

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 Malpai

SITE NUMBER: 030XY220UT

MLRA: 030X

Original Site Description: Author: TS

Date: 06/01/1990

Revised Site Description: Author: TS

Date: 01/6/1994

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 07/25/1994

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:

Surface Textures:

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

Subsurface Textures:

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

Geologic Parent Materials:

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max):

Drainage Class(min-max):

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: 641

Stony Colluvial Land 30-70% Slopes

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



Wetland Description(Cowardin System)    System                    Subsystem                    Class  
Stream Types(Rosgen System)                    System

### **C. PLANT COMMUNITY CHARACTERISTICS**

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

The dominant vegetative aspect in this site is mixed desert shrub and grasses. The plant composition by air-dry weight is approximately 55 percent grasses, 5 percent forbs, and 40 percent shrubs in excellent range condition. Important plants include bush muhly, big galleta, black grama, filaree, scarlet globemallow, Nevada mormontea, threadleaf snakeweed, and creosotebush.

#### **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
Bush muhly	MUPO2		120	150	20	25
Big galleta	HIRI		60	90	10	15
Black grama	BOER4		18	30	3	5
Desert needlegrass	ACSP12		12	18	2	3
Sixweeks fescue	VUOC	1	30	60	5	10
Indian ricegrass	ACHY	1	30	60	5	10
Red brome	BRRU2	1	30	60	5	10
Sand dropseed	SPCR	1	30	60	5	10
Threeawn	ARIST	1	30	60	5	10
Spike dropseed	SPCO4	1	30	60	5	10
Other perennial grasses	PPGG	1	30	60	5	10
Other annual grasses	AAGG	1	30	60	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Filaree	ERCI6		12	18	2	3
Scarlet globemallow	SPCO		12	18	2	3
Desert trumpet	ERIN4		6	12	1	2
Four-o'clock	MIMU		6	12	1	2
Skeleton locoweed	ASTRA	1	12	18	2	3
Phlox	PHLOX	1	12	18	2	3
Indianwheat	PLPA2	1	12	18	2	3
Other perennial forbs	PPFF	1	12	18	2	3
Other annual forbs	AAFF	1	12	18	2	3

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre	% by Weight of Total Composition
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			Low	High	Low	High
Threadleaf snakeweed	GUMI		90	120	15	20
Nevada jointfir	EPNE		60	90	10	15
White brittlebrush	ENFA		18	30	3	5
Rubber rabbitbrush	CHNA	1	18	30	3	5
Bricklebrush	BRIN	1	18	30	3	5
Barrel cactus	ECHIN	1	18	30	3	5
Other shrubs	SSSS	1	18	30	3	5

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	700	800
Average Year	400	600
Unfavorable Year	300	400

**4. Ground Cover and Structure**

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	8	1	1
Forbs (perennial)			
Shrubs	5	4	2
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 over-grazing, black grama and bush muhly decrease, while threadleaf snakeweed and rubber rabbitbrush increase along with red brome, cheatgrass and sixweeks fescue.

Fire disclimax: Fire does not appear to be a part of this ecosystem.

### **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												
Name												
ID Number												
Description												

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

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

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

030XY140UT  
 Desert Shallow Hardpan (Creosotebush)

035XY212UT  
 Semidesert Sand (Fourwing saltbush)

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

(Give site name and number)

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

### **1. Livestock**

#### a. Site Factors Influencing Management

Fair cattle range, forage is excellent, but slopes and rock outcrops are limiting factors.

#### b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

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VG = Very Good    G = Good    F = Fair    P = Poor

**2. Wildlife**

a. Site Factors Influencing Management

This site provides food and cover for a few species of wildlife.

b. List of Potential Species Present

Wildlife that use this site include cottontail rabbit, kit fox, rodents, hawks, and reptiles.

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 section will be added as information is available.

**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: Stony Colluvial Land

Type Location: Blackhill West of St. George, Utah, Anderson Junction

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	8				
UTAH - RANGE - 2	1				
Permanent Transect Location					

**Other References**