

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: Upland Stony Loam (Black sagebrush)

SITE NUMBER: 047BY332UT

MLRA: 047B

Original Site Description: Author:

Date:

Revised Site Description: Author: TS

Date: 06/09/1993

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: Gravelly Loam

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

Subsurface Textures: Gravelly Loam to Very Gravelly Sandy Clay Loam to Extremely Gravelly Sandy Clay Loam

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

Geologic Parent Materials: Alluvium from Mixed Volcanic Rock and Some Sedimentary Rock

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max): Moderate

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Moderate

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): 5

Major Soils Associated With This Site:

Soil Survey Area: 636

Guben GRL, DRY 1-25%

Showalter GRL, DRY 0-8%

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



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

The aspect of this site is that of a dominated community with an abundant grass understory. The shrub component is dominated by black sagebrush. The grasses are dominated by Indian ricegrass. Forbs make up a minor component of this plant community.

### 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		80	120	10	15
Needleandthread	HECO26		40	80	5	10
Blue grama	BOGR2		24	40	3	5
Bottlebrush squirreltail	ELEL5	1	8	24	1	3
Sand dropseed	SPCR	1	8	24	1	3
Muttongrass	POFE	1	8	24	1	3
Pine forest needlegrass	ACPI2	1	8	24	1	3
Sandberg bluegrass	POSE	1	8	24	1	3
Other perennial grasses	PPGG	1	8	40	1	5
Other annual grasses	AAGG	1	8	40	1	5

#### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Cooper rubberweed	HYCO2	2	8	24	1	3
James catseye	CRCI3	2	8	24	1	3
Redroot wild buckwheat	ERRA4	2	8	24	1	3
Pacific aster	ASCH2	2	8	24	1	3
Freckled milkvetch	ASLE8	2	8	24	1	3
Dustymaiden	CHDO	3	8	24	1	3
Spreading fleabane	ERDI4	3	8	24	1	3
Rocky Mountain gilia	GISC	3	8	24	1	3
Other perennial forbs	PPFF	3	8	24	1	3
Other annual forbs	AAFF	3	8	24	1	3

#### Shrubs, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		160	240	20	30
Mountain big sagebrush	ARTRV		40	80	5	10
Low rabbitbrush	CHVI8		40	80	5	10
Bitterbrush	PUTR2		40	80	5	10
Rubber rabbitbrush	ERNA10	4	8	24	1	3
Broom snakeweed	GUSA2	4	8	24	1	3
Utah serviceberry	AMUT	4	8	24	1	3
Creeping Oregon grape	MARE11	4	8	24	1	3
Squaw apple	PERA4	4	8	24	1	3
Other shrubs	SSSS	4	40	80	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	900	1100
Average Year	700	800
Unfavorable Year	400	600

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

#### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft.)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	15	2	5
Forbs (perennial)	5	1	5
Shrubs	30	2	15
Trees			
Cryptogams			

#### b. Other

Litter	
Coarse Fragments	
Bare Ground	

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

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As ecological condition deteriorates, Indian ricegrass and needleandthread decrease while big sagebrush and black sagebrush increase. When the potential natural plant community is burned, big sagebrush and black sagebrush decrease and Indian ricegrass and needleandthread increase. Pinyon and Utah juniper will invade this site and can completely dominate.

### **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	20	20	25	15	0	0	0
Name	PNC											
ID Number	UT3321											
Description	Excellent Condition											

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

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

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

047BY333UT

Upland Stony Loam (Pinyon-Utah juniper)

047BY304UT

Upland Gravelly Loam (Pinyon-Utah juniper)

047BY336UT

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

Site is good summer grazing for cattle and sheep.

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

Open – lack of cover.

b. List of Potential Species Present

Provides good habitat for 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 fair aesthetic appearance and natural beauty. Snowmobiling has high potential on this site.

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**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: Guben Gravelly Loam, Dry, 1-25% — loamy-skeletal, mixed Typic Calciborolls

Type Location: SE ¼ Section 21, Township 35S, Range 4W

General Legal Description:

**Field Office Site Location**

Richfield  
 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**