

Ecological Reference Worksheet

MT-NRCS

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Contact for lead author: Bozeman, MT Reference site used? No

Date: 04/11/2005 MLRA: 58AC Ecological Site: Saline Overflow 11-14" p.z. (formerly Saline Lowland 10-14" p.z.)

This *must* be verified based on soils and climate (see Ecological Site Description). Current plant community *cannot* be used to identify the ecological site.

<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 for each community within the reference state (when appropriate), and (3) cite data. Continue descriptions on separate sheet if needed. Weight factors are either 0.5, 1.0 or 2.0. The default factor is 1.0. A maximum of 8 indicators may be changed to 0.5 or 2.0. The rest remain at 1.0.</p>	<p>Wgt. Factor</p>
<p>1. Number and extent of rills: No rills present in the reference state.</p>	<p>1.0</p>
<p>2. Presence of water flow patterns: Due to the soil surface being well covered and minimal slope there is no evidence of past or current soil deposition or erosion for this site.</p>	<p>1.0</p>
<p>3. Number and height of erosional pedestals or terracettes: These should not be evident in the reference state.</p>	<p>1.0</p>
<p>4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are <i>not</i> bare ground): Bare ground is less than 20% in the reference state.</p>	<p>1.0</p>
<p>5. Number of gullies and erosion associated with gullies: Gully erosion may be evident in the reference state, but only following storms of greater intensity than "normal".</p>	<p>1.0</p>
<p>6. Extent of wind scoured, blowouts and/or depositional areas: These are not present in the reference state.</p>	<p>1.0</p>
<p>7. Amount of litter movement (describe size and distance expected to travel): Because there is little bare ground, litter movement will be minimal at most. Because the site is dominated by the taller bunchgrasses and rhizomatous grasses, litter size will reflect the height and diameter of the reproductive culms and leaves of these grasses as well as the lesser dominate mid-size grasses.</p>	<p>1.0</p>
<p>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 stability values of 4 to 5 under plant canopies, and 2-3 in the plant interspaces.</p>	<p>1.0</p>
<p>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): Soil surface structure is granular. Organic matter is 2-4%. The A-horizon is 4 to 8 inches thick.</p>	<p>1.0</p>
<p>10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff: Deep-rooted native warm season perennial grasses with up to 15% woody species optimize infiltration and runoff.</p>	<p>1.0</p>
<p>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 present in the reference state.</p>	<p>1.0</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): Warm season, mid grasses > warm season, short grasses = tall shrubs > mid shrubs > cool season, short grasses > forbs.</p>	<p>1.0</p>
<p>13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): Plant mortality is very low; decadence is minimal except in prolonged periods of drought (>5-6 years).</p>	<p>1.0</p>
<p>14. Average percent litter cover (40-60%) and depth (0.1 to 0.5 inches).</p>	<p>1.0</p>
<p>15. Expected annual production (this is TOTAL above-ground production, not just forage production): 1700 – 2000 #/acre. This would be the expected production for the reference state during average moisture years. 1800 pounds would be the expected production in a 12 inch average precipitation area.</p>	<p>1.0</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, "will continue to increase regardless of the management of the site" and may eventually dominate the site: inland saltgrass, alkali bluegrass, sandberg bluegrass, Kentucky bluegrass, foxtail barley, poverty sumpweed, seepweed, kochia, black greasewood, suaeda, dandelion, etc.</p>	<p>1.0</p>
<p>17. Perennial plant reproductive capability: This is not impaired in the reference state. Except in extended periods of drought, plants are able to reproduce sexually or vegetatively.</p>	<p>1.0</p>