USDA Natural Resources
Conservation Service

Ecological site R023XY502OR
LOAMY 25-35 PZ

Accessed: 05/18/2024

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.

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

R023XY503OR	**OPEN SLOPES 25-35 PZ** Open Slopes 25-35" PZ

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on ridgetops and shoulders in mountainous areas. Slopes range from 3 to 30%. Elevations range from 7900 to 8800 feet.

Table 2. Representative physiographic features

Landforms	(1) Mountain (2) Ridge
Elevation	2,408–2,682 m

Slope	3–30%
Aspect	Aspect is not a significant factor

Climatic features

Annual precipitation ranges from 25 to 35 inches. Most of which occurs as snow during December to March. Spring rains are common. the soil temperature regime is cryic. Mean annual temperature range is 40 to 43 degrees F. Frost free period is 30 to 60 days. The period of optimum plant growth is from June to 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

The soils in this site are typically moderately deep and well drained. Depth to bedrock from 20 to 40 inches. The soil surface textures range from very cobbly loams to very stony clay loams. The subsurface soils textures range from very gravelly loams to gravelly loams. Permeablity is moderate. The available water holding capacity (AWC) is about 4 inches for the profile.

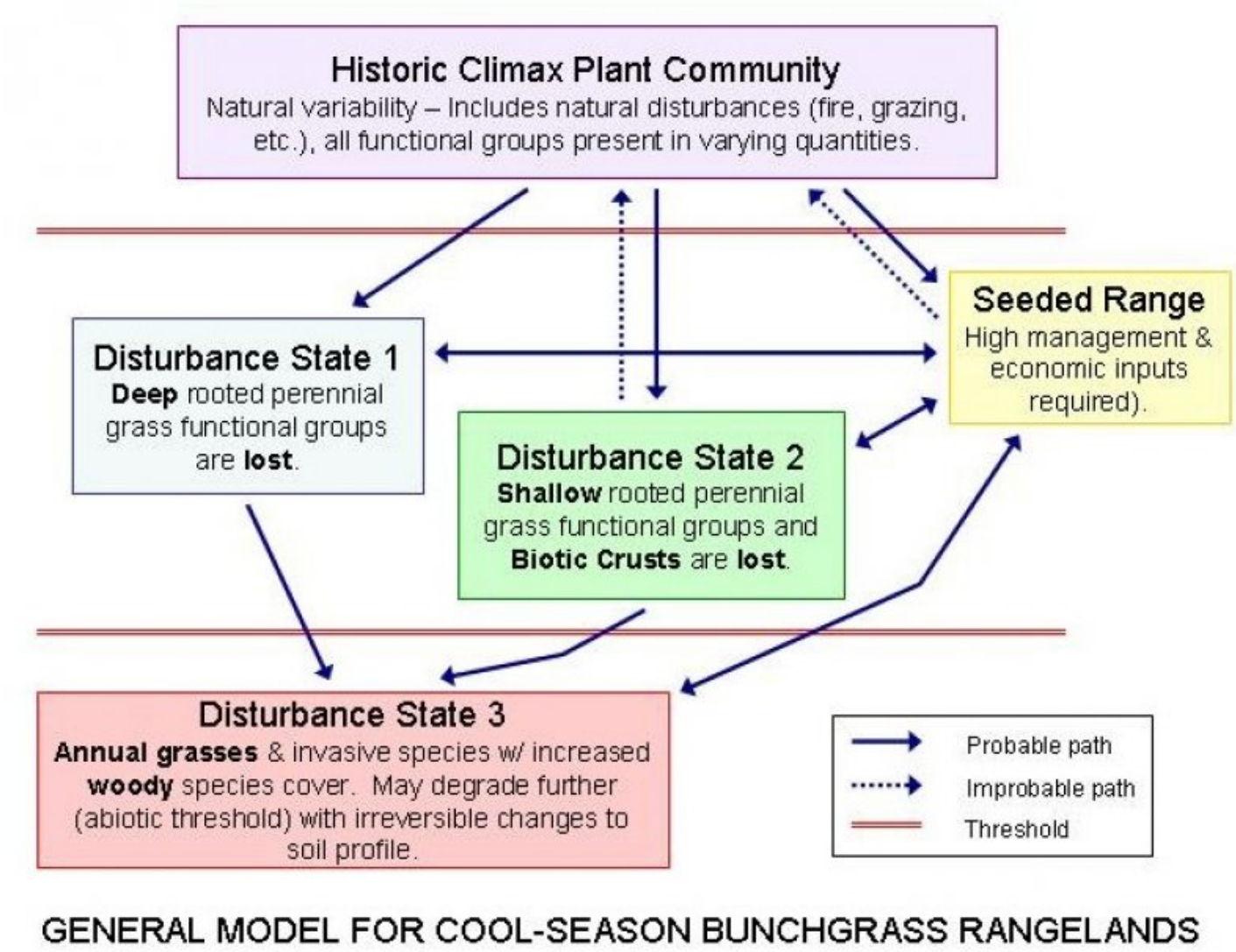
Table 4. Representative soil features

Surface texture	(1) Very cobbly loam (2) Very stony clay loam
Family particle size	(1) Loamy
Drainage class	Well drained
Permeability class	Moderate

Ecological dynamics

Range in Characterisitcs:
Rough Fescue increases on deeper soils. Idaho fescue decreases and sheep fescue increaes with increasing elevation. Mountain big sagebrush stature decreases with increasing elevation.
Response to Disturbance:
As the site deteriorates the fescues and Cusick Bluegrass decrease. Big sagebrush strongly increases along with rabbitbrush, Sandberg bluegrass, mountian brome and bottlebrush squirreltail.

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 piotential native community is dominated by sheep fescue and mountian big sagebrush. Idaho fescue and Cusick's bluegrass are also present in the stand. Vegetative composition is about 70 percent grasses, 10 percent forbs, and 20 percent shrubs.

Additional community tables

Animal community

Livestock Grazing:
This site is sutiable for livestock grazing sue in the summer and fall under a planned grazing system.
Wildlife:
This site provides feed and limited cover to mule deer and pronghorn antelope. Most wildlife species can be found using the site during mid-summer and early fall.

Hydrological functions

The soils of this site have moderate infiltration rates and low to medium runoff potential. The hydrologic soil group is B.

Other information

Suitability for seeding is fair because of the short growing season and the surface rock fragments. Surface rock fragments may increase to the point where seeding suitability becomes poor. Depth to bedrock limits construction of water impoundments.

Contributors

Justin Gredvig
SCS/BLM Team, Hines, OR

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:**
