Ecological site group DX035X04CESG05
Chaco Mesa LRU Subset - Sandy

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Key Characteristics

- Chaco Mesa. This LRU subset is composed of Cretaceous materials, is generally above 1900 m in elevation, and does not drain directly into the San Juan River. The Chaco Mesa subset is further distinguished from the Bisti Lowlands in that the former receives more monsoonal moisture, harbors more warm-season grasses, and experiences a considerable amount of blowing sands.
- Sites that occur on "upland", water-shedding landforms. Elevated terraces are included in this group.
- Soils are > 50 cm to lithic or paralithic contact (root-restrictive bedrock).
- Soils lack both significant salinity and sodicity.
- Soils lack one or both f the following at the surface: Strong or violent response to dilute HCl or ≥ 5% calcareous fragments.
- Sites with soils that have particle size classes of of sandy, coarse loamy, or coarser.

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

Upland landforms. Elevated terraces included; drainageway bottoms excluded. Flooding does not occur.

Soil features

Soils have coarse loamy or sandy particle size classes. They are well- to excessively-well drained.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- DX035X03A113–Sandy
- DX035X03E002–Sandy
- DX035X03E007–Deep Sand
- R035XB035NM–Sandy Upland 6-10"
- R035XB217AZ–Sandy Upland 6-10" p.z.

Correlated Map Unit Components

23184706, 23185846, 23187687, 23186361, 23186362

Stage

Provisional

Contributors

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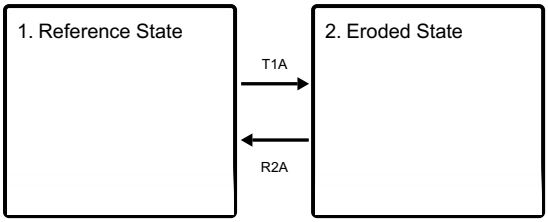
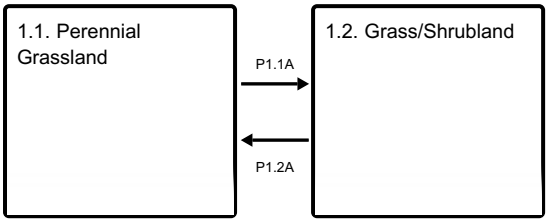
State and transition model

Ecosystem states



State 1 submodel, plant communities



State 1
Reference State

Soils are not significantly eroded; topsoil remains.

Dominant plant species

- broom snakeweed (*Gutierrezia sarothrae*), shrub
- Indian ricegrass (*Achnatherum hymenoides*), grass
- western wheatgrass (*Pascopyrum smithii*), grass
- blue grama (*Bouteloua gracilis*), grass
- dropseed (*Sporobolus*), grass
- James' galleta (*Pleuraphis jamesii*), grass

Community 1.1
Perennial Grassland

Dominant plant species

- Indian ricegrass (*Achnatherum hymenoides*), grass
- blue grama (*Bouteloua gracilis*), grass
- western wheatgrass (*Pascopyrum smithii*), grass
- James' galleta (*Pleuraphis jamesii*), grass
- dropseed (*Sporobolus*), grass
- needle and thread (*Hesperostipa comata*), grass

Community 1.2
Grass/Shrubland

Perennial grass community with a significant shrub presence. Blue grama often sod-bound. Annuals are an important component.

Dominant plant species

- broom snakeweed (*Gutierrezia sarothrae*), shrub
- sand sagebrush (*Artemisia filifolia*), shrub
- dropseed (*Sporobolus*), grass
- James' galleta (*Pleuraphis jamesii*), grass

Pathway P1.1A

Community 1.1 to 1.2

Continuous grazing.

Pathway P1.2A
Community 1.2 to 1.1

Prescribed grazing.

State 2
Eroded State

Topsoils significantly truncated or absent. Active erosion is usually evident. Herbaceous community dominated by annuals.

Dominant plant species

- sand sagebrush (*Artemisia filifolia*), shrub
- mormon tea (*Ephedra viridis*), shrub
- rubber rabbitbrush (*Ericameria nauseosa*), shrub

Transition T1A
State 1 to 2

Prolonged continuous grazing followed by a drought event. Introduced annuals gain competitive advantage.

Restoration pathway R2A
State 2 to 1

Prescribed/deferred grazing. Brush control, erosion control, and seeding may be necessary, as well.

Citations