

Ecological site group DX035X01GESG04

Chinle Valley Saline Bottoms

Last updated: 10/12/2022
Accessed: 04/19/2024

Key Characteristics

- Chinle Valley
- Saline
- Bottoms
- [Criteria]

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

This group occurs on high flood plains and terraces of the San Juan River. Flooding rarely occurs; but a high water table does benefit the site. Depth to a seasonal high water table is 2 to 5 feet. It occurs on all exposures.

Climate

The climate of the land resource unit is arid with warm summers and cool winters. This is one of the driest land resource units on the Colorado Plateau with an average annual precipitation ranging from 6 to 10 inches per year. It is also very erratic, often varying substantially from year to year. 40 to 50 percent of the precipitation is received from October through early May. This precipitation comes as gentle rain or snow from frontal storms coming out of the Pacific Ocean. Snow is common from November through February. Generally no more than an inch or two of snow accumulates and usually melts within a day or two. The remaining precipitation, approximately 50 to 60 percent, is received from July through September as spotty, unreliable and sometimes violent thunderstorms. The moisture for this precipitation originates in the Gulf of Mexico (and the Pacific Ocean in the fall) and flows into the area on the north end of the Mexican monsoon. Late May through late June is generally a dry period. The mean annual temperature ranges from 53 to 56 degrees Fahrenheit (F). The frost-free period (air temperature > 32 degrees F) ranges from 135 to 160 days (@ 50 percent probability). Strong winds are common, especially in the spring.

Soil features

The soils in this group are very deep (60+") and moderately well to somewhat poorly drained. They are formed in alluvium derived from sandstone and shale. Surface textures of loam, fine sandy loam, silty clay loam. Subsurface textures include loam, fine sandy loam, silt loam, sand, fine sand, loamy fine sand, very fine sandy loam, clay loam, silty clay loam and silty clay. Hazard of water erosion is none to slight and the hazard of wind erosion is severe.

Vegetation dynamics

The plant communities found on an ecological group are naturally variable. Composition and production will vary with yearly conditions, location, aspect, and the natural variability of the soils. The historical climax plant community represents the natural potential plant communities found on relict or relatively undisturbed sites. Other plant communities described here represent plant communities that are known to occur when the site is disturbed by factors such as grazing, fire, or drought.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- R035XB272AZ–Loamy Bottom 6-10" p.z. Perennial, Saline

Correlated Map Unit Components

23000042, 23000043, 22999489, 22999491, 23000052

Stage

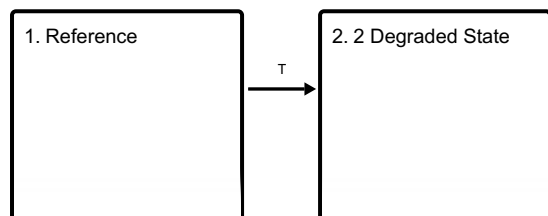
Provisional

Contributors

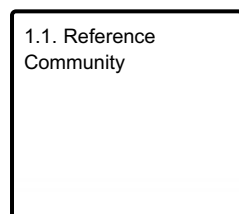
Curtis Talbot

State and transition model

Ecosystem states



State 1 submodel, plant communities



State 1 Reference

Community 1.1 Reference Community

This site has a plant community made up primarily of mid and short grasses, scattered shrubs and a relatively small percentage of forbs. There is a mixture of cool and warm season plants. Plant species most likely to invade or increase on this site when it deteriorates are annual mustard, fireweed, Russian thistle, cheatgrass, black greasewood, threadleaf rubber rabbitbrush and salt cedar.

State 2 2 Degraded State

Transition T State 1 to 2

Citations