

Ecological site R078CY090OK Ponded Bottomland

Last updated: 9/15/2023
Accessed: 06/03/2024

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)	Jack Eckroat
Contact for lead author	100 USDA, Suite 206, Stillwater, OK 74074
Date	12/01/2008
Approved by	Bryan Christensen
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:** Very few if any.

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):** <20%. Bare ground may vary throughout site.

5. **Number of gullies and erosion associated with gullies:** None. These sites are associated with stream channels or old channels which are spring fed. Therefore, channels may exist but may be actual gullies.

6. **Extent of wind scoured, blowouts and/or depositional areas:** None

7. **Amount of litter movement (describe size and distance expected to travel):** Very little movement due to flatter

slopes and good infiltration

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Soil stability classes 5-6. Soils stable with good organic matter content.

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Refer to soil series description for the site.

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Overstory of trees help slow water impact and infiltration is good. Grass component slows runoff to allow for slow infiltration into soils that are usually poorly drained. Runoff not typically a concern.

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):** None

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: Trees

Sub-dominant: Tallgrasses, Midgrasses, Shortgrasses, Cool-season Perennial Grasses

Other: Forbs

Additional:

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

14. **Average percent litter cover (%) and depth (in):** 95% @ 1 inch

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 2500-6500

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:** Sites can be invaded by many annuals in drier periods. Potential for eastern redcedar, mainly

around the edges where drier conditions exist.

17. **Perennial plant reproductive capability:** All species are capable of reproducing, both by vegetation and by seed.
-