

Ecological Reference Worksheet*

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Contact for lead author: Phil Smith **Reference site used?** No

Date: 7 October 2002 **MLRA:** 42 **Ecological Site:** Gravelly Sand **Applies to** All
(write year or AAll@)

Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range for poor B good production year and (3) cite data. Continue descriptions on a separate sheet.	ERA Match?
1. Number and extent of rills: There can be a few short rills that can increase in frequency, depth, and length with an increase in slope.	
2. Presence of water flow patterns: There can be numerous, short (several yards) water flow pattern that are especially abundant on steeper slopes.	
3. Number and height of erosional pedestals or terracettes: Pedestals less than 0.5 inches in height in water flow paths are possible. Terracettes (1-2 in.) can commonly be associated with flow paths, and can increase in frequency with increases in slope.	
4. Bare ground from Ecological Site Description or other studies: Bare ground can make up to 45% of the ground ground cover on this. In addition, gravel cover can make up to 35% resulting in 80% of the ground cover that is not vegetation.	
5. Number of gullies and erosion associated with gullies: Gullies can be common and appear as high density arroyos especially on steep slopes, increasing in frequency downslope. Some accelerated erosion can occur.	
6. Extent of wind scoured, blowouts and/or depositional areas: Some wind scoured , blowouts and/or depositional area can be common where surface is not stabilized by gravel and vegetation cover.	
7. Amount of litter movement (describe size and distance expected to travel): Litter movement distance and size of material moved can increase progressively downslope.	
8. Soil surface (top few mm) resistance to erosion (stability values are averages B most sites will show a range of values): There are no values available for soil stability (estimated to be 1-3 around grass patches). Resistance to erosion should not be high due to absence of organic component in soils.	
9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness): The Canutio and Caliza Series have weak, fine, granular structures. The A horizon should be 0-4 inches thick and brown in color (e.g. 7.5 YR 4 or 6/4, moist). The SOM should be less than 1%.	
10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Plants should be distributed depending on slope and aspect (South facing slopes hotter and drier and tend to have more shrub component). Runoff from this site can be high due to slope. In areas with steeper slopes, runoff would be high when compared to some other ecological sites (e.g. sandy).	
11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): There should not be any compaction layers on this site. There may some physical/chemical crust formation after precipitation events.	
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): Dropseeds > Long-lived C4 perennial grasses with growing points elevated [black grama, bush muhly] = creosotebush > forbs = other shrubs/succulents=other grasses [threeawns, fluffgrass, plains bristlegrass]	
13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): The C4 midgrasses can exhibit high mortality in drought periods.	
14. Expected litter amount: Average 4% cover and 0.25 inch deep. (As per ESD.)	
15. Expected annual production (this is TOTAL above-ground production, not just forage production): The annual production on this site in years with unfavorable precipitation should be approximately 125 lbs/acre and 425 lbs/acre in years with favorable precipitation.	
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, Awill continue to increase regardless of the management of the site@ and may eventually dominate the site: Creosotebush, mesquite and whitethorn can increase to high densities when climate change or site disturbance favor shrub survival and establishment.	
17. Perennial plant reproductive capability: Dropseeds should have high reproductive potential in response to precipitation.	

*This sheet can also be used to describe Ecological Reference Areas (ERA=s). For ERA=s, you must also complete the following page and describe status of each indicator. In the far right column, write AYes@ (ERA matches expected for site) or ANo@ (ERA does not match expected for the site). Where the answer is ANo@, explain difference in comments.