USDA Natural Resources
Conservation Service

Ecological site R106XY067NE
Saline Subirrigated

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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)	Doug Whisenhunt, Bruce Evans, Casey Latta, Isabelle Giuliani
Contact for lead author	doug.whisenhunt@ne.usda.gov
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Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** None, no headcutting.

2. **Presence of water flow patterns:** Little, if any, soil deposition or erosion.

3. **Number and height of erosional pedestals or terracettes:** No erosional pedestals or terracing, some hummocking present.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 0% bare ground. The entire surface is covered.

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5. **Number of gullies and erosion associated with gullies:** No gullies or erosion.

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6. **Extent of wind scoured, blowouts and/or depositional areas:** No wind scoured blowouts or deposits.

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7. **Amount of litter movement (describe size and distance expected to travel):** No evidence of litter movement.

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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 surface stability is 6. No structural degradation with water immersion.

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Five percent surface organic matter, the color is 2-1, the structure is strong and granular.

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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** There is no negative effect on water infiltration and/or runoff due to plant composition or distribution. Plant composition and distribution are adequate to prevent any rill formation and/or pedastalling. Inter-spacial distribution is consistent with expectation for the site.

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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, but hummocking is present due to soil saturation.

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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: Warm season grasses: Inland saltgrass> prairie cordgrass

Sub-dominant: Cool Season: Slender wheatgrass= western wheatgrass=foxtail barley

Other: Heath aster, curly dock, begarstick, sea-blight, saltwort

Additional:

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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** The majority of plants are alive and vigorous. Some mortality and decadence is expected for the site. This in part is due to drought, unexpected wildfire or a combination of the two events. This would be expected for both dominant and sub-dominant groups.

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14. **Average percent litter cover (%) and depth (in):** Plant litter is distributed evenly throughout the site. There is no restriction to plant regeneration due to depth of litter. When prescribed burning is practiced there will be little litter the first half of the growing season.

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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 3850 lbs. Vegetative production is 95-100% of normal based upon the range site description. (refer to ecological site description for favorable or unfavorable growing conditions)

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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:** There are no noxious weeds present. Invasive plants make up a small percentage of plant community, and invasive brush species are < 5% canopy.

17. **Perennial plant reproductive capability:** Plants on site exhibit the required vigor and growth to be able to reproduce vegetatively or by seed.