

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: Semiwet Fresh Streambank (Narrowleaf cottonwood)

SITE NUMBER: 047AY006UT

MLRA: E47

Original Site Description: Author:

Date:

Revised Site Description: Author: DLT DJS

Date: 09/09/1992

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: >60 inches

Surface Textures: Black Loam

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

Subsurface Textures: Very Dark Brown or Dark Brown Clay Loam; Substratum to a Depth of 60 Inches or More is Brown Very Gravelly Loam

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

Geologic Parent Materials: Alluvium from Sandstone , Quartzite, and Limestone

Moisture Regime:

Temperature Regime:

Runoff: Very Slow

Permeability(min-max): Moderately Slow

Drainage Class(min-max): Somewhat Poorly Drained

Water Erosion Hazard: None

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): 8-10

Major Soils Associated With This Site:

Soil Survey Area: 613

Center Creek L, 0-3%

Fluventic haploxerolls, 1-6%

Fluventic Haploborolls L, 1-6%

Nicodemus GR-L, 0-3%

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

#### **2. PHYSIOGRAPHIC FEATURES**



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

The vegetation of this site usually has a variable overstory of water-loving trees and shrubs of approximately 40 percent of the total production annually of an air-dry basis. Grasses are about 45 percent of the plant composition and forbs 15 percent.

### **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
Blue wildrye	ELGL		100	100	5	5
Slender wheatgrass	ELTR7		60	100	3	5
Mountain brome	BRCA5		60	100	3	5
Bluebunch wheatgrass	PSSP6		60	100	3	5
Muttongrass	POFE		60	60	3	3
Western wheatgrass	PASM	1	20	60	1	3
Great basin wildrye	LECI4	1	20	60	1	3
Clustered field sedge	CAPR5	1	20	60	1	3
Letterman needlegrass	ACLE9	1	20	60	1	3
Needleandthread	HECO26	1	20	60	1	3
Redtop	AGST2	1	20	60	1	3
Baltic rush	JUBAM	1	20	60	1	3
Bottlebrush squirreltail	ELEL5	1	20	60	1	3
Mat muhly	MURI	1	20	60	1	3
Other perennial grasses	PPGG	1	100	200	5	10
Other annual grasses	AAGG	1	100	200	5	10

Forbs, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Tobacco root	VAED	2	20	60	1	3
Sweetanice	OSOC	2	20	60	1	3
Thickleaf peavine	LALA3	2	20	60	1	3
Nettleleaf giant hyssop	AGUR	2	20	60	1	3
Butterweed	SESE2	2	20	60	1	3
Cow parsnip	HELA4	2	20	60	1	3
White cranesbill	GERI	2	20	60	1	3
Showy false solomonsseal	HEMU3	2	20	60	1	3
Showy cinquefoil	MARAR	2	20	60	1	3
Missouri goldenrod	SOMI2	2	20	60	1	3
Prairie goldenbanner	THRHM	2	20	60	1	3
Longstalk clover	TRLO	2	20	60	1	3
Louisiana wormwood	ARLU	2	20	60	1	3
Other perennial forbs	PPFF	2	200	300	10	15
Other annual forbs	AAFF	2	200	300	10	15

Shrubs/Vines, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Drummond willow	SADR		100	200	5	10
Water birch	BEOC2		60	100	3	5
Chokecherry	PRVI		60	100	3	5
Speckled alder	ALIN2	3	20	60	1	3
Redosier	COSES	3	20	60	1	3
Saskatoon serviceberry	AMAL2	3	20	60	1	3
Silver buffaloberry	SHAR	3	20	60	1	3
Blue elder	SACE3	3	20	60	1	3
Fourline honeysuckle	LOIN5	3	20	60	1	3
Mountain snowberry	SYOR2	3	20	60	1	3
Creeping Oregon grape	MARE11	3	20	60	1	3
Deciduous travelersjoy	CLLI2	3	20	60	1	3
Threadleaf rubber rabbitbrush	CHNAC2	3	20	60	1	3
Woods rose	ROWO	3	20	60	1	3
Wax current	RICE	3	20	60	1	3
Basin big sagebrush	ARTRT	3	20	60	1	3
Other shrubs	SSSS	3	200	300	10	15

