

### Indicators of Rangeland Health



# What is Rangeland Health?

The degree to which the integrity of the soil, vegetation, water, and air, as well as ecological processes, of rangeland ecosystems are balanced and sustained.



## Indicators of Rangeland Health Protocols

- Qualitative protocols to provide rapid assessment of soil and vegetation conditions.
- Focuses on ecological processes, including energy flow, nutrient cycling, and the water cycle.
- Is a moment-in-time snapshot of a site's functional status, relative to its potential based on soil and climate.
- Is supported by quantitative measurements, which can be used as a baseline for monitoring.

#### 3 Attributes of Rangeland Health

IRH protocols use 17 indicators (right). Interpreting Indicators uses these to rate 3 attributes of rangeland health:

- 1) Soil/Site Stability
- 2) Hydrologic Function
- 3) Biotic Integrity



#### 17 Indicators

Soil/Site Stability	Hydrologic Function	Biotic Integrity
1. Rills		12. Functional/Structural Groups
2. Water Flow Patterns		13. Dead or Dying Plants or Plant Parts
3. Pedestals and/or Terracettes		15. Annual Production
4. Bare Ground		16. Invasive Plants
5.Gullies		
6. Wind-Scoured and/or Depositional Areas	14. Litter Cover and Depth	
7. Litter Movement	10. Effects of Plant Community Composition and Distribution on Infiltration	17. Vigor with an Emphasis on Reproductive Capability of Perennial Plants
8. Soil Surface Resistance to Erosion		
9. Soil Surface Loss and Degradation		
11. Compaction Layer		









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