

Ecological site R024XY008NV SODIC FLAT 8-10 P.Z.

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

Indicators

- Number and extent of rills:** Rills are none.

- Presence of water flow patterns:** Water flow patterns are rare to common. Water flow patterns are typically short, ending in depressional areas.

- Number and height of erosional pedestals or terracettes:** Pedestals are none.

- Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare Ground \pm 75 percent.

- Number of gullies and erosion associated with gullies:** Gullies are none.

- Extent of wind scoured, blowouts and/or depositional areas:** None

- Amount of litter movement (describe size and distance expected to travel):** Fine litter (foliage of grasses and

annual & perennial forbs) only expected to move during periods of ponding or flooding. Persistent litter (large woody material) will remain in place except during major ponding or flooding events.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Soil stability values range from 4 to 6 under canopy and 2 to 4 in the interspaces.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Structure of soil surface is thin to medium platy or granular. Soil surface colors are light grays or pale browns and are typified by an ochric epipedon. Organic matter can range from about 1 percent to 2.5 percent.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** "Playette" interspaces between vegetated hummocks have very low infiltration and are ponded for short periods with early spring snowmelt (run-in). Tall statured shrubs and associated litter break raindrop impact and provide some opportunity for snow catch and moisture accumulation on the mounds or hummocks that support the majority of vegetation characteristic for this site.
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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):** Compacted layers are not typical. Platy, subangular blocky, prismatic, or massive subsurface layers are normal for this site and are not to be interpreted as 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: Salt-desert phreatophytic shrubs (Black greasewood)
- Sub-dominant: tall-statured, deep-rooted, cool season, perennial bunchgrasses > short-statured rhizomatous grasses > associated perennial grasses and grass-like plants = deep-rooted, cool season, perennial forbs = fibrous, shallow-rooted, cool season, perennial and annual forbs
- Other: Microbiotic crusts
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Dead branches within individual shrubs common and standing dead shrub canopy material may be as much as 25 percent of total woody canopy.
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14. **Average percent litter cover (%) and depth (in):** Within plant interspaces 10-25% and depth of litter \pm ¼ inch.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** For normal or average growing season (through end of May) \pm 450 lbs/ac; Winter moisture significantly

affects total production. Favorable years ± 700 lbs/ac and unfavorable years ± 300 lbs/ac.

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: Potential invaders include annual mustards, bur buttercup, smotherweed, halogeton, and cheatgrass.
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17. **Perennial plant reproductive capability:** All functional groups should reproduce in average (or normal) and above average growing season years. Reduced growth and reproduction occur during extreme or extended drought periods.
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