

Ecological Reference Worksheet

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<p>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, when appropriate & (3) cite data. Continue descriptions on separate sheet.</p>
<p>1. Number and extent of rills: Expect to find few on steeper slopes that should be short and discontinuous. They should be infrequent. +Lithic Haplargids +Rizozo-434 , K factor 2.4 wind erodibility group = 3.</p>
<p>2. Presence of water flow patterns: Few and occupy <5% of area, broken by rock and gravel cover, highly discontinuous. Flow patterns are very few, disconnected and < one foot</p>
<p>3. Number and height of erosional pedestals or terracettes: Infrequent occurrence of terracettes and pedestals. Occasional erosional pedestals < 1/2 inch. Wind blown deposition in plant crowns may give false appearance of taller pedestals.</p>
<p>4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground): Bare ground in respect to ground cover (average percent of surface area) is approximately 48%, surface gravel 0%, cobble/stone 20%, litter 9%, grasses/forbs 14%. Considerations: climatic conditions, past management.</p>
<p>5. Number of gullies and erosion associated with gullies: None present on this site. Hazard for water erosion is severe for the Rizozo soil.</p>
<p>6. Extent of wind scoured, blowouts and/or depositional areas: No blow outs or depositional areas expected for this site. Wind scoured areas may be occasionally found on slopes which the prevailing wind continually disturbs the soil surface.</p>
<p>7. Amount of litter movement (describe size and distance expected to travel): Generally all litter size classes staying in place. Although on slopes >8% small sizes transported in flow paths, occasionally forming litter terracettes following intense rain events. +Mostly fine (<3/8 inch) and some moderately coarse litter. Movement is less than 2 feet.</p>
<p>8. Soil surface (top few mm) resistance to erosion (stability values are averages – most sites will show a range of values): Soils found on this site are generally shallow to very shallow over sandstone. +Moderate resistance is expected. Rizozo soil: runoff is rapid, hazard for water erosion is severe and hazard for soil blowing is also severe. Expect soil stability values from class 5 or 4 under plants and class 3 or 2 in interspaces.</p>
<p>9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness): Soils are shallow to very shallow over sandstone. Surface textures are typically sandy loams, fine sandy loams, very fine sandy loams or loams, which often are gravelly, stony, or cobbly. +Rizozo: depth to bedrock is 4 to 20 inches. The content of rock fragments ranges from 0 to 15 percent in the A and C horizons. These horizons are sandy loam or loam. The A horizon has a hue of 2.5YR or 5YR, value of 3 or 4 dry or moist, and a chroma of 4 or 5. SOM= .5 – 1 PERCENT.</p>
<p>10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Grasses are the dominant component in the historic plant community. Permeability is moderate in the Rizozo soil. Runoff is rapid. Plant community cover (distribution and amount) should reflect the historic plant community.</p>
<p>11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): There should be None present on this site.</p>
<p>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): Perennial warm season mid grasses > Perennial cool season mid grasses > short grasses > Tree/shrub/vine > perennial forbs > annual forbs;</p>
<p>13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): These two indicators are expected at low levels. New plants, mature plants, and decadence of old plants are proportional to maintaining the dominant species. Warm and cool season bunch grasses are most susceptible to extended disturbances.</p>
<p>14. Average percent litter cover (<u>9</u> %) and depth (<u>0.4</u> inches). ESD data</p>
<p>15. Expected annual production (this is TOTAL above-ground production, not just forage production): + 413 lbs/acre Normal precipitation ----625 lbs/acre Favorable precipitation----200 lbs/acre Unfavorable precipitation</p>
<p>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”: The plant community in the initial deteriorated state shows a decrease in sideoats grama and little bluestem and an increase in blue grama, hairy grama, threeawns, shrubs and P/J. + Plant community states which indicate a threshold has been crossed include a P/J encroached (patchy grass) state and an Eroded state (sparse or no grass). +P/J should occur on this site (5 to 10% by weight)</p>
<p>17. Perennial plant reproductive capability: All plants are capable of reproduction. The only limitations are weather related or a natural disease affecting reproduction. Not affected even following several years of prolonged drought period for region.</p>