Ecological site group DX035X04AESG02
San Juan River Corridor LRU Subset - Shallow Subgroup

Key Characteristics

- San Juan River Corridor. This LRU subset consists of landforms which drain directly into the San Juan River. Elevations are mostly under 1900 meters. Stratigraphy is varied, ranging from the Mancos to the Nacimiento formations. This LRU subset is distinct from the rest of 35.4 in that it provides irrigation water. Thus, upland landforms which contribute significant water are included.
- 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).

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 various water-shedding, bedrock-controlled landforms, including mesas, plateaus, structural benches, and escarpments in general.

Soil features

Soils are < 50 cm (20") to root-restrictive bedrock--either paralithic or lithic.

R035XY406CO Salt Desert Breaks
R035XY408CO Basin Shale
R035XY410CO-Silty saltdesert

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

- DX035X03E006–Shallow
- DX035X04B204–Sandstone Upland 6-10" p.z.
- DX035X04B314–Sandstone Upland 10-14" p.z.
- R035XY406CO–Salt Desert Breaks
- R035XY408CO–Basin Shale

Correlated Map Unit Components

22529493, 22960232, 22960272, 22960309, 22960000, 22959986, 22960317, 22960016, 22960381, 22960197, 22960209, 22856774, 23435717, 23435742, 23435753, 23435825, 23435874, 23435889, 23435898, 23435896, 23435959, 23435958, 23435966, 22999740, 22999960, 22999974, 22999988
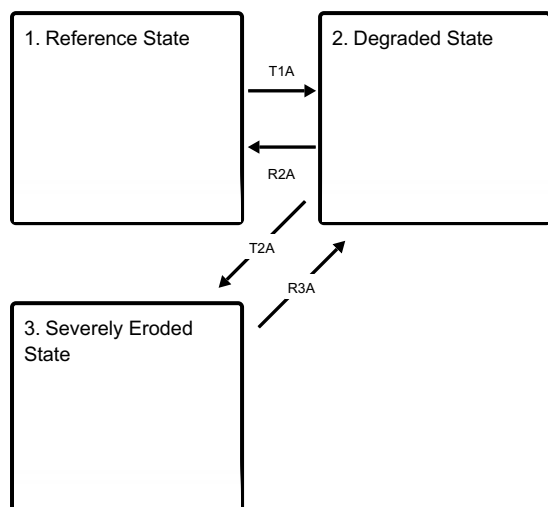
Stage

Provisional

Contributors

Curtis Talbot

State and transition model

Ecosystem states

State 1
Reference State

Mix of perennial grasses and shrubs. Topsoil remains intact.

Dominant plant species

- Bigelow sage (*Artemisia bigelovii*), shrub
- winterfat (*Krascheninnikovia arborescens*), shrub
- green rabbitbrush (*Ericameria teretifolia*), shrub
- Indian ricegrass (*Achnatherum hymenoides*), grass
- black grama (*Bouteloua eriopoda*), grass
- James' galleta (*Pleuraphis jamesii*), grass
- threeawn (*Aristida*), grass

State 2
Degraded State

Shrub-dominated plant community on degraded soils.

Dominant plant species

- Bigelow sage (*Artemisia bigelovii*), shrub
- mormon tea (*Ephedra viridis*), shrub
- broom snakeweed (*Gutierrezia sarothrae*), shrub
- green rabbitbrush (*Ericameria teretifolia*), shrub
- James' galleta (*Pleuraphis jamesii*), grass
- blue grama (*Bouteloua gracilis*), grass
- threeawn (*Aristida*), grass

State 3
Severely Eroded State

Sparse plant community dominated by shrubs, early-seral grasses, and halogeton.

Dominant plant species

- green rabbitbrush (*Ericameria teretifolia*), shrub

- broom snakeweed (*Gutierrezia sarothrae*), shrub
- cheatgrass (*Bromus tectorum*), grass
- threeawn (*Aristida*), grass
- James' galleta (*Pleuraphis jamesii*), grass

Transition T1A
State 1 to 2

Prolonged continuous grazing leads to mortality among perennial grasses. Low basal area leads to accelerated erosion. Shrubs gain a competitive advantage.

Restoration pathway R2A
State 2 to 1

This restoration pathway involves the reversal of erosion and the re-establishment of extirpated species. Seeding and erosion control measures are likely necessary. Additionally, herbivory must be carefully managed.

Transition T2A
State 2 to 3

Prolonged continuous grazing leads to mortality among perennial grasses. Extremely low basal area leads to accelerated erosion. Loss of topsoil severely reduces plants' access to water and nutrients, leading to very low production.

Restoration pathway R3A
State 3 to 2

This restoration pathway involves the reversal of erosion and the re-establishment of extirpated species. Seeding and erosion control measures are likely necessary. Additionally, herbivory must be carefully managed.

Citations