

Ecological site R035XB235AZ Sandy Loam Upland 6-10" p.z. Warm

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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.

Author(s)/participant(s)	Steve Cassady, Kyle Spencer and Ken Gishi
Contact for lead author	State Rangeland Management Specialist, NRCS-Arizona State Office, Phoenix, AZ
Date	05/01/2008
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** None
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2. **Presence of water flow patterns:** None
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3. **Number and height of erosional pedestals or terracettes:** No pedestalling, but the site has a hummocky appearance due to deposition around and under shrubs like blackbrush and mormon tea.
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4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare ground is 45 to 65 percent. This site can have up to 20 percent of functioning biological surface crust, this is not bare ground.
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5. **Number of gullies and erosion associated with gullies:** None
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6. **Extent of wind scoured, blowouts and/or depositional areas:** None
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7. **Amount of litter movement (describe size and distance expected to travel):** No appreciable movement of most litter. Woody litter stays in place under canopies, very fine litter will move by wind for short distances.
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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):** Soils associated with this site develop a thin crust (physical or biological crust) resistant to erosion. The expected soil site stability is 3-4.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** The surface thickness is generally 1-4 inches thick and structure associated with this site are single grained; loose. Color is yellowish red (5YR 5/8) dry, yellowish red (5YR 4/6) moist.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Randomly scattered plants consisting of about 60 percent grasses, 35 percent shrubs and 5 percent forbs promote infiltration and reduce runoff. The average distance to the nearest perennial plant (fetch) is 5 inches, with the majority ranging from 1 to 7 inches, but occasionally as far as 15 inches.
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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):** No compaction layer. A very hard calcic horizon is encountered at about 16 inches below the soil surface.
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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: Grasses (55-65%) > shrubs (30-40%) > forbs (1-5%)
- 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):** Mortality is rare in blackbrush and < 1% in grasses. During times of drought, blackbrush will drop its leaves.
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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):** Average annual production on this site is expected to be 350-450 lbs/ac in an average annual precipitation year.
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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: False buffalograss, Russian thistle, cheatgrass or red brome
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17. **Perennial plant reproductive capability:** All plants native to the site are adapted to the climate and are capable of producing seeds, stolons, and/or rhizomes except during the most severe droughts.
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