

**UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE**

**ECOLOGICAL SITE DESCRIPTION**

**ECOLOGICAL SITE CHARACTERISTICS**

**Site Type:** Rangeland

**Site ID:** R051XA003NM

**Site Name:** Dry Loamy

**Precipitation or Climate Zone:** 9 to 13 inches

**Phase:** \_\_\_\_\_

## PHYSIOGRAPHIC FEATURES

### **Narrative:**

This site occurs on moderately sloping alluvial terraces and benches that are influenced by rain shadows. Slopes range from 2 to 15 percent but are generally less than 10 percent. Elevations range from 7,400 to 7,600 feet above sea level.

### **Land Form:**

1. Terrace

2.

3.

### **Aspect:**

1. N/A

2.

3.

	<b>Minimum</b>	<b>Maximum</b>
<b>Elevation (feet)</b>	7,400	7,600
<b>Slope (percent)</b>	2	15
<b>Water Table Depth (inches)</b>	N/A	N/A
	<b>Minimum</b>	<b>Maximum</b>
<b>Flooding:</b>		
<b>Frequency</b>	N/A	N/A
<b>Duration</b>	N/A	N/A
	<b>Minimum</b>	<b>Maximum</b>
<b>Ponding:</b>		
<b>Depth (inches)</b>	N/A	N/A
<b>Frequency</b>	N/A	N/A
<b>Duration</b>	N/A	N/A

### **Runoff Class:**

Negligible to medium.

## CLIMATIC FEATURES

### **Narrative:**

Mean annual precipitation varies from 9 to 13 inches. Departures from the average of 4 inches or more are common. Approximately 50 percent of this moisture occurs during the vegetative growth period, April through September. Over 20 percent of the precipitation comes in the form of high intensity summer thunderstorms which influence the presence and production of warm-season plants. Winter and early spring moisture in the form of rain or snow influenced the presence and production of cool-season plants. This moisture also influences maximum shrub growth.

Mean annual temperature varies from 64 degrees F in July to 21 degrees F in January. The average last killing frost in the spring is May 30, and the first killing frost in the fall is September 30. The frost-free period is approximately 120 days, but freezing temperatures have been recorded every month except July and August.

Wind velocities are relatively light most of the year with stronger winds occurring in the spring and early summer. These winds increase transpiration rates of plants and rapidly dry the surface soil.

Climate data was obtained from <http://www.wrcc.sage.dri.edu/summary/climsmnm.html> web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

	<b>Minimum</b>	<b>Maximum</b>
<b>Frost-free period (days):</b>	68	130
<b>Freeze-free period (days):</b>	95	154
<b>Mean annual precipitation (inches):</b>	9	13

### **Monthly moisture (inches) and temperature (°F) distribution:**

	Precip. Min.	Precip. Max.	Temp. Min.	Temp. Max.
January	.62	1.06	4.0	39.7
February	.57	1.14	7.9	45.3
March	.76	1.80	14.5	52.7
April	.82	1.75	21.8	62.6
May	.89	1.79	28.7	71.9
June	.90	1.29	32.9	81.9
July	1.67	2.90	40.8	85.4
August	1.85	3.18	40.2	83.2
September	1.26	1.60	33.6	76.4
October	1.06	1.53	25.0	65.7
November	.67	1.34	13.9	52.0
December	.64	1.15	6.0	41.6

**Climate Stations:**

Station ID	Location	From:	To:
291630	Cerro, NM	02/01/32	12/31/00
297323	Red River, NM	01/01/15	12/31/00
298668	Taos, NM	01/01/14	12/31/00
299085	Tres Piedras, NM	01/01/14	12/31/00

**INFLUENCING WATER FEATURES****Narrative:**

This site is not influenced by water from a wetland or stream.

**Wetland description:**

System	Subsystem	Class
N/A		

**If Riverine Wetland System enter Rosgen Stream Type:**

N/A

**REPRESENTATIVE SOIL FEATURES****Narrative:**

Soils are moderately deep to deep and well drained. They contain some gravel but not enough to influence the kind or amount of vegetation. They have loamy surface horizons usually 3 to 6 inches thick over tighter textured subsoils. Infiltration and internal water movement are moderate to good. Root penetration is not a limitation. These soils have a high water-holding capacity adequate for holding all the normal precipitation. It is highly probable that these soils seldom are saturated.

