

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

**ECOLOGICAL SITE DESCRIPTION**

**ECOLOGICAL SITE CHARACTERISTICS**

**Site Type:** Rangeland

**Site ID:** R041XA001NM

**Site Name:** Loamy Upland

**Precipitation or Climate Zone:** 12 to 16 inches

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

## PHYSIOGRAPHIC FEATURES

### **Narrative:**

This site occurs on valley slopes and plains or broad alluvial fans. Slopes range from 5 to 30 percent. Elevations range from 3,700 to 6,000 feet above sea level.

### **Land Form:**

1. Valley sides

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2. Plain

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3. Alluvial fan

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### **Aspect:**

1. N/A

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- 2.

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- 3.

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	<b>Minimum</b>	<b>Maximum</b>
<b>Elevation (feet)</b>	3,700	6,000
<b>Slope (percent)</b>	5	30
<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:**

Precipitation ranges from 12 to 16 inches annually. More than half of this falls during July, August, and September in brief, but often-heavy thunderstorms. The rest of the moisture comes in the form of light rain or snow that falls slowly for a day or more. Snow rarely lasts more than a day. May and June are normally the driest months of the year. Humidity is generally very low.

Temperatures are mild. Freezing temperatures are common at night from December through April; however, temperatures during the day are frequently above 50 degrees F. Occasionally, from December to February, brief 0 degrees F may be observed during some nights. During June, and rarely during July and August, some days may exceed 105 degrees F. Frost-free days range from 170 to 230 days.

The cool-season plants start growth in early spring and mature in early summer. The warm-season plants take advantage of the summer rains and are growing and nutritious from July through September. Warm-season grasses may remain green at the base throughout the year.

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>	167	187
<b>Freeze-free period (days):</b>	197	203
<b>Mean annual precipitation (inches):</b>	12	16

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

	Precip. Min.	Precip. Max.	Temp. Min.	Temp. Max.
January	.68	.89	24.0	61.0
February	.36	.59	26.9	65.0
March	.12	.45	25.5	71.5
April	.00	.23	34.7	78.7
May	.00	.20	25.5	87.0
June	.10	.55	40.0	95.0
July	1.26	2.33	46.6	95.7
August	2.28	3.15	48.5	92.6
September	.90	1.72	50.0	87.9
October	.43	1.12	36.1	80.0
November	.19	.69	31.3	67.6
December	.00	1.10	26.6	61.3

**Climate Stations:**

Station ID	Location	From:	To:	Period
290417	Animas, NM	1961	1990	
292757	Eicks Ranch, NM	1961	1990	
297534	Rodeo, NM	1961	1990	

**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:**

The soils on this site are deep, well drained, reddish-brown loam or gravelly loam surface layer and moderately fine or fine textured subsoil. They have high available water-holding capacity with moderate intake rates. Plant/soil moisture relationship is good.

**Parent Material Kind:** Alluvium

**Parent Material Origin:** Limestone unspecified

**Surface Texture:**

1. Loam
2. Gravelly loam
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>Slow</u>	<u>Moderate</u>
<b>Depth (inches):</b>	<u>28</u>	<u>60</u>
<b>Electrical Conductivity (mmhos/cm):</b>	<u>Unknown</u>	<u>Unknown</u>
<b>Sodium Absorption Ratio:</b>	<u>2.00</u>	<u>4.00</u>
<b>Soil Reaction (1:1 Water):</b>	<u>7.4</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 plant community is characterized by 80 to 90 percent grasses and 10 to 20 percent shrubs and forbs.

The plants and their relative proportions are based on near normal years. Fluctuations in species composition and relative production may change from year to year dependent upon abnormal precipitation or other climatic factors.

The potential climax plant community has been determined by study of range relict areas, or areas protected from excessive grazing. Trends in plant communities going from heavily grazed areas to lightly grazed areas, seasonal use pastures and historical accounts have also been used.

Canopy Cover:

Trees	Unknown
Shrubs and half shrubs	Unknown
Ground Cover (Average Percent of Surface Area).	
Grasses & Forbs	Unknown
Bare ground	Unknown
Surface cobble and stone	Unknown
Litter (percent)	Unknown
Litter (average depth in cm.)	Unknown

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

Plant Type	Annual Production (lbs/ac)		
	Low	RV	High
Grass/Grasslike	595	935	1,275
Forb	56	88	120
Tree/Shrub/Vine	56	88	120
Lichen			
Moss			
Microbiotic Crusts			
<b>Total</b>	700	1,100	1,500

**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	BOCU	Sideoats Grama	275 – 385	275 – 385
2	BOER4	Black Grama	110 - 275	110 – 275
3	ERIN	Plains Lovegrass	110 – 265	110 – 265
4	BOGR2	Blue Grama	110 – 165	110 – 165
5	BOHI2	Hairy Grama	110 – 165	110 – 165
6	SPCR PAOB ARIST LYPH DICA8 SEVU2 HECO10	Sand Dropseed Vine-mesquite Threawn spp. Wolftail Arizona Cottontop Plains Bristlegrass Tanglehead	55 – 110	55 – 110
7	BOBA3 DAPU7 PAHA BORA LEDU MUHLE PLMU3 ELEL5 2GRAM	Cane Bluestem Fluffgrass Halls Panicum Purple Grama Green Sprangletop Muhlenbergia spp. Tobosa Bottlebrush Squirreltail Other Grasses	11 – 55	11 - 55

