

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 Stony Loam (Browse)

SITE NUMBER: 047CY460UT

MLRA: 047C

Original Site Description: Author: GWL, LLR

Date: 04/22/1992

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:

Surface Fragments(<=3" % cover, >3" % cover): 25-60%

Subsurface Textures: Extremely Stony or Cobbly Loam

Subsurface Fragments(<=3" % vol, >3" % vol): >50%

Geologic Parent Materials: Colluvium, Residuum and Glacial Deposits from Uinta Mountain Group Sandstone and Quartzite, and Mississippi Limestone

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 CaCl<sub>2</sub>):

pH Range:

Available Water Capacity (inches): 0.04-0.10

Major Soils Associated With This Site:

Soil Survey Area: 047

Flynncove STX-SL, 25-50%

Roughlow CBV-L, 10-30%

Shawmut Family CBX-SL, 4-30%

Windham Family CNX-L, 20-40%

Arid. Argibor. CBX-SCL, 25-50%

Roughlow CBV-L, 30 to 60%

Eager Family ST-L, 30 to 50%

Zillion Family STV-FSL, 6-25%

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



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

The general view of this site is birchleaf mountainmahogany and Utah serviceberry. The composition by air-dry weight is approximately 30 percent perennial grasses, 10 percent forbs, and 60 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		95	190	5	10
Nevada bluegrass	PONE3		57	57	3	5
Geyer sedge	CAGE2		57	57	3	5
Great Basin wildrye	LECI4	1	19	38	1	2
Indian ricegrass	ACHY	1	19	38	1	2
Slender wheatgrass	ELTR7	1	19	38	1	2
Letterman needlegrass	ACLE9	1	19	38	1	2
Columbia needlegrass	ACNE9	1	19	38	1	2
Western wheatgrass	PASM	1	19	38	1	2
Mountain brome	BRCA5	1	19	38	1	2
Needleandthread	HECO26	1	19	38	1	2
Sandberg bluegrass	POSE	1	19	38	1	2
Other perennial grasses	PPGG	1	95	190	5	10
Other annual grasses	AAGG	1	95	190	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3		57	95	3	5
Louisiana wormwood	ARLU	2	19	38	1	2
Pacific aster	ASCH2	2	19	38	1	2
Baby goldenrod	SONA	2	19	38	1	2
Eaton fleabane	EREA	2	19	38	1	2
Scarlet skyrocket	IPAGA3	2	19	38	1	2
Wyoming Indian paintbrush	CALI4	2	19	38	1	2
Longleaf phlox	PHLO2	2	19	38	1	2
Small leaf pussytoes	ANMI3	2	19	38	1	2
Lambstongue groundsel	SEIN2	2	19	38	1	2
Blue flax	LIPE2	2	19	38	1	2
Chocolatetips	LODI	2	19	38	1	2
Nodding onion	ALCE2	2	19	38	1	2
Other perennial forbs	PPFF	2	57	95	3	5
Other annual forbs	AAFF	2	57	95	3	5

Shrubs, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Birchleaf mountainmahogany	CEMO2		380	475	20	25
Utah serviceberry	AMUT		380	475	20	25
Chokecherry	PRVI		57	95	3	5
Mountain snowberry	SYOR2		57	95	3	5
Mountain big sagebrush	ARTRV		57	95	3	5
Creeping Oregon grape	MARE11	3	19	38	1	2
Mountain low rabbitbrush	CHVIL4	3	19	38	1	2
Littleleaf mock orange	PHMI4	3	19	38	1	2
Shortstem wild buckwheat	ERBR5	3	19	38	1	2
Wax current	RICE	3	19	38	1	2
Woods rose	ROWO	3	19	38	1	2
Bush oceanspray	HODU	3	19	38	1	2
Bitterbrush	PUTR2	3	19	38	1	2
Spineless horsebrush	TECA2	3	19	38	1	2
Curleaf mountainmahogany	CELE3	3	19	38	1	2
Mountain lover	PAMY	3	19	38	1	2
Other shrubs	SSSS	3	57	95	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	2500	2600
Average Year	1800	1900
Unfavorable Year	1300	1400

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

#### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	10
Forbs (perennial)	5	1	5
Shrubs	50	4	20
Trees			
Cryptogams			

#### b. Other

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Litter	
Coarse Fragments	
Bare Ground	

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

As this site deteriorates due to grazing pressure, perennial grasses (cattle grazing) and birchleaf mountainmahogany (sheep and deer grazing) decrease while mountain sagebrush, Oregon grape, and snowberry increase. Fire will kill mountain big sagebrush while birchleaf mountainmahogany, serviceberry, chokecherry, and elderberry increase under burning.

### **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	UT4601											
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	UT4602											
Description	needlegrass, bluegrass, birchleaf mountainmahogany											

### **7. Aspect Differences Near MLRA Boundaries**

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

### **8. Associated Sites Within MLRA**

047CY461UT  
 Mountain Stony Loam (Curlleaf mountainmahogany)

### **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 forage and browse for sheep and cattle in the 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 plants offer food and cover for many species of wildlife.

b. List of Potential Species Present

Wildlife species 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: Flynncove STX-SL, 25-50% — loamy-skeletal, mixed Aridic Argiborolls

Type Location: NW ¼, NE ¼, NE ¼, Section 18, Township 1N, Range 24E

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**