

Ecological site group DX035X01DESG08

Henry Mtns-Deep Rocky Soils-mid elevation

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Key Characteristics

- Henry Mountains
- Deep Rocky Soils
- Mid elevation MAST<54 degrees F

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 is found on many landforms with deep stony soils, including; mountain slopes, slump blocks, structural benches, remnant alluvial fans, remnant stream terraces, landslides, and benches. Elevations range from 5500 to 7500 feet and slopes are typically between 2 and 50%.

Climate

The climate of this site is characterized by warm summers and cold winters. Average annual precipitation is 12 to 16 inches. Much of the summer moisture occurs as convective thunderstorms from July through October. May and June are typically the driest months during the growing season. Large fluctuations in daily temperatures are common, and precipitation varies greatly from month to month and from year to year.

Soil features

The soils of this site are deep, with greater than 50% rock fragments (by volume) throughout the profile. Large rock fragments are common on the soil surface as well. These soils formed in alluvium or colluvium derived from diorite or sedimentary rock, including sandstone, siltstone, limestone and shale. Textures range from loams to sandy loams, and rock fragments range from gravels to boulders. These soils are well drained with moderate permeability. The soil moisture regime is aridic ustic and the soil temperature regime is mesic. Available water-holding capacity ranges from 2.3 to 6.6 inches of water in the upper 40 inches of soil.

Vegetation dynamics

This site developed under Colorado Plateau climatic conditions and included natural influences of herbivory, and climate; however due to the remote location, broken topography, steep slopes (2-50%), and lack of perennial water sources this area rarely served as habitat for large herds of native herbivores. This site's plant species composition is generally dominated by two-needle pinyon and Utah juniper, with some perennial grasses.

Major Land Resource Area

MLRA 035X

Colorado Plateau

Subclasses

- R035XY303UT–Upland Gravelly Loam (Pinyon-Juniper)
- R035XY318UT–Upland Stony Loam (Wyoming Big Sagebrush, Indian Ricegrass)

- R035XY321UT–Upland Stony Loam (Pinyon-Utah Juniper)

Correlated Map Unit Components

22592575, 22592341, 22592343, 22592357

Stage

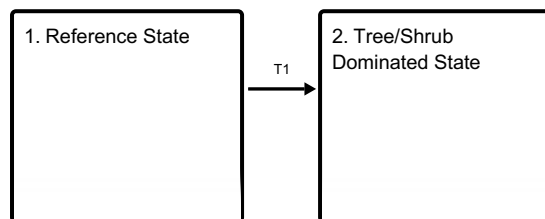
Provisional

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State and transition model

Ecosystem states



State 1 submodel, plant communities

1.1. 1.1 Utah Juniper-Pinyon-Wyoming Big Sagebrush/Grasses
Relatively open overstory of trees and shrubs with perennial grasses present in the

State 2 submodel, plant communities

2.1. Utah Juniper-Pinyon-Wyoming Big Sagebrush Dominance

State 1

Reference State

The reference state is dominated by an overstory of trees and/or shrubs with perennial grasses present in the understory.

Community 1.1

1.1 Utah Juniper-Pinyon-Wyoming Big Sagebrush/Grasses Relatively open overstory of trees and shrubs with perennial grasses present in the understory.

Relatively open overstory of Utah juniper and pinyon and/or Wyoming big sagebrush with perennial grasses, typically blue gramma, galleta, or Indian ricegrass, present in the understory.

State 2

Tree/Shrub Dominated State

This state results when perennial grasses are lost from the system and trees increase and dominate. Soil erosion

may become a hazard, and non-native invasive species, particularly cheatgrass, may be more likely to establish in this state.

Community 2.1

Utah Juniper-Pinyon-Wyoming Big Sagebrush Dominance

This community is dominated by Utah juniper, pinyon and/or Wyoming big sagebrush. Perennial herbaceous vegetation is greatly reduced. Soil erosion may result from the lack of herbaceous cover. This phase may be susceptible to invasion by non-native invasive species.

Transition T1

State 1 to 2

This transition occurs when perennial grasses are reduced by improper livestock grazing (heavy stocking rates, continuous season-long grazing, etc.) followed by an increase in woody species. The resulting state is unable to regain perennial grasses without significant management inputs.

Citations