

Ecological site DX035X03G002
Western Plateau Zuni Reservation 13 to 16 inches

Accessed: 05/11/2025

General information

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.



Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	(1) <i>Juniperus monosperma</i> (2) <i>Pinus edulis</i>
Shrub	(1) <i>Artemisia nova</i>
Herbaceous	(1) <i>Pascopyrum smithii</i>

Legacy ID

F035XG002NM

Physiographic features

The western plateau ranges from 6,600-8,000 feet. It consists of an area of broad mesas and plateaus interspersed with numerous deep canyons and dry washes.

Table 2. Representative physiographic features

Landforms	(1) Plateau (2) Hill
Elevation	6,000–7,000 ft

Slope	1–10%
Aspect	Aspect is not a significant factor

Climatic features

The western plateau area experiences cool, wet winters and warm summers with monsoon moisture from July to September.

Table 3. Representative climatic features

Frost-free period (average)	135 days
Freeze-free period (average)	0 days
Precipitation total (average)	16 in

Influencing water features

Soil features

These soils are very deep, well-drained, moderately permeable soils formed in medium to moderately fine textured material. These soils are on hills, ridges, and farm remnants. Slopes range from 1 to 8 percent.

This ecological site is associated with the map units and soil components in the following soil surveys. Future updates to this soil survey may affect these associations. For up-to-date associations between soil components and this ecological site, refer to NASIS. Associations between ecological sites and soil components are maintained in NASIS via the ecological site ID.

MAP UNIT NAME

Soil survey..Map unit symbol...Soil components

McKinley SS..566.....BAMAC

Table 4. Representative soil features

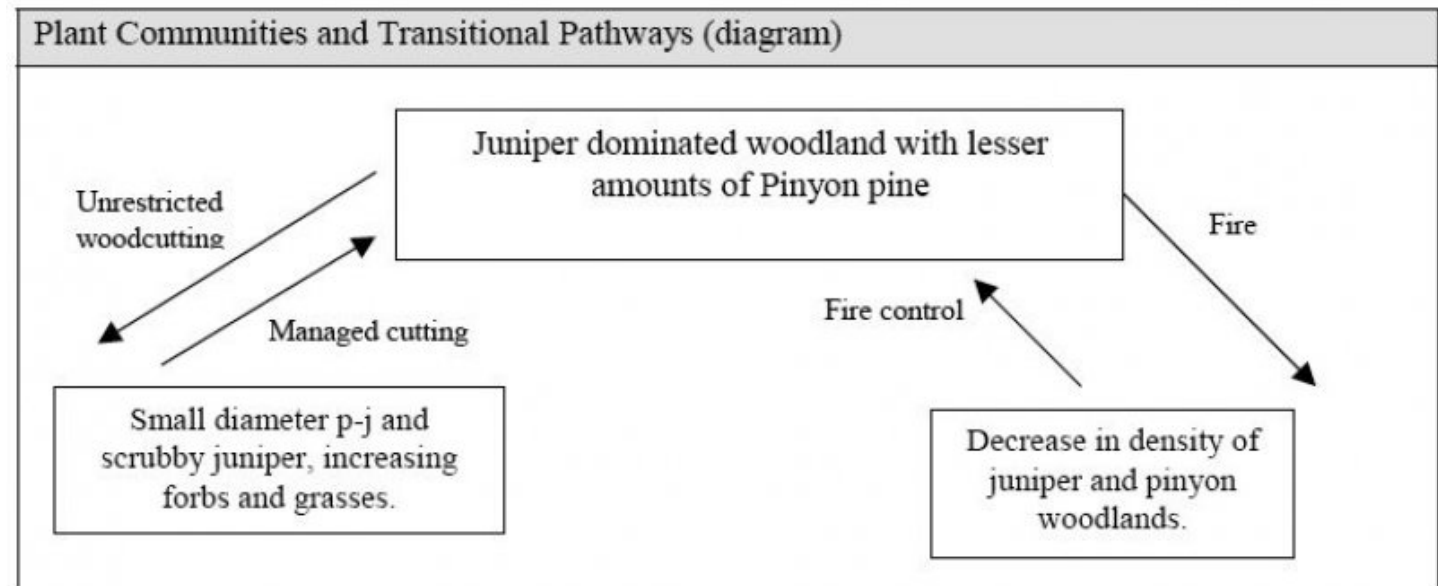
Surface texture	(1) Fine sandy loam (2) Sandy loam (3) Loam
Family particle size	(1) Loamy
Drainage class	Well drained to moderately well drained
Permeability class	Rapid to moderately rapid
Soil depth	40–80 in
Surface fragment cover <=3"	0–5%
Surface fragment cover >3"	0%
Available water capacity (0–40in)	1–9 in
Calcium carbonate equivalent (0–40in)	0–10%
Electrical conductivity (0–40in)	0–4 mmhos/cm
Soil reaction (1:1 water) (0–40in)	7–7.8
Subsurface fragment volume <=3" (Depth not specified)	0–5%

Subsurface fragment volume >3" (Depth not specified)	0%
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Ecological dynamics

The juniper dominant woodland on the western plateau occupies the mesas and plateaus where less effective moisture is available. The juniper competes effectively on drier sites. The trees are somewhat scrubby and bushy.

State and transition model



State 1

Juniper Dominated Woodland

Community 1.1

Juniper Dominated Woodland

Oneseeded Juniper and some Twoneedle Pinyon pine in moderately dense stands. Sparse grasses in openings between the trees.

Additional community tables

Type locality

Location 1: McKinley County, NM	
Township/Range/Section	T9N R21W S22

Contributors

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Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups** (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant:

Sub-dominant:

Other:

Additional:

13. **Amount of plant mortality and decadence** (include which functional groups are expected to show mortality or decadence):
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14. **Average percent litter cover (%) and depth (in):**
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15. **Expected annual annual-production** (this is TOTAL above-ground annual-production, not just forage annual-production):
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16. **Potential invasive (including noxious) species (native and non-native).** List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:
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17. **Perennial plant reproductive capability:**
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