

Major Land Resource Area 049x Southern Rocky Mountain Foothills

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Ecological site keys

ESD Key MLRA 49X Wyoming

- 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. Site poorly drained with water table above surface part of growing season, Nebraska sedge, northern reedgrass, tufted hairgrass, and willows common species ... R049XA178WY – Wetland (Foothills and Mountains Southeast)
 - B. Site not as above
 - 1 Water table within rooting depth of herbaceous species (typically above 20”) during part of the growing season, tufted hairgrass, Nebraska sedge, shrubby cinquefoil, sedges, rushes, and willow common ... R049XA174WY – Subirrigated (Foothills and Mountains Southeast)
 - 2 Site receives periodic overflow from adjacent slopes, but without a water table within rooting depth of woody plants, and soil textures are loamy, serviceberry, silver sagebrush, slender wheatgrass, and basin wildrye common ... R049XA126WY – Loamy Overflow (Foothills and Mountains Southeast)
- II. 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)
- A. 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
 - 1 Bedrock igneous or volcanic, three-tip sagebrush, antelope bitterbrush, and black sage common shrubs ... R049XA116WY – Igneous (Foothills and Mountains Southeast)
 - 2 Fractured bedrock of various types except igneous or volcanic, commonly on windswept ridges, bluebunch wheatgrass, Columbia needlegrass and a variety of shrub species dominate ... R049XA176WY – Very Shallow (Foothills and Mountains Southeast)

B. Soils shallow (10-20" (25-50cm)), but may include moderately deep to deep (>20" (>50cm)) skeletal soils on south and west aspects, >15% slopes, productivity potential is LOW

1 Site with a highly calcareous subsoil (<10" (25cm)), often gravelly or skeletal subsoil OR underlain by soft calcareous materials and slopes >15%

i. Shallow sandy and loamy soils (10-20" (25-50cm)), often cobbly or channery with slopes >35%, underlain by soft calcareous materials with many outcrops of sedimentary rock (often associated with Lime Stone parent material) , mountain mahogany, bluebunch wheatgrass, Indian ricegrass common ...

R049XA134WY – Rocky Hills (Foothills and Mountains Southeast)

2 Soils not as above

i. Medium to moderately coarse textured soils over igneous or volcanic bedrock, bitterbrush, black sage and three-tip sagebrush common ...

R049XA160WY – Shallow Igneous (Foothills and Mountains Southeast)

ii. Very fine sandy loam to clay loam textured soils over various bedrock types (commonly limestone, siltstone, or shale), black sagebrush or mountain mahogany intermixed with big sage ... R049XA162WY – Shallow Loamy (Foothills and Mountains Southeast)

III. Soil depth moderately deep to deep (>20") without root restricting layer that inhibits the productivity potential

A. Sites with a high volume of coarse fragments in top 20" (>35% by volume) Site occurs in a variety of upland positions, boulders found in abundance on surface, Columbia needlegrass, Idaho fescue, spike fescue, bitterbrush, and big sage, productivity less than others in group ... R049XA108WY – Coarse Upland (Foothills and Mountains Southeast)

B. Sites without high volume of coarse fragments

1 Soils very fine sandy loams to clay loams, a good variety and even mix of grass species, mountain big sagebrush dominant shrub ... R049XA122WY – Loamy (Foothills and Mountains Southeast)