

Appendix 2.

Ecological Reference Worksheet

Author(s) / participant(s):	Joe Franklin, RMS, NRCS, San Angelo, Texas		
Contact for lead author :	<u>325-944-0147</u>	Reference site used? Yes/No	
Date:	<u>7/8/2009</u>	MLRA	<u>MLRA 81C</u> Ecological Site: <u>Steep Adobe 29-35" PZ</u>

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.

2. Presence of water flow patterns:
None, except following extremely high intensity storms where short flow patterns may appear.

3. Number and height of erosional pedestals or terracettes:
Rare, but could exist in the shallow soil areas.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) :
Expect no more than 10-15% bare ground randomly distributed throughout in small and non-connected areas.

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) :
Minimal and short, <1 foot.

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):
Soil surface under HCPC is resistant to erosion. Biological crusts and Nostoc, a blue green algae is common. Stability class range expected to be 5-6.

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) :
Soil surface is light brownish gray gravelly clay loam with limestone moderately fine subangular blocky structure on the surface. Hard, firm, sticky. 15% limestone frags, SOM is approximately 0-3%. See SS for specific soils.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:
Under HCPC, the savannah of tallgrasses, midgrasses, forbs and trees having adequate litter and little bare ground can provide for maximum infiltration and little runoff under normal rainfall events.

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction):
No evidence of compaction under HCPC.

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 tallgrasses >> Warm Season midgrasses > Trees > Forbs > Shrubs. Forbs make up <10 percent species composition, shrubs <10 percent species composition and trees have 10-20 percent annual production.

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) :
There should be little mortality or decadence for any functional groups in the HCPC.

14. Average percent litter cover (90%) and depth (0-1inches).
90% and 0-1 inches litter cover. Litter is primarily herbaceous.

15. Expected annual production (this is TOTAL above-ground production, not just forage production):
1100-3000 pounds per acre

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:
Ashe Juniper is dominant, baccharis, prickly pear, persimmon, agarito, and King Ranch bluestem

17. Perennial plant reproductive capability :
Under HCPC, all perennial plants should be capable of reproducing, except during periods of prolonged drought conditions, intense wildfires and heavy natural herbivory.

Photograph (s)

MLRA : 81C

Date : 07/08/09

Ecological Site : Steep Adobe

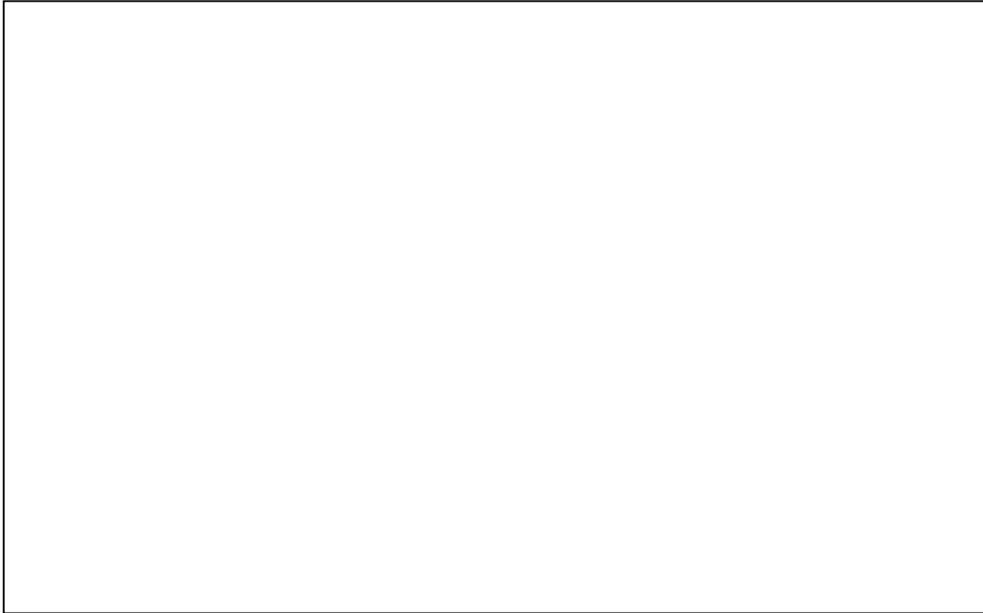


Photo # 1

Comments :

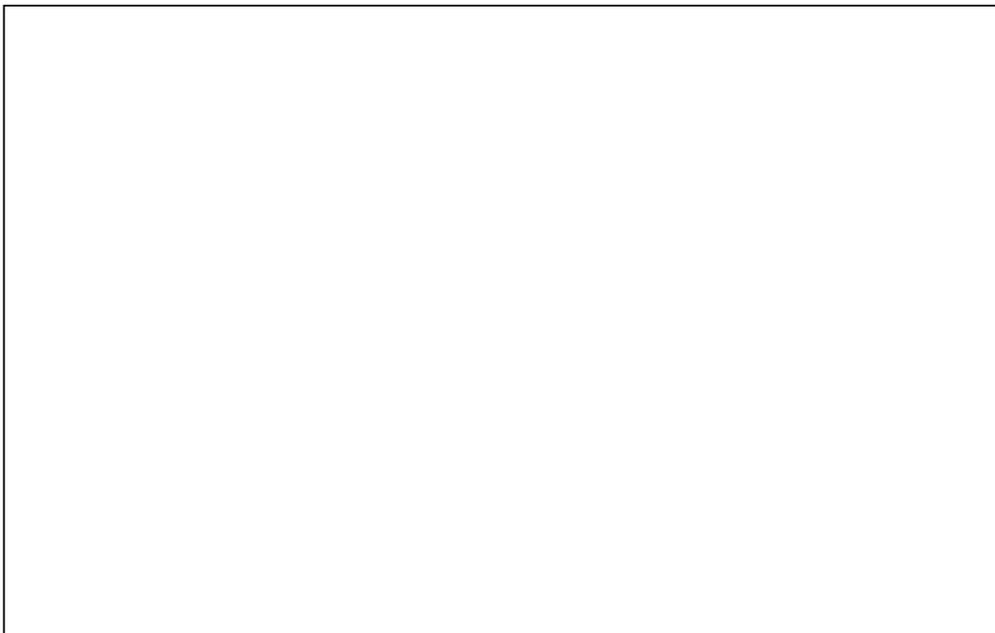


Photo # 2

Comments :