

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Mountain Shallow Loam (Mountain big sagebrush)

SITE NUMBER: 047CY446UT

MLRA: 047C

Original Site Description: Author:

Date:

Revised Site Description: Author: GWL, LLR

Date: 05/28/1992

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: 10-20 inches

Surface Textures: Mollic Epipedon

Surface Fragments(<=3" % cover, >3" % cover): 50%

Subsurface Textures:

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

Geologic Parent Materials:

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):

Major Soils Associated With This Site: 0.08-0.12

Soil Survey Area: 013

Tolman Family CNV-L, 30-50%

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 the plant community is bluebunch wheatgrass and mountain big sagebrush. The composition by air-dry weight is approximately 50 percent perennial grasses, 5 percent forbs, and 45 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	PSSP5		210	280	15	20
Needleandthread	HECO26		70	140	5	10
Nevada bluegrass	PONE3		70	140	5	10
Letterman needlegrass	ACLE9	1	14	42	1	3
Prairie junegrass	KOMA	1	14	42	1	3
Sheep fescue	FEOV	1	14	42	1	3
Western wheatgrass	PASM	1	14	42	1	3
Geyer sedge	CAGE2	1	14	42	1	3
Bulbous oniongrass	MEBU	1	14	42	1	3
Columbia needlegrass	ACNE9	1	14	42	1	3
Indian ricegrass	ACHY	1	14	42	1	3
Bottlebrush squirreltail	ELEL5	1	14	42	1	3
Sandberg bluegrass	POSE	1	14	42	1	3
Other perennial grasses	PPGG	1	70	140	5	10
Other annual grasses	AAGG	1	70	140	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3	2	14	42	1	3
Longleaf hawksbeard	CRAC2	2	14	42	1	3
American purple vetch	VIAM	2	14	42	1	3
Blue flax	LIPE2	2	14	42	1	3
Spurred lupine	LUCAC3	2	14	42	1	3
Pacific aster	ASCH2	2	14	42	1	3
Wyoming Indian paintbrush	CALI4	2	14	42	1	3
Silverleaf milkvetch	ASAR4	2	14	42	1	3
Grassy rockgoldenrod	PEPU7	2	14	42	1	3
Longleaf phlox	PHLO2	2	14	42	1	3
Sego lily	CANU3	2	14	42	1	3
Louisiana wormwood	ARLU	2	14	42	1	3
Other perennial forbs	PPFF	2	70	140	5	10
Other annual forbs	AAFF	2	70	140	5	10

Shrubs, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		210	280	15	20
Bitterbrush	PUTR2		140	210	10	15
Utah serviceberry	AMUT		70	140	5	10
Birchleaf mountainmahogany	CEMO2	3	42	70	3	5
Mountain snowberry	SYOR2	3	42	70	3	5
Crispleaf wild buckwheat	ERCO14	3	42	70	3	5
Slender wild buckwheat	ERMI4	3	42	70	3	5
Mountain low rabbitbrush	CHVIL4	3	42	70	3	5
Other shrubs	SSSS	3	70	140	5	10

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	1600	1700
Average Year	1300	1400
Unfavorable Year	900	1000

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	5
Shrubs	20	4	15
Trees			
Cryptogams			

b. Other

Litter	
Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

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As this site deteriorates due to grazing pressure bluebunch wheatgrass, needleandthread and bluegrass decrease while big sagebrush, western wheatgrass, letterman needlegrass, lupine, and aster may increase. Fire will kill big sagebrush and often decreases bitterbrush while western wheatgrass, lupine and low rabbitbrush 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	0	5	20	50	5	10	5	5	0	0
Name	PNC											
ID Number	UT4461											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	30	50	0	10	10	0	0	0
Name	Good Condition No.1											
ID Number	UT4462											
Description	needlegrass, bluegrass, big sagebrush											

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

047CY460UT

Mountain Stony Loam (Browse)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

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1. Livestock

a. Site Factors Influencing Management

This site provides grazing for cattle and sheep in late 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

This site provides food and cover for many species of wildlife.

b. List of Potential Species Present

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

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

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This site offers color and aesthetic appeal in the spring, summer and fall. Recreation activities include hiking and hunting.

4. Wood Products

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: Tolman Family CNV-L, 30-50% — loamy-skeletal, mixed Lithic Argiborolls

Type Location: SE ¼, NW ¼, NE ¼, Section 30, Township 1N, Range 6W

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