

Ecological site R011XA013ID Slickspot Sodic 8-14 PZ

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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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Approved by	Kirt Walstad
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

- Number and extent of rills:** rills rarely occur on this site.

- Presence of water flow patterns:** water-flow patterns rarely occur on this site.

- Number and height of erosional pedestals or terracettes:** both are rare on this site.

- Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** ranges from 80 to 95 percent.

- Number of gullies and erosion associated with gullies:** gullies do not occur on this site.

- Extent of wind scoured, blowouts and/or depositional areas:** usually not present. Immediately following wildfire some soil movement may occur when the cover is reduced on associated sites.

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7. **Amount of litter movement (describe size and distance expected to travel):** fine litter in the interspaces may move to the associated site usually from wind. Coarse litter generally does not move.
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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
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** structure ranges from moderate coarse to strong medium platy. Soil organic matter (SOM) is 0.5 to 2 percent. The A or A1 horizon is typically 3 to 4 inches thick.
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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. Shrubs accumulate snow in the interspaces at higher elevations.
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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):** not present. Do not mistake the B horizon as a compaction layer.
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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: tall shrubs
- Other: perennial forbs
- Additional: shallow rooted grasses
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Wyoming big sagebrush will become decadent in the absence of fire and ungulate grazing. Grass and forb mortality will occur as tall shrubs increase.
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14. **Average percent litter cover (%) and depth (in):** due to low annual production of the site, litter does not accumulate but usually is blown to nearby associated sites. Under the mature shrubs litter is greater than 0.5 inches.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** is 75 lbs. per acre in a year with normal precipitation and temperatures. Perennial grasses produce 55-65 percent of the total, forbs 10-20 percent, and shrubs 20-30 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, Russian thistle, burr buttercup, and Jim Hill mustard. Kochia can invade at lower elevations.
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17. **Perennial plant reproductive capability:** all functional groups have the potential to reproduce in normal years.
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