

Major Land Resource Area 042C

Central New Mexico Highlands

Accessed: 05/23/2025

Ecological site group keys

Key to the Ecological Site Groups of MLRA 42C

I. Site receives significant additional moisture—either from run-on or throughflow. Site occurs on a floodplain or in a swale or playa bottom.

A. [Criteria] ... GX070C01ESG01 – Run-On

II. Site does not receive significant additional moisture—either from run-on or throughflow. Site does not occur on a floodplain or in a swale or playa bottom.

A. Soils contain visible masses of gypsum in the upper 100 cm.

1 [Criteria] ... GX070C01ESG02 – Gypsum

B. Soils lack visible masses of gypsum in the upper 100 cm.

1 Root-restrictive layer occurs within 50 cm of the soil surface.

i. [Criteria] ... GX070C01ESG03 – Shallow

2 Soils are >50 cm to root-restrictive layer.

i. Soil texture is fine sandy loam or coarser at the surface, and sand percentage is ≥ 50 in all horizons in the upper 100 cm.

a. [Criteria] ... GX070C01ESG04 – Sandy

ii. Soil texture is finer than fine sandy loam at the surface, and/or at least one horizon with <50% sand occurs in the upper 100 cm.

a. Soils meet both of the following criteria: 1) soil at the surface reacts strongly or violently to 1N HCl. 2) $\geq 5\%$ calcareous or carbonate-coated fragments at the surface.

1) [Criteria] ... GX070C01ESG05 – Limy

b. Soils fail to meet one or both of the following criteria: 1) soil at the surface reacts strongly or violently to 1N HCl. 2) $\geq 5\%$ calcareous or carbonate-coated fragments at the surface.

1) [Criteria] ... GX070D01XESG03 – Loamy

National Park Service

I. Additional water

- A. Perennial water - 041XESG09 Riparian
- B. Ephemeral water
 - 1 Subsurface EC >4 - 040XESG10 Saline Bottoms
 - 2 Subsurface EC <4 - 040XESG01 Bottoms

II. Uplands

- A. Surface SAR >8
 - 1 Elevation - 2500-3700 ft - 041XESG62 Thornscrub Saline Hills
 - 2 Elevation - 3700-4500 ft - 042BESG63 Semi-Desert Grassland Saline Hills
 - 3 Elevation - 4500-6000 ft - 042BESG38 Madrean Woodland Saline Hills
 - 4 Elevation - >6000 ft - 070BESG64 Temperate Forest Saline Hills
- B. Surface SAR <8
 - 1 Gypsum >5% surface or >10% subsurface
 - i. Elevation - 2500-3700 ft - 042AESG33 Gypsum Thornscrub
 - ii. Elevation - 3700-4500 ft - 042BESG55 Gypsum Semi-Desert Grassland
 - iii. Elevation - 4500-6000 ft - 042AESG69 Gypsum Madrean Woodland
 - iv. Elevation - >6000 ft - 070BESG70 Gypsum Temperate Forest
 - 2 Gypsum <5% surface or <10% subsurface
 - i. Subsurface EC >8 or surface EC >4
 - a. Elevation - 2500-3700 ft - 041XESG62 Thornscrub Saline Hills
 - b. Elevation - 3700-4500 ft - 042BESG63 Semi-Desert Grassland Saline Hills
 - c. Elevation - 4500-6000 ft - 042BESG38 Madrean Woodland Saline Hills
 - d. Elevation - >6000 ft - 070BESG64 Temperate Forest Saline Hills
 - ii. Subsurface EC <8 and surface EC <4
 - a. EC >1.5 surface or >2 subsurface
 - 1) Elevation - 2500-3700 ft - 041XESG39 Thornscrub Saline Uplands
 - 2) Elevation - 3700-4500 ft - 041XESG65 Semi-Desert Grassland Saline Uplands
 - 3) Elevation - 4500-6000 ft - 042BESG66 Madrean Woodland Saline Uplands
 - b. EC <1.5 surface and <2 subsurface
 - 1) Slope >35% & >40% surface rock

