

Ecological site R024XY001OR SODIC FLAT

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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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Date	03/03/2017
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** None.

2. **Presence of water flow patterns:** None to few. Frequent ponding with seasonal high water table.

3. **Number and height of erosional pedestals or terracettes:** None.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 60 - 90%

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

6. **Extent of wind scoured, blowouts and/or depositional areas:** None to few. Wind erosion hazard is high.

7. **Amount of litter movement (describe size and distance expected to travel):** Litter size is Small/Fine. Litter movement is limited, minimal, and short, associated with intense wind storms.

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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):** Site is somewhat resistant to erosion. Stability class (Herrick et al. 2001) anticipated to be 2-5 at surface under perennial vegetation. Stability class at surface in the interspaces is anticipated to be less than or equal to that under perennial vegetation.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Surface layer structure is strong fine and medium angular blocky to weak fine and medium platy. The A horizon has a dry color of 6 to 7 and is 2 - 7 inches thick. The Soil Organic Matter (SOM) content is low (0.5 to 1.5%).
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Infiltration is limited by soil texture and depth. Run-off is limited by slope (0-3%). Plant foliar cover is limited (10-40%) with 3 to 6 foot gaps between plants. Increased rhizomatous plant cover may slow overland flow, providing increased time for infiltration to occur. Maintaining herbaceous vegetation on this site will retain more water from precipitation. Limited ground cover (10-40%) and flat slopes (0-3%) reduce rainfall impact and overland flow.
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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):** None. Normal increase in clay at shallow depths (2 inches) may be mistaken for compaction.
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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: Shrubs
- Sub-dominant: Rhizomatous perennial grasses => bunchgrasses > forbs
- Other:
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Grasses will nearly always show some mortality and decadence. Normal decadence and mortality expected on other plants.
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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):** Low 100 lbs/acre, Representative Value 200 lbs/acre, High 300 lbs/acre
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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: Invasive species are rare on this site.

17. **Perennial plant reproductive capability:** All species should be capable of reproducing annually.
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