

# Ecological site R023XY509OR SUBALPINE SLOPES 16-35 PZ

Last updated: 4/10/2025  
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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.

## Ecological site concept

Currently there is only a draft of the initial concept for this ecological site. The initial concept for this site places it within the Ashy or Loamy Skeletal Mod Deep 10-20 PZ High-Resilience Mountain Big Sagebrush and Idaho Fescue Ecological Site Group. To view the General STM and other information available for this ESG please go to <https://edit.jornada.nmsu.edu/catalogs/esg/023X/R023XY906NV>

**Table 1. Dominant plant species**

|            |                                                                                       |
|------------|---------------------------------------------------------------------------------------|
| Tree       | Not specified                                                                         |
| Shrub      | (1) <i>Artemisia tridentata ssp. vaseyana</i><br>(2) <i>Symphoricarpos oreophilus</i> |
| Herbaceous | (1) <i>Festuca idahoensis</i><br>(2) <i>Festuca ovina</i>                             |

## Physiographic features

This site occurs on sideslopes in mountainous area. Aspects are variable. Slopes range from 30 to 80%. Elevations range from 6600 to 9200 feet.

## Climatic features

The annual precipitation is 16 to 35 inches. Most of this occurs as snow falling between December and March. Spring rains are common.

The soil temperature regime is cryic.

Mean annual temperatures range from 40 to 43 degrees F. The frost free period is from 30 to 60 days. The period of optimum plant growth is from June to August.

## Influencing water features

There are no water feature associated with this site.

## Soil features

The soils in this site are typically moderately deep to deep and well drained. Depth to bedrock ranges from 20-60 inches. The soil surface textures include loams, very gravelly loams, very cobbly loams, and very stony loams. The subsurface soil textures range from gravelly to very gravelly loams. Permeability is moderate. The available water holding capacity ranges from 4 to 5 inches in the profile.

This site occurs on Croesus very cobbly loam.

## Ecological dynamics

### State and transition model

### 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                                        | 12/17/2025        |
| Approved by                                 | Kendra Moseley    |
| 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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