- a) Elevation - 2500-3700 ft - 040XESG17 Thornscrub Breaks
 - b) Elevation - 3700-4500 ft - 038XESG18 Semi-Desert Grassland Breaks
 - c) Elevation - 4500-6000 ft - 038XESG19 Madrean Woodland Breaks
 - d) Elevation - >6000 ft ... 042CESG20 – Temperate Forest Breaks
- 2) Slope <35% or <40% surface rock
- a) Depth <30cm
 - (1) Elevation - <2500 ft - 040XESG61 Very Shallow Desert
 - (2) Elevation - 2500-3700 ft - 040XESG46 Very Shallow Thornscrub
 - (3) Elevation - 3700-4500 ft - 042AESG47 Very Shallow Semi-Desert Grassland
 - (4) Elevation - 4500-6000 ft - 042AESG48 Very Shallow Madrean Woodland
 - (5) Elevation - >6000 ft - 070BESG49 Very Shallow Temperate Forest
 - b) Depth: 30-55cm
 - (1) Elevation - <2500 ft - 040XESG60 Shallow Desert
 - (2) Elevation - 2500-3700 ft - 040XESG42 Shallow Thornscrub
 - (3) Elevation - 3700-4500 ft - 042AESG43 Shallow Semi-Desert Grassland
 - (4) Elevation - 4500-6000 ft - 038XESG44 Shallow Madrean Woodland
 - (5) Elevation - >6000 ft - 070BESG45 Shallow Temperate Forest
 - c) Depth >55cm
 - (1) Rock >30% surface or >30% subsurface
 - (a) Elevation - 2500-3700 ft - 040XESG25 Deep Rocky Thornscrub
 - (b) Elevation - 3700-4500 ft - 042AESG26 Deep Rocky Semi-Desert Grassland
 - (c) Elevation - 4500-6000 ft - 042BESG27 Deep Rocky Madrean Woodland
 - (d) Elevation - >6000 ft - 070BESG28 Deep Rocky Temperate Forest
 - (2) Rock <30% surface and <30% subsurface
 - (a) Clay >30% surface or >35% subsurface

- (1) Elevation - 2500-3700 ft - 040XESG21 Thornscrub Clay Uplands
 - (2) Elevation - 3700-4500 ft - 041XESG22 Semi-Desert Grassland Clay Uplands
 - (3) Elevation - 4500-6000 ft - 038XESG23 Madrean Woodland Clay Uplands
 - (4) Elevation - >6000 ft - 038XESG24 Temperate Forest Clay Uplands
- (b) Clay <30% surface and <35% subsurface
- (1) Sand >75% or texture is loamy sand or sandier in surface & subsurface
 - (a) Elevation - 2500-3700 ft ... 042CESG40 – Thornscrub Sandy Uplands
 - (b) Elevation - 3700-4500 ft - 042BESG41 Semi-Desert Grassland Sandy Uplands
 - (c) Elevation - 4500-6000 ft - 042BESG68 Madrean Woodland Sandy Uplands
 - (2) Sand <75% or texture is sandy loam or finer in surface & subsurface
 - (a) Clay <20 % or texture is sandy loam or sandier in surface
 - (1) Elevation - 2500-3700 ft - 040XESG34 Thornscrub Loamy Uplands
 - (2) Elevation - 3700 4500 ft - 041XESG35 Semi-Desert Grassland Loamy Uplands
 - (3) Elevation - 4500-6000 ft - 042BESG36 Madrean Woodland Loamy Uplands
 - (4) Elevation - >6000 ft - 070BESG37 Temperate Forest Loamy Uplands
 - (b) Clay >20% or texture is finer than sandy loam in surface
 - (1) Elevation - 2500-3700 ft - 042AESG29 Thornscrub Finer Uplands
 - (2) Elevation - 3700-4500 ft - 041XESG30 Semi-Desert Grassland Finer Uplands
 - (3) Elevation - 4500-6000 ft - 070BESG31 Madrean Woodland Finer Uplands
 - (4) Elevation - >6000 ft - 070BESG32 Temperate Forest Finer Uplands

