

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: Desert Clay (Castlevally saltbush)

SITE NUMBER: 034XY103UT

MLRA: 034

Original Site Description: Author: GSC

Date: 05/14/1981

Revised Site Description: Author: GSC

Date: 11/30/1993

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

Date: 07/25/94

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: Silty Clays or Clay Loams

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

Subsurface Textures:

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

Geologic Parent Materials: Residuum and Alluvium from Mancos or Morrison Shale

Moisture Regime:

Temperature Regime: Mesic

Runoff: Medium to Rapid

Permeability(min-max): Very Slow to Slow

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 624

Hanksville Family

Tezuma CL

Blueflat L

Chipeta SiCl Thick, 1-10%

Pocker CL

Tezuma C

Sagers SiL, 1-3%

Killpack SiL, 1-10%

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



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

The dominant aspect of the plant community is castlevalley saltbush and galleta. The composition by air-dry weight is approximately 35 percent perennial grasses, 15 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
Galleta	HIJA		40.5	54	15	20
Indian ricegrass	ACHY		13.5	27	5	10
Bottlebrush squirreltail	ELEL5		2.7	13.5	1	5
Purple threeawn	ARPU9		5.4	8.1	2	3
Sand dropseed	SPCR		2.7	5.4	1	2
Other perennial grasses	PPGG	1	2.7	5.4	1	2
Other annual grasses	AAGG	1	2.7	5.4	1	2

#### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Indian pipeweed	ERIN4		2.7	13.5	1	5
Scarlet globemallow	SPCO		2.7	13.5	1	5
Woolly plantain	PLPA2	2	2.7	5.4	1	2
Woolly milkvetch	ASMO7	2	2.7	5.4	1	2
Pacific aster	ASCH2	2	2.7	5.4	1	2
Sego lily	CANU3	2	2.7	5.4	1	2
Basin fleabane	ERPU9	2	2.7	5.4	1	2
Mountain desert parsley	LOGR	2	2.7	5.4	1	2
Low lupine	LUPU	2	2.7	5.4	1	2
Whitestem stickleaf	MEAL6	2	2.7	5.4	1	2
Pale evening primrose	OEPA	2	2.7	5.4	1	2
Golden princesplume	STPI	2	2.7	5.4	1	2
Grass milkvetch	ASCH7	2	2.7	5.4	1	2
Dinosaur milkvetch	ASSA5	2	2.7	5.4	1	2
Gate canyon wild buckwheat	ERHY3	2	2.7	5.4	1	2
Other perennial forbs	PPFF	2	2.7	13.5	1	5
Other annual forbs	AAFF	2	2.7	13.5	1	5

#### Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Castlevalley saltbush	ATCU		81	94.5	30	35
Bud sagebrush	ARSP5		8.1	13.5	3	5
Winterfat	KRLA2		8.1	13.5	3	5
Shadscale	ATCO		2.7	13.5	1	5
Rubber rabbitbrush	CHNA2	3	2.7	5.4	1	2
Torrey jointfir	EOTO	3	2.7	5.4	1	2
Broom snakeweed	GUSA2	3	2.7	5.4	1	2
Central pricklypear	OPPO	3	2.7	5.4	1	2
Greenmolly	KOAM	3	2.7	5.4	1	2
Mat saltbush	ATCO4	3	2.7	5.4	1	2
Other shrubs	SSSS	3	2.7	13.5	1	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	300	375
Average Year	200	270
Unfavorable Year	100	180

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

#### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	10
Forbs (perennial)	10	1	5
Shrubs	30	1	10
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, Indian ricegrass and castlevalley saltbush decrease while mat saltbush and galleta increase. Fire is not an important factor in this ecosystem. Halogeton, Russian thistle and other annual weeds 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	25	65	5	0	0	0	0	0	0
Name	PNC											
ID Number	UT1031											
Description	Excellent Condition											

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

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

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

034XY109UT

Desert Loamy Clay (Shadscale)

034XY117UT

Desert Shallow Clay (Mat saltbush)

034XY118UT

Desert Shallow Loam (Black Sagebrush)

### **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 provides proper grazing for cattle and sheep during winter and early spring seasons.

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 jackrabbit, coyote, lizard, snake, mice, sparrow, and hawk.

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 may have aesthetic values but limited recreational opportunities.

**4. Wood Products**

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None

**5. Other Uses**

**E. THREATENED AND ENDANGERED SPECIES**

- 1. Plants
- 2. Animals

**F. MODAL LOCATION AND DOCUMENTATION**

State: County:  
 Latitude: Longitude:

Modal Soil: Hanksville Family — fine, mixed (calcareous), mesic Typic Torriothents

Type Location: See the Grand County and Uintah County Soil Surveys.

General Legal Description:

**Field Office Site Location**

Roosevelt  
 Price

**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**