

Appendix 2.

Ecological Reference Worksheet

Author(s) / participant(s): Don Ashby Jr., D'Llaynn Bruce, Jim Norris, John Hartung, Jerry Sparks
Contact for lead author : Don Ashby Jr. **Reference site used? Yes/No** No
Date: 1/3/2005 **MLRA:** 70 **Ecological Site:** Sandstone Savannah C This *must* be verified based on soils and climate (see Ecological Site Description). Current plant community *cannot* be used to identify the ecological site.

| Indicators: For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range of values for above and below average years for each community within the reference state, when appropriate & (3) site data. Continue description on separate sheet. | Indicator Weight |
|--|------------------|
| 1. Number and extent of rills : None | |
| 2. Presence of water flow patterns: Some water flow patterns may occur between small pockets of soil and sandstone outcrops. | |
| 3. Number and height of erosional pedestals or terracettes: None | |
| 4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) : Bare ground may be present up to 25%. Bare patches should be less than 8-10 inches in diameter; except around trees and shrubs where bare ground may increase up to 50%. | |
| 5. Number of gullies and erosion associated with gullies: None | |
| 6. Extent of wind scoured, blowouts and/or depositional areas: Wind scours, blowouts and depositional areas can be expected around rock inclusions and areas with flat rock present. | |
| 7. Amount of litter movement (describe size and distance expected to travel) : Fine (plant material) litter movement, 1-3 feet, can occur in flow patterns and during high wind occurrences for areas exceeding 20% bare rock. | |
| 8. Soil surface (top few mm) resistance to erosion (stability) values are averages - most sites will show a range of values for both plant canopy and interspaces, if different): Anticipated to be 3-4 at the surface and subsurface in the interspaces and 4-5 at the surface and subsurfaces under vegetation. | |
| 9. Soil surface structures and SOM content (include type and strength of structure, and A-horizon color and thickness for both plant canopy and interspaces, if different) : Soils are shallow, fine sandy loams reddish in color with the A horizon less than 4 inches in depth. | |
| 10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Grasses and Forbs account for 70% of the annual herbaceous production for this site and make up 25% of the site composition. Infiltration is best with low intensity rainfall events. | |
| 11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): None. | |
| 12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: indicate much greater than (>>), greater than (>), and equal to (=) : Warm Season bunch grasses=Warm Season stolon grasses>Cool Season bunch grasses>Other perennial forbs>Shrubs(Juniper spp.) | |
| 13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) : Most of the perennial grasses, forbs, shrubs are long lived. Extended drought periods tend to cause high mortality rates in the grass species, with some mortality in the forbs. Shrub and trees mortality can occur in severe, multiple year droughts. | |
| 14. Average percent litter cover (20 %) and depth (0.75 inches). Percent litter cover on this site will increase with above average year rainfall. | |
| 15. Expected annual production (this is TOTAL above-ground production, not just forage production): 400 lbs/ac low precip. Years, 800 lbs/ac in average precip years, 1200 lbs/ac in above average years. Grass/Grasslikes make up to 70% of the total annual production. | |
| 16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, "can, and often do , continue to increase regardless of the management of the site and may eventually dominate the site": Juniper species have the greatest invasive potential for this site. Junipers are generally associated with shallow soils near the bare ledges of rock outcrops. | |
| 17. Perennial plant reproductive capability : Weather related and natural disease can result in reduced reproductive capabilities. If Juniper species dominate the site it can reduce reproductive capabilities of the native grasses and forbs. | |

Photograph (s)

MLRA : 70

Date :

