

Appendix 2.

Ecological Reference Worksheet

Author(s) / participant(s): Don Ashby Jr., Bob Moorhead, Richard Spencer, Tim Henry, Ty Carter, John Hartung

Contact for lead author : Don Ashby Jr. **Reference site used? Yes/No** No

Date: 3/7/2005 **MLRA:** 70 **Ecological Site:** Shallow Limestone CP- This must be verified based on soils and climate (see Ecological Site Description). Current plant community cannot be used to identify the ecological site.

<p>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.</p>	<p>Indicator Weight</p>
<p>1. Number and extent of rills : May be present on toe slopes of hills and on top of hills and ridges where soils are very shallow.</p>	
<p>2. Presence of water flow patterns: May be present on toe slopes of hills and on top of hills and ridges where soils are very shallow.</p>	
<p>3. Number and height of erosional pedestals or terracettes: None</p>	
<p>4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) : Bare ground will be present up to 20%. Bare patches should be less than 8 inches in diameter.</p>	
<p>5. Number of gullies and erosion associated with gullies: Gullies and erosion associated with gullies may be present depending on the percent of tree/shrub components and dominance on this site.</p>	
<p>6. Extent of wind scoured, blowouts and/or depositional areas: Soil blowing hazards can be moderate on this site with increased tree/shrub dominance and on shallow soils.</p>	
<p>7. Amount of litter movement (describe size and distance expected to travel) : Fine (plant material) litter movement 3-6 feet can be expected with increased bare ground and surface coble/stone.</p>	
<p>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 5-6 at the surface and subsurfaces under vegetation.</p>	
<p>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 very shallow to shallow over limestone, light in color with the A horizon 2-3 inches in depth. Soils are well drained with moderate to moderately slow permeability.</p>	
<p>10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Grasses and forbs account for 90% of the annual herbaceous production for this site and make up 20% of the site composition. Infiltration is best with low intensity rainfall events. Runoff can be moderate during high intensity storms and accumulative rainfall events.</p>	
<p>11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): None</p>	
<p>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 rhizome grasses>Cool Season bunch grasses>Tree(Juniper spp/Pinyon)>Forbs(Verbena, Globemallow, Marigold)>Shrubs(Wavyleaf Oak, Mountainmahogany, Broomweed, Sacahuista)</p>	
<p>13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) : Most of the perennial grasses, forbs and shrubs are long lived. Extended drought periods tend to cause high mortality rates in the grass species and some forbs. Shrub mortality can occur with severe, multiple year droughts.</p>	
<p>14. Average percent litter cover (20 %) and depth (0.75 inches). Percent litter and depth will increase with multiple, above average rainfall years.</p>	
<p>15. Expected annual production (this is TOTAL above-ground production, not just forage production): 700 lbs/ac in low precip years, 1050 lbs/ac in average precip years, 1400 lbs/ac in above average years. Grass/grasslikes make up 80% of the total annual production.</p>	
<p>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": Pinyon and Juniper species account for 15% of this sites composition. When these species increase to 50% of the sites composition and/or combine with a shrub component of Wavyleaf oak, broomsnake weed and sacahuista the site may become tree/shrub dominate.</p>	
<p>17. Perennial plant reproductive capability : Weather related and natural disease can result in reduced reproductive capabilities. If tree/shrub components dominate the site it can reduce reproductive capabilities of the native grasses and forbs.</p>	

Photograph (s)

MLRA : 70

Date :

Ecological Site : Shallow Limestone CP-3

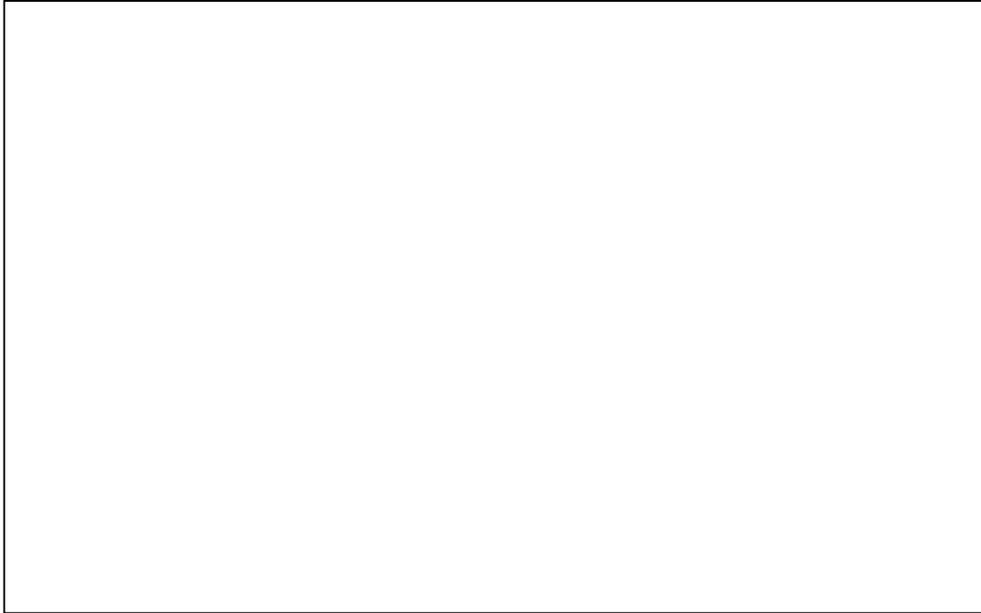


Photo # 1

Comments :

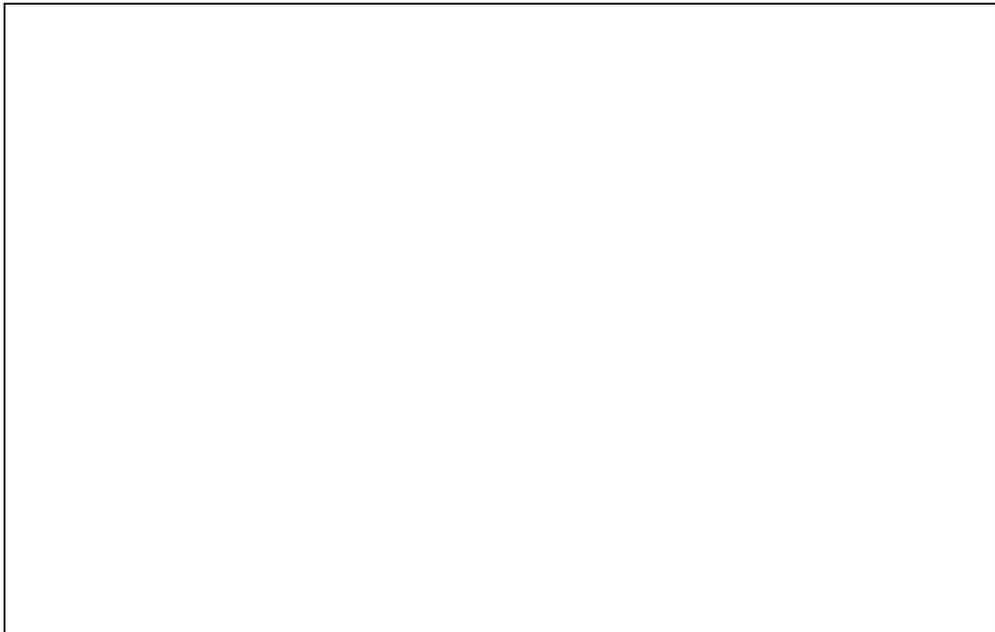


Photo # 2

Comments :

