Ecological site group DX035X01IESG12
Little Colorado River Basin-Loamy Soils moderately deep or deeper (slopes >15% and >35% rock fragments)

Last updated: 10/25/2022
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Key Characteristics

- Little Colorado River Basin
- Loamy
- Does not receive extra run-in moisture
- Moderately deep or deeper
- Slopes are greater than 15% and the upper part of the soil has more than 35% rock fragments

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 ecological site occurs as colluvial side-slopes of hills, escarpments and cliffs. Slopes generally range from 15 to 65 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, unless denuded of its vegetative cover.

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 moderately deep to deep on slopes and may have small pockets of shallow soils. Surface textures range from extremely gravelly loam to fine sand to extremely gravelly fine sandy loam. Subsurface textures are gravelly fine sandy loam to very fine sandy loam.

These soils formed in colluvium, alluvium and residuum from sandstone, siltstone and conglomerate materials from Recapture and Westwater canyon members of the Morrison formation. The moisture regime is typic aridic and the temperature regime is mesic.

Vegetation dynamics

The plant community is made up of mid and short grasses with a significant percentage of desert shrubs and a few forbs. In the original plant community 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 blackbrush and annuals.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- R035XB236AZ–Colluvial Slopes 6-10" p.z. Warm
- R035XC328AZ–Cobbly Slopes 10-14" p.z.

Correlated Map Unit Components

22395054, 22396661

Stage

Provisional

Contributors

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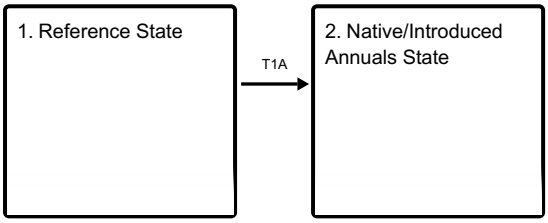
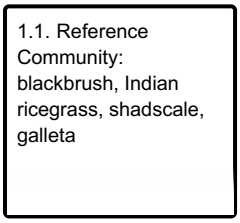
State and transition model

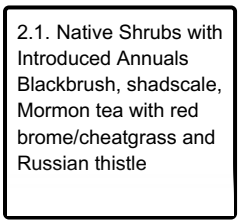
Ecosystem states



State 1 submodel, plant communities



State 2 submodel, plant communities



State 1
Reference State

This state is made up of mid and short grasses with a significant percentage of desert shrubs and a few forbs. In the reference plant community there is a mixture of both cool and warm season grasses.

Community 1.1
Reference Community: blackbrush, Indian ricegrass, shadscale, galleta

The reference community is made up of mid and short; cool and warm grasses with a significant percentage of

desert shrubs and a few forbs. Plant species most likely to invade or increase on this site when it deteriorates are blackbrush and annuals.

State 2
Native/Introduced Annuals State

This state is dominated by blackbrush with lesser amounts of shadscale, galleta and Indian ricegrass. Climatic fluctuations, especially during cooler months, have the potential to produce high amounts of annuals.

Community 2.1
Native Shrubs with Introduced Annuals Blackbrush, shadscale, Mormon tea with red brome/cheatgrass and Russian thistle

This plant community is dominated by blackbrush with few perennial grasses. Red brome, cheatgrass and Russian thistle are present and well established.

Transition T1A
State 1 to 2

There is an invasion of annual grasses, such as red brome, cheatgrass and Russian thistle.This is brought about by excessive bare areas due to a decrease in soil and plant health. Some shrubs, especially black brush have increased. Once introduced species have invaded it is unlikely the site can be restored to reference.

Citations