**Parent Material Kind:** Alluvium

**Parent Material Origin:** Mixed

**Surface Texture:**

1. Loam
2.
3.

**Surface Texture Modifier:**

1. Gravel
2.
3.

**Subsurface Texture Group:** Clayey

**Surface Fragments <=3" (% Cover):** 15 to 35

**Surface Fragments >3" (% Cover):** N/A

**Subsurface Fragments <=3" (%Volume):** 15 to 35

**Subsurface Fragments >=3" (%Volume):** N/A

	<b>Minimum</b>	<b>Maximum</b>
<b>Drainage Class:</b>	<u>Well</u>	<u>Well</u>
<b>Permeability Class:</b>	<u>Moderately slow</u>	<u>Moderate</u>
<b>Depth (inches):</b>	<u>60</u>	<u>&gt;72</u>
<b>Electrical Conductivity (mmhos/cm):</b>	<u>0.00</u>	<u>4.00</u>
<b>Sodium Absorption Ratio:</b>	<u>N/A</u>	<u>N/A</u>
<b>Soil Reaction (1:1 Water):</b>	<u>6.6</u>	<u>8.4</u>
<b>Soil Reaction (0.1M CaCl2):</b>	<u>N/A</u>	<u>N/A</u>
<b>Available Water Capacity (inches):</b>	<u>9</u>	<u>12</u>
<b>Calcium Carbonate Equivalent (percent):</b>	<u>N/A</u>	<u>N/A</u>

## **PLANT COMMUNITIES**

### **Ecological Dynamics of the Site:**

### **Plant Communities and Transitional Pathways (diagram)**

**Plant Community Name:** Historic Climax Plant Community

**Plant Community Sequence Number:** 1 **Narrative Label:** HCPC

**Plant Community Narrative:** Historic Climax Plant Community

This is a mixed grassland/shrub site characterized by Wyoming big sagebrush and cool/warm-season grasses. No trees are found on this site.

Canopy Cover:

Trees	0
Shrubs and half shrubs	15 %
Ground Cover (Average Percent of Surface Area).	
Grasses & Forbs	20
Bare ground	65
Surface gravel	5
Surface cobble and stone	0
Litter (percent)	10
Litter (average depth in cm.)	2

**Plant Community Annual Production (by plant type):** \_\_\_\_\_

Plant Type	Annual Production (lbs/ac)		
	Low	RV	High
Grass/Grasslike	120	270	420
Forb	16	36	56
Tree/Shrub/Vine	60	135	210
Lichen			
Moss			
Microbiotic Crusts			
<b>Total</b>	200	450	700

**Plant Community Composition and Group Annual Production:**

**Plant Type - Grass/Grasslike**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
1	ACHY	Indian Ricegrass	90 – 158	90 – 158
2	PLJA	Galleta	23 – 45	23 – 45
3	ELEL5	Bottlebrush Squirreltail	23 – 45	23 – 45
4	BOGR2	Blue Grama	18 – 27	18 – 27
5	2GRAM	Other Grasses	14 – 23	14 - 23

**Plant Type - Forb**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
6	ASTER	Aster	T – 5	T – 5
7	SPCO	Scarlet Globemallow	5 – 9	5 – 9
8	PENST	Penstemon	T – 5	T – 5
9	CACO17	Indian Paintbrush	T – 5	T – 5
10	2FP	Other Perennial Forbs	9 – 18	9 – 18
11	2FA	Other Annual Forbs	9 – 14	9 - 14

**Plant Type – Tree/Shrub/Vine**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
12	ARTRW8	Wyoming Big Sagebrush	90 – 113	90 – 113
13	GUSA2	Broom Snakeweed	9 – 18	9 – 18
14	2SD	Other Shrubs	T – 23	T – 23

**Plant Type - Lichen**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

**Plant Type - Moss**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

**Plant Type - Microbiotic Crusts**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production

Other species include: dropseed spp., ring muhly, sideoats grama and mustards.

**Plant Growth Curves**

Growth Curve ID 3502NM

Growth Curve Name: HCPC

Growth Curve Description: Mixed cool/warm-season grassland – shrub site.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	3	5	10	10	25	30	12	5	0	0

## **ECOLOGICAL SITE INTERPRETATIONS**

### **Animal Community:**

Habitat for Wildlife:

This site provides habitats, which support a resident animal community that is characterized by pronghorn antelope, coyote, Nuttall's cottontail, white-tailed prairie dog, sage, brewer and vesper sparrows, and horned lizard. These sites furnish shrub-nesting opportunity to a number of breeding summer birds.

