USDA icon **Natural Resources Conservation Service**

Major Land Resource Area 070B
Pecos and Canadian River Basins

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Description

MLRA 70B represents the southern terminus of Land Resource Region G, the Western Great Plains. The entirety of this MLRA is within two primary river basins carved out of the Great Plains by the Canadian and Pecos rivers. The basins are characterized by the Tucumcari Basin portion of the Canadian River and the Pecos River Basin with its associated Mescalero Sand Plain, Artesia Group saline red beds, and piedmont deposits. This MLRA constitutes the transition from the Basin and Range Province of the west to the Southern High Plains, with its Ogallala aquifer-bearing deposits, to the east. Most of the MLRA is rangeland punctuated by extensive areas of petroleum extraction in the south and east parts of the Pecos Basin. In smaller areas along waterways, diverted water from the main river or shallow water tables provide irrigation to bottomland fields.

Ecological site group keys

Key to Ecological Site Groups for MLRA 70B

1a. Site is on a water-collecting landform such as a drainageway bottom, swale, floodplain, or playa. ... GX070B01XESG01 – Run-on

1b. All other sites.

2a. Soils are < 20" (50 cm) to root-restrictive layers. ... GX070B01XESG02 – Shallow Uplands

2b. Soils are ? 20" (50 cm) to root-restrictive layers.

3a. Soils contain ? 15% gypsum either throughout or in subsurface horizons. ... GX070B01XESG03 – Gypsum Uplands

3b. All other sites.

4a. All soil horizons in the upper 40" (100 cm) have sandy textures (? 50% sand in the fine earth fraction) OR soils are contain ? 35% gravel in the upper 40". ... GX070B01XESG04 – Sandy Uplands

4b. All other sites.

5a. Soils react strongly or violently to dilute HCl at the surface, and react violently in all subsurface horizons. ... GX070B01XESG05 – Limy Uplands

5b. All other sites. ... GX070B01XESG06 – Clayey Uplands

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I. Additional water

A. Subsurface EC >4 - 040XESG10 Saline Bottoms

B. Subsurface EC <4

1 **Sand >50% & clay <25% for surface and subsurface - 040XESG13 Sandy Bottoms**

2 **Sand <50% or clay >25% for surface and subsurface - 040XESG01**

II. Uplands

A. Surface SAR >8

1 **Elevation - <2500 ft - 040XESG57 Desert 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 - 4500-6000 ft - 042AESG69 Gypsum Madrean Woodland**

ii. **Elevation - >6000 ft ...** 070BESG70 – Gypsum Temperate Forest

2 **Gypsum <5% surface and <10% subsurface**

i. **Subsurface EC >8 or surface EC >4**

a. **Elevation - <2500 ft - 040XESG57 Desert 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 - 3700-4500 ft - 041XESG65 Semi-Desert Grassland Saline Uplands**

2) **Elevation - 4500-6000 ft - 042BESG66 Madrean Woodland Saline Uplands**

3) **Elevation - >6000 ft ...** 070BESG67 – Temperate Forest Saline Uplands

b. **EC <1.5 surface and <2 subsurface**

1) **Slope >35% & >40% surface rock**

a) **Elevation - 4500-6000 ft - 038XESG19 Madrean Woodland Breaks**

b) **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 - 3700-4500 ft - 042AESG47 Very Shallow Semi-Desert Grassland**

(3) **Elevation - 4500-6000 ft - 042AESG48 Very Shallow Madrean Woodland**

(4) **Elevation - >6000 ft ...** 070BESG49 – Very Shallow Temperate Forest

b) **Depth: 30-55cm**

(1) **Elevation - 2500-3700 ft - 040XESG42 Shallow Thornscrub**

(2) **Elevation - 3700-4500 ft - 042AESG43 Shallow Semi-Desert Grassland**

(3) **Elevation - 4500-6000 ft - 038XESG44 Shallow Madrean Woodland**

(4) **Elevation - >6000 ft ...** 070BESG45 – Shallow Temperate Forest

c) **Depth >55cm**

(1) **Rock >30% surface or >30% subsurface**

(a) **Elevation - 3700-4500 ft - 042AESG26 Deep Rocky Semi-Desert Grassland**

(b) **Elevation - 4500-6000 ft - 042BESG27 Deep Rocky Madrean Woodland**

(c) **Elevation - >6000 ft ...** 070BESG28 – Deep Rocky Temperate Forest

(2) Rock <30% surface or <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 or <35% subsurface

(1) Sand >75% or texture is loamy sand or sandier in surface & subsurface

(a) Elevation - 3700-4500 ft - 042BESG41 Semi-Desert Grassland Sandy Uplands

(b) Elevation - 4500-6000 ft - 042BESG68 Madrean Woodland Sandy Uplands

(c) Elevation - >6000 ft ... 070BESG71 – Temperate Forest 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 - 3700-4500 ft - 041XESG35 Semi-Desert Grassland Loamy Uplands

(2) Elevation - 4500-6000 ft - 042BESG36 Madrean Woodland Loamy Uplands

(3) Elevation - >6000 ft ... 070BESG37 – Temperate Forest Loamy Uplands

(b) Clay >20% or texture is finer than sandy loam in surface

(1) Elevation - 3700-4500 ft - 041XESG30 Semi-Desert Grassland Finer Uplands

(2) Elevation - 4500-6000 ft ... 070BESG31 – Madrean Woodland Finer Uplands

(3) Elevation - >6000 ft ... 070BESG32 – Temperate Forest Finer Uplands