## 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 ≥ 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 ≥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 (≥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  $\leq$  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 (≥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 ≥ 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"  $\dots$  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 ≤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 ≥ 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 ≥ 2") -- Thin Clayey (TCy)