

## **Ecological site R043BY022ID Windswept Mountain Ridge 22+ PZ FEID-CAREX**

Last updated: 2/03/2020  
 Accessed: 04/20/2024

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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	06/15/2009
Approved by	Scott Woodall
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

### **Indicators**

1. **Number and extent of rills:** rills are rare on this site. If they are present they are likely to occur immediately following wildfire. Rills are most likely to occur on soils with surface textures of silt loam and clay loam and on slopes greater than 15 percent.

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2. **Presence of water flow patterns:** water-flow patterns are rare on the site. When they occur, they are short and disrupted by cool season grasses and shrubs and are not extensive.

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3. **Number and height of erosional pedestals or terracettes:** both are rare on the site. In areas where flow patterns and/or rills are present, a few pedestals may be expected. They are not extensive. Do not mistake frost heaving for pedestalling.

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4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** data is not available. On areas in mid-seral status bare ground may range from 25 to 35 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:** are not present. Immediately following wildfire some soil movement may occur on lighter textured soils.
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7. **Amount of litter movement (describe size and distance expected to travel):** fine litter in the interspaces may move up to 3 feet following a significant run-off event or leave the site due to wind. Coarse litter generally does not move.
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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):** values should range from 4 to 6 but needs to be tested.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** no data.
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** bunchgrasses, especially deep-rooted perennials, slow run-off and increase infiltration.
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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):** there is none present.
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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: cool season deep-rooted perennial bunchgrasses
- Sub-dominant: forbs
- Other:
- Additional:
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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Idaho fescue can become decadent in the absence of normal fire frequency and ungulate grazing. This is evident by dead centers in the crowns.
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14. **Average percent litter cover (%) and depth ( in):** additional litter cover data is needed but is expected to be 10-20 percent to a depth of 0.1 inches. Under mature shrubs litter is >0.5 inches deep and is 90-100 percent ground cover. Often litter is blown off the site.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** is 1100 pounds per acre (1232 kilograms per hectare) in a year with normal temperatures and precipitation.

Perennial grasses produce 50-60 percent of the total production and forbs 40-50 percent.

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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: includes bulbous bluegrass, Kentucky bluegrass, rush skeletonweed, musk and scotch thistle, diffuse and spotted knapweed, leafy spurge, dalmation toadflax, and yellow star thistle.
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17. **Perennial plant reproductive capability:** all functional groups have the potential to reproduce in most years.
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