

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 Loam (Basin big sagebrush)

SITE NUMBER: 047BY220UT

MLRA: 047B

Original Site Description: Author: TJ, TS

Date: 04/01/1992

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: Loams to Clay Loams

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

Subsurface Textures:

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

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:

Alldown CL

Mauser L

**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 dominant aspect of the plant community is basin big sagebrush. The composition by air-dry weight is approximately 55 percent perennial grasses, 10 percent forbs, and 35 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
Western wheatgrass	PASM		142.5	190	15	20
Indian ricegrass	ACHY		95	142.5	10	15
Blue grama	BOGR2		47.5	95	5	10
Bottlebrush squirreltail	ELEL5		47.5	95	5	10
Sandberg bluegrass	POSE	1	0	28.5	0	3
Prairie junegrass	KOMA	1	0	28.5	0	3
Basin wildrye	LECI4	1	0	28.5	0	3
Other perennial grasses	PPGG	1	28.5	47.5	3	5
Other annual grasses	AAGG	1	28.5	47.5	3	5

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Gooseberryleaf globemallow	SPGR2		28.5	47.5	3	5
Pacific aster	ASCH2	2	0	19	0	2
Freckled milkvetch	ASLE8	2	0	19	0	2
Crispleaf wild buckwheat	ERCO14	2	0	19	0	2
Dusty beardtongue	PECO5	2	0	19	0	2
Other perennial forbs	PPFF	2	28.5	47.5	3	5
Other annual forbs	AAFF	2	28.5	47.5	3	5

Shrubs, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Basin big sagebrush	ARTRT		142.5	237.5	15	25
Fourwing saltbush	ATCA2		47.5	95	5	10
Black sagebrush	ARNO4		28.5	47.5	3	5
Rubber rabbitbrush	ERNA10		28.5	47.5	3	5
Winterfat	KRLA2		28.5	47.5	3	5
Broom snakeweed	GUSA2	3	0	28.5	0	3
Low rabbitbrush	CHVI8	3	0	28.5	0	3
Fringed sagebrush	ARFR4	3	0	28.5	0	3
Other shrubs	SSSS	3	28.5	47.5	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	1050	1150
Average Year	850	950
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)	20	2	10
Forbs (perennial)	5	1	2
Shrubs	30	4	15
Trees			
Cryptogams			

#### b. Other

Litter	
Coarse Fragments	
Bare Ground	

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

As ecological condition deteriorates due to overgrazing, grasses decrease while basin big sagebrush and rubber rabbitbrush increase. When the potential natural plant community is burned, basing big sagebrush decreases while grasses increase. Cheatgrass and Russian thistle are most likely to invade this site.

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**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	UT2201											
Description	Excellent Condition											

**7. Aspect Differences Near MLRA Boundaries**

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

**8. Associated Sites Within MLRA**

047BY210UT  
 Semidesert Gravelly 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

Good to fair spring through fall 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

Brush cover, fair forage, associated intermittent water.

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b. List of Potential Species Present

Mule deer, 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 to fair aesthetic appearances.

**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: Alldown CL — fine-loamy, mixed (calcareous), frigid Ustic Torriorthent

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Type Location: Section 16 SW, Township 34S, Range 5W

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**