Ecological site group DX035X01IESG17
Little Colorado River Basin-sandstone or sandy loam, shallow soils, low elevation

Last updated: 10/25/2022
Accessed: 04/19/2024

Key Characteristics

- Little Colorado River Basin
- Sandstone or sandy loam
- Shallow soils
- Low elevation, MAST >54 degrees F

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

Little Colorado River Basin-Shale or clayey mod-deep or deeper soils on fan remnants or plains

Climate

The 35.2 Colorado Plateau Cold Desert Shrub - Grassland common resource area 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 shallow. Surface textures are loamy sand to sand. They formed from eolian materials and residuum from sandstone and limestone. Subsurface textures are fine sandy loam, gravelly sandy loam, gravelly loam, gravelly loamy fine sand, extremely gravelly fine sandy loam.

Vegetation dynamics

This site is a blackbrush dominated community mixed with cool and warm season grasses like Indian ricegrass and galleta and a few forbs.
Plant species most likely to invade or increase on this site when it deteriorates are blackbrush, cacti, and annuals. Unmanaged gazing during the winter and spring periods will decrease the cool season grasses, which are replaced by lower forage value grasses and shrubs.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- R035XB226AZ–Sandstone/Shale Upland 6-10" p.z. Warm
- R035XB230AZ–Sandstone Upland 6-10" p.z. Very Shallow, Warm
- R035XB234AZ–Sandstone Upland 6-10" p.z. Warm
- R035XC333AZ–Sandstone Upland 10-14" p.z. Warm

Correlated Map Unit Components

22396753, 22396654, 22396674, 22396692, 22396691, 22396678, 22396677, 22396774, 22396640, 22396693, 22396615

Stage

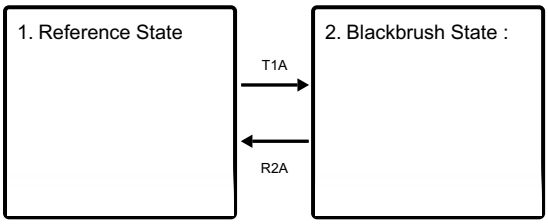
Provisional

Contributors

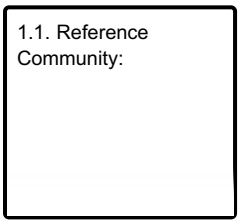
Curtis Talbot

State and transition model

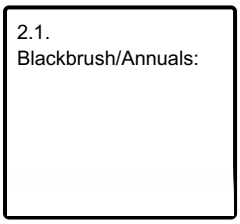
Ecosystem states



State 1 submodel, plant communities



State 2 submodel, plant communities



State 1
Reference State

This state includes the Reference Plant Community which is a shrubland community dominated by blackbrush mixed with warm and cool season grasses.

Community 1.1
Reference Community:

This site is a blackbrush dominated community mixed with cool and warm season grasses like Indian ricegrass, galleta, blackbrush, Indian ricegrass, broom snake weed, sand dropseed, Mormon tea, and a few forbs.

State 2
Blackbrush State :

This plant community is dominated by blackbrush with an understory of native and non-native annuals and sparse perennial grasses.

Resilience management. Plant species most likely to invade or increase on this site when it deteriorates are blackbrush, cacti, and annuals. Overgrazing during the winter and spring periods will decrease the cool season grasses, which are replaced by lower forage value grasses and shrubs.

Community 2.1
Blackbrush/Annuals:

This plant community is dominated by blackbrush with a understory of sparse perennial grasses and annuals. Native and non-native annuals have increased and are co-dominate with perennial grasses. Common annuals are Russian thistle cheatgrass and/or red brome.

Transition T1A
State 1 to 2

Repetitive, high utilization, especially during drought will cause this group to cross a threshold to a degraded state.

Restoration pathway R2A
State 2 to 1

Over an extended period of time with management that improves soil, plant, and hydrologic health the site can move toward reference.

Citations