Ecological site R011XY020ID
Dry Meadow POSE-PHAL2

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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:** are not common on this site. If the site is degrading due to gully down-cutting, rills may occur on the side slopes of the gully.

2. **Presence of water flow patterns:** water-flow patterns are common on this site. When they occur they are long, often running the length of the site and disrupted by cool season grasses. Water flow patterns are also common from run-on from the adjacent uplands.

3. **Number and height of erosional pedestals or terracettes:** both are rare on this site.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** data is not available. On sites in mid-seral status bare ground may range from 20-30 percent but more data is needed.

5. **Number of gullies and erosion associated with gullies:** gullies do not occur on this site.

6. **Extent of wind scoured, blowouts and/or depositional areas:** usually not present.

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7. **Amount of litter movement (describe size and distance expected to travel):** fine litter in the interspaces may move more than 6 feet or even off the site following a significant flooding or run-off event.

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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):** values should range from 3-5 but needs to be tested.

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** structure ranges from_____ to _____. Soil organic matter (SOM) needs to be determined. The A or A1 horizon is typically _____ inches thick.

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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 grasses and grass-likes slow run-off 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):** normally not present. A compaction layer can develop if grazing occurs when the soils are wet.

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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: cool season deep-rooted perennial grasses and grass-likes

    Sub-dominant: perennial forbs

    Other: shallow rooted bunchgrasses

    Additional:

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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** most of the grasses and grass-likes on this site will become decadent in the absence of fire and ungulate grazing. Decadence or low vigor is a result of litter buildup in the crowns of the plants.

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14. **Average percent litter cover (%) and depth (in):** additional litter cover data is needed but is expected to be 35 to 50 percent to a depth of 0.2 inches. Under mature shrubs and basin wildrye, litter is >0.5 inches deep and is 90-100 percent ground cover.

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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** is 1300 pounds per acre (1444 Kg/ha) in a year with normal precipitation and temperatures. Perennial grasses produce 80-90 percent of the total production and forbs 10-20 percent.

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:** includes cheatgrass, leafy spurge, whitetop, perennial pepperweed, rush skeletonweed, Canada, musk, and scotch thistle, and diffuse and spotted knapweed.

17. **Perennial plant reproductive capability:** all functional groups have the potential to reproduce in most years.