

Ecological site group DX035X01HESG06

Black Mesa-Navajo Mtn-Loamy Hills & Escarpments

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Key Characteristics

- Black Mesa Navajo Mountain
- Loamy soils
- Loamy hills and escarpments

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

Landform and position are footslopes and backslopes of mountains, canyon sides, and mesas.

Climate

Winter summer moisture ratios range from 70:30 to 60:40. Late spring is usually the driest period, and early fall moisture can be sporadic. Summer rains fall from June through September.

Soil features

Soils are predominately very shallow to shallow but can be deep. Surface textures are clay loam, very gravelly clay loam, and very channery clay loam. Subsurface textures are clay loam, silty clay loam, and silty clay. Parent material is alluvium, residuum from shale, and sandstone.

Vegetation dynamics

The dominant aspect of this site is a mix of shrubs and grasses with widely scattered trees on slopes. Grasses include galleta, Indian ricegrass, and alkali sacaton. Shadscale is the major shrub with some Bigelow sagebrush, Greene's rabbitbrush, Stanbury cliffrose, and dwarf rabbitbrush. Overstory consists of scattered Utah junipers with an occasional Colorado pinyon present on the site.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- DX035X04B335–Sandstone/Shale Hills 10-14" p.z.
- R035XA101AZ–Breaks 10-14" p.z.
- R035XC302AZ–Sedimentary Cliffs 10-14" p.z.
- R035XY328UT–Upland Very Steep Stony Loam (Pinyon-Utah Juniper)

Correlated Map Unit Components

22601139, 22601141

Stage

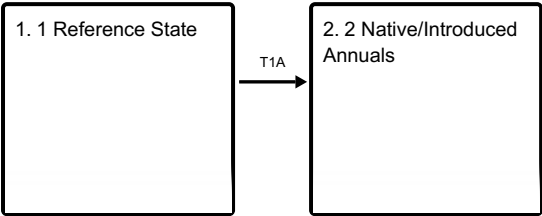
Provisional

Contributors

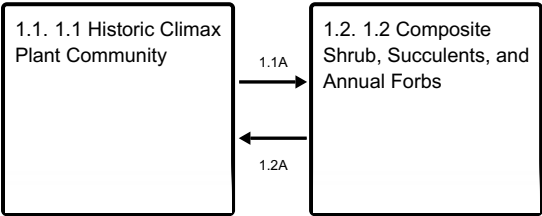
Curtis Talbot

State and transition model

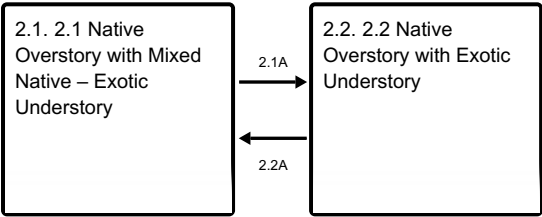
Ecosystem states



State 1 submodel, plant communities



State 2 submodel, plant communities



State 1
1 Reference State

Community 1.1
1.1 Historic Climax Plant Community

This site is a complex of trees, shrubs, forbs, and grasses. In the original plant community there is a mixture of cool and warm season plants. The plant community is composed of relatively equal amounts of shrubs, grasses, and forbs. It can be variable due to site conditions (aspect, soil depth, run-on & run-off areas). Plants most likely to increase or invade when the site deteriorates are big sagebrush, snakeweed, juniper and cacti.

Community 1.2
1.2 Composite Shrub, Succulents, and Annual Forbs

Composite Shrub, Succulents, and Annual Forbs – Composite shrubs such as broom snakeweed, and succulents such as prickly pear increase over Big sagebrush and other palatable shrubs. Perennial bunchgrasses decrease in relation to annual grasses and forbs.

Pathway 1.1A
Community 1.1 to 1.2

Drought, extended periods of winter dominated moisture, and loss of natural fire will reduce perennial grasses and increase woody species on the site.

Pathway 1.2A
Community 1.2 to 1.1

Managed grazing.

State 2
2 Native/Introduced Annuals

Community 2.1
2.1 Native Overstory with Mixed Native – Exotic Understory

Exotic annual grasses are present in the plant community but the amount and composition of native perennial grasses remains unchanged. Introduced annuals can range in composition from 2-10 percent in the total plant community composition.

Community 2.2
2.2 Native Overstory with Exotic Understory

Native Overstory with Exotic Understory Exotic annual grasses dominate understory within the plant community. Introduced annuals can range in composition from 2-20 percent in the total plant community composition.

Pathway 2.1A
Community 2.1 to 2.2

Normal precipitation patterns, periodic fires.

Pathway 2.2A
Community 2.2 to 2.1

Normal precipitation patterns, periodic fires.

Transition T1A
State 1 to 2

Exotic grass species such as cheatgrass are introduced into the site.

Citations