

Ecological site R026XY012NV DRY FLOODPLAIN 8-10 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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Date	06/01/1979
Approved by	Kendra Moseley
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** None

2. **Presence of water flow patterns:** None

3. **Number and height of erosional pedestals or terracettes:** None

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare ground is approximately 35%; surface rock fragments less than 5%; shrub canopy is less than 15%; foliar cover of perennial herbaceous plants is approximately 40%.

5. **Number of gullies and erosion associated with gullies:** Gullies are rare to common depending on severity of associated stream channel entrenchment. Gullies and head cuts are healing or stable. Where this site is not associated with perennial or ephemeral channels gullies are 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) is only expected to move during occasional periods of flooding by nearby streams. Persistent litter (large woody material) will remain in place except during catastrophic flooding 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 will range from 4 to 6. (This will be field tested.)

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Soil surface structure is platy, sub-angular blocky, or granular. Soil surface colors are light and the soils are typified by an ochric epipedon. Organic carbon of the surface 2 to 3 inches is typically 1 to 1.5 percent dropping off quickly below.

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 and litter of basin wildrye and sparse canopy of big sagebrush break raindrop impact and provide opportunity for snow catch and accumulation on site.

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):** None - Platy subsurface layers are not to be interpreted as compaction.

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 Plant Community: Tall statured, deep-rooted, cool season, perennial bunchgrasses >> tall shrubs. (By above ground production)

Sub-dominant: Rhizomatous, cool season, perennial grasses >shallow-rooted, cool season, perennial bunchgrasses and grass-like plants > deep-rooted, cool season, perennial forbs>fibrous, shallow-rooted, cool season, perennial forbs. (By above ground production)

Other:

Additional:

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.

14. **Average percent litter cover (%) and depth (in):** Between plant interspaces (\pm 35%) and depth (\pm 1 in.)

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** For normal or average growing season (September thru May) \pm 1200 lbs/ac; Winter moisture significantly affects total production.

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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: Tall whitetop, knapweed, annual kochia, annual mustards, povertyweed, thistle and pigweed are invaders on this site. Black greasewood and rubber rabbitbrush are increasers on this site.
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17. **Perennial plant reproductive capability:** All functional groups should reproduce in average (or normal) and above average growing season years.
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