Trees, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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	Symbol				Total Composition	
			Low	High	Low	High
Narrowleaf cottonwood	POAN3	4	100	20	5	1
Rocky Mountain juniper	JUSC2	4	100	20	5	1
Quaking aspen	POTR5	4	100	20	5	1

### **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	1900	2000
Unfavorable Year	1400	1500

### **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	15
Forbs (perennial)	5	1	5
Shrubs	20	6	10
Trees	50	60	10
Cryptogams			

#### b. Other

Litter	
Coarse Fragments	
Bare Ground	

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

Several water-loving tree species are found in scattered clumps or as single trees throughout this site. Narrowleaf cottonwood, quaking aspen, thinleaf alder, Rocky Mountain juniper, and water birch are present along with tall shrub species such as bigtooth maple, chokecherry, Gambel oak, silver buffaloberry and several species of willow. Plant species not a part of the climax plant community that are most likely to invade the site if plant cover deteriorates are cheatgrass, cocklebur, curlycup gumweed, lambsquarters, houndstongue, mullein, povertyweed, Canadian thistle, bull thistle, burdock, and rubber rabbitbrush. With excessive grazing use, big sagebrush, western wheatgrass and tree species will increase. Big sagebrush may become the dominant plant.

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

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

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### **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	UT0061											
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	UT0062											
Description	Grass, Forb											

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

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

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

047AY010UT

Wet Fresh Streambank (Willow)

047AY004UT

Wet Fresh Meadow (Bentgrass)

### **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 has been grazed heavily since the settlements because it is near communities and ranch headquarters and produces a large volume of very nutritious native forage plants. It provides excellent grazing for sheep, cattle, goats, and horses. It is adapted for use in the spring, summer and fall. If grazed in the winter, protein supplements should be provided.

To control soil erosion and degradation of the plant community this site may be properly grazed early with the animals being removed early to allow key plants to go ungrazed during the last part of the growing season. A stubble height of 4 to 6 inches should be adhered to.

#### 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

The potential is good to fair for openland habitat, good for woodland habitat, fair for wetland habitat and good for rangeland habitat. This site is valuable for most species of wildlife due to the variety of grasses, forbs, shrubs, and trees and the interspersed nature of this vegetation with other range sites which in turn provides a great diversity and abundance of food and cover.

### b. List of Potential Species Present

It provides valuable habitat for pheasants, mule deer, quail, elk, moose, squirrels, rabbits, coyotes, eagles, hawks, woodpeckers, wading birds and numerous songbirds.

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

This site has good values for aesthetics and natural beauty. It has a large number of forbs and shrubs which have flowers in bloom from early spring throughout the summer and into the fall. It has a combination of grasses, forbs, small shrubs, large shrubs and trees which offer excellent possibilities for screening and high value as camping and picnicking areas. Hunting for upland game birds, cottontail rabbits, elk and mule deer is good to excellent on this site. Summer homes are a possibility on this site, but detailed on-site investigation should be made to determine feasibility of the soils for septic tanks and sewage disposal facilities when specific locations are tentatively planned for summer homes or other building sites. Due to the high water table, sewage disposal is extremely difficult.

## 4. Wood Products

The tree species, except for Cottonwood, do not grow large enough to make them valuable for lumber. Occasionally cottonwood and Rocky Mountain juniper have been used for saw timber. No site index

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determinations have been made to date on these species. Some sites exist for fence posts and fuel for fireplaces and campfires. Some species furnish raw material for knick-knacks, ornamental uses and firewood.

## **5. Other Uses**

### **E. THREATENED AND ENDANGERED SPECIES**

1. Plants

2. Animals

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

State: Utah

County:

Latitude:

Longitude:

Modal Soil: Center Creek L, 0-2% – fine-loamy, mixed Pachic Argiborolls

Type Location: NW ¼; Section 32, Township 5S, Range 5E

General Legal Description:

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

Logan

Provo

Richfield

Cedar City

Murray

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					

## **4. Other References**