

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 Loam (Pinyon-Utah juniper)

SITE NUMBER: 047CY326UT

MLRA: E47C

Original Site Description: Author: GWL, LLR

Date: 03/11/1992

Revised Site Description: Author:

Date:

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

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: 10-20 inches

Surface Textures:

Surface Fragments(<=3" % cover, >3" % cover): 50%

Subsurface Textures:

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

Geologic Parent Materials: Alluvium, Colluvium, Residuum and Eolian Deposits from Limestone, Sandstone and Shale

Moisture Regime: Ustic

Temperature Regime: Frigid

Runoff:

Permeability(min-max):

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):

Major Soils Associated With This Site:

Soil Survey Area: 047

Arrod Family GRV-L, 3-8%

Thermopolis VFSL, 2-8%

Rentsac CNV-SL, 25-65%

Tyzak CBV, 15-50%

Thermopolis SiL, 5-30%

Moyerson STX-SL, 10-25%

Tolman STX-SL, 10-25%

Sphinx Family STV-LFS, 30-60%

**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 general view of this area is pinyon pine and Utah juniper. The understory composition by air-dry weight is approximately 60 percent grasses and grasslike plants, 10 percent forbs, 15 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		160	200	20	25
Prairie junegrass	KOMA		80	120	10	15
Nevada bluegrass	PONE3		24	40	3	5
Needleandthread	HECO26	1	8	24	1	3
Western wheatgrass	PASM	1	8	24	1	3
Geyer sedge	CAGE2	1	8	24	1	3
Bottlebrush squirreltail	ELEL5	1	8	24	1	3
Sandberg bluegrass	POSE	1	8	24	1	3
Other perennial grasses	PPGG	1	40	80	5	10
Other annual grasses	AAGG	1	40	80	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Stemless mock goldenweed	STACA	2	8	16	1	2
Carpet phlox	PHHO	2	8	16	1	2
Lesser rushy milkvetch	ASCO12	2	8	16	1	2
Low beardtongue	PEHU	2	8	16	1	2
Longleaf hawksbeard	CRAC2	2	8	16	1	2
Pacific aster	ASCH2	2	8	16	1	2
Little leaf pussytoes	ANMI3	2	8	16	1	2
Shortstem wild buckwheat	ERBR5	2	8	16	1	2
Other perennial forbs	PPFF	2	40	80	5	10
Other annual forbs	AAFF	2	40	80	5	10

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Black sagebrush	ARNO4		40	80	5	10
Slender wild buckwheat	ERMI4	3	8	24	1	3
Broom snakeweed	GUSA2	3	8	24	1	3
Central pricklypear	OPPO	3	8	24	1	3
Birchleaf mountainmahogany	CEMO2	3	8	24	1	3
Bitterbrush	PUTR2	3	8	24	1	3
Mountain low rabbitbrush	CHVIL4	3	8	24	1	3
Other shrubs	SSSS	3	24	40	3	5

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Utah juniper	JUOS	4	80	120	10	15
Pinyon pine	PIED	4	80	120	10	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	1000	1100
Average Year	700	800
Unfavorable Year	500	600

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

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	30	2	20
Forbs (perennial)	5	1	5
Shrubs	10	2	10
Trees	30	10	25
Cryptogams			

b. Other

Litter	
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Coarse Fragments	
Bare Ground	

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

As this site deteriorates due to livestock grazing pressure perennial grasses decrease while shrubs and pinyon and juniper increase. Fire will eliminate or reduce pinyon and juniper and black sagebrush while some perennial grasses and forbs 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	UT3261											
Description	Excellent Condition											

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	10	40	35	5	5	5	0	0	0
Name	Good Condition No. 1											
ID Number	UT3262											
Description	bluegrass, black sagebrush, juniper, pinyon											

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

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

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

047CY320UT

Upland Shallow Loam (Black sagebrush)

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

(Give site name and number)

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

### **1. Livestock**

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a. Site Factors Influencing Management

This site provides grazing for cattle and sheep in the 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

The site provides food and cover for many species of wildlife.

b. List of Potential Species Present

Wildlife species using this site include coyote, 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**

The pinyon pine and Utah juniper are valuable for screening, camping, picnicking, hiking, and summer homes.

**4. Wood Products**

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Site class-II, Site Index 58, Productivity Rating is 4 or moderate growth potential for Utah juniper and pinyon pine. The dominant limitation is soil depth. These shallow soils over bedrock have moderate to severe seedling mortality and erosion hazard is moderate.

**5. Other Uses**

**E. THREATENED AND ENDANGERED SPECIES**

1. Plants

2. Animals

**F. MODAL LOCATION AND DOCUMENTATION**

State: Utah

County:

Latitude:

Longitude:

Modal Soil: Arrod Family GRV-L, 3-8% — loamy-skeletal, carbonic, shallow Petrocalcic Calcoborolls

Type Location: SW ¼, SW ¼, NE ¼; Section 26, Township SN, Range 1W

General Legal Description:

**Field Office Site Location**

Roosevelt

**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**