

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 Bottom (Alkali sacaton)

SITE NUMBER: 034XY002UT

MLRA: 034

Original Site Description: Author: JLB

Date: 05/07/1981

Revised Site Description: Author: JLB

Date: 11/15/1993

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: Loam to Clay Loam

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

Subsurface Textures:

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

Geologic Parent Materials: Alluvium from Sedimentary and Lacustrine

Moisture Regime:

Temperature Regime: Mesic

Runoff: Very Slow

Permeability(min-max): Slow to Very Slow

Drainage Class(min-max): Poorly 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: 047

Green River L

Poganeab SICL

**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 this plant community is greasewood and alkali sacaton. The composition by air-dry weight is approximately 75 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
Alkali sacaton	SPAI		445	534	25	30
Tufted hairgrass	DECE		178	267	10	15
Great basin wildrye	LECI4		89	178	5	10
Bottlebrush squirreltail	ELEL5		89	178	5	10
Inland saltgrass	DISP		89	178	5	10
Baltic rush	JUBAM	1	17.8	89	1	5
Clustered field sedge	CAPR5	1	17.8	89	1	5
Foxtail barley	HOJU	1	17.8	89	1	5
Western wheatgrass	PASM	1	17.8	89	1	5
Alkali bluegrass	POJU	1	17.8	89	1	5
Other perennial grasses	PPGG	1	89	178	5	10
Other annual grasses	AAGG	1	89	178	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Fireweed	KOSC	2	17.8	35.6	1	2
Yellow sweetclover	MEOF	2	17.8	35.6	1	2
Fivehorn smotherweed	BAHY	2	17.8	35.6	1	2
Silverscale saltweed	ATAR2	2	17.8	35.6	1	2
Other perennial forbs	PPFF	2	17.8	89	1	5
Other annual forbs	AAFF	2	17.8	89	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
Greasewood	SAVE4		89	178	5	10
Fourwing saltbush	ATCA2		17.5	89	1	5
Gardner saltbush	ATGA		17.5	89	1	5
Greenmolly	KOAM	3	17.5	53.4	1	3
Rubber rabbitbrush	CHNA2	3	17.5	53.4	1	3
Slender seepweed	SUOC	3	17.5	53.4	1	3
Other shrubs	SSSS	3	17.5	89	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	2400	2500
Average Year	1680	1780
Unfavorable Year	900	1000

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

#### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	60	2	50
Forbs (perennial)	5	1	1
Shrubs	10	3	3
Trees			
Cryptogams			

#### b. Other

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Litter	
Coarse Fragments	
Bare Ground	

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

As ecological condition deteriorates due to over grazing alkali sacaton, tufted hairgrass and basin wildrye decrease, while greasewood, fivehorn smotherweed and annuals increase. When the potential natural plant community is burned alkali sacaton and tufted hairgrass may decrease, while greasewood and saltgrass may increase. White top, salt cedar, cheatgrass and 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	UT0021											
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**

034XY024UT  
 Wet Saline Meadow (Inland saltgrass)

034XY006UT  
 Alkali Flat (Black greasewood)

034XY026UT  
 Wet Saline Streambank (Coyote willow)

### **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 any season of the year.

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

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**

Recreation activities are hiking and hunting.

**4. Wood Products**

None

**5. Other Uses**

**E. THREATENED AND ENDANGERED SPECIES**

1. Plants

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 2. Animals

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

State: Utah                      County:  
 Latitude:                      Longitude:

Modal Soil: Green River L – coarse-loamy, mixed (calcareous), mesic Aquic Ustifluents

Type Location: See the Uintah County Soil 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%
NRCS - ECS - 417					
UTAH - RANGE - 2					
Permanent Transect Location					

#### **Other References**