

# Ecological site group DX035X02GESG04

## Marble Canyon - Typic Aridic - Gypsum Upland

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### Key Characteristics

- Marble Canyon (G)
- site is gypsic
- site soils are typic aridic or within 6 to 10 inch precipitation range
- site slopes are upland, slopes  $\leq 15\%$

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

Site is and/or located in an upland with slopes  $<15\%$ . Aspects tend toward Marble Canyon, and more generally, the northeast.

### Climate

Site soils are typic aridic or within a 6-10" precipitation zone. No clear pattern exists in the seasonal timing of precipitation, generally driest in late spring.

### Soil features

Parent material is gypsiferous sedimentary. Soils are loamy. Site consists of limited amounts of gently sloping sheet alluvial or eolian deposits over residuum of plateaus and structural benches.

### Vegetation dynamics

Grass-Shrubland

### Major Land Resource Area

MLRA 035X  
Colorado Plateau

### Subclasses

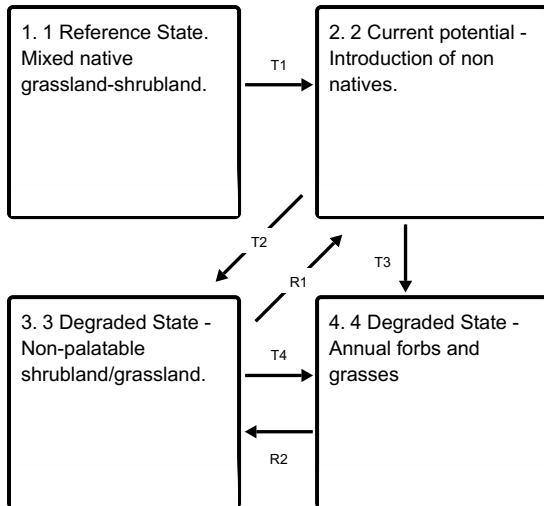
- R035XD405AZ–Gypsum Upland 7-11" p.z.

### Stage

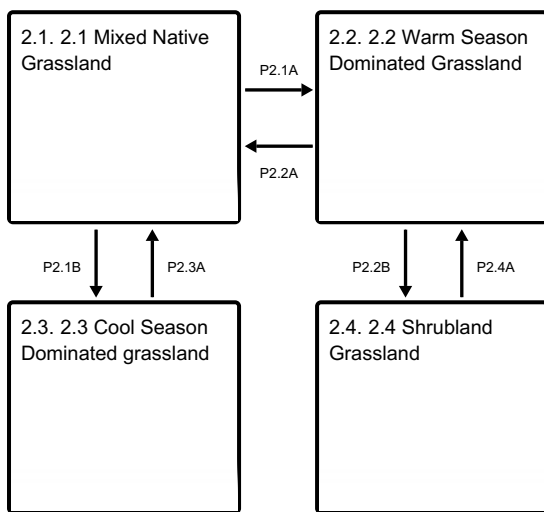
Provisional

### State and transition model

## Ecosystem states



## State 2 submodel, plant communities



## State 1

**1 Reference State. Mixed native grassland-shrubland.**

## State 2

**2 Current potential - Introduction of non natives.**

This state is similar to reference but have introduced species.

## Community 2.1

**2.1 Mixed Native Grassland**

## Community 2.2

**2.2 Warm Season Dominated Grassland**

## Community 2.3

**2.3 Cool Season Dominated grassland**

## Community 2.4

**2.4 Shrubland Grassland**

## Pathway P2.1A

**Community 2.1 to 2.2**

Repetitive high utilization of cool season species.

**Pathway P2.1B**  
**Community 2.1 to 2.3**

Fire sets the shrubs back along with management to colonize cool season species.

**Pathway P2.2A**  
**Community 2.2 to 2.1**

Grazing management to promote colonization of cool season species.

**Pathway P2.2B**  
**Community 2.2 to 2.4**

Shrub encroachment over time.

**Pathway P2.3A**  
**Community 2.3 to 2.1**

Encroachment of shrubs into burned areas along with management to promote a diversity of cool and warm season species.

**Pathway P2.4A**  
**Community 2.4 to 2.2**

Fire to open the shrub canopy.

**State 3**  
**3 Degraded State - Non-palatable shrubland/grassland.**

**State 4**  
**4 Degraded State - Annual forbs and grasses**

**Transition T1**  
**State 1 to 2**

Invasion of introduced species. Once the site has been invaded it is unlikely it will return to reference.

**Transition T2**  
**State 2 to 3**

Repetitive, high utilization of grass species.

**Transition T3**  
**State 2 to 4**

**Restoration pathway R1**  
**State 3 to 2**

Management to colonize palatable grass species.

**Transition T4**  
**State 3 to 4**

Further degradation of soil, plant, and hydrology.

## **Restoration pathway R2**

### **State 4 to 3**

Starting a slow restoration of soil, plant, and hydrologic health.

### **Citations**