

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 Juniper Savanna (Utah juniper)

SITE NUMBER: 025XY322UT

MLRA: 025

Original Site Description: Author: GBB

Date: 01/15/1985

Revised Site Description: Author: GBB

Date: 02/09/1994

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: 20-40 inches

Surface Textures:

Surface Fragments(<=3" % cover, >3" % cover): 15-35%

Subsurface Textures:

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

Geologic Parent Materials: Alluvium & Colluvium from Mixed Materials

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max): Moderate

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Slight to Moderate

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): 1-4

Major Soils Associated With This Site:

Soil Survey Area: 601

Dahar GR-SL

**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 open stand of Utah juniper with an understory of Wyoming big sagebrush and grass. The composition by air-dry weight is approximately 40 percent perennial grasses, 20 percent forbs, and 30 percent shrubs, and 10 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		45	67.5	10	15
Indian ricegrass	ACHY		22.5	45	5	10
Columbia needlegrass	ACNE9		13.5	22.5	3	5
Western wheatgrass	PASM	1	4.5	13.5	1	3
Idaho fescue	FEID	1	4.5	13.5	1	3
Nevada bluegrass	PONE3	1	4.5	13.5	1	3
Bottlebrush squirreltail	ELEL5	1	4.5	13.5	1	3
Great basin wildrye	LECI4	1	4.5	13.5	1	3
Other perennial grasses	PPGG	1	22.5	45	5	10
Other annual grasses	AAGG	1	22.5	45	5	10

### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Arrowleaf balsamroot	BASA3	2	4.5	13.5	1	3
Hairy balsamroot	BAHO	2	4.5	13.5	1	3
Carpet phlox	PHHO	2	4.5	13.5	1	3
Torrey milkvetch	ASCA9	2	4.5	13.5	1	3
Longleaf hawksbeard	CRAC2	2	4.5	13.5	1	3
Slender wild buckwheat	ERBR5	2	4.5	13.5	1	3
Spurred lupine	LUCA3	2	4.5	13.5	1	3
Low beardtongue	PEHU	2	4.5	13.5	1	3
Lobeleaf groundsel	SEMU3	2	4.5	13.5	1	3
Other perennial forbs	PPFF	2	67.5	90	15	20
Other annual forbs	AAFF	2	67.5	90	15	20

### 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		45	67.5	10	15
Wyoming big sagebrush	ARTRW		45	67.5	10	15
Mountain big sagebrush	ARTRV		13.5	45	3	5
Low rabbitbrush	CHVI8	3	4.5	13.5	1	3
Sulfurflower wild buckwheat	ERUM	3	4.5	13.5	1	3
Mountain snowberry	SYOR2	3	4.5	13.5	1	3
Other shrubs	SSSS	3	13.5	45	3	5

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS				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	650	750
Average Year	350	450
Unfavorable Year	100	200

**4. Ground Cover and Structure**

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	25	2	10
Forbs (perennial)	10	1	5
Shrubs	20	4	10
Trees	25	10	10
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, bitterbrush, and Indian ricegrass decrease while Utah juniper, big sagebrush, and low rabbitbrush increase. When the potential natural plant community is burned Utah juniper, big sagebrush, bitterbrush, and eriogonum decrease while low rabbitbrush, lupine, and annuals increase.

## **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	UT3221											
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)

025XY310UT  
 Upland Loam (Basin big sagebrush)

025XY314UT  
 Upland Loam (Wyoming big 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

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

**2. Wildlife**

a. Site Factors Influencing Management

This site provides food and cover for several species of wildlife.

b. List of Potential Species Present

Wildlife using this site include blacktail jackrabbit, coyote, sage grouse, and 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**

Camping, Hunting, and Hiking

**4. Wood Products**

Fire Wood and Fence 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 Soil: Dahar GR-SL – fine-loamy, mixed, frigid Haploxerollic Durargid

Type Location: NW ¼ SW ¼ Section 34, Township 15N, Range 19W

General Legal Description: NW ¼ SW ¼ Section 34, Township 15N, Range 19W. Goose Creek Area

**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	10				
Permanent Transect Location					

**Other References**