

Ecological site R040XC305AZ Paralithic Hills 3"-7" 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	Steve Cassady
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

- Number and extent of rills:** Naturally occurring rills are infrequent on this site and seem to follow fractures, faults and the bedding planes of parent materials.

- Presence of water flow patterns:** Common on this site in areas lacking surface covers of cobbles and rocks. They are uncommon and hort in areas with well developed surface covers of coarse fragments.

- Number and height of erosional pedestals or terracettes:** None

- Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 1-20%

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

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

- Amount of litter movement (describe size and distance expected to travel):** Woody litter stays in place under

shrubs; herbaceous litter moves primarily by wind but also in occasional high rainfall events in water flow paths.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Expect ratings of 1-3 on the site.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Weak platy to granular; color is 7.5-10YR5/4 dry, 7.5-10YR4/4 moist; thickness to 3 inches.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Canopy 5-10%; 65-75% shrubs, 15-25% subshrubs, 1-5% trees.
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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: shrubs > subshrubs > trees > succulents > forbs = perennial grasses (note: annual forbs and grasses may be greater than shrubs in El Nino years).

Sub-dominant:

Other:

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** 15-20% canopy mortality of trees and shrubs.
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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):** 158 lbs/ac unfavorable precipitation; 232 lbs/ac normal precipitation; 306 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, schismus

17. **Perennial plant reproductive capability:** Not impaired for shrubs and trees.
