USDA Natural Resources
Conservation Service

Ecological site R010XA046ID
Cinder Garden 12-16 PZ EROVD-LERE7

Last updated: 12/13/2023
Accessed: 05/13/2024

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)	Dave Franzen and Jacy Gibbs Intermountain Range Consultants 17700 Fargo Rd. Wilder, ID 83676
Contact for lead author	Brendan Brazee, State Rangeland Management Specialist USDA-NRCS 9173 W. Barnes Drive, Suite C, Boise, ID 83709
Date	06/22/2009
Approved by	Kirt Walstad
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:** rills do not occur on this site.

2. **Presence of water flow patterns:** water-flow patterns do not occur on this site.

3. **Number and height of erosional pedestals or terracettes:** pedestals do not occur on this site. Terracettes do not occur in the traditional sense (caused by water movement), but can develop due to dry raveling or foot/hoof action. They are not extensive.

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** data is not available. Most of the area absent of plants or litter is cinders.

5. **Number of gullies and erosion associated with gullies:** gullies do not ocur on this site.

6. **Extent of wind scoured, blowouts and/or depositional areas:** none due to the gravelly surface.

---

7. **Amount of litter movement (describe size and distance expected to travel):** fine and coarse litter generally does not move. Gravels on the surface help reduce fine litter movement.

---

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 3 to 5 but needs to be tested.

---

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** no data.

---

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** infiltration is good regardless of plant cover due to cinder surface.

---

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):** is not present.

---

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: perennial forbs

    Sub-dominant: cool season deep-rooted perennial bunchgrasses

    Other:

    Additional:

---

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** little decadence is expected on the site.

---

14. **Average percent litter cover (%) and depth (in):** additional litter cover data is needed. Accumulations of litter are usually the result of wind deposition.

---

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** is 50 pounds per acre (55 kilograms per hectare) in a year with normal temperatures and precipitation. Perennial grasses produce 1-5 percent of the total production, forbs 90-95 percent.

---

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, rush skeletonweed, musk and scotch thistle, and diffuse and spotted knapweed. Cheatgrass can invade the site at the lower elevations.

---

17. **Perennial plant reproductive capability:** all functional groups have the potential to reproduce in normal and favorable years.
