

Major Land Resource Area 043B

Central Rocky Mountains

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Ecological site keys

ARCHIVED: Key to Ecological Sites MLRA 43B Zone 2: 15-19 W

- I. 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)
- A. Sites that are saline and/or alkaline, dominated by salt tolerant species (inland saltgrass, alkali sacaton, alkali bluegrass, Nutall's alkaligrass, alkali muhly) ... R043BY242WY – Saline Subirrigated Foothills and Mountains West
 - B. Sites that are not saline and/or alkaline
 - 1 Site poorly drained with water table above surface part of growing season, Nebraska sedge, water sedge, and willows common species ... R043BY278WY – Wetland Foothills and Mountains West
 - 2 Site not as above
 - i. Water table within rooting depth of herbaceous species (typically above 20") during part of the growing season, tufted hairgrass, shrubby cinquefoil, sedges, rushes, and willows common ... R043BY274WY – Subirrigated Foothills and Mountains West
 - ii. Site not as above
 - a. Site receives periodic overflow from adjacent slopes, but without a water table within rooting depth of woody plants, and soil textures are loamy, silver sagebrush, slender wheatgrass, and basin wildrye common ... R043BY230WY – Overflow Foothills and Mountains West
 - b. Site similar to above with heavy textured soils (finer portions of silty clay loams to sandy clay loams and clay loams), heavy presence of rhizomatous wheatgrass ... R043BY206WY – Clayey Overflow Foothills and Mountains West
- II. Upland site that does not receive additional moisture as above
- A. 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)
 - 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
 - i. Bedrock igneous or volcanic, three-tip sagebrush, mountain mahogany, and black sage common shrubs ... R043BY216WY – Igneous Foothills and Mountains West
 - ii. Fracture bedrock of various types except igneous or volcanic, commonly on windswept ridges, bluebunch wheatgrass and a variety of shrub species dominate ... R043BY276WY – Very Shallow Foothills and Mountains West
 - 2 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
 - i. Coarse fragments common on surface and throughout profile (>35% by volume in top 20")
 - a. Site occurs along terrace breaks, steep slopes or along streams terraces with coarse fragments up to 3" diameter covering 50-75% of surface and making up >35% volume in top 20", may have lime horizon below 12 inches, bluebunch wheatgrass, bitterbrush, and black sagebrush are common, productivity potential VERY LOW ... R043BY212WY – Gravelly Foothills and Mountains West

- b. Coarse fragments are larger than 3" and often dominated by a variety of shrubs such as bitterbrush, low sage, mountain big sage, serviceberry, and green rabbitbrush ... R043BY272WY – Stony Foothills and Mountains West
 - ii. Soils without high amount of coarse fragments
 - a. Medium to moderately coarse textured soils over igneous or volcanic bedrock, bitterbrush and three-tip sagebrush common ... R043BY260WY – Shallow Igneous Foothills and Mountains West
 - b. Very fine sandy loam to clay loam textured soils over various bedrock types (commonly limestone, siltstone, or shale), low sagebrush intermixed with big sagebrush ... R043BY262WY – Shallow Loamy Foothills and Mountains West
- B. Soil depth moderately deep to deep (>20") without root restricting layer that inhibits the productivity potential
- 1 Sites with a high volume of coarse fragments in top 20" (>35% by volume)
 - i. Site occurs in a variety of upland positions, boulders found in abundance on surface, bluebunch wheatgrass, Idaho fescue, spike fescue, bitterbrush, and big sage common, productivity high ... R043BY208WY – Coarse Upland Foothills and Mountains West
 - ii. Site occurs on steep south and west facing mountain slopes, bluebunch wheatgrass, Idaho fescue, and spike fescue dominant grasses, mountain mahogany common shrub ... R043BY270WY – Steep Stony Foothills and Mountains West
 - 2 Sites without high volume of coarse fragments
 - i. Soil textures are heavy, slight to severe soil cracking in dry conditions
 - a. Soil textures range from silty clay through finer silty and sandy clay loams, soil cracking common during dry summer months, though not severe, serviceberry common shrub with a lot of western needlegrass and rhizomatous wheatgrass ... R043BY204WY – Clayey Foothills and Mountains West
 - b. Heavy clay soils with severe soil cracking in dry conditions, very sticky when wet, low sagebrush common shrub ... R043BY210WY – Dense Clay Foothills and Mountains West
 - ii. Soils very fine sandy loams to clay loams, a good variety and even mix of grass species, mountain big sagebrush dominant shrub ... R043BY222WY – Loamy Foothills and Mountains West