

Ecological site group DX035X03CESG03

Defiance Plateau - Limy

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Key Characteristics

- Defiance Plateau
- Soils not sodic
- Soils not saline
- Soils limy

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 site occurs on abandoned stream terraces and summits and dipslopes of structural benches and cuerdas. The soils on this site are moderately deep to very deep and well drained with sandy loam surface textures. Slopes range from 0 to 15 percent.

This site occurs in an upland position. It neither benefits significantly from run-in moisture nor does it suffer from excessive loss of moisture from runoff. It occurs on all exposures.

Climate

The sites in this group have 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 typical 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

The soils on this site are moderately deep to very deep and well drained. These soils are highly calcareous throughout the profile. Surface textures range from fine sandy loam to gravelly and channery sandy loam. The subsoil textures range from sandy loam to sandy clay loam. This site is characterized as having sufficient soil development to have accumulations of carbonates or clays at shallow depths within the soil profile. This helps the site hold available water within the rooting depths of the vegetation.

The hazard of water erosion is slight to moderate and the hazard of soil blowing is moderate.

Vegetation dynamics

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

These sites have a reference plant community made up primarily of mid and short grasses, short shrubs and a

small percentage of forbs. There is a mixture of both cool and warm season grasses. Plant species most likely to invade or increase on this site when it deteriorates are cheat grass, russian thistle, galleta and broom snakeweed. Continuous grazing during the winter and spring will decrease the cool season grasses, which are replaced by lower forage value grasses and shrubs.

Invasion of non-native annuals, drought, continuous heavy grazing results in plant communities characterized by a mix of grasses and shrubs with invasive annuals. Dominant grasses are galleta, sand dropseed and alkali sacaton. There is a decline or absence of cool season grasses. Dominate shrubs are shadscale and broom snakeweed. Native and non-native annuals are present and well established. Annuals can make up to 25% composition by weight in the plant community.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- R035XB249AZ–Mudstone/Sandstone Upland 6-10" p.z. Limy, Channery
- R035XB267AZ–Sandy Loam Upland 6-10" p.z. Limy

Correlated Map Unit Components

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Stage

Provisional

Contributors

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State and transition model

Citations