

Major Land Resource Area 054X

Rolling Soft Shale Plain

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Ecological site keys

MLRA 54 Key

A The site has a water table <6 feet from the soil surface and is located in depressions on uplands or floodplains and drainageways.

I Site located in depressions with a silty clay to clay textured subsoil ... R054XY022ND – Closed Depression

II Site is located on lowland positions with EC>8 and/or visible salts in the soil profile and/or salt tolerant vegetation present ...

R054XY024ND – Saline Lowland

III Site has early growing season ponding, is typically located in depressions and floodplains, and is poorly drained ...

R054XY037ND – Wet Meadow

IV All other wet sites located in deep depressions and river valleys ... R054XY036ND – Shallow Marsh

B Bedrock and/or >15% of gravel is < 20 inches from soil surface

I Soil with >15% coarse sand or gravel at depths <14 inches ... R054XY035ND – Very Shallow

II Soil depth is 9-20 inches to bedrock

**a Weathered bedrock, shale, or strongly cemented silcrete and subsoil has silty clay loam or clay texture ... R054XY028ND
– Shallow Clayey**

**b Weathered bedrock, shale, or strongly cemented silcrete and silt loam to clay loam surface texture ... R054XY030ND –
Shallow Loamy**

c Weathered sandstone bedrock ... R054XY043ND – Shallow Sandy

C Sand content is >45% in the surface texture

**I Site is located on drainageways and stream terraces, and has rare to occasional flooding ... R054XY042ND – Sandy
Terrace**

**II Site has a sodic, dense claypan layer at >6 inches with salts >18 inches of soil surface and a fine sandy loam or silt loam soil surface
texture ... R054XY027ND – Sandy Claypan**

III Site is located on hills and ridges and are generally calcareous throughout soil profile ... R054XY045ND – Limy Sands

IV Fine sandy loam and sandy loam soil surface textures. Soil will form a ribbon <1 inch long ... R054XY026ND – Sandy

V Loamy fine sand to fine sand soil surface textures. Soil will not form a ribbon ... R054XY025ND – Sands

D Clay content is >35% in soil surface texture

I Silty clay to clay soil surface texture and no root restrictive layer ... R054XY020ND – Clayey

II Soil has a dense, root-restrictive, claypan layer <6” from the surface ... R054XY033ND – Thin Claypan

III Soil has dense, root-restrictive, claypan layer at 6-14" from the surface and a clay loam to clay soil surface texture ...

R054XY021ND – Claypan

E All other sites

I Site is located in a floodplain or swale with a fine sandy loam or loam soil surface texture ... R054XY023ND – Loamy

Overflow

II Site is located on shoulder slopes, convex rises, and summits with strong to violent effervescence immediately below the surface layer

... R054XY038ND – Thin Loamy

III Site located adjacent to a stream or river, occasional flooding ... R054XY041ND – Loamy Terrace

IV All other sites

a Calcium carbonates occurring within 8 inches of soil surface ... R054XY046ND – Limy Residual

**b Occurs on limestone capped buttes (Killdeer Mountains). The soil has forest vegetation. ... F054XY046ND – Upland
Hardwood Forest**

c All other sites. ... R054XY031ND – Loamy