

Major Land Resource Area 046X

Northern and Central Rocky Mountain Foothills

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Ecological site keys

MLRA 46 LRU C

I. Site receives additional effective moisture

A. Soil saline (EC > 4 within surface 4")

- 1 Seasonal high water table > 40" from ground surface; salt tolerant plants dominate site ... R046XC597MT – Saline Lowland (SL) RRU 46-C 15-19 PZ

B. Site not Saline

- 1 Seasonal high water table > 40" from ground surface; site regularly receives more than normal soil moisture because of run-in or stream overflow ... R046XC504MT – Overflow (Ov) RRU 46-C 13-19 PZ
- 2 Water table less than 40 inches below soil surface
 - i. Site located within the riparian zone with seasonal high water table 24" to 40" ... R046XC520MT – Riparian Subirrigated (RSb) RRU 46-C 13-19 PZ
 - ii. Site not located within riparian zone
 - a. Seasonal high water table < 12" ... R046XC518MT – Wet Meadow (WM) RRU 46-C 15-19 PZ
 - b. Seasonal high water table 24" to 40" ... R046XC512MT – Subirrigated (Sb) RRU 46-C 13-19 PZ

II. Site does not receive additional effective moisture

A. Soil saline or saline-sodic within surface 20" or soils with natric or relic natric horizons.

- 1 No columnar structure; site dominated by salt tolerant plants ... R046XC603MT – Saline Upland (SU) RRU 46-C 15-19 PZ
- 2 Columnar structure present, abrupt root or water restrictive clay layer present within 8" of soil surface
 - i. Less than 4" of surface over clay layer (evidenced by columnar structure) ... R046XC602MT – Dense Clay (DC) RRU 46-C 15-19 PZ
 - ii. Soil has 4 to 8" of surface over clay layer (evidenced by columnar structure) ... R046XC609MT – Claypan (Cp) RRU 46-C 15-19 PZ

B. Site not Saline

1 Soils are very shallow or shallow

- i. Soil very shallow (< 10" deep to bedrock, lithic, or paralithic root restrictive layer) ... R046XC517MT – Very Shallow (VSw) RRU 46-C 13-19 PZ
- ii. Soil shallow (10" – 20" deep to bedrock, lithic, or paralithic root restrictive layer)
 - a. Soil texture within surface mineral 4" is typified by loam, clay loam, or silt loam ... R046XC506MT – Shallow (Sw) RRU 46-C 13-19 PZ
 - b. Clay content > 32% in surface mineral 4" (ribbon length > 2" long) ... R046XC598MT – Shallow Clay (SwC) RRU 46-C 13-19 PZ

2 Soils moderately deep, deep, or very deep (≥ 20" deep to bedrock, lithic, or paralithic root restrictive layer)

- i. Soil skeletal to within 20" of soil surface (averages > 35% rock fragments in the 10"-20" layer)
 - c. Strongly or violently effervescent within top 4", lime concentration increasing with depth. (typically limestone parent material) ... R046XC519MT – Limy Droughty (LyDr) RRU 46-C 13-19 PZ
 - f. Soil not strongly or violently effervescent in surface mineral 4" Sandy-skeletal within 20" of soil surface

- 1) Sandy-skeletal within 10" of soil surface ... R046XC514MT – Gravelly (Gr) RRU 46-C 13-19 PZ
- 2) Sandy-skeletal within 10-20" of soil surface & typically consists of gravels and/or cobbles ... R046XC507MT – Shallow to Gravel (SwGr) RRU 46-C 13-19 PZ
- ii. Soil not skeletal within 20" of soil surface (averages < 35% rock fragments in the 10"-20" layer)
 - a. Strongly or violently effervescent in surface mineral 4", lime concentration increasing with depth. (typically limestone parent material) ... R046XC510MT – Limy (Ly) RRU 46-C 13-19 PZ
 - b. Not strongly or violently effervescent in surface mineral 4"
 - 1) Stones and/or boulders cover 3-15% surface area (15-30% cover measured by step transect) ... R046XC511MT – Stony (St) RRU 46-C 13-19 PZ
 - 2) Stones and/or boulders cover \leq 3-15% surface area
 - a) Slope <15%
 - (1) Clay content is < 32% in surface mineral 4". If present, argillic horizon has less than 35% clay content ... R046XC508MT – Silty (Si) RRU 46-C 13-19 PZ
 - (2) Coarse sandy loam to fine sandy loam texture within surface mineral 4". ... R046XC505MT – Sandy (Sy) RRU 46-C 13-19 PZ
 - b) Slope \geq 15%
 - (1) Mollic epipedon present. Clay content is < 32% (ribbon < 2" long) in surface mineral 4". ... R046XC516MT – Silty Steep (SiStp) RRU 46-C 13-19 PZ
 - (2) Mollic epipedon present. ... R046XC599MT – Thin Breaks (TB) RRU 46-C 13-19 PZ