

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 Clay (Low sagebrush)

SITE NUMBER: 047BY302UT

MLRA: 047B

Original Site Description: Author:

Date:

Revised Site Description: Author: TS

Date: 06/09/1993

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: 40-60 inches

Surface Textures: Very Cobbly Loam

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

Subsurface Textures: Cobbly Clay to Cobbly Clay Loam

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

Geologic Parent Materials: Alluvium from Basic and Intermediate Igneous Rock

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max): Slow

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Moderate

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): 7-9

Major Soils Associated With This Site:

Soil Survey Area: 636

Quilt CBV-L, 4 to 25%

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

Site Type: Rangeland
 Ecological Site Name: Upland Clay (Low sagebrush)
 Site Number: 047BY302UT

1. Potential Plant Community Description and Ecological Factors

The aspect of this site is one of a shrub/grass community. The shrub component is dominated by black sagebrush. Mountain big sagebrush and bitterbrush are also apparent. The grass community is dominated by Indian ricegrass and western wheatgrass. Blue grama is also apparent.

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
Western wheatgrass	PASM		80	120	10	15
Blue grama	BOGR		40	80	5	10
Bottlebrush squirreltail	ELEL5		24	40	3	5
Needleandthread	HECO26	1	8	24	1	3
Nevada bluegrass	PONE3	1	8	24	1	3
Prairie junegrass	KOMA	1	8	24	1	3
Other perennial grasses	PPGG	1	24	40	3	5
Other annual grasses	AAGG	1	24	40	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Silky lupine	LUSE4	2	8	16	1	2
Gooseberryleaf globemallow	SPGR2	2	8	16	1	2
Woolly milkvetch	ASMO4	2	8	16	1	2
Redroot wild buckwheat	ERRA3	2	8	16	1	2
Lobeleaf groundsel	SEMU3	2	8	16	1	2
Thorny wirelettuce	STSP6	2	8	16	1	2
Other perennial forbs	PPFF	2	40	80	5	10
Other annual forbs	AAFF	2	40	80	5	10

Shrubs, %

Common Name	National	Group	Pounds per Acre	% by Weight of
-------------	----------	-------	-----------------	----------------

Site Type: Rangeland
 Ecological Site Name: Upland Clay (Low sagebrush)
 Site Number: 047BY302UT

	Symbol				Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		160	240	20	30
Mountain big sagebrush	ARTRV		40	80	5	10
Bitterbrush	PUTR2		40	80	5	10
Low rabbitbrush	CHVI8	3	24	40	3	5
Rubber rabbitbrush	ERNA10	3	24	40	3	5
Mountain snowberry	SYOR2	4	8	24	1	3
Grassy rockgoldenrod	PEPU7	4	8	24	1	3
Birchleaf mountainmahogany	CEMO2	4	8	24	1	3
Other shrubs	SSSS	4	24	40	3	5

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	400	600

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	2	15
Forbs (perennial)	5	1	2
Shrubs	30	2	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates, Indian ricegrass and blue grama decrease while black sagebrush, low rabbitbrush, and rubber rabbitbrush increase. When the natural plant community is burned, black sagebrush

Site Type: Rangeland

Ecological Site Name: Upland Clay (Low sagebrush)

Site Number: 047BY302UT

decreases while Indian ricegrass, blue grama, and rabbitbrush increase. Cheatgrass and mustards 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	0	0	0	5	15	20	20	25	15	0	0	0
Name	PNC											
ID Number	UT3021											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047BY309UT

Upland Loam (Black sagebrush)

047BY312UT

Upland Shallow Clay (Pinyon-Utah juniper)

047BY326UT

Upland Shallow 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

Good spring-summer cattle and sheep grazing.

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

No cover-good forage and browse.

b. List of Potential Species Present

Mule deer, elk, and antelope.

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 site has good aesthetic appearance and beauty.

4. Wood Products

Site Type: Rangeland
 Ecological Site Name: Upland Clay (Low sagebrush)
 Site Number: 047BY302UT
 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: Quilt CBVL 4-25% — fine, montmorillonitic Typic Argiborolls

Type Location: SE ¼; Section 29, Township 35S, Range 5W

General Legal Description:

Field Office Site Location

Richfield
 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					
Permanent Transect Location					

Other References