Ecological site R028AY030NV
SILTY 8-10 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	06/22/2006
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** This site is nearly flat and rills are not expected.

2. **Presence of water flow patterns:** Water flow patterns are rare to common dependent on site location relative to major inflow areas on basin floors and on steeper slopes after summer convection storms. Water flow patterns are typically short (<2m), meandering and not connected.

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 50-60%; surface rock fragments less than 15%; shrub canopy to 15%; basal area for perennial herbaceous plants <5%.

5. **Number of gullies and erosion associated with gullies:** None

6. **Extent of wind scoured, blowouts and/or depositional areas:** None to rare. Some wind scouring may occur after a severe wildfire that removed all vegetation.

7. **Amount of litter movement (describe size and distance expected to travel):** Fine litter (foliage of grasses and annual & perennial forbs) expected to move distance of slope length during periods of intense summer convection storms or run in of early spring snow melt flows. Persistent litter (large woody material) will remain in place except during unusual flooding events.

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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 3 to 6.

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Structure of soil surface will be thin or thick platy. Soil surface colors are grayish browns or light brownish grays and soils are typified by an ochric epipedon. Surface textures are sandy loams. Organic matter is typically around 1 percent (OM values taken 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:** This site is may experience brief flooding for short periods in the late winter or during summer convection storms. Deep-rooted bunchgrasses (i.e., Indian ricegrass) increase reduce runoff and increase infiltration. Shrubs provide opportunity for snow capture on this 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):** Compacted layers are none. Platy or massive subsurface layers are normal for this site and 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 State: Short-stature salt-desert shrub (winterfat)

    Sub-dominant: deep-rooted, cool season, perennial bunchgrasses (Indian ricegrass) = shallow-rooted/rhizomatous grasses = associated shrubs > = cool season, rhizomatous grasses > deep-rooted, cool season, perennial forbs = fibrous, shallow-rooted, cool season, perennial and annual forbs.

    Other: Microbiotic crusts

    Additional:

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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Dead branches within individual shrubs common and standing dead shrub canopy material may be as much as 35% of total woody canopy

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14. **Average percent litter cover (%) and depth (in):** Between plant interspaces (10-20%) and depth (< ¼ in.)

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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 (Thru May) ± 500 lbs/ac; Favorable years ±700 lbs/ac and unfavorable years ±350 lbs/ac.

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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:** Potential invaders include: annual mustards, annual kochia, Russian thistle and halogeton.

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17. **Perennial plant reproductive capability:** All functional groups should reproduce in average (or normal) and above average growing season years. Reduced growth and reproduction occurs during extreme or extended drought periods.