USDA icon **Natural Resources Conservation Service**

Major Land Resource Area 077B
Southern High Plains, Northwestern Part

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Ecological site keys

MLRA 77B ES Key

I. Site that receives significant additional moisture from runoff of adjacent slopes or intermittent/perennial streams or a water table

A. Site moderately to strongly saline (>8mmhos/cm) within 20” (50cm) and dominated by salt tolerant species ... R077BY058NM – Saline

B. Site not saline

1 Loamy soils with fluctuating water table 1 to 4 feet below the surface for most of the growing season ... R077BY008NM – Meadows

2 Site not as above

i. Soil Sandy at surface, <18% clay in the top 10”(25cm) ... R077BY700TX – Sandy Bottomland 12-17" PZ

ii. Soil Loamy at surface, 18-35% clay in the top 10”(25cm)

a. Loamy soils with additional summer monsoonal moisture, elevation approximately 4000 feet or less ...

R077BY725TX – Draw 12-17" PZ

b. Loamy soils without additional summer monsoonal moisture, elevation approximately 4000 feet or more ...

R077BY007NM – Swales

II. Site does NOT receive additional moisture from runoff

A. Soils are very shallow (<10”(25cm) to root restricting layer

1 Soils highly calcareous (>15% CCE within top 20” (50cm))

i. Soil depth shallow (10-20” (25-50cm)) OR moderately deep to deep (>20” (>50cm), skeletal (>35% coarse fragments by volume in top 20” (50cm”)) ... R077BY031NM – Shallow

2 Soil NOT highly calcareous (>15% CCE within top 20”(50cm))

i. Soils very shallow(<10” (25cm)), but may include areas of exposed bedrock and pockets of deep soil ... R077BY016NM – Very Shallow

ii. Soil depth shallow to sandstone bedrock(10-20” (25-50cm)) OR moderately deep to deep (>20” (>50cm), skeletal (>35% coarse fragments by volume in top 20” (50cm”)) ... R077BY005NM – Shallow Sandstone

B. Soil depth moderately deep to deep (>20” (50cm)) without root restricting layer that inhibits the productivity potential

1 Soils affected by chemistry

i. Site moderately to strongly saline (>8mmhos/cm) within 20” (50cm) and dominated by salt tolerant species ...

R077BY019NM – Salt Flats

ii. Soils highly calcareous (>15% CCE) violent effervescence

a. High lime content soils with additional summer monsoonal moisture, elevation approximately 4000 feet or less ... R077BY016TX – Limy Upland 12-17" PZ

b. High lime content soils without additional summer monsoonal moisture, elevation approximately 4000 feet or more, site commonly occurs on the leeward side of playa lakes and sideslopes of draws ... R077BY011NM – High Lime

c. High lime content soils with additional summer monsoonal moisture, elevation approximately 4000 feet or less, site commonly occurs on the leeward side of playa lakes and sideslope of draws ... R077BY722TX – High Lime 12-17" PZ

d. Loamy site with Calcic horizon at 20 inches ... R077BY034NM – Deep Loamy Plains

e. Sandy soils with Calcic horizon at 20 inches ... R077BY028NM – Sandy Plains

2 Soils NOT affected by chemistry

i. Soils are loamy texture

a. Loamy site above about 4000 feet elevation ... R077BY033NM – Loamy

b. Loamy site below about 4000 feet elevation ... R077BY014TX – Deep Hardland 12-17" PZ

ii. Soils are sandy texture at the surface

a. Deep sandy soils, elevation approximately 4500 feet or more, site does not have significant additional summer monsoonal moisture from convection ... R077BY035NM – High Sandy Loam

b. Deep sandy soils, elevation approximately 4500 feet or less, site has significant additional summer monsoonal moisture from convection storms

1) loamy fine sand ... R077BY658TX – Sandy 12-17" PZ

2) Fine Sand ... R077BY020TX – Sand Hills 12-17" PZ

3) Sandy Loam ... R077BY021TX – Sandy Loam 12-17" PZ