Ecological site group DX035X04BESG02
Bisti Lowlands LRU Subset - Limy Subgroup

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Key Characteristics

- Bisti Lowlands. This LRU subset is composed of Cretaceous materials, and is generally below 1900 m in elevation. The Bisti Lowanads subset is further distinguished from Chaco Mesa in that the former receives less monsoonal moisture, harbors less warm-season grass, and experiences low amounts 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 have a combination of free carbonates and calcareous rock fragments at the surface. Strong or violent response to dilute HCl and ≥ 5% calcareous 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

Various upland, water-shedding landforms.

Soil features

The overriding property of the soils in this group is that they have abundant free carbonates (i.e. they will react strongly to dilute HCL) at the surface. Additionally, these soils are well-drained and >50 cm to root-restrictive layers.

Major Land Resource Area

MLRA 035X
Colorado Plateau

Subclasses

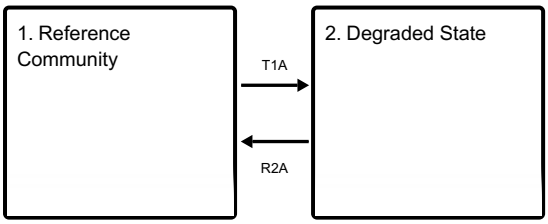
- DX035X03E003–Limy
- R035XB267AZ–Sandy Loam Upland 6-10" p.z. Limy

Stage

Provisional

State and transition model

Ecosystem states



State 1
Reference Community

This community is dominated by perennial grasses, with a significant component of shrubs.

Dominant plant species

- shadscale saltbush (*Atriplex confertifolia*), shrub
- broom snakeweed (*Gutierrezia sarothrae*), shrub
- Indian ricegrass (*Achnatherum hymenoides*), grass

State 2
Degraded State

Shrub-dominated community with a mix of perennial and invasive annual grasses. Topsoils are significantly degraded.

Dominant plant species

- shadscale saltbush (*Atriplex confertifolia*), shrub
- broom snakeweed (*Gutierrezia sarothrae*), shrub
- James' galleta (*Pleuraphis jamesii*), grass
- cheatgrass (*Bromus tectorum*), grass

Transition T1A
State 1 to 2

Prolonged continuous grazing, followed by a drought event, leads to significant mortality of perennial grasses. Low plant basal area leads to accelerated erosion. Invasive annuals and shrubs gain a competitive advantage.

Restoration pathway R2A
State 2 to 1

This restoration pathway involves the recovery of perennial grasses and the reversal of erosion. Prescribed/deferred grazing is a necessary component. Additionally, shrub control, erosion control, and seeding may be necessary.

Citations