

Ecological site R084AY079OK Savannah Breaks

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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	08/12/2015
Approved by	Bryan Christensen
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** Few present due to steep slope but only after heavy rains. No scouring

2. **Presence of water flow patterns:** Some present due to steep slope but no scouring

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):** Less than 20%. This does not include rock cover.

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):** Herbaceous litter may move down slope during extremely heavy rainfall but not moving offsite.

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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):** Surface soil is stabilized (Stability Score 5-6). Stability scores based on a minimum of 6 samples tested.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** 0 to 5 in; brown (10YR 5/3) fine sandy loam (Darnell) or 0 to 3 in; grayish brown (10YR 5/2) very cobbly fine sandy loam (Niotaze)
- Refer to description for specific component sampled.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Woody canopy 15-40%. Tallgrasses and forbs. Very Few Cedars. Runoff is expected on steep slopes in heavy rains. However, adequate ground cover should capture moisture and limit soil erosion.
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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: Tallgrasses = Oaks
- Sub-dominant: Midgrasses Cool Seasons = Forbs
- Other: Annuals
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Some decadence in cool season grasses during extremely hot/dry periods
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14. **Average percent litter cover (%) and depth (in):** Depending on time since fire
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** Herbaceous production estimated between 500 - 1,800 lbs/acre. Total production including woody species could exceed 8,000 lb/acre.
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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: Sericea Lespedeza, Eastern Redcedar, Perilla Mint

17. **Perennial plant reproductive capability:** All plant should be capable of reproducing every year.
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