USDA Natural Resources
Conservation Service

Ecological site R027XY004NV
WET MEADOW 8-12 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	06/20/2006
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 ± 20%; surface rock fragments minimal; shrub canopy is minimal; foliar cover of perennial herbaceous plants ± 85%.

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 periods of flooding by adjacent streams. Persistent litter (large woody material) will remain in place except during peak flooding periods.

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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 2 to 4. (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 platy, sub-angular blocky, or massive. Soil surface colors are dark and the soils have mollic epipedons. Organic carbon can range from 2.5 to over 5 percent in the upper 10 inches. (OM values derived from lab characterization data.)

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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, cool-season, perennial bunchgrasses and rhizomatous grasses and grass-like plants slow runoff and increase infiltration. Relatively dense foliar cover of perennial grasses and grass-like plants and associated litter break raindrop impact and slow overland flow.

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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 to slight - Platy or massive subsurface layers are 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 Plant Community: Deep-rooted, cool season, perennial bunchgrasses >> rhizomatous, cool season, perennial grass-like plants. By above ground porduction)

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

    Other:

    Additional:

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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Herbaceous plant mortality or decadence uncommon.

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14. **Average percent litter cover (%) and depth (in):** Within plant interspaces (85+%) and depth of litter is 1 to 3 inches.

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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 (April thru July) ± 1500 lbs/ac; Spring flooding 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:** Willow, rose, foxtail barley; rubber rabbitbrush; wildiris, thistle; tall whitetop, hoarycress

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17. **Perennial plant reproductive capability:** All functional groups should reproduce in most years.
