

Major Land Resource Area 044B

Central Rocky Mountain Valleys

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Ecological site keys

MRLA 44B Key LRU 01 Subset A

I. Site receives additional effective moisture.

A. Soil Saline (EC>4 within surface 4") and water table 24-40" from ground surface; salt tolerant plants dominate site -- Saline Subirrigated (SSb)

B. Soil Not Saline

1 Seasonal high water table \geq 40" from ground surface; site regularly receives more than normal soil moisture from run-in and stream overflow -- Overflow (Ov) ... EX044B01A060 – Overflow (Ov) LRU 01 Subset A

2 Seasonal high water table < 40" from ground surface

i. Soil Organic (Organic surface > 8 inches thick) -- Wet Meadow, Organic (WMO)

ii. Soil Not Organic

a. Site located in Floodplain

1) Seasonal high water table < 24"

a) Seasonal high water table <12" -- Riparian Wet Meadow (RWM)

b) Seasonal high water table 12" to 24" -- Riparian Meadow (RM) ... EX044B01Y080 – Riparian Meadow (RM) LRU 01 Subset Y

2) Seasonal high water table 24" to 40" -- Riparian Subirrigated (RSb) ... EX044B01Y081 – Riparian Subirrigated (RSb) LRU 01 Subset Y

b. Site not located in Floodplain

1) Seasonal high water table < 24"

a) Seasonal high water table <12" -- Wet Meadow (WM)

b) Seasonal high water table 12" to 24" -- Meadow (M)

2) Seasonal high water table 24" to 40" -- Subirrigated

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 -- Saline Upland (SU) ... EX044B01A093 – Saline Upland (SU) LRU 01 Subset A

2 Columnar structure present, abrupt root or water restrictive clay layer present within 8" of soil surface

i. Less than 4" of soil surface over clay layer (evidence of columnar structure) -- Thin Claypan (TCp) ... EX044B01A165 – Thin Claypan (TCp) LRU 01 Subset A

ii. Soil has 4" to 8" of surface over clay layer (evidence of columnar structure) -- Claypan (Cp) ... EX044B01A006 – Claypan (Cp) LRU 01 Subset A

B. Soil NOT Saline or Saline-Sodi

1 Soil Shallow (10"-20" deep to bedrock, lithic, or paralithic root restrictive layer)

i. Soil is strongly or violently effervescent (calcareous) in surface mineral 4"; lime concentrations often increase with depth

a. Soil skeletal (\geq 35% rock fragment in the 10-20" layer) -- Shallow Limy Droughty (SwLyDr) ... EX044B01A135 – Shallow Limy Droughty (SwLyDr) LRU 01 Subset A

