

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 (Black sagebrush)

SITE NUMBER: 047CY302UT

MLRA: E47C

Original Site Description: Author: GWL, LLR

Date: 04/29/1992

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: 40-60 inches

Surface Textures: Very Gravelly Clay Loam

Surface Fragments(<=3" % cover, >3" % cover): 40%

Subsurface Textures:

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

Geologic Parent Materials: Colluvium and Residuum from Sandstone, Shale, and Quartzite

Moisture Regime: Ustic

Temperature Regime: Frigid

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): 0.12-0.14

Major Soils Associated With This Site:

Soil Survey Area: 013

Fergus Family GRV-CL, 10-25%

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

1. Potential Plant Community Description and Ecological Factors

The general view of this area is. The composition by air-dry weight is approximately 40 percent grasses and grasslike plants, 15 percent forbs, 45 percent shrubs, and 5-10 percent trees.

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		227.5	260	35	40
Prairie junegrass	KOMA		32.5	65	5	10
Nevada bluegrass	PONE3		19.5	32.5	3	5
Needleandthread	HECO26	1	6.5	19.5	1	3
Indian ricegrass	ACHY	1	6.5	19.5	1	3
Sandberg bluegrass	POSE	1	6.5	19.5	1	3
Other perennial grasses	PPGG	1	6.5	19.5	1	3
Other annual grasses	AAGG	1	6.5	19.5	1	3

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Stemless mock goldenweed	STACA		19.5	32.5	3	5
Blue flax	LIPE2		19.5	32.5	3	5
Hood Phlox	PHHO		19.5	32.5	3	5
Grassy rockgoldenrod	PEPU7	2	6.5	13	1	2
Hoary tansyaster	MACA2	2	6.5	13	1	2
Arrowleaf balsamroot	BASA3	2	6.5	13	1	2
Cutleaf balsamroot	BAMA4	2	6.5	13	1	2
Roughseed catseye	CRFL6	2	6.5	13	1	2
Pacific aster	ASCH2	2	6.5	13	1	2
Rocky mountain beardtongue	PEST2	2	6.5	13	1	2
Lesser rushy milkvetch	ASCO12	2	6.5	13	1	2
Bastard toadflax	COUM	2	6.5	13	1	2
Small leaf pussytoes	ANMI3	2	6.5	13	1	2
Dustymaiden	CHDO	2	6.5	13	1	2
Other perennial forbs	PPFF	2	19.5	32.5	3	5
Other annual forbs	AAFF	2	19.5	32.5	3	5

Shrubs/Vines, %

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

Site Type: Rangeland
 Ecological Site Name: Upland Clay (Black sagebrush)
 Site Number: 047CY302UT

	Symbol				Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		97.5	130	15	20
Slender wild buckwheat	ERMI4	3	6.5	19.5	1	3
Utah serviceberry	AMUT	3	6.5	19.5	1	3
Spineless horsebrush	TECA2	3	6.5	19.5	1	3
Winterfat	KRLA2	3	6.5	19.5	1	3
Central pricklypear	OPPO	3	6.5	19.5	1	3
Stickyleaf low rabbitbrush	CHVIV4	3	6.5	19.5	1	3
Other shrubs	SSSS	3	19.5	32.5	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	700	800
Average Year	550	650
Unfavorable Year	350	450

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	40	2	20
Forbs (perennial)	5	1	5
Shrubs	15	2	10
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

Site Type: Rangeland

Ecological Site Name: Upland Clay (Black sagebrush)

Site Number: 047CY302UT

As this site deteriorates due to livestock grazing pressure perennial grasses, blue flax, and balsamroot decrease while black sagebrush increases. Fire will reduce or eliminate black sagebrush but perennial and annual grasses and forbs will increase. Utah juniper may 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	5	15	40	20	10	5	5	0	0	0
Name	PNC											
ID Number	UT3021											
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 No. 1											
ID Number	UT3022											
Description	wheatgrass, bluegrass, black sagebrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047CY320UT

Upland Shallow Loam (Black sagebrush)

047CY326UT

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

This site provides grazing for sheep and cattle during spring, summer, and fall.

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

The site provides food and cover for a few species of wildlife.

b. List of Potential Species Present

Wildlife species using this site include sage grouse, rabbit, coyote, and mule deer.

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 offers color and aesthetic appeal during the growing season.

4. Wood Products

Site Type: Rangeland
 Ecological Site Name: Upland Clay (Black sagebrush)
 Site Number: 047CY302UT

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: Fergus Family GRV-CL, 10-25% — fine, mixed Typic Argiborolls

Type Location: NW ¼, NE ¼, SW ¼; Section 18, Township 1N, Range 5W

General Legal Description:

Field Office Site Location

Roosevelt

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