Ecological site group DX035X03BESG01
Chuska Mountains - Sodic

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Key Characteristics

- Chuska Mountains
- Soils sodic

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Physiography

These sites occur in drainage or bottom positions on the landscape and on stream and fan terraces. They also occur adjacent to seeps on high stream terraces. Slopes range from 0-5%.

Climate

This group has a very dry and windy climate that is hot in the summer and cold in the winter. The annual precipitation averages between 6 and 10 inches. The soil moisture regime is typic-aridic and the soil temperature regime is mesic. A slight majority of the precipitation arrives during the late fall, winter, and early spring. This winter season moisture originates in the Pacific Ocean and arrives as rain, or sometimes snow, during widespread frontal storms of generally low intensity. The majority of the snow (average range of 1 to 17 inches) falls from December through February, but rarely lasts more than a few days. A seasonal drought occurs from late May through early July. Summer rains occur from July through September during brief intense local thunderstorms. The rain is sporadic in intensity and location. The moisture originates from the Gulf of Mexico in the early summer and the Gulf of California in the late summer/early fall. Windy conditions are common year round, but the winds are strongest and most frequent during the spring.

Soil features

Soils on this site are sodic, deep and well to excessively well drained. The surface textures include loamy sand to silty clay loam. Available water capacity is low to high. Runoff is low to very high. They are formed in eolian and alluvium derived from sandstone, siltstone and shale. The moisture regime is Typic Aridic and the temperature regime is Mesic.

Vegetation dynamics

Please see associated ecological sites under subclasses to view state and transition models.

The reference state for these sites is a native shrubland/grassland characterized by alkali sacaton, galleta and greasewood. Continuous yearlong grazing, drought and the introduction non-native annuals results in a native/invaded state. The canopy is still dominated by greasewood. Perennial grasses are in decline. Native and non-native annuals are present and well established across the site. This can deteriorate to an eroded state still dominated by greasewood with grasses and forbs present in small amounts. Bare ground is high and connected. Soil surface loss/erosion is the result of the loss of perennial herbaceous cover and sheet and rill erosion. This state is characterized by a loss of hydrologic function along with a degraded biotic function. The site not longer benefits from overland run-in moisture from uplands. Deep incised channels and/or active gullies have changed the site's ability to hold and capture run-in mosisture. This site gets most of its moisture through precipitation.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- R035XB016NM–Clay Loam Terrace (Sodic) 7-10"
- R035XB022NM–Loamy Upland 6-10"p.z. sodic
- R035XB033NM–Sandy Loam Upland 6-10" sodic
- R035XB211AZ–Loamy Wash 6-10" p.z. Saline-Sodic
- R035XB225AZ–Clay Loam Upland 6-10" p.z. Sodic
- R035XB227AZ–Sandy Loam Upland 6-10" p.z. Saline-Sodic
- R035XB228AZ–Sandstone Upland 6-10" p.z. Sodic
- R035XB237AZ–Clay Loam Terrace 6-10" p.z. Sodic
- R035XB238AZ–Sandy Terrace 6-10" p.z. Sodic
- R035XC309AZ–Clay Loam Terrace 10-14" p.z. Saline-Sodic
- R035XC327AZ–Clayey Upland 10-14" p.z. Sodic

Correlated Map Unit Components

22529798, 22529641, 22529453, 22529456, 22529539, 22529504, 22529754, 22529753, 22529752, 22529417, 22529651, 22529573, 22529647, 22529645, 22529644, 22529448, 22529449, 22529460, 22529581, 22529582, 22529530, 22529522, 22529816, 22999470
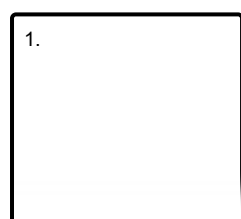
Stage

Provisional

Contributors

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State and transition model

Ecosystem states

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1.
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State 1

Citations