

## **Ecological site R009XY010ID South Slope Schist 16-22 PZ PSSPS-POSE**

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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.

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Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

### **Indicators**

1. **Number and extent of rills:** Rills are rare on this site. If rills are present they are likely to occur on the steeper slopes and immediately following wildfire. Coarse surface stones and gravels limit rill development.

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2. **Presence of water flow patterns:** Water-flow patterns are rare on this site. When they occur they are short and disrupted by cool season grasses and surface stones and are not extensive.

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3. **Number and height of erosional pedestals or terracettes:** Pedestals are rare on this site. Terracettes are common. Significant accumulation of coarse surface fragments develops on the uphill side of larger perennial grasses. This accumulation is from concentrated flow and hoof/ foot traffic. Terracettes are a natural occurrence on the site.

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4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Ranges from 40-50%. This site is naturally unstable due to coarse surface fragments.

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5. **Number of gullies and erosion associated with gullies:** None.

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6. **Extent of wind scoured, blowouts and/or depositional areas:** Usually not present due to coarse textured, gravelly soil surface.
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7. **Amount of litter movement (describe size and distance expected to travel):** Fine litter in the interspaces may move up to 3 feet following a significant run-off event. It generally moves onto terracettes. Coarse litter generally does not move except on the steeper slopes. Litter is also moved mechanically by hoof/ foot traffic.
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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):** Values should range from 4 to 6 but needs to be tested.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** The surface horizon is typically 2 to 4 inches thick. Structure ranges from weak fine platy to weak fine or very fine granular. Soil organic matter (SOM) ranges from 2 to 4 percent.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Bunchgrasses, especially deep-rooted perennials, slow run-off and increase infiltration.
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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):** Is not present.
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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: cool season deep-rooted perennial bunchgrasses
- Sub-dominant: perennial forbs
- Other: shallow rooted bunchgrasses
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Plant decadence can occur on this site in the absence of grazing and/or fire. Mortality can occur following extended drought. Some grasses and forbs are susceptible to hoof/ foot traffic.
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14. **Average percent litter cover (%) and depth ( in):** Additional litter cover data is needed but is expected to be 5-10 percent to a depth of <0.1 inches.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-**

**production):** Is 1000 pounds per acre (1120 kilograms per hectare) in a year with normal temperatures and precipitation. Perennial grasses produce 75-85 percent of the total production, forbs 15-25 percent, and shrubs T-3 percent.

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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: Includes cheatgrass, soft chess, ventenata, bulbous bluegrass, medusahead, tarweed, curlycup gumweed, dalmation toadflax, spotted and diffuse knapweed, and yellow starthistle.
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17. **Perennial plant reproductive capability:** All functional groups have the potential to reproduce in most years.
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