

Ecological site R083CY002TX
Shallow Ridge

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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	Bryan Christensen
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:** Few water flow pattens are normal for this site due to landscape position and slopes.
3. **Number and height of erosional pedestals or terracettes:** Pedestals range from being uncommon to common for this site.
4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 5 to 20 percent bare ground.
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):** Small-to-medium sized litter may move

short distances during intense storms.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Soil surface is resistant to erosion. Soil stability class range is expected to be 4 to 6.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Soil surface structure is three to eight inches thick with colors ranging from very dark grayish brown to brown with subangular blocky structure. Soil organic matter is less than three percent.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Herbaceous production of bunch, rhizomatous, and stoloniferous grasses will help minimize runoff and maximize infiltration. Grasses should comprise approximately 70 percent of total annual production by weight. Shrubs will comprise about 20 percent by weight.
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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.
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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: Perennial Mid/Shortgrasses > Perennial Tall/Midgrasses = Perennial Shortgrasses >

Sub-dominant: Shrubs > Forbs

Other:

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Potential for 10 to 20 percent plant mortality of perennial bunchgrasses during extreme drought.
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14. **Average percent litter cover (%) and depth (in):** 5 to 10 percent litter cover.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 1,000 to 2,500 pounds per 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: Cenizo, blackbrush, and guajillo.

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