### **Hydrology Functions:**

The runoff curve numbers are determined by field investigations using hydrologic cover conditions and hydrologic soil groups.

#### **Hydrologic Interpretations**

<b>Soil Series</b>	<b>Hydrologic Group</b>
Unknown	

### **Recreational Uses:**

This site has little recreational value. It has very little value for picnicking, camping, or hunting. It has poor aesthetic appeal and natural beauty.

### **Wood Products:**

This site produces no significant wood products in its potential plant community.

**Other Products:**

**Grazing:**

Approximately 85 percent of the vegetation produced on this site are suitable for grazing or browsing by domestic livestock and wildlife. Grazing distribution generally is not a problem if adequate watering is provided. Continuous grazing, which allows repetitive grazing of the desirable species, eventually leads to a decrease in these species from the plant community. Such deterioration is indicated by a decrease in Indian ricegrass, bottlebrush squirreltail, western wheatgrass, and sideoats grama. Plants that will increase include blue grama, galleta, ring muhly, dropseed spp., big sagebrush, and broom snakeweed. Wheatgrass may invade the site. A planned grazing system with periodic deferment is best to maintain the desirable balance between plant species and to maintain high productivity.

**Other Information:**

**Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month**

<b>Similarity Index</b>	<b>Ac/AUM</b>
100 - 76	4.8 – 6.4
75 – 51	6.2 – 9.5
50 – 26	9.3 – 19.1
25 – 0	19.1+

<b>Plant Part</b>	<b>Code</b>	<b>Species Preference</b>	<b>Code</b>
<b>Stems</b>	<b>S</b>	<b>None Selected</b>	<b>NS</b>
<b>Leaves</b>	<b>L</b>	<b>Preferred</b>	<b>P</b>
<b>Flowers</b>	<b>F</b>	<b>Desirable</b>	<b>D</b>
<b>Fruits/Seeds</b>	<b>F/S</b>	<b>Undesirable</b>	<b>U</b>
<b>Entire Plant</b>	<b>EP</b>	<b>Not Consumed</b>	<b>NC</b>
<b>Underground Parts</b>	<b>UP</b>	<b>Emergency</b>	<b>E</b>
		<b>Toxic</b>	<b>T</b>

**Plant Preference by Animal Kind:**

**Animal Kind:** Livestock

**Animal Type:** Cattle

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D
Indian Ricegrass	<i>Achnatherum hymenoides</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Western Wheatgrass	<i>Pascopyrum smithii</i>	EP	D	D	P	P	P	D	D	D	D	D	D	D
Bottlebrush Squirreltail	<i>Elymus elymoides</i>	EP	U	U	D	D	D	U	U	U	D	D	D	U
Sideoats Grama	<i>Bouteloua curtipendula</i>	EP	P	P	P	P	P	P	P	P	P	P	P	P
Some Forbs	Various	EP	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S

**SUPPORTING INFORMATION**

**Associated sites:**

Site Name	Site ID	Site Narrative

**Similar sites:**

Site Name	Site ID	Site Narrative

**State Correlation:**

This site has been correlated with the following sites: \_\_\_\_\_

**Inventory Data References:**

Data Source	# of Records	Sample Period	State	County

**Type Locality:**

State: New Mexico

County: Taos

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Township: \_\_\_\_\_

Range: \_\_\_\_\_

Section: \_\_\_\_\_

Is the type locality sensitive?    Yes             No

General Legal Description: \_\_\_\_\_

**Relationship to Other Established Classifications:**

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Other References:

Data collection for this site was done in conjunction with the progressive soil surveys within the High Intermountain Valleys 51 Major Land Resource Area of New Mexico. This site has been mapped and correlated with soils in the following soil surveys: Taos

Characteristic Soils Are:

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Other Soils included are:

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Site Description Approval:

<u>Author</u>	<u>Date</u>	<u>Approval</u>	<u>Date</u>
Don Sylvester	5/15/84	Don Sylvester	05/15/84

Site Description Revision:

<u>Author</u>	<u>Date</u>	<u>Approval</u>	<u>Date</u>
Elizabeth Wright	07/10/02	George Chavez	2/12/03