

Ecological site R028AY025NV DRY FLOODPLAIN

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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	05/14/2013
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** This site in nearly level, thus typically there are no rills present. This site is subject to rare flooding and rill development may occur where run-in occurs from adjacent sites. These are widely spaced and not connected.

2. **Presence of water flow patterns:** Waterflow patterns may be common after spring runoff and summer convection storms. They may be long (10-15 ft), less than 6 inches wide and widely spaced (5-10 ft apart).

3. **Number and height of erosional pedestals or terracettes:** A few plants may be pedestalled adjacent to flow paths. Terracettes are small and stable.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare Ground up to 30%

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):** Fine litter (foliage of grasses and annual & perennial forbs) only expected to move during periods of flooding by adjacent streams. Persistent litter (large woody material) will remain in place except during major flooding events.
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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 stability values will range from 5 to 6 under cover and 4 to 5 in the interspaces.
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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 thick or thin platy. Soil surface colors are grays and browns and soils have a mollic epipedon. Surface textures are fine sandy loams and silt loams. Organic matter can range from 2 to 3.5 percent in the upper 3 to 5 inches.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Deep-rooted perennial herbaceous bunchgrasses (basin wildrye) slow runoff and increase infiltration. Tall stature and relatively coarse foliage of basin wildrye and associated litter break raindrop impact and provide opportunity for snow catch and moisture accumulation on site.
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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 – Subangular blocky or massive structure is not to be interpreted as compaction.
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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: Reference State: Tall-statured, deep-rooted, cool season, perennial bunchgrasses
- Sub-dominant: Rhizomatous grasses = tall shrubs > deep-rooted, cool season, perennial forbs > shallow-rooted, cool season, perennial grasses > fibrous, shallow-rooted, cool season, perennial forbs.
- Other: Grass-like plants, warm season bunchgrasses
- Additional: With an extended fire return interval, the shrub component will increase at the expense of the herbaceous component.
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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 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):** Between plant interspaces (25-35%) and depth of litter $\pm\frac{1}{2}$ -inch
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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 (thru June) \pm 1500 lbs/ac; Favorable years \pm 1800 lbs/ac and

unfavorable years \pm 1100 lbs/ac

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 annual mustards, bassia, cheatgrass, thistle, pigweed, salt cedar, whitetop and broadleaved pepperweed.
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17. **Perennial plant reproductive capability:** All functional groups should reproduce in average (or normal) and above average growing season years. Reduced growth and reproduction occurs during extreme or extended drought periods.
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