

## Ecological site R035XB231AZ Basalt Upland 6-10" 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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Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

### Indicators

- Number and extent of rills:** None on this site.  

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- Presence of water flow patterns:** Water flow patterns occur on this site wherever there is no protective tephra covering on the surface. There is also evidence of soil collapse on these bare areas from the presence and dissolution of gypsum.  

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- Number and height of erosional pedestals or terracettes:** No pedestals or terracettes on this site.  

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- Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare ground is from 20 to 40 percent.  

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- Number of gullies and erosion associated with gullies:** No gullies on this site.  

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- Extent of wind scoured, blowouts and/or depositional areas:** Eolian and alluvial depositional material under most shrubs; eolian litter under shrubs remains where it was dropped.  

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- Amount of litter movement (describe size and distance expected to travel):** Litter movement occurs throughout the

site due to instability and occasional flooding from the nearby river.

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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):** This site makes a 1 or 2 for stability. The mounds of basalt on the site stabilize the area and provide nutrients and stability for vegetation.

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Single grain and thin platy structure with very low organic matter.

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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** Widely scattered shrubs and grasses with surface crust prevents water from infiltrating; slight slope increases runoff into nearby washes and river channels.

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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):** No compaction layer 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: Low Shrubs > Large Shrubs > Forbs

Sub-dominant: Cacti & Succulents = 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):** Plant mortality on this site is high due during drought.

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14. **Average percent litter cover (%) and depth ( in):** 5 to 15% litter cover on this site.

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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 150-250 lb/acre average on this site.

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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:** Broom snakeweed, rabbitbrush, Russian thistle and cheatgrass can increase on this site.

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17. **Perennial plant reproductive capability:** Normal reproduction on this site except during severe drought conditions.

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