

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 Gravelly Loam (Utah juniper)

SITE NUMBER: 047AY305UT

MLRA: E47

Original Site Description: Author: DJS

Date: 01/14/1992

Revised Site Description: Author:

Date:

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

Date:

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: 60 inches

Surface Textures: Loams with Moderately Coarse to Medium Soils

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

Subsurface Textures: Gravelly Sandy Loam to Sandy Clay Loam

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

Geologic Parent Materials:

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Moderate to Rapid

Drainage Class(min-max):

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): 4-6

Major Soils Associated With This Site:

Soil Survey Area: 613

Bequinn GRV-L, 25-70%

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

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1. Potential Plant Community Description and Ecological Factors

The vegetation aspect of this site is Utah juniper. The overstory density is approximately 25 percent. Total vegetation by annual air-dry weight of the potential natural community is approximately 15 percent Utah juniper with 50 percent perennial grasses, 10 percent forbs, and 25 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
Bluebunch wheatgrass	PSSP6		32.5	65	5	10
Indian ricegrass	ACHY		19.5	32.5	3	5
Needleandthread	HECO26		19.5	32.5	3	5
Nevada bluegrass	PONE3		19.5	32.5	3	5
Western wheatgrass	PASM	1	6.5	13	1	2
Geyer sedge	CAGE2	1	6.5	13	1	2
Bottlebrush squirreltail	ELEL5	1	6.5	13	1	2
Other perennial grasses	PPGG	1	19.5	32.5	3	5
Other annual grasses	AAGG	1	19.5	32.5	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Low beardtongue	PEHU	2	6.5	13	1	2
Torrey catseye	CRTO4	2	6.5	13	1	2
Common yarrow	ACMI2	2	6.5	13	1	2
Longleaf hawksbeard	CRAC2	2	6.5	13	1	2
Western mountain aster	ASOC	2	6.5	13	1	2
Small leaf pussytoes	ANMI3	2	6.5	13	1	2
Longleaf phlox	PHLO2	2	6.5	13	1	2
Butter and eggs toadflax	LIVU2	2	6.5	13	1	2
Spurred lupine	LUCAC3	2	6.5	13	1	2
Other perennial forbs	PPFF	2	19.5	13	3	2
Other annual forbs	AAFF	2	19.5	13	3	2

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Mountain big sagebrush	ARTRV	3	6.5	19.5	1	3
Bitterbrush	PUTR2	3	6.5	19.5	1	3
Mountain snowberry	SYOR2	3	6.5	19.5	1	3
Stickyleaf low rabbitbrush	CHVIV4	3	6.5	19.5	1	3
Spineless horsebrush	TECA2	3	6.5	19.5	1	3
Other shrubs	SSSS	3	32.5	65	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS		65	130	10	20

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	750	850
Average Year	550	650
Unfavorable Year	400	500

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	10	2	5
Forbs (perennial)	5	1	5
Shrubs	5	2	1
Trees	15	12	5
Cryptogams			

b. Other

Litter	
Coarse Fragments	

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Bare Ground	
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5. Ecological Dynamics of the Site

Plant community deterioration may result in a pure stand of Utah juniper with very sparse understory of unpalatable plants. Fire will kill juniper and allow fire-tolerant plants to increase.

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	0	0	5	15	40	20	10	5	5	0	0	0
Name	PNC											
ID Number	UT3051											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	10	40	35	5	5	5	0	0	0
Name	Good Condition											
ID Number	UT3052											
Description	needlegrass											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047AY308UT
 Upland Loam (Basin big sagebrush)

047AY338UT
 Upland Stony Loam (Wyoming big sagebrush)

047AY301UT
 Upland Clay Loam (Alkali sagebrush)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

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a. Site Factors Influencing Management

This site provides some grazing if proper use is observed.

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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Post and wood stove fuel.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants
2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Bequinn Family GVR-L, 25-70% — loamy-skeletal, mixed (calcareous) frigid Xeric Torriorthents

Type Location: NW $\frac{1}{4}$; NE $\frac{1}{4}$; SE $\frac{1}{4}$; Section 5, Township 1S, Range 5E

General Legal Description:

Field Office Site Location

Logan
 Murray
 Provo
 Price
 Richfield

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					
Permanent Transect Location					

Other References