

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 Shallow Loam (Black sagebrush)

SITE NUMBER: 028AY236UT

MLRA: 028A

Original Site Description: Author: DJS

Date: 02/01/1988

Revised Site Description: Author: DJS

Date: 06/29/1993

Approved by: Title: State Range Cons.

Signed: Pat Shaver

Date: 08/30/1993

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

Surface Fragments(<=3" % cover, >3" % cover): 55%

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): 35-60%

Geologic Parent Materials: Colluvium and Residuum from Limestone, Sandstone, Siltstone, and Basalt

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): 1-3

Major Soils Associated With This Site:

Soil Survey Area: 634

Checkett GR-L CBV-L

Saxby Family

Shabliss VFSL

Tarnach GRV-L

Promo GRV-L

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



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

The dominant aspect of this 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
Bluebunch wheatgrass	PSSP6		110	137.5	20	25
Indian ricegrass	ACHY		55	82.5	10	15
Needleandthread	HECO26		27.5	55	5	10
Bottlebrush squirreltail	ELEL5	1	5.5	16.5	1	3
Galleta	HIJA	1	5.5	16.5	1	3
Purple threeawn	ARPU9	1	5.5	16.5	1	3
Sandberg bluegrass	POSE	1	5.5	16.5	1	3
Other perennial grasses	PPGG	1	16.5	27.5	3	5
Other annual grasses	AAGG	1	16.5	27.5	3	5

#### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Hairy balsamroot	BAHO	2	5.5	16.5	1	3
Carpet phlox	PHHO	2	5.5	16.5	1	3
Gooseberryleaf globemallow	SPGR2	2	5.5	16.5	1	3
Cushion wild buckwheat	EROV	2	5.5	16.5	1	3
Low beardtongue	PEHU	2	5.5	16.5	1	3
Shaggy fleabane	ERPU2	2	5.5	16.5	1	3
Freckled milkvetch	ASLE8	2	5.5	16.5	1	3
Ballhead skyrocket	IPCOC3	2	5.5	16.5	1	3
Wooly groundsel	SECA2	2	5.5	16.5	1	3
Heartleaf jewelflower	STCO6	2	5.5	16.5	1	3
Other perennial forbs	PPFF	2	27.5	55	5	10
Other annual forbs	AAFF	2	27.5	55	5	10

#### Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		137.5	192.5	25	35
Low rabbitbrush	CHVI8	3	5.5	16.5	1	3
Shadscale	ATCO	3	5.5	16.5	1	3
Nuttall horsebrush	TENU2	3	5.5	16.5	1	3
Nevada jointfir	EPNE	3	5.5	16.5	1	3
Bud sagebrush	ARSP5	3	5.5	16.5	1	3
Mexican cliffrose	PUME	3	5.5	16.5	1	3
Winterfat	KRLA2	3	5.5	16.5	1	3
Broom snakeweed	GUSA2	3	5.5	16.5	1	3
Stemless mock goldenweed	STACA	3	5.5	16.5	1	3
Central pricklypear	OPPO	3	5.5	16.5	1	3
Granite pricklygilia	LEPU	3	5.5	16.5	1	3
Other shrubs	SSSS	3	55	82.5	10	15

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:

	Low	High
Favorable Year	650	700
Average Year	500	550
Unfavorable Year	350	400

**4. Ground Cover and Structure**

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	2	10
Forbs (perennial)	3	2	2
Shrubs	30	2	15
Trees			
Cryptogams			

b. Other

Litter	
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Coarse Fragments	
Bare Ground	

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

As ecological condition deteriorates due to overgrazing, bluebunch wheatgrass and Indian ricegrass decrease, while black sagebrush, low rabbitbrush and snakeweed increase.

When the potential natural plant community is burned, bluebunch wheatgrass and Indian ricegrass decrease while low rabbitbrush and Sandberg bluegrass increase.

Cheatgrass and annual forbs are 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	15	40	30	5	5	0	0	0	0
Name	UT2361											
ID Number	PNC											
Description	Excellent Condition											

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

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

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

028AY220UT

Semidesert Loam (Wyoming big sagebrush)

028AY234UT

Semidesert Shallow Loam (Utah juniper-Salina wildrye)

028AY230UT

Semidesert Shallow Hardpan (10-14 PPT)

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

(Give site name and number)

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

### **1. Livestock**

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a. Site Factors Influencing Management

This site is suited for grazing by cattle and sheep during fall, winter, and spring.

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 provides food and limited cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include rabbit, coyote, fox, badger, pronghorn antelope, mule deer, and dove.

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**

Resources that have special aesthetic and landscape values are wildflowers. Some recreation uses of this site are hiking and horseback riding.

**4. Wood Products**

None

**5. Other Uses**

**E. THREATENED AND ENDANGERED SPECIES**

1. Plants
2. Animals

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## **F. MODAL LOCATION AND DOCUMENTATION**

State: Utah                      County:  
 Latitude:                      Longitude:

Modal Soil: Checkett GR-L CB-L – loamy-skeletal, mixed mesic Lithic Xerollic Haplargids

Type Location: S ½ of Section 12, Township 10N, Range 14W

General Legal Description: Box Elder County Utah Red Dome Allotment, Horse Hills, Photo Number 167 F-6. T. 10 N. R. 14 W. South ½ Section 12

### **Field Office Site Location**

Logan  
 Provo  
 Cedar City  
 Murray  
 Richfield

### **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	50				
Permanent Transect Location					

### **Other References**