

Ecological site R030XB039NV LIMY FAN 5-7 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	Kendra Moseley
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

- 1. Number and extent of rills:** Rills are none.

- 2. Presence of water flow patterns:** Water flow patterns are none.

- 3. Number and height of erosional pedestals or terracettes:** Pedestals and terracettes are none.

- 4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare ground up to 20% depending on amount of surface rock fragments

- 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):** Litter typically remains in place. Fine litter (foliage from grasses and annual and perennial forbs) may move the distance of slope length (<5 ft) during intense

summer convection storms or rapid snowmelt events. Persistent litter (large woody material) will remain in place expect during large rainfall events.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Soil stability values should be 3 to 6 (To be field tested.)
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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 typically moderate thin to moderate thick platy or weak fine granular. Soil surface colors are light and soils have an ochric epipedon. Organic matter of the surface 2 to 3 inches is less than 1 percent.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Sparse shrub canopy (10-15%) and associated litter break raindrop impact. Deep-rooted perennial grasses slow runoff and increase infiltration.
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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, argillic or calcic horizons are not to be interpreted as compacted layers.
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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: warm-season, perennial bunchgrasses
- Sub-dominant: Mojave Desert shrubs > cool-season, perennial bunchgrasses = annual forbs > perennial forbs > annual grasses
- Other:
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Dead branches within individual shrubs are common and standing dead shrub canopy material may be as much as 25% of total woody canopy.
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14. **Average percent litter cover (%) and depth (in):** Interspaces up to 35% and < ¼ in depth
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** For normal or average growing season ± 1000 lbs/ac. Favorable years ± 1400 lbs/ac and unfavorable years ± 700 lbs/ac
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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: Potential invaders include red brome, red-stem filaree, mustards, cheatgrass, and Mediterranean grass

17. **Perennial plant reproductive capability:** All functional groups should reproduce in normal and above-normal rainfall years. Little growth or reproduction occurs during extreme or extended drought periods.
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