

Ecological site R040XC302AZ Limy Slopes 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	S. Cassady
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** Common on this site.

2. **Presence of water flow patterns:** Common on this site.

3. **Number and height of erosional pedestals or terracettes:** Most plants have erosional pedestals. Terrasettes are uncommon.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 75-90%

5. **Number of gullies and erosion associated with gullies:** Common on this site.

6. **Extent of wind scoured, blowouts and/or depositional areas:** Common on this site.

7. **Amount of litter movement (describe size and distance expected to travel):** All litter except for very large classes moves on this site.

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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):** Expect ratings of 1-3 across 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 or single grain; color is 7.5-10YR6/4 Dry; 7.5-10YR4/4 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:** 5-10% canopy cover; shrubs 50-60%, subshrubs 20-30%, trees 5-10%, perennial grasses 1-2%.
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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 present on this site.
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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 > tree > succulents > forbs = perennial grasses (Note, annual forbs and grasses may be greater than shrubs in El Nino years.)
- 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 of trees & 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):** 146 lbs/ac unfavorable precipitation; 201 lbs/ac normal precipitation; 256 lb/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.

17. **Perennial plant reproductive capability:** Not impaired for shrubs & trees. Drought impaired for perennial grass & forbs.
