Ecological site R039XA142AZ
Cinders-Lava Flow Upland 17-22"

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

Indicators

1. **Number and extent of rills:** None

2. **Presence of water flow patterns:** None

3. **Number and height of erosional pedestals or terracettes:** Slight mounding around bases of shrubs of cinders where there has been slight water disturbance

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** None

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

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

7. **Amount of litter movement (describe size and distance expected to travel):** Litter is expected to move no more thar

1 foot from the origination point. There is extensive protection on this site by the presence of cinders. This prevents wind erosion and water flow disturbance which may cause litter to move from its point of origin.

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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):** First few millimeters of soil surface is covered in cinders or solid basaltic lava flow.

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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Weak platy soil surface structure; low soil 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:** Although the vegetation is sparse in this area, there are extensive cinders from a volcanic eruption which cover the soil surface

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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: Shrubs>>trees

    Sub-dominant:

    Other:

    Additional:

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13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Low mortality and decadence on this site; in drought years the ponderosa pines may show signs of water stress and plants within the lava flows may not survive. no evidence of this at this time.

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14. **Average percent litter cover (%) and depth (in):** Litter cover on this site is very low. Litter may move by wind or water and accumulate under shrubs and be caught in the unweathered lava flows.

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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** <200 pounds per acre on the cinder sites; <100 pounds per acre on the lava flow sites.

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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: No invasives on this site.

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17. **Perennial plant reproductive capability:** Normal reproduction on this site.