

Ecological site R010XB080OR JD Claypan 12-16 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	Bob Gillaspay
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** None. Slight to moderate sheet and rill erosion hazard on slopes > 10%.

2. **Presence of water flow patterns:** None.

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):** 5-15%.

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

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

7. **Amount of litter movement (describe size and distance expected to travel):** Fine Litter movement, typically would

be < 1 foot.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Values are expected to range from 4 to 5, but need to be validated.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** The A horizon is typically 3 to 6 inches thick. Structure ranges from weak to moderate very fine granular and thin platy. Soil organic matter (SOM) ranges from 1 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:** Moderate to significant plant cover (50-60%) and gentle slopes (2-12%) effectively limit rainfall impact and overland flow. The root mass of perennial bunchgrasses provides significant soil stability.
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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):** A compaction layer does not occur but a claypan or bedrock does occur on this site within 6-10" of the surface.
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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: Deep-rooted, perennial, cool season bunchgrasses>>

Sub-dominant: Shallow-rooted shrubs=shallow rooted, perennial, cool season bunchgrasses=forbs>>

Other: tall shrubs

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Expect some decadence and mortality in low sagebrush.
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14. **Average percent litter cover (%) and depth (in):** Needs to be verified.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** Favorable 700, Normal 500, Unfavorable 300.
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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: Cheatgrass and medusahead.

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