Ecological Site : Sandstone Savannah CP-2

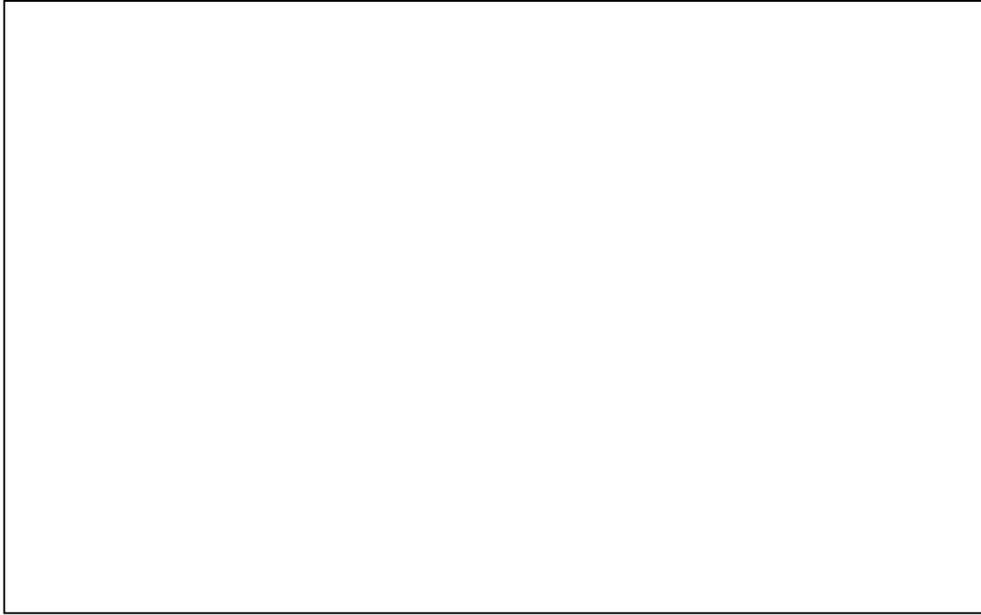


Photo # 1

Comments :

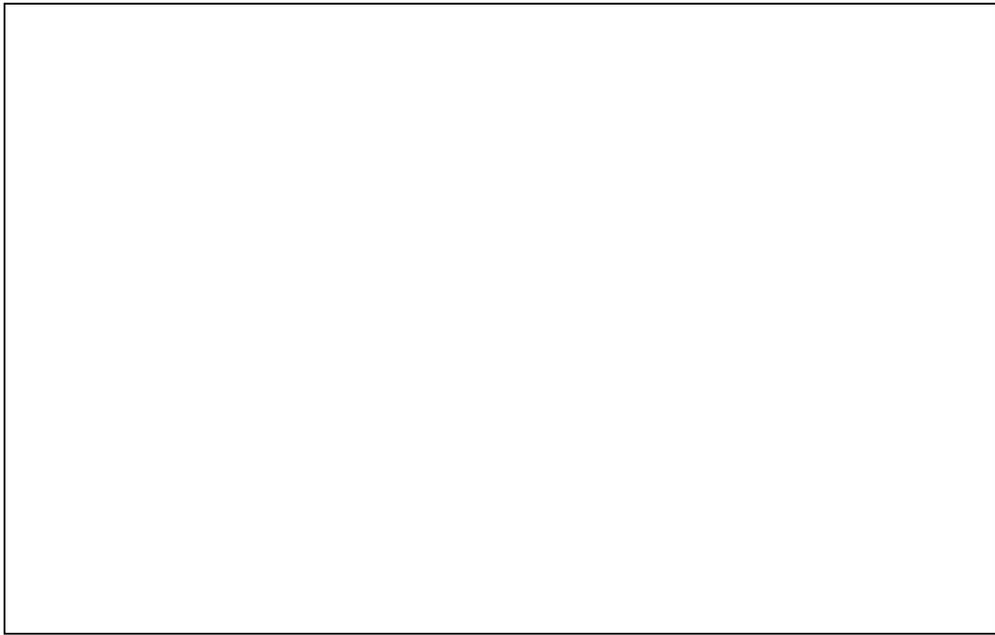


Photo # 2

Comments :