- b. Soil NOT skeletal (<35% rock fragment in 10-20" layer) -- Shallow Limy (SwLy) ... EX044B01A132 – Shallow Limy (SwLy) LRU 01 Subset A
- ii. Soil NOT strongly or violently effervescent in surface mineral 4"
 - a. Soil Skeletal ($\geq 35\%$ rock fragments in 10-20" layer) -- Shallow Droughty (SwDr) ... EX044B01A138 – Shallow Droughty (SwDr) LRU 01 Subset A
 - b. Soil NOT skeletal (<35% rock fragments in 10-20" layer)
 - 1) Soil clay content $\leq 32\%$ in surface mineral 4" (soil ribbon ≤ 2 ") -- Shallow Loamy (SwLo) ... EX044B01A136 – Shallow Loamy (SwLo) LRU 01 Subset A
 - 2) Soil clay content $>32\%$ in surface mineral 4" (ribbon >2 ") ... EX044B01A131 – Shallow Clay (SwC) LRU 01 Subset A
- 2 Soils moderately deep, deep, or very deep (≥ 20 " deep to bedrock, lithic, or paralithic root restrictive layer)
 - i. Soil skeletal ($\geq 35\%$ rock fragment in the 10-20" layer)
 - a. Soil Sandy-Skeletal
 - 1) Soil sandy-skeletal within 10" of soil surface -- Gravelly (Gr) ... EX044B01A020 – Gravelly (Gr) LRU 01 Subset A
 - 2) Soil sandy-skeletal within 10-20" of soil surface
 - a) Soil strongly or violently effervescent within surface mineral 4" -- Shallow to Gravel, Limy (SwGrLy) ... EX044B01A137 – Shallow to Gravel Limy (SwGrLy) LRU 01 Subset A
 - b) Soil NOT strongly or violently effervescent within surface mineral 4" -- Shallow to Gravel (SwGr) ... EX044B01A134 – Shallow to Gravel (SwGr) LRU 01 Subset A
 - b. Soil loamy-skeletal or clayey-skeletal
 - 1) Soil strongly or violently effervescent within top 4" -- Limy Droughty (LyDr) ... EX044B01A031 – Limy Droughty (LyDr) LRU 01 Subset A
 - 2) Soil NOT strongly or violently effervescent within surface mineral 4"
 - a) Slope $< 15\%$ -- Droughty (Dr) ... EX044B01A036 – Droughty (Dr) LRU 01 Subset A
 - b) Slope $\geq 15\%$ -- Droughty Steep (DrStp) ... EX044B01A038 – Droughty Steep (DrStp) LRU 01 Subset A
 - ii. Soil NOT skeletal (<35% rock fragment in 10-20" layer)
 - a. Soil strongly or violently effervescent in surface mineral 4" -- Limy (Ly) ... EX044B01A030 – Limy (Ly) LRU 01 Subset A
 - b. Soil NOT strongly or violently effervescent in surface mineral 4"
 - 1) Soil Sand or Loamy Sand texture within surface mineral 4" -- Sands (Sa)
 - 2) Soil NOT sand or loamy sand texture
 - a) Slope $< 15\%$
 - (1) Soil Coarse sandy loam to fine sandy loam texture within surface mineral 4" -- Sandy (Sy) ... EX044B01A110 – Sandy (Sy) LRU 01 Subset A
 - (2) Soil texture NOT sandy loam to fine sandy loam
 - (a) Soil Clay content $>32\%$ in surface mineral 4" (ribbon ≥ 2 ")
 - (1) Clay content $>32\%$ -45% within surface mineral 4" -- Clayey (Cy) ... EX044B01A001 – Clayey (Cy) LRU 01 Subset A
 - (2) Clay $>45\%$ within surface mineral 2" -- Dense Clay Nonsodic (DCX)
 - (b) Soil Clay content $\leq 32\%$ in surface mineral 4"
 - (1) Any Argillic horizon in surface 20" with $>32\%$ clay (ribbon ≥ 2 ") -- Loamy Argillic (LoA)
 - (2) Argillic horizon, if present in surface 20", has $\leq 32\%$ clay (ribbon <2 ") -- Loamy (Lo) ... EX044B01A032 – Loamy (Lo) LRU 01 Subset A
 - b) Slope $\geq 15\%$

- (1) Mollic epipedon present
 - (a) Clay content is >32% in surface mineral 4" (ribbon \geq 2") -- Clayey Steep (CyStp)
 - (b) Clay content is \leq 32% in surface mineral 4" (ribbon < 2") -- Loamy Steep (LoStp) ...
EX044B01A040 – Loamy Steep (LoStp) LRU 01 Subset A
- (2) Mollic epipedon NOT present
 - (a) Coarse sandy loam to fine sandy loame texture -- Thin Sandy (TSy)
 - (b) Soils NOT sandy loam or fine sandy loam
 - (1) Clay content is \leq 32% in surface mineral 4" (ribbon < 2") -- Thin Loamy (TLo)
 - (2) Clay content is >32% in surface mineral 4" (ribbon \geq 2") -- Thin Clayey (TCy)