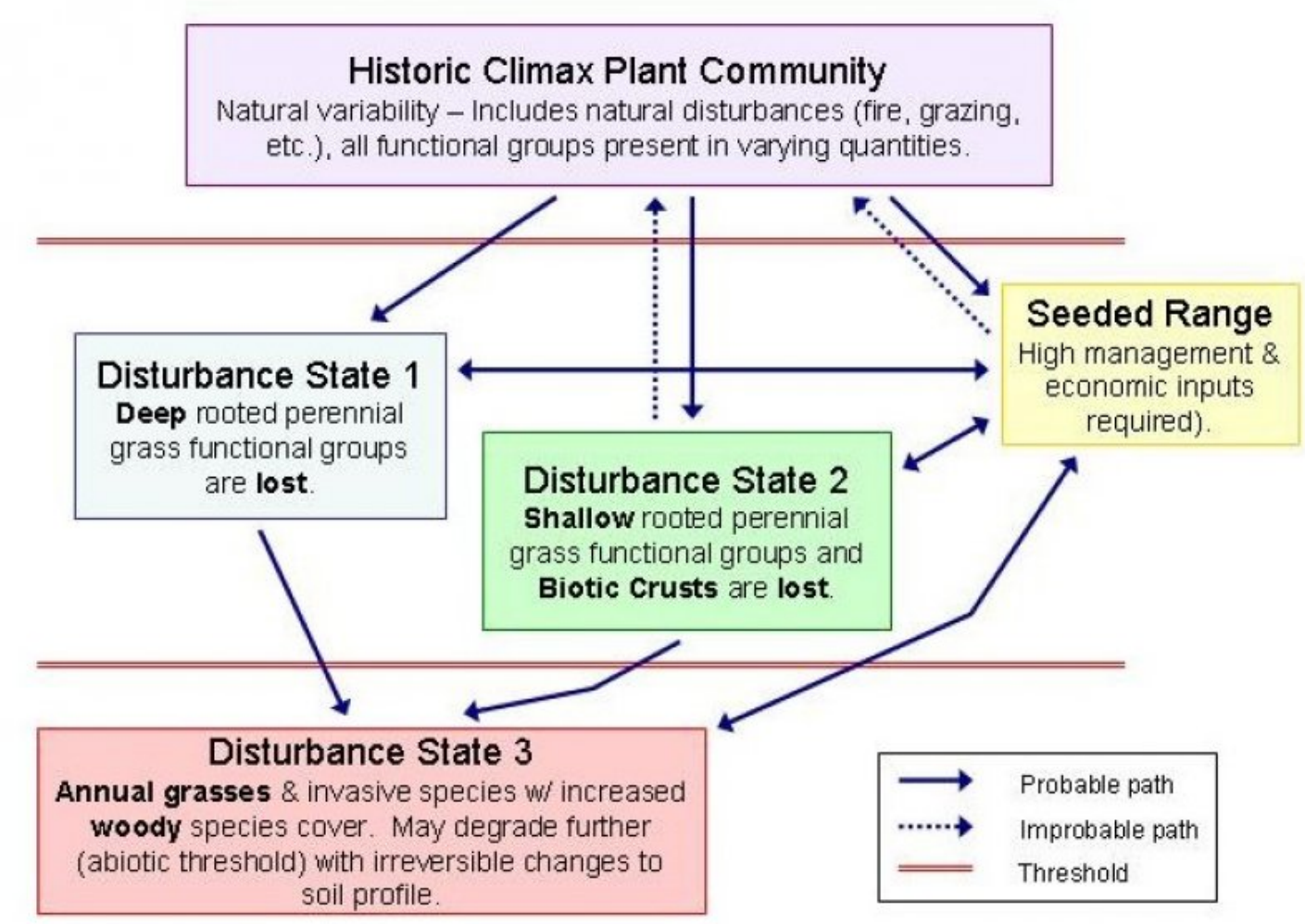
Soil features

Soils for this site have not yet been described.

Ecological dynamics

Range in Characteristics:
Tufted hiargrass is uniform in the stand throughout the meadow. Sedges increase in the wetter portions of the site.
Response to Disturbance:
Forbs strongly increase. With further deterioration rills develope, channels degrade, and water storage capacity is reduced.

State and transition model



GENERAL MODEL FOR COOL-SEASON BUNCHGRASS RANGELANDS

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

The potential native community is dominated by tufted hairgrass and sedges. Alpine timothy and various forbs are also present in the stand. Vegetative composition is about

70 percent grasses, 20 percent forbs, and 10 percent shrubs.

Additional community tables

Animal community

Livestock Grazing:
Due to the moist nature of this stie it si susceptible to damage. Grazing should be limited to dryer periods and short durations.
Wildlife:
This tie provides an important habitat for wildlife. Sage grouse broods will use this site for feeding/loafing.

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:**

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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:

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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:**
