

Ecological site R040XB227AZ Saline Bottom 7"-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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Date	03/07/2005
Approved by	s. Cassady
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

- Number and extent of rills:** Rills are present on the site, but are discontinuous due to low slopes.

- Presence of water flow patterns:** Water flow patterns are uncommon due to low slopes.

- Number and height of erosional pedestals or terracettes:** There are no pedestals or terracettes present.

- Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 5-50%. Expect low values in dry years.

- Number of gullies and erosion associated with gullies:** None

- Extent of wind scoured, blowouts and/or depositional areas:** No evidence of soil movement by wind.

- Amount of litter movement (describe size and distance expected to travel):** Herbaceous litter can move by wind and water. Woody litter remains under shrub canopies except in very high flows.

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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):** Soil surface resistance to erosion is good under shrub canopies to moderate in interspaces due to crusts formed by raindrop impact.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Weak thin platy to single grane; 7.5-10YR6/4 dry, 7.5-10YR3/4 Moist, entisol - no A horizon
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** 15-25%. Herbaceous litter is present in some years, absent in others. Large shrubs with large coppice mounds with high infiltration rates. Subshrubs with small mounds with high infiltration rates. Mounds occupy 15-30% of the surface and are evenly spaced over the area.
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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: mesquite > other trees shrubs > alkali sacaton > winter annuals > summer annuals > other perennial grasses and forbs > succulents > cryptogams
- Sub-dominant:
- Other:
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** 30-70% canopy mortality on trees and shrubs, 50-60% mortality on perennial grasses.
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14. **Average percent litter cover (%) and depth (in):** Herbaceous litter is not persistent on the site.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 800 lbs/ac unfavorable precipitation, 1800 lbs/ac normal precipitation, 3000 lbs/ac favorable precipitation
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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:** Sahara mustard (potential), London Rocket, Cheeseweed, salt cedar, mesquite, Bermuda

grass, jimmyweed

17. **Perennial plant reproductive capability:** Not impaired for shrubs; drought impaired for perennial grasses and forbs.
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