

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: Upland Shallow Stony Loam (Utah juniper)

SITE NUMBER: 025XY326UT

MLRA: 025

Original Site Description: Author: GBB

Date: 01/15/1985

Revised Site Description: Author: GBB

Date: 02/07/1994

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

Date: 04/25/1994

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: Shallow

Surface Textures: Medium to Moderately Fine

Surface Fragments(<=3" % cover, >3" % cover): High Amounts of Rock

Subsurface Textures: High Amounts of Rock

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

Geologic Parent Materials: Colluvium and Residuum from Rhyolitic

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Moderately Rapid

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: 601

Rexmont STV-L Overland

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



## 1. Potential Plant Community Description and Ecological Factors

The general view of this site is an overstory of Utah juniper and an understory of bitterbrush and grass. The composition by air-dry weight is approximately 50 percent perennial grasses, 5 percent forbs, and 30 percent shrubs, and 15 percent trees.

## 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		150	187.5	20	25
Nevada bluegrass	PONE3		22.5	37.5	3	5
Great basin wildrye	LECI4		22.5	37.5	3	5
Indian ricegrass	ACHY		22.5	37.5	3	5
Thurber needlegrass	ACTH7	1	7.5	22.5	1	3
Bottlebrush squirreltail	ELEL5	1	7.5	22.5	1	3
Prairie junegrass	KOMA	1	7.5	22.5	1	3
Sandberg bluegrass	POSE	1	7.5	22.5	1	3
Other perennial grasses	PPGG	1	37.5	75	5	10
Other annual grasses	AAGG	1	37.5	75	5	10

### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3	2	37.5	75	5	10
Longleaf hawksbeard	CRAC2	2	37.5	75	5	10
Wavyleaf thistle	CIUN	2	37.5	75	5	10
Torrey milkvetch	ASCA9	2	37.5	75	5	10
Dustymaiden	CHDO	2	37.5	75	5	10
Small leaf pussytoes	ANMI3	2	37.5	75	5	10
Low beardtongue	PEHU	2	37.5	75	5	10
Carpet phlox	PHHO	2	37.5	75	5	10
Sego lily	CANU3	2	37.5	75	5	10
Other perennial forbs	PPFF	2	37.5	75	5	10
Other annual forbs	AAFF	2	37.5	75	5	10

### Shrubs/Vines, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Bitterbrush	PUTR2		112.5	150	15	20
Black sagebrush	ARNO4		75	112.5	10	15
Low rabbitbrush	CHVI8		22.5	37.5	3	5
Wyoming big sagebrush	ARTRW	3	7.5	22.5	1	3
Nuttal horsebrush	TENU2	3	7.5	22.5	1	3
Rubber rabbitbrush	CHNA2	3	7.5	22.5	1	3
Central pricklypear	OPPO	3	7.5	22.5	1	3
Stemless mock goldenweed	STACA	3	7.5	22.5	1	3
Other shrubs	SSSS	3	37.5	75	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS		90	112.5	12	15

**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	850	950
Average Year	650	750
Unfavorable Year	450	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)	5	1	2
Shrubs	30	3	20
Trees	50	12	20
Cryptogams			

b. Other

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Litter	
Coarse Fragments	
Bare Ground	

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

As this site deteriorates due to grazing pressure bluebunch wheatgrass, Great Basin wildrye and bitterbrush decrease while Utah juniper, big sagebrush, and rabbitbrush increase. When the potential natural plant community is burned, juniper, big sagebrush, and bitterbrush decrease while rabbitbrush, and horsebrush increase. Broom snakeweed and cheatgrass 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	20	10	5	5	0	0	0
Name	PNC											
ID Number	UT3261											
Description	Excellent condition											

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

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

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

025XY316UT  
 Upland Shallow Loam (Black sagebrush)

025XY320UT  
 Upland Stony Clay (Low sagebrush)

### **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 spring, summer, and fall.

#### 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 wildlife.

b. List of Potential Species Present

Wildlife using this site include blacktail jackrabbit, cottontail, coyote, sage grouse, mule deer, and elk.

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**

Hunting, Hiking and Camping

**4. Wood Products**

Fire Wood and Posts

**5. Other Uses**

**E. THREATENED AND ENDANGERED SPECIES**

1. Plants

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 2. Animals

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

State: Utah                      County: Box Elder  
 Latitude:                      Longitude:

Modal soils: Rexmont STV-L – loamy-skeletal, mixed, frigid Lithic Haploxerolls

Type Location: SE ¼, SW ¼, Section 3, Township 10N, Range 19W – Box Elder  
 Dairy Valley Creek

General Legal Description:

#### **Field Office Site Location**

Logan  
 Box Elder County

#### **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	8				
Permanent Transect Location					

#### **Other References**