

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: Mountain Shallow Loam (Mountain big sagebrush)

SITE NUMBER: 048AY436UT

MLRA: 048A

Original Site Description: Author: DJS GSC

Date: 01/15/1994

Revised Site Description: Author: DJS GSC

Date: 01/24/1994

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

Date: 05/27/1994

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: Loam with Clay Loam Below 6 Inches

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

Subsurface Textures:

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

Geologic Parent Materials: Colluvium and Residuum from Calcareous Sandstone

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Moderate

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 CaCl<sub>2</sub>):

pH Range:

Available Water Capacity (inches): 2-3

Major Soils Associated With This Site:

Soil Survey Area: 616

Beje L, 3-15%

Beje L, 30-50%

Falcon ST-SL, 8-50%

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

#### **2. PHYSIOGRAPHIC FEATURES**



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### **1. Potential Plant Community Description and Ecological Factors**

The general view of this site is sagebrush-grass. The potential natural plant community is composed of approximately 60 percent perennial grasses, 15 percent forbs, and 25 percent shrubs by air-dry weight.

### **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
Salina wildrye	LESAS		120	180	10	15
Slender wheatgrass	ELTR7		120	180	10	15
Muttongrass	POFE		60	120	5	10
Columbia needlegrass	ACNE9		60	60	3	5
Prairie junegrass	KOMA		36	60	3	5
Needleandthread	HECO26		36	60	3	5
Geyer sedge	CAGE2	1	12	36	1	3
Nodding brome	BRAN	1	12	36	1	3
Bottlebrush squirreltail	ELEL5	1	12	36	1	3
Sheep fescue	FEOV	1	12	36	1	3
Sandberg bluegrass	POSE	1	12	36	1	3
Bluebunch wheatgrass	PSSP6	1	12	36	1	3
Western wheatgrass	PASM	1	12	36	1	3
Other perennial grasses	PPGG	1	60	120	5	10
Other annual grasses	AAGG	1	60	120	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Common dandelion	TAOF	2	12	36	1	3
Pacific aster	ASCH2	2	12	36	1	3
Scarlet skyrocket	IPAGA3	2	12	36	1	3
Looseleaf milkvetch	ASTE5	2	12	36	1	3
Silky lupine	LUSE4	2	12	36	1	3
Wyoming Indian paintbrush	CALI4	2	12	36	1	3
Stemless fournerve daisy	TEACA2	2	12	36	1	3
Watson beardtongue	PEWA	2	12	36	1	3
Longleaf phlox	PHLO2	2	12	36	1	3
Roundseed catseye	CRFL6	2	12	36	1	3
Douglas knotweed	PODO4	2	12	36	1	3
Sticky purple cranesbill	GEVI2	2	12	36	1	3
Shaggy fleabane	ERPU2	2	12	36	1	3
Common yarrow	ACMI2	2	12	36	1	3
Small leaf pussytoes	ANMI3	2	12	36	1	3
Fendler sandwort	ARFE3	2	12	36	1	3
Bastard toadflax	COUM	2	12	36	1	3
Yellow owlclover	ORLU2	2	12	36	1	3
Other perennial forbs	PPFF	2	120	240	10	20
Other annual forbs	AAFF	2	120	240	10	20

## Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		180	240	15	20
Mountain snowberry	SYOR2		36	60	3	5
Birchleaf mountainmahogany	CEMO2	3	12	24	1	2
Bitterbrush	PUTR2	3	12	24	1	2
Utah serviceberry	AMUT	3	12	24	1	2
Low rabbitbrush	CHVI8	3	12	24	1	2
Silver sagebrush	ARCA13	3	12	24	1	2
Gambel oak	QUGA	3	12	24	1	2
Black sagebrush	ARNO4	3	12	24	1	2
Granite pricklygilia	LEPU	3	12	24	1	2
Other shrubs	SSSS	3	36	60	3	5

## Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High

**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:

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	Low	High
Favorable Year	1400	1500
Average Year	1100	1200
Unfavorable Year	750	850

#### **4. Ground Cover and Structure**

##### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	50	2	15
Forbs (perennial)	5	1	2
Shrubs	15	4	10
Trees			
Cryptogams			

##### b. Other

Litter	
Coarse Fragments	
Bare Ground	

#### **5. Ecological Dynamics of the Site**

As this site deteriorates due to grazing pressure, perennial grasses such as muttongrass and slender wheatgrass decrease while sagebrush increases. Fire will kill big sagebrush, but lupine and low rabbitbrush will 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	15	40	30	5	5	0	0	0
Name	PNC											

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ID Number	UT4361
Description	Excellent Condition

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	0	10	50	30	5	5	0	0	0
Name	Good Condition No. 1											
ID Number	UT4362											
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**

048AY409UT

Mountain Loam (Salina wildrye)

048AY448UT

Mountain Stony Loam (Mountain big sagebrush)

### **9. Correlated Sites in Other States**

(Give site name and number)

## **D. MAJOR USES OF THIS SITE**

### **1. Livestock**

#### a. Site Factors Influencing Management

Salina wildrye provides moderate amount of fair quality forage during the growing season but is unpalatable when mature and dried (Vallentine 1961; from Welch et al: A Utah Flora 1987 pg. 726).

#### 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 produces food and cover for wildlife.

#### b. List of Potential Species Present

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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**

This site offers color and aesthetic appeal during the growing season. Recreation values 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: Beje L, 3-15%; 30-50% — loamy, mixed Lithic Argiborolls

Type Location: NE ¼; SW ¼; Section 16 Township 12S, Range 11E

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General Legal Description:

**Field Office Site Location**

Roosevelt

Price

**Data Collected and References**

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417	5				
UTAH - RANGE - 2					
Permanent Transect Location					

**Other References**