

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: Alkali Flat (Greasewood)

SITE NUMBER: 034XY006UT

MLRA: 034

Original Site Description: Author: JLB

Date: 05/07/1981

Revised Site Description: Author: JLB

Date: 11/17/1993

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: 60 inches

Surface Textures:

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

Subsurface Textures:

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

Geologic Parent Materials: Alluvium from Sedimentary Parent Material

Moisture Regime:

Temperature Regime:

Runoff: Slow

Permeability(min-max): Moderate to Moderately Slow

Drainage Class(min-max): Moderately 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:

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Soil Survey Area: 047

Turzo L. Saline-Sodic, 0-4%  
 Cliferoon GF-SL, 0-3%  
 Pherson GR-SL, 2-8%  
 Uffens SL, 0-2%  
 Ravola L Alkali, 1-5%  
 Juva Variet, FSL, 1-5%

Paradox L, Sodic, 2-4%  
 Tisworth FSI, 2-4%  
 Mikim SIL, Sodic, 1-4%  
 Stutzman SICL, 0-1%  
 Redbank Family, 0-3%  
 Haverdad L Alkali, 0-3%

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

## **2. PHYSIOGRAPHIC FEATURES**

Landform and Position: Alluvial Fans, Drainages, Stream Terraces and FloodPlains

Aspect:

	<u>Minimum</u>	<u>Maximum</u>
Slope:	0	8
Elevation:	4700	6800
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

## **B. CLIMATIC FEATURES**

Mean Annual Precipitation (inches): 5-12

Mean Annual Air Temperature: 44-47

Mean Annual Soil Temperature: 47-50

Frost Free Period (days): 0-0

Freeze Free Period (days): 110-125

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	29	38	52	64	74	84	91	89	79	66	48	33
Mean	16	24	37	48	57	66	73	71	61	49	35	20
Low	3	10	23	32	40	48	55	53	43	33	21	8

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High												
Mean	0.54	0.44	0.56	0.55	0.78	0.66	0.49	0.57	0.63	0.88	0.47	0.52
Low												

Climate Stations: St. ID.:

Location:

Period:

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From: To:  
 (Includes factors such as storm intensity, precipitation dependability, origin and pattern of storms, driest and wettest months, orographic effects, etc.)

Influencing Water Features (if any):

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 aspect of this plant community is greasewood. The composition by air-dry weight is approximately 50 percent perennial grasses, 10 percent forbs, and 40 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
Bottlebrush squirreltail	ELEL5		70	105	10	15
Alkali sacaton	SPAI		70	105	10	15
Galleta	HIJA		35	70	5	10
Indian ricegrass	ACHY		35	70	5	10
Sand dropseed	SPCR		21	35	3	5
Nevada bluegrass	PONE3	1	7	21	1	3
Blue grama	BOGR2	1	7	21	1	3
Inland saltgrass	DISP	1	7	21	1	3
Needleandthread	HECO26	1	7	21	1	3
Purple threeawn	ARPU4	1	7	21	1	3
Western wheatgrass	PASM	1	7	21	1	3
Other perennial grasses	PPGG	1	7	35	1	5
Other annual grasses	AAGG	1	7	35	1	5

Forbs, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol		Pounds per Acre		Total Composition	
			Low	High	Low	High
Slender seepweed	SUOC		14	35	2	5
Scarlet globemallow	SPCO		14	35	2	5
Pacific aster	ASCH2	2	7	14	1	2
Wooly milkvetch	ASMO7	2	7	14	1	2
Ballhead skyrocket	IPCOC3	2	7	14	1	2
Bush pepperweed	LEFR2	2	7	14	1	2
Silverscale	ATAR2	2	7	14	1	2
Mountain desert parsley	LOGR	2	7	14	1	2
Common sunflower	HEAN3	2	7	14	1	2
Pale evening primrose	OEPA	2	7	14	1	2
Hedge mustard	SIOF	2	7	14	1	2
Mountain pepperweed	LEMO2	2	7	14	1	2
Whitestem stickleaf	MEAL6	2	7	14	1	2
Torrey desert dandelion	MATO2	2	7	14	1	2
Other perennial forbs	PPFF	2	21	35	3	5
Other annual forbs	AAFF	2	21	35	3	5

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Greasewood	SAVE4	0	175	245	25	35
Shadscale	ATCO	0	35	70	5	10
Bud sagebrush	ARSP5	0	14	35	2	5
Low rabbitbrush	CHVI8	3	7	21	1	3
Fourwing saltbush	ATCA2	3	7	21	1	3
Greenmolly	KOAM	3	7	21	1	3
Central pricklypear	OPPO	3	7	21	1	3
Spiny hopsage	GRSP	3	7	21	1	3
Shortspine horsebrush	TESP2	3	7	21	1	3
Basin saltbush	ATTR3	3	7	21	1	3
Other shrubs	SSSS	3	21	35	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**

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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	950	1000
Average Year	650	700
Unfavorable Year	500	550

#### **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)	10	1	5
Shrubs	40	4	15
Trees			
Cryptogams			

##### b. Other

Litter	
Coarse Fragments	
Bare Ground	

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

As ecological condition deteriorates due to over grazing grasses will decrease, while greasewood will increase to dominate the site. When the potential natural plant community is burned Indian ricegrass and bottlebrush squirreltail may decrease, while greasewood will increase. Cheatgrass, Russian thistle, and other annuals 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	UT0061											
ID Number	PNC											
Description	Excellent Condition											

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

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

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

034XY002UT  
 Alkali Bottom (Alkali sacaton)

034XY212UT  
 Semidesert Loam (Wyoming big sagebrush)

034XY106UT  
 Desert Loam (Shadscale)

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

(Give site name and number)

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

### **1. Livestock**

#### a. Site Factors Influencing Management

This site provides proper grazing for cattle and sheep during 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 cover for wildlife.

#### b. List of Potential Species Present

Wildlife using this site include jackrabbit, coyote, kangaroo rat, snake, 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 →		
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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**

Recreation activities are hiking and hunting.

### **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: Turzo L. Saline-Sodic – fine-loamy, mixed (calcareous), mesic Typic Torriorthents

Type Location: See Uintah County Survey

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%

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NRCS - ECS - 417					
UTAH - RANGE - 2					
Permanent Transect Location					

**Other References**