

Ecological Reference Worksheet*

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

Date: 28 August 2002 **MLRA:** 42 **Ecological Site:** Deep sand **Applies to** All (write year or "All")

Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range for poor – good production year and (3) cite data. Continue descriptions on a separate sheet.	ERA Match?
1. Number and extent of rills: There should not be any rills on this site due to the lack of slope and the rapid infiltration.	
2. Presence of water flow patterns There should not be any water flow patterns on this site due to the rapid infiltration properties of the soil.	
3. Number and height of erosional pedestals or terracettes: Numerous pedestals of 1-2 inches in height could be present due to wind erosion associated with bare ground patches. There should not be any terracettes.	
4. Bare ground from Ecological Site Description or other studies: Bare ground can make up 75% of the ground cover on this site according to the ESD. Bare ground patch size can be large (average 15-20 feet) dynamic and interconnected.	
5. Number of gullies and erosion associated with gullies: There should not be any gullies or erosion associated with gullies on this site due to lack of slope and the rapid infiltration properties of the soil.	
6. Extent of wind scoured, blowouts and/or depositional areas: Large wind scoured, blowouts and/or depositional areas can be common on this site due to the large bare ground patch size.	
7. Amount of litter movement (describe size and distance expected to travel): There can be wind-generated movement of fine litter over large distances.	
8. Soil surface (top few mm) resistance to erosion (stability values are averages – most sites will show a range of values): Soil can be vulnerable to wind erosion (soil stability values can be from 1-3).	
9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness): The soil structure can be single grain or massive and loose. The A horizon should be 0-9 inches thick and the organic matter content (SOM) should be less than 1%.	
10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Infiltration should be high irrespective of changes in vegetation cover and distribution.	
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 due to its structure.	
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): Giant dropseed > Short-lived perennial C4 bunchgrasses [other dropseeds] > Shrubs [sand sage, broom dalea, yucca]= Long-lived perennial C4 bunchgrasses [black grama (unclear if this grass was common), bush muhly] > Globemallow > Other forbs=other grasses and shrubs	
13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): The short-lived perennial component can exhibit significant mortality in drought, more so than giant dropseed. Wind-scouring causes some mortality in all grasses. Shrubs/yucca should exhibit low mortality rates. Forbs can exhibit high mortality rates.	
14. Expected litter amount: Average 9% cover and 0.4 inch deep. (As per ESD)	
15. Expected annual production (this is TOTAL above-ground production, not just forage production): The amount of annual production in unfavorable precipitation years should be approximately 175 lbs/acre and 600 lbs/acre in favorable precipitation years.	
16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, “will continue to increase regardless of the management of the site” and may eventually dominate the site: Mesquite and creosotebush (possibly where site is associated with gravelly soils, e.g. Caliza) can invade the site.	
17. Perennial plant reproductive capability: Dropseeds and forbs have high reproduction capability by seed.	

*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 "Yes" (ERA matches expected for site) or "No" (ERA does not match expected for the site). Where the answer is "No", explain difference in comments.