

Major Land Resource Area 044B Central Rocky Mountain Valleys

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Ecological site keys

MLRA 44B Key LRU 01 Subset B

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 ... EX044B01B060 – Overflow (Ov) LRU 01 Subset B

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" ... EX044B01Y080 – Riparian Meadow (RM) LRU 01 Subset Y

2) Seasonal high water table 24" to 40" ... 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 \geq 24"

a) Seasonal high water table >40" ... EX044B01Y200 – Stream Terrace LRU 44B-Y

b) Seasonal high water table 24" to 40" -- Subirrigated (Sb)

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

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

ii. Soil has 4" to 8" of surface over clay layer (evidence of columnar structure) -- Claypan

B. Soil NOT Saline or Saline-Sodic

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

c. Soil skeletal (<35% rock fragment in 10-20" layer) -- Shallow Limy Droughty (SwLyDr)

b. Soil NOT skeletal (<35% rock fragment in 10-20" layer) -- Shallow Limy (SwLy)

- ii. Soil NOT strongly or violently effervescent in surface mineral 4"
 - a. Soil Skeletal ($\geq 35\%$ rock fragments in 10-20" layer) ... EX044B01B138 – Shallow Droughty (SwDr) LRU 01 Subset B
 - b. Soil NOT skeletal ($< 35\%$ rock fragments in 10-20" layer)
 - 1) Soil clay content $\leq 32\%$ in surface mineral 4" (soil ribbon ≤ 2 ") ... EX044B01B136 – Shallow Loamy (SwLo) LRU 01 Subset B
 - 2) Soil clay content $> 32\%$ in surface mineral 4" (ribbon > 2 ") ... EX044B01B131 – Shallow Clay (SwC) LRU 01 Subset B
- 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)
 - 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)
 - b) Soil NOT strongly or violently effervescent within surface mineral 4" -- Shallow to Gravel (SwGr)
 - b. Soil loamy-skeletal or clayey-skeletal
 - 1) Soil strongly or violently effervescent within top 4" ... EX044B01B031 – Limy Droughty (LyDr) LRU 01 Subset B
 - 2) Soil NOT strongly or violently effervescent within surface mineral 4"
 - a) Slope $< 15\%$... EX044B01B036 – Droughty (Dr) LRU 01 Subset B
 - b) Slope $\geq 15\%$... EX044B01B038 – Droughty Steep (DrStp) LRU 01 Subset B
 - ii. Soil NOT skeletal ($< 35\%$ rock fragment in 10-20" layer)
 - a. Soil strongly or violently effervescent in surface mineral 4" ... EX044B01B030 – Limy (Ly) LRU 01 Subset B
 - b. Soil NOT strongly or violently effervescent in surface mineral 4" -- Sands (Sa)
 - 1) Soil Sand or Loamy Sand texture within surface mineral 4"
 - 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)
 - (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)
 - (2) Clay $> 45\%$ within surface mineral 2" -- Dense Clay Nonsodic (DCX)
 - (b) Soil Clay content $\leq 32\%$ in surface mineral 4" - Loamy Argillic (LoA)
 - (1) Any Argillic horizon in surface 20" with $> 32\%$ clay (ribbon ≥ 2 ")
 - (2) Argillic horizon, if present in surface 20", has $\leq 32\%$ clay (ribbon < 2 ") ... EX044B01B032 – Loamy (Lo) LRU 01 Subset B
 - b) Slope $\geq 15\%$
 - (1) Mollic epipedon present
 - (a) Clay content is $> 32\%$ in surface mineral 4" (ribbon ≥ 2 ") -- Clayey Steep (CyStp)
 - (b) Clay content is $\leq 32\%$ in surface mineral 4" (ribbon < 2 ") ... EX044B01B040 – Loamy Steep (LoStp) LRU 01 Subset B
 - (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)