

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: Semidesert Gravelly Loam (Black sagebrush)

SITE NUMBER: 047BY210UT

MLRA: 047B

Original Site Description: Author: TS

Date:

Revised Site Description: Author:

Date: 04/15/1992

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: 40-60 inches

Surface Textures:

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

Subsurface Textures:

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

Geologic Parent Materials: Alluvium from Mixed Igneous Material

Moisture Regime:

Temperature Regime:

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):

Major Soils Associated With This Site:

Soil Survey Area:

Notter L, GR-L

Bruman L, GR-L

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



Site Type: Rangeland  
 Ecological Site Name: Semidesert Gravelly Loam (Black sagebrush)  
 Site Number: 047BY210UT

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

The dominant aspect of the plant community is black sagebrush. The composition by air-dry weight is approximately 45 percent perennial grasses, 5 percent forbs, and 50 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
Indian ricegrass	ACHY		65	65	10	10
Blue grama	BORG2		32.5	65	5	10
Needleandthread	HECO26		32.5	65	5	10
Western wheatgrass	PASM		32.5	65	5	10
Bluebunch wheatgrass	PSSP6		19.5	32.5	3	5
Bottlebrush squirreltail	ELEL5		19.5	32.5	3	5
Sand dropseed	SPCR	1	0	13	0	2
Purple threeawn	ARPU9	1	0	13	0	2
Other perennial grasses	PPGG	1	6.5	32.5	1	5
Other annual grasses	AAGG	1	6.5	32.5	1	5

#### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Slender wild buckwheat	ERMI4		6.5	19.5	1	3
Gray aster	ASGL3		6.5	19.5	1	3
Wyoming Indian paintbrush	CALI4		6.5	19.5	1	3
Freckled milkvetch	ASLE8		6.5	19.5	1	3
James catseye	CRCI3		6.5	19.5	1	3
Gooseberryleaf globemallow	SPGR2	2	0	6.5	0	1
Dusty beardtongue	PECO5	2	0	6.5	0	1
Other perennial forbs	PPFF	2	6.5	13	1	2
Other annual forbs	AAFF	2	6.5	13	1	2

#### Shrubs, %

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

Site Type: Rangeland

Ecological Site Name: Semidesert Gravelly Loam (Black sagebrush)

Site Number: 047BY210UT

	Symbol				Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		130	227.5	20	35
Wyoming big sagebrush	ARTRW8		32.5	65	5	10
Low rabbitbrush	CHVI8		19.5	32.5	3	5
Broom snakeweed	GUSA2	3	0	19.5	0	3
Pigmy sagebrush	ARPY2	3	0	19.5	0	3
Shadscale	ATCO	3	0	19.5	0	3
Fourwing saltbush	ATCA2	3	0	19.5	0	3
Winterfat	KRLA2	3	0	19.5	0	3
Rubber rabbitbrush	ERNA10	3	0	19.5	0	3
Other shrubs	SSSS	3	32.5	65	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	750	850
Average Year	550	650
Unfavorable Year	400	500

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

#### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	3	2	10
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 due to overgrazing, Indian ricegrass and blue grama decrease while black sagebrush and Wyoming big sagebrush increase. When the potential natural plant community is burned, black

Site Type: Rangeland

Ecological Site Name: Semidesert Gravelly Loam (Black sagebrush)

Site Number: 047BY210UT

sagebrush and Wyoming big sagebrush decrease while Indian ricegrass and blue grama increase. Cheatgrass is 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	5	10	20	25	20	10	5	5	0	0
Name	PNC											
ID Number	UT2101											
Description	Excellent Condition											

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

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

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

047BY221UT

Semidesert Loam (Black sagebrush)

047BY252UT

Semidesert Stony Loam

047BY309UT

Upland Loam (Black 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

Excellent spring, fall grazing for cattle and sheep. Fair summer grazing for cattle.

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.

b. List of Potential Species Present

Mule deer 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 appearances and beauty.

**4. Wood Products**

Site Type: Rangeland  
 Ecological Site Name: Semidesert Gravelly Loam (Black sagebrush)  
 Site Number: 047BY210UT  
 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: Notter L, GR-L — fine-loamy, mixed Aridic Argiboroll

Type Location: Section 30, Township 32S, Range 4W

General Legal Description:

#### Field Office Site Location

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