

KEY TO ECOLOGICAL SITES
MLRA 58B
Zone 14
10-14” Northern Rolling High Plains (10-14” NP)

- 1. Site in a lowland position that receives significant additional moisture from runoff of adjacent slopes or from intermittent/perennial streams or a water table (*HIGH Productivity Potential*).....**Group I**
- 1. Upland site that does not receive additional moisture as above.....2
 - 2. Soil depth very shallow (<10”), shallow (10-20”) OR moderately deep to deep (>20”) reacting like shallow soils due to root restrictive layer or on south and west facing slopes (*LOW productivity potential*).....**Group II**
 - 2. Soil depth moderately deep to deep (>20”) without root restricting layer that inhibits the productivity potential**Group III**

GROUP I – Sites that Receive Additional Moisture

- 1. Sites that are saline and/or alkaline, dominated by salt tolerant species (greasewood, inland saltgrass, alkali sacaton, alkali muhly).....2
 - 2. Water table within rooting depth of herbaceous species (20-40”) during some or most of the growing season, dominated by grasses such as alkali sacaton and inland saltgrass on nearly level bottom lands adjacent to streams, springs, and ponds).....**Saline Subirrigated (SS)**
 - 2. Site not as above.....3
 - 3. Site in a lowland position and water table usually >3 feet (within rooting depth of woody plants, but not within rooting depth of herbaceous plants), dominated by alkali sacaton, and inland saltgrass (no big sage on this site).....**Saline Lowland (SL)**
- 1. Sites that are not saline and/or alkaline.....4
 - 4. Site poorly drained with water table above surface part of growing season, Sedges, reedgrasses, and willows common species.**Wetland (WL)**
 - 4. Site not as above.....5
 - 5. Water table within rooting depth of herbaceous species (typically above 20”) during part of the growing season, rhizomatous wheatgrasses, prairie cordgrass, meadow foxtail, tufted hairgrass, some sedges, rushes, and willows may be present, as site deteriorates Baltic rush invades..... **Subirrigated (Sb)**
 - 5. Site not as above.....6
 - 6. Site in a lowland position, adjacent to intermittent/perennial stream and water table usually >3 feet (within rooting depth of woody plants, but not within rooting depth of herbaceous plants), cottonwoods, ash, alder, birch, boxelder, or remnants thereof may be present, (gravel bars and pockets of bare gravel

- often present, rhizomatous wheatgrass, snowberry and other woody species.....**Lowland (LL)**
6. Site not as above.....7
7. Site receives periodic overflow from adjacent slopes, but without a water table within rooting depth of woody plants, silver sagebrush, snowberry and basin wildrye common, generally more productive than adjacent sites not receiving additional moisture.....**Overflow (Ov)**
7. Site similar to above with heavy textured soils (finer portions of silty clay loams to sandy clay loams and clay loams), heavy presence of basin wildrye, western wheatgrass, green needlegrass. Wyoming big sagebrush increases as site deteriorates.....**Clayey Overflow (CyO)**

GROUP II – Upland Sites that are Very Shallow (<10”) OR Shallow (10-20”)

1. Soils very shallow (<10”), but may include areas of exposed bedrock and pockets of deep soil, often on steep (up to 55%) south and west facing slopes with VERY LOW productivity potential.....2
2. Bedrock is soft or hard clay shale bedrock that may be saline and/or alkaline in various degrees, moderate to steep slopes and ridge tops, little bluestem, rhizomatous wheatgrasses common species, productivity very low (400pds)**Shale (Sh)**
3. Site not as above, commonly on windswept ridges, fractured bedrock of various types, and steep slopes. Juniper occasionally found at higher elevations, bluebunch wheatgrass normally dominates. Productivity very low (350 pds)**Very Shallow (VS)**
1. Soils shallow (10-20”), but may include moderately deep to deep gravelly or cobbly soils, soils with a root restrictive layer, and/or south and west facing slopes that react like shallow soils, productivity potential is LOW.....4
4. Silty clays or heavier textured soils OR root restricting clay subsoil layer with coarse to fine textures above, occurs on slopes and ridge tops, soil may develop large cracks when dry, green needlegrass and western wheatgrass common, big sagebrush increases as site deteriorates**Shallow Clayey (SwCy)**
5. Soils not as above.....6.
6. Fine sandy loams or coarser textured soils over sandstone or sandy shale, occurs on nearly level to 50% slopes, needleandthread dominant grass species, skunkbrush sumac and yucca common.....**Shallow Sandy (SwSy)**
6. Very fine sandy loams to clay loam textured soils over various bedrock types (commonly limestone, siltstone, or shale), normally occurs on steep slopes and ridge

tops, bluebunch wheatgrass normally dominates.....**Shallow Loamy (SwLy)**

GROUP III – Upland Sites that are Moderately Deep to Deep (>20”)

- 1. Sites that are saline and/or alkaline,.....2
 - 2. Gardners saltbush, greasewood common on nearly level to moderately sloping land, with low production compared to Clayey site (if root restrictive layer present and productivity very low consider **Shale** site— Group II, 2).....**Saline Upland (SU)**
 - 2. Sites that are not saline and/or alkaline3
 - 3. Soil textures range from silty clay through finer silty and sandy clay loams, soil cracking common during dry summer months, though not severe, western wheatgrass and green needlegrass common with big sagebrush and greasewood increasing as site deteriorates.....**Clayey (Cy)**
 - 4. Heavy clay soils (silty clays or clays), big or birdsfoot sage common.....
 - 4. Heavy clay soils with severe soil cracking in dry conditions, very sticky when wet, (slick spot), nearly level slopes lower production than Clayey site (750 pds vs. 1100 pds)**Dense Clay (DC)**
 - 5. Soil textures not as above.....
 - 5. Soil textures are very coarse (loamy sand to sand), gently undulating lands; sometimes as dunes, dark or light colored, sand bluestem and prairie sandreed are dominant species**Sands (Sa)**
 - 6. Soil textures range from very fine sandy loam to clay loam.....
 - 7. Productivity potential is high, nearly level to 50% slopes, needleandthread and prairie sandreed are dominant, little western wheatgrass present **Sandy (Sy)**
 - 8. Soils very fine sandy loams to clay loams, a good variety and even mix of grass species. Productivity potential is high, gently undulating rolling land, rhizomatous wheatgrass, needleandthread, green needlegrass common, big sagebrush increasing as site deteriorates.....**Loamy (Ly)**

Note: Plant species should not be used as sole criteria for ecological site identification as they may not be present or may have been removed from the plant community. An ecological site is based on specific soil characteristics that result in its ability to produce distinctive kinds and amounts of vegetation and responds similarly to disturbance.