

# Ecological site group DX035X01JESG13

## Paria and Kaibito Plateaus Shale or Clayey

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### Key Characteristics

- Paria and Kaibito Plateaus
- Shale or clayey
- [Criteria]

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 range site occurs on footslopes, backslopes and canyon sides over shale bedrock. Slopes generally range from 15 to 60 percent, but there can be small areas with flatter or steeper slopes within the site. The soils are very shallow to shallow and well drained. It does not benefit from run-in moisture.

### 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; moisture originates in the Gulf of Mexico and creates convective, usually brief, intense thunderstorms. Cool season moisture from October through May tends to be frontal; it originates in the Pacific and the Gulf of California and falls in widespread storms with longer duration and lower intensity. Precipitation generally comes as snow from December through February. Accumulations above 12 inches are not common but can occur. Snow usually lasts for 3-4 days, but can persist much longer. Summer daytime temperatures are commonly 95 - 100 F and on occasion exceed 105 F. Winter air temperatures can regularly go below 10 F and have been recorded below - 20 F.

### Soil features

Soils are very shallow to shallow (<20") over weathered shale or CR materials, and are well drained. Soil textures range from clay loam to clay throughout the profile. Soft shale fragments range from 15-75%. Commonly, thin seams of lime and gypsum-like fractures and faces of shale fragments occur. Available water holding capacity is moderate. Water and wind erosion hazard is moderate. Soils are moderately alkaline (pH 7.4-8.4).

### Vegetation dynamics

1.1 community: The plant community is made up of mid and short grasses with a fair percentage of forbs and shrubs. In the original plant community, there is a mixture of both cool and warm season plants.

Plant species most likely to invade or increase on this site when it deteriorates are galleta, Torrey seepweed, Greene rabbitbrush, cheatgrass and annual forbs. Continuous livestock grazing use during winter and spring will decrease cool season grasses, which are replaced by lower forage value grasses and shrubs.

Introduced exotic annual grasses and forbs are present in minor amounts in the plant community, but the amount and proportions of native plants is similar to that found in plant community 1.1, Reference Plant Community.

2.2 community: This plant community is characterized by a dominance of shadscale saltbush, Torrey Seepweed, snakeweed, with a few alkali sacaton and galleta. Introduced exotic annual grasses and forbs are present in minor

amounts in the plant community.

## Major Land Resource Area

MLRA 035X  
Colorado Plateau

### Subclasses

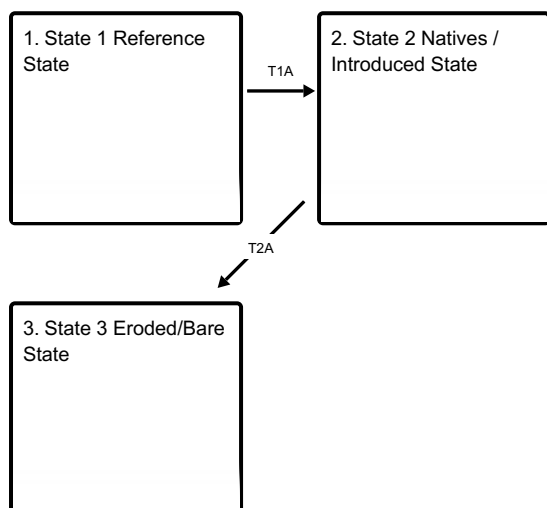
- R035XC320AZ–Shale Hills 10-14" p.z.
- R035XY234UT–Semidesert Shallow Shale (Utah Juniper-Pinyon)
- R035XY239UT–Semidesert Shallow Clay (Shadscale-Utah Juniper)

### Stage

Provisional

## State and transition model

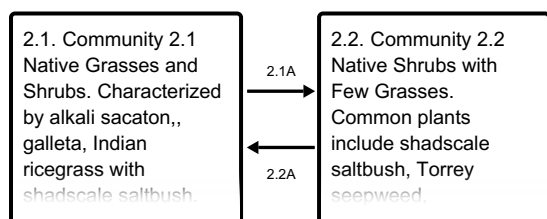
### Ecosystem states



### State 1 submodel, plant communities

1.1. Community 1.1  
1.1 Historic Climax  
Plant Community.  
Characterized by alkali  
sacaton, galleta, Indian  
ricegrass with  
shadscale saltbush.

### State 2 submodel, plant communities



### State 3 submodel, plant communities

3.1. Community 3.1  
Annual forbs and  
grasses. Russian  
thistle with Native and  
Non-Native Annuals.  
Shrubs and perennial  
grasses may be

### State 1

#### State 1 Reference State

#### Community 1.1

##### **Community 1.1 1.1 Historic Climax Plant Community. Characterized by alkali sacaton, galleta, Indian ricegrass with shadscale saltbush.**

Community 1.1 Historic Climax Plant Community The plant community is made up of mid and short grasses with a fair percentage of forbs and shrubs. In the original plant community, there is a mixture of both cool and warm season plants. Plant species most likely to invade or increase on this site when it deteriorates are galleta, Torrey seepweed, Greene rabbitbrush, cheatgrass and annual forbs. Continuous livestock grazing use during winter and spring will decrease cool season grasses, which are replaced by lower forage value grasses and shrubs.

### State 2

#### State 2 Natives / Introduced State

State 2 Natives / Introduced State

#### Community 2.1

##### **Community 2.1 Native Grasses and Shrubs. Characterized by alkali sacaton,, galleta, Indian ricegrass with shadscale saltbush. Exotics present in minor amounts**

Community 2.1 Native Grasses and Shrubs Introduced exotic annual grasses and forbs are present in minor amounts in the plant community, but the amount and proportions of native plants is similar to that found in plant community 1.1, Reference Plant Community.

#### Community 2.2

##### **Community 2.2 Native Shrubs with Few Grasses. Common plants include shadscale saltbush, Torrey seepweed, snakeweed, few alkali sacaton and galleta. Exotics present in minor amounts.**

Community 2.2 Native Shrubs with Few Grasses This plant community is characterized by a dominance of shadscale saltbush, Torrey Seepweed, snakeweed, with a few alkali sacaton and galleta. Introduced exotic annual grasses and forbs are present in minor amounts in the plant community.

#### Pathway 2.1A

##### **Community 2.1 to 2.2**

Season long grazing providing little rest and recovery for preferred grazed plants during critical growing periods coupled with high utilization, drought

#### Pathway 2.2A

##### **Community 2.2 to 2.1**

Prescribed grazing/Rest, favorable moisture/climate

### State 3

#### State 3 Eroded/Bare State

State 3 Eroded/Bare State

### **Community 3.1**

**Community 3.1 Annual forbs and grasses. Russian thistle with Native and Non-Native Annuals. Shrubs and perennial grasses may be absent or severely reduced. Significant bare ground & erosion.**

Community 3.1 Annual forbs and grasses Russian thistle with Native and Non-Native Annuals. Shrubs and perennial grasses may be absent or severely reduced. Significant bare ground & erosion.

### **Transition T1A**

#### **State 1 to 2**

Introduction of non-native annuals species creates an irreversible change in the plant community

### **Transition T2A**

#### **State 2 to 3**

Season long grazing providing little rest and recovery for preferred grazed plants during critical growing periods coupled with high utilization, drought, loss of perennial plant cover results in significant erosion

### **Citations**