USDA Natural Resources Conservation Service

# Ecological site R027XY065NV
# GRANITIC SLOPE 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 | 02/08/2007 |
| Approved by | Kendra Moseley |
| Approval date | |
| Composition (Indicators 10 and 12) based on | Annual Production |

## Indicators

1. **Number and extent of rills:** Rills may occur on steeper slopes and most frequently occur in areas subjected to summer convection storms or rapid spring melt.

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2. **Presence of water flow patterns:** Wate flow patterns are rare to slight.

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3. **Number and height of erosional pedestals or terracettes:** Pedestals are rare to slight and most frequently occur in areas subjected to summer convection storms or rapid spring snowmelt.

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4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** 50 to 60 percent

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

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

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7. **Amount of litter movement (describe size and distance expected to travel):** Fine litter (foliage from grasses, forbs and shrubs) expected to move distance of slope length duriing intense summer storms. Persistent litter (large woody material) will remain in place except during catastrophic 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 should be 4 to 6 on most surface soil textures found on this site.

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Surface structure is single grain, weak subangular blocky or massive. Soil surface colors are light and soils are typified byb an ochric epipedon. Organic carbon of the surface 2 to 3 inches is typically less than 1 percent dropping off quickly below.

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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Perennial herbaceous plants, especially deep-rooted bunchgrasses [Desert needlegrass and Indian ricegrass] slow runoff and increase infiltration. Shrub canopy and associated litter break raindrop impact and provide opportunity for snow catch and accumulation on 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. Subsoil argillic horizons are not to be mistaken for compaction on this site.

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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 Plant Community: Deep-rooted, cool season, perennial bunchgrasses >> evergreen and deciduous shrubs

    Sub-dominant: shallow-rooted, cool season perennial grasses = deep-rooted cool season perennial forbs = fibrous, shallow-rooted cool seaso, annual and perennial forbs > shallow-rooted, warm season grasses.

    Other:

    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 30% of total woody canopy. Some of the mature bunchgrasses (<25%) have dead centers.

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14. **Average percent litter cover (%) and depth ( in):** Mostly under the canopy

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

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:** Cheatgrass, annual mustards, halogeton, and Russian thistle are invaders on this site. Douglas rabbitbrush, Utah juniper and singleleaf pinyon are increasers on this site.

17. **Perennial plant reproductive capability:** All functional groups should reproduce in average (normal) and above average growing seasons.