

Ecological site R010XY032OR Meadow Fen 14+ PZ

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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)	Cici Brooks & Alan Bahn
Contact for lead author	
Date	02/05/2007
Approved by	Kirt Walstad
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):** 10% by cover (ref: Mid Montane Wetland Plant Associations of Malheur, Umatilla and Wallowa-Whitman National Forests by Elizabeth A. Crowe and roderick R. Clausnitzer; pg 174)

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):** During times of runoff, herbaceous litter

may travel across the entire site.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** 80-100%
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Organic layer up to 32" deep; sapric, hemic, fibric organic silt loam
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Plant community will slow and filter runoff; infiltration is slow when saturated.
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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
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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: Deep rooted perennial grass/grasslike

Sub-dominant: Shallow rooted perennial grass/grasslikes>Shallow rooted perennial forbs>Deep rooted perennial shrubs>Shallow rooted annual forbs

Other:

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Decadence of deep rooted perennial would be expected with exclusion from herbivory
Plant mortality of deep rooted perennials would be expected with continuous season long herbivory.
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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):** Normal 5000; Unfavorable 3500; Favorable 6000
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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:** None

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17. **Perennial plant reproductive capability:** Good for hydrophytic vegetation; poor for upland species and conifers; Fair for willows; Poor for shrubs.
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