

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Upland Shallow Loam (Pinyon-Utah juniper)

SITE NUMBER: 029XY320UT

MLRA: 029X

Original Site Description: Author: TS

Date: 01/01/1990

Revised Site Description: Author: TS

Date: 03/20/1994

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 07/11/1994

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: 10-20 inches

Surface Textures: Very Gravelly Sandy Loam to Loam

Surface Fragments(<=3" % cover, >3" % cover):

Subsurface Textures: Gravelly or Cobbly (Medium to Fine Textures)

Subsurface Fragments(<=3" % vol, >3" % vol): >35%

Geologic Parent Materials: Derived from Limestone and Acid Parent Material

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max):

Drainage Class(min-max): Well Drained

Water Erosion Hazard:

Wind Erosion Hazard:

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches):

Major Soils Associated With This Site:

Soil Survey Area:

Quazo GRV-SL

Welring GRV-L

Motoqua GRV-SL

Tortugas GRV-L

Additional information may be found in Section II of the Field Office Technical Guide.

1. Potential Plant Community Description and Ecological Factors

The dominant aspect of this plant community is pinyon-Utah juniper. The understory composition by air-dry weight is approximately 45 percent perennial grasses, 5 percent forbs, and 50 percent shrubs.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Indian ricegrass	ACHY		80	120	10	15
Muttongrass	POFE		80	120	10	15
Blue grama	BOGR2		24	40	3	5
Galleta	HIJA		24	40	3	5
Needleandthread	HECO26		24	40	3	5
Bluebunch wheatgrass	PSSP6	1	0	24	0	3
Bottlebrush squirreltail	ELEL5	1	0	24	0	3
Dryland sedge	CAREX	1	0	24	0	3
Prairie junegrass	KOMA	1	0	24	0	3
Western wheatgrass	PASM	1	0	24	0	3
Other perennial grasses	PPGG	1	40	80	5	10
Other annual grasses	AAGG	1	40	80	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
American vetch	VIAM		16	24	2	3
Sandwort	ARENA		16	24	2	3
Daisy	ERIGE2	2	0	8	0	1
Locoweed	ASTRA1	2	0	8	0	1
Phlox	PHLOX	2	0	8	0	1
Penstemon	PENST	2	0	8	0	1
Other perennial forbs	PPFF	2	8	16	1	2
Other annual forbs	AAFF	2	8	16	1	2

Shrubs/Vines, %

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Ecological Site Name: Upland Shallow Loam (Pinyon-Utah juniper)

Site Number: 029XY320UT

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		40	80	5	10
Utah juniper	JUOS		40	80	5	10
Shrub live oak	QUTU2		40	80	5	10
Antelope bitterbrush	PUTR2		24	40	3	5
Mountain big sagebrush	ARTRV		24	40	3	5
Singleleaf pinyon	PIMO		24	40	3	5
Manzanita	ARPH5		24	40	3	5
Desert ceanothus	CEGR		24	40	3	5
Douglas rabbitbrush	CHVI8		16	24	2	3
Cliffrose	PUME	3	0	0	0	0
Rubber rabbitbrush	CHNA2	3	0	0	0	0
Broom snakeweed	GUSA2	3	0	0	0	0
Woody aster	ASTER	3	0	0	0	0
Yellowleaf silktassel	GAFL2	3	0	0	0	0
Other shrubs	SSSS	3	40	80	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS	4	40	56	5	7
Singleleaf pinyon	PIED	4	40	64	5	8

3. Plant Community Annual Production

At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

	Low	High
Favorable Year	1000	1100
Average Year	700	800
Unfavorable Year	375	475

4. Ground Cover and Structure

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a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	10	1	3
Forbs (perennial)	5	0.5	2
Shrubs	15	4	4
Trees	20	15	1
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, Indian ricegrass, and Nevada bluegrass decrease, while pinyon-Utah juniper, shrub live oak, and big sagebrush increase.

When the potential natural plant community is burned, pinyon, Utah juniper, and big sagebrush decrease while Indian ricegrass, manzanita, and shrub live oak increase.

Cheatgrass and Russian thistle are most likely to invade this site.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth												
Name												
ID Number												
Description												

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

029AY310UT

Upland Loam (Mountain big sagebrush)

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 Site Number: 029XY320UT

029AY330UT
 Upland Stony Loam (Pinyon-Utah Juniper)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

This section will be added as information is available.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This section will be added as information is available.

b. List of Potential Species Present

This section will be added as information is available.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

Wildlife Species →				
Plant Species ↓	Use	Season	Use	Season

Use - A = preferred or desirable
 B = some use, but less important
 C = little use or used occasionally

Season - F = Fall (Oct-Nov)
 W = Winter (Dec-Feb)
 Sp. = Spring (Mar-May)
 Su. = Summer (Jun-Sep)

3. Recreational Uses

This section will be added as information is available.

4. Wood Products

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None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Quazo GRV-SL – loamy-skeletal, mixed, mesic Lithic Ustollic Haplargid

Type Location: Township 39S, Range 19W, Section 1

General Legal Description:

Field Office Site Location

Cedar City

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417					
UTAH - RANGE - 2					
OTHER	30				
Permanent Transect Location					

Other References