

Rangeland Health—Ecological Reference Worksheet

TECHNICAL GUIDE

Section II

Author(s)/participant(s): M. Rasmussen

Contact for lead author: _____ Reference site used? Yes/No

Date: 5-20-04 MLRA: 58AE & 60BE Ecological Site: Saline upland 10-14" p.z. his *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) cite data. Continue descriptions on separate sheet.

1. Number and extent of rills: Rills should be short in length and not connected.

2. Presence of water flow patterns: Water flow paths are broken and irregular in appearance, discontinuous, with numerous debris dams.

3. Number and height of erosional pedestals or terracettes: Erosional pedestals present with small terracettes present at debris dams.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are *not* bare ground): Bare ground is 60 to 80%.

5. Number of gullies and erosion associated with gullies: Active gullies should not be present.

6. Extent of wind scoured, blowouts and/or depositional areas: None.

7. Amount of litter movement (describe size and distance expected to travel): Little to no plant litter movement. If litter movement occurs, it is only for a short distance.

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): Plant cover and litter is at 70% or greater of soil surface and maintains soil surface integrity. Stability class anticipated to be 3 or greater.

9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness for both plant canopy and interspaces, if different): Use soil series description for depth and color of A-horizon.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Sparse plant canopy (45% maximum), slow to moderately slow infiltration rates, and the high amount of bare ground contribute to a naturally high runoff rate even in HCPC.

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): No compaction layer would be expected but soil surface is typically crusted and hard to very hard when dry.

12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: >>, >, = to indicate much greater than, greater than, and equal to): Mid-stature, warm season bunch grass > shrubs > mid stature cool season rhizomatous grass > short stature rhizomatous warm season grass

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): Some plant mortality and decadence (10 to 15%) is expected on this site.

14. Average percent litter cover (10 to 15 %) and depth (0.0 to 0.5_ inches). Litter cover is in contact with soil surface with little evidence of biological activity.

15. Expected annual production (this is TOTAL above-ground production, not just forage production):
725 to 800 #/acre (13 to 14 inch precip. Zone) 200 to 650 #/ac (10 to 12 inch precip. Zone).

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”: Inland saltgrass, greasewood, broom snakeweed

17. Perennial plant reproductive capability: Limited ability to reproduce.