

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: Semidesert Shallow Loam (Utah juniper-Bluebunch wheatgrass)  
SITE NUMBER: 028AY238UT  
MLRA: 028A  
Original Site Description: Author: GR DJS Date: 05/20/1992  
Revised Site Description: Author: GR DJS Date: 06/11/1993  
Approved by: Title: State Range Cons. Signed: Pat Shaver Date: 08/30/1993

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): >35%  
Geologic Parent Materials: Residuum & Colluvium from Limestone & Sandstone  
Moisture Regime:  
Temperature Regime:  
Runoff:  
Permeability(min-max):  
Drainage Class(min-max): Somewhat Excessively 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): 0.5-3.0

Major Soils Associated With This Site:

Soil Survey Area: 611  
Amtoft Family, CBV-L

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

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**2. PHYSIOGRAPHIC FEATURES**

Landform and Position: Mountainsides and Hillsides

Aspect: All

	<u>Minimum</u>	<u>Maximum</u>
Slope:	10	70
Elevation:	5200	7500
Flooding:		
Frequency:		
Duration:		
Ponding:		
Depth (inches):		
Frequency:		
Duration:		
Water Table Depth:		

**B. CLIMATIC FEATURES**

Mean Annual Precipitation (inches): 10-12

Mean Annual Air Temperature: 45-48

Mean Annual Soil Temperature: 47-52

Frost Free Period (days): 0-0

Freeze Free Period (days): 100-140

Temperature and Moisture Distribution:

Temp	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	38	44	52	62	72	82	90	88	79	66	51	41
Mean	26	31	38	46	55	64	72	70	61	49	37	28
Low	13	18	24	30	38	45	53	52	42	32	22	15

ppt	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
High	1.20	1.20	1.50	1.40	1.60	1.20	1.40	1.60	1.40	1.40	1.20	1.20
Mean	0.80	0.80	1.00	0.90	1.00	0.70	0.90	1.00	0.80	0.90	0.80	0.80
Low	0.30	0.30	0.40	0.40	0.40	0.20	0.30	0.20	0.30	0.30	0.30	0.30

Climate Stations: St. ID.:

Location:

Period:

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**

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

The dominant aspect of this plant community is Utah juniper. The composition by air-dry weight is approximately 20 percent Utah juniper, 40 percent perennial grasses, 10 percent forbs, and 30 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
Bluebunch wheatgrass	PSSP6		140	175	20	25
Indian ricegrass	ACHY		35	70	5	10
Nevada bluegrass	PONE3		35	70	5	10
Bottlebrush squirreltail	ELEL5	1	7	21	1	3
Needleandthread	HECO26	1	7	21	1	3
Galleta	HIJA	1	7	21	1	3
Blue grama	BOGR2	1	7	21	1	3
Other perennial grasses	PPGG	1	21	35	3	5
Other annual grasses	AAGG	1	21	35	3	5

#### Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Gooseberryleaf globemallow	SPGR2	2	7	21	1	3
Carpet phlox	PHHO	2	7	21	1	3
Cushion wild buckwheat	EROV	2	7	21	1	3
Chambers twinpod	PHCH2	2	7	21	1	3
Ballhead skyrocket	IPCOC3	2	7	21	1	3
Hairy balsamroot	BAHO	2	7	21	1	3
Other perennial forbs	PPFF	2	35	70	5	10
Other annual forbs	AAFF	2	35	70	5	10

#### Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		140	175	20	25
Shadscale	ATCO		35	70	5	10
Low rabbitbrush	CHVI8	3	7	21	1	3
Nevada jointfir	EPNE	3	7	21	1	3
Other shrubs	SSSS	3	21	35	3	5

#### Trees, %

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Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS		140	210	20	30

### **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	800	900
Average Year	600	700
Unfavorable Year	400	500

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

#### a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	15	2	5
Forbs (perennial)	5	1	5
Shrubs	15	2	10
Trees	20	12	15
Cryptogams			

#### b. Other

Litter	
Coarse Fragments	
Bare Ground	

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

As ecological condition deteriorates due to overgrazing, bluebunch wheatgrass and Indian ricegrass decrease, while low rabbitbrush, black sagebrush and juniper increase.

When the potential natural plant community is burned, black sagebrush and juniper decrease while low rabbitbrush increases.

### **Plant Communities & Transitional Pathways**

(Show a steady state diagram with influences to move from one steady state to another)

### **6. Plant Growth Curves**

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	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	5	15	40	30	5	5	0	0	0	0
Name	UT2381											
ID Number	PNC											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	20	50	20	5	5	0	0	0	0
Name	UT2382											
ID Number	Good Condition NO. 1											
Description	Bluegrass, Black sagebrush											

**7. Aspect Differences Near MLRA Boundaries**

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

**8. Associated Sites Within MLRA**

028AY215UT

Semidesert Gravelly Loam (Wyoming big sagebrush) North

028AY220UT

Semidesert 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**

Approximately 40 percent of the plants furnish some forage for livestock. Limited numbers of plant species occur, but they have enough variety to provide balanced nutrition for cattle, horses, and sheep. Grazing can be during all seasons, but best efficiency is in the fall or winter. Spring grazing is a common practice.

**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 a few species of wildlife.

b. List of Potential Species Present

Wildlife using this site include antelope, blacktailed jackrabbit, coyote, morning dove, golden eagles (fall and spring), a few songbirds, and a few species of small mammals.

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**

Values are fair for camping, hiking, and picnicking.

**4. Wood Products**

This site yields approximately three cords of juniper per acre for firewood.

**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: Amtoft Family CBV-L – loamy-skeletal, mixed (calc.), mesic Lithic Xerollic Calciorthid

Type Location: Warm Springs Hill 15 Miles west of Park Valley

General Legal Description:

### **Field Office Site Location**

Logan

Provo

Cedar City

Murray

Richfield

### **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**