

Ecological Reference Worksheet

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Contact for lead author : John Tunberg **Reference site used? Yes/No** No

Date: 4/26/2005 **MLRA:** 70A **Ecological Site:** Shallow Upland 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.

1. Number and extent of rills :

None on gentle slopes less than 10%, slight on steeper slopes over 10%.

2. Presence of water flow patterns:

None to minimal on gentle slopes less than 10%, on steeper slopes over 10% flow paths should be broken, irregular in appearance. As slope increases flow paths become more apparent and may be connected.

3. Number and height of erosional pedestals or terracettes:

None to slight on gentle slopes less than 10%. Expect some evidence of pedestalled plants when slope increases over 10%.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) :

25-35% or less bare ground, with bare patches generally less than 12 inches. Extended drought may increase bare ground 5-10%.

5. Number of gullies and erosion associated with gullies:

None if present usually on steeper slopes.

6. Extent of wind scoured, blowouts and/or depositional areas:

None to slight. Minor wind erosion can occur with disturbances such as wildfire or extended drought.

7. Amount of litter movement (describe size and distance expected to travel) :

Litter movement is associated with water flow patterns and may move as much as 1-3 feet or more down slope during extreme storm events, especially on steeper slopes.

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):

Stability class rating anticipated to be 3-4 in interspaces at soil surface. These values need verification.

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) :

Average SOM ranges from 1-5%. (Bernal) A1-0 to 4 inches; brown 9.5YR 5/2 loam, dark brown (7.5YR 3/2) moist; weak very fine granular structure; loose, very friable, slightly sticky and slightly plastic; many very fine and fine roots; many fine interstitial pores.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:

Diverse grass, forb, shrub functional/structural groups and diverse root structure reduces raindrop impact slows overland flow providing increased time for infiltration to occur. However, the composition of the plant community has less effect on infiltration and runoff than does slope or amount of bare ground.

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 (=) :

Dominant: Warm Season Mid Bunchgrass = Warm Season Short Bunchgrass > Subdominant: Cool Season Mid Bunchgrass > Minor Component: Cool Season Grasses = Shrubs = Forbs

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) :

None to slight. Decadence may exist on areas inaccessible to grazing animal usually when slope increases.

14. Average percent litter cover (5 to 8 %) and depth (0.25 inches).

Litter cover during and following extended drought can drop to less than 5%.

15. Expected annual production (this is TOTAL above-ground production, not just forage production):

(Low Production 400 lbs./ac.) (Average RV Production 750 lbs./ac.) (High Production 1,100 lbs./ac.) Production can be reduced following extended drought or the first growing season following wildfire.

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":

Invasive plants should not occur in reference plant community. However, cheatgrass, Russian Thistle, kochia, and other non-native annuals may invade following extended drought if a seed source is available. One-seed Juniper may encroach from adjacent sites with lack of fire. Blue Grama and

17. Perennial plant reproductive capability :

All plants should be vigorous, healthy and reproductive depending on disturbances i.e.. Drought. Plants should have numerous seedheads, vegetative tillers etc. The only limitations are weather related, wildfire, and natural disease that may temporarily reduce reproductive capability.

Photograph (s)

MLRA :

Date :

Ecological Site :

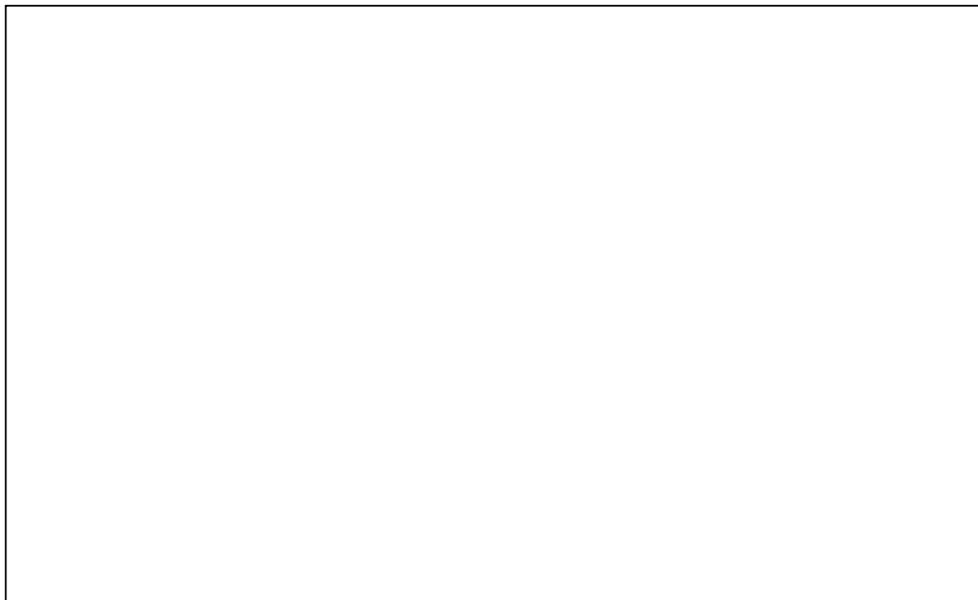


Photo # 1

Comments :

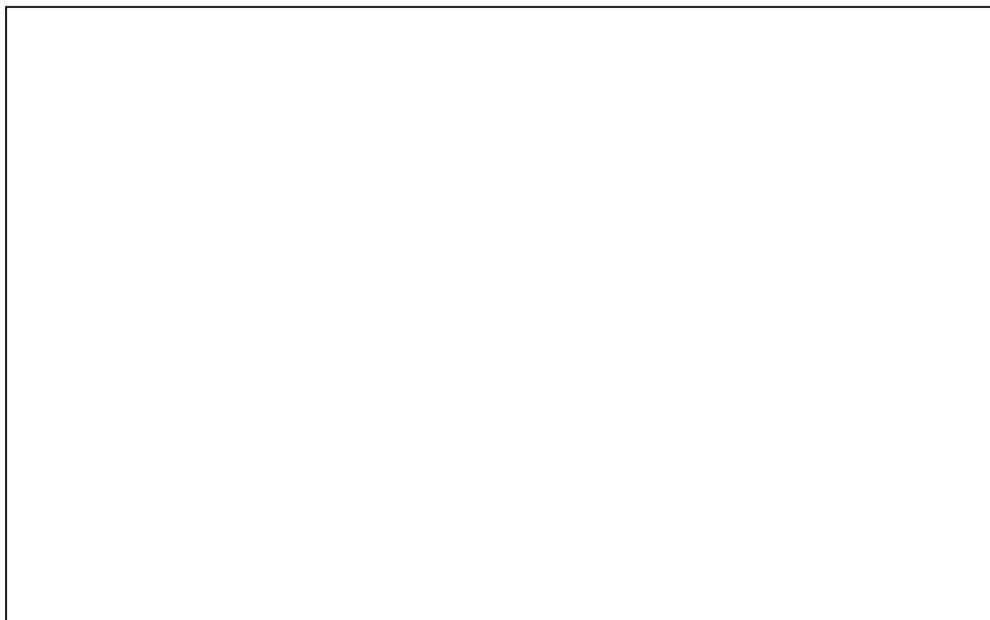


Photo # 2

Comments :