**Plant Type - Forb**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
8	SPHAE LOTUS ASTRA	Globemallow spp. Lotus spp. Milkvetch spp.	11 – 55	11 – 55
9	2FP 2FA	Perennial Forbs Annual Forbs	11 – 55	11 - 55

**Plant Type – Tree/Shrub/Vine**

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
10	MIACB EPTR GUSA2 BACCH	Catclaw Mimosa Longleaf Ephedra Broom Snakeweed Baccharis spp.	11 – 55	11 – 55
11	NOMI YUEL OPUNT AGAVE	Nolina (Sacahuista) Soaptree Yucca Cacti spp. Agave spp.	11 – 55	11 - 55

**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

**Plant Growth Curves**

Growth Curve ID 1901NM

Growth Curve Name: HCPC

Growth Curve Description: Grassland with a minor forb and shrub component.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	5	7	10	15	25	25	8	5	0	0

## **ECOLOGICAL SITE INTERPRETATIONS**

### **Animal Community:**

#### Habitat for Wildlife:

Free water is not common, and springs or seeps are rarely found on this site. Wildlife requiring free water is not normally found unless water has been developed. Drainages found within the site, while not part of the site, produce the majority of habitat for most wildlife species. Grasses and forbs are the main food elements for wildlife. Nesting and protective cover for ground nesting birds and small animals is provided.

Wildlife common to the site are: pronghorn antelope, white-tailed deer, mule deer, desert cottontail, antelope jackrabbit, bannertail kangaroo rat, scaled quail, burrowing owl, pack rat, ground squirrel, badger, horned lark, sparrow hawk, and pocket mouse.

### **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>
Forrest	C
Frye	C

### **Recreational Uses:**

This site is suited for the following recreational activities: horseback riding, hunting, wildlife observation, photography, and nature studies. Winds are often strong enough in the spring to be uncomfortable. The landscape has fair aesthetic appeal.

### **Wood Products:**

No Data.

**Other Products:****Grazing:**

Because of its accessibility, livestock prefer this site to most others. This concentration on a yearlong basis has reduced the plant community to a blue grama/brush complex. Planned grazing systems are particularly well adapted on this site.

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

<b>Similarity Index</b>	<b>Ac/AUM</b>
100 - 76	4.0 – 7.0
75 – 51	6.5 – 10.0
50 – 26	9.0 – 13.0
25 – 0	13.0+

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

**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
Sideoats Grama	Bouteloua curtipendula	EP	P	P	P	P	P	P	P	P	P	P	P	P
Black Grama	Bouteloua eriopoda	EP	P	P	P	D	D	D	D	D	D	D	P	P
Plains Lovegrass	Eragrostis intermedia	EP	U	U	U	U	D	D	D	U	U	U	U	U
Blue Grama	Bouteloua gracilis	EP	D	D	D	D	P	P	P	P	P	D	D	D
Hairy Grama	Bouteloua hirsuta	EP	D	D	D	D	P	P	P	P	P	D	D	D
Sand Dropseed	Sporobolus cryptandrus	EP	D	D	D	D	D	D	D	D	D	D	D	D
Vine-mesquite	Panicum obtusum	EP	D	D	D	D	D	D	D	D	D	D	D	D
Threeawn spp.	Aristida spp.	L	U	U	D	D	D	U	U	U	U	U	U	U
Wolftail	Lycurus phleoides	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
Arizona Cottontop	Digitaria californica	EP	U	U	U	U	U	U	P	P	D	U	U	U
Plains Bristlegrass	Setaria vulpiseta	EP	D	D	D	D	P	P	P	P	P	P	D	D
Tanglehead	Heteropogon contortus	L	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Cane Bluestem	Bothriochloa barbinodis	EP	U	U	U	U	U	U	P	P	D	U	U	U
Fluffgrass	Dasyochloa pulchella	EP	U	U	U	U	U	U	U	U	U	U	U	U
Halls Panicum	Panicum hallii	EP	D	D	D	D	P	P	P	P	D	D	D	D
Purple Grama	Bouteloua radicata	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
Green Sprangletop	Leptochloa dubia	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
Muhly spp.	Muhlenbergia spp.	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
Tobosa	Pleuraphis mutica	EP	U	U	U	U	U	D	D	D	D	D	U	U
Bottlebrush Squirreltail	Elymus elymoides	EP	U	U	D	D	D	U	U	U	D	D	D	U
Globemallow spp.	Sphaeralcea spp.	EP	U	U	D	D	D	D	D	D	U	U	U	U
Lotus spp.	Lotus spp.	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
Milkvetch spp.	Astragalus spp.	EP	U	U	T	T	T	T	T	T	U	U	U	U
Perennial 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
Annual 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
Catclaw Mimosa	Mimosa aculeaticarpa	L/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Longleaf Ephedra	Ephedra trifurca	L/S	D	D	D	D	D	D	D	D	D	D	P	P
Broom Snakeweed	Gutierrezia sarothrae	EP	T	T	T	T	T	T	T	T	T	T	T	T
Baccharis spp.	Baccharis spp.	L	E	E	E	E	E	E	E	E	E	E	E	E
Sacahuista	Nolina microcarpa	F/L	U	U	U	U	P	P	D	U	U	U	U	U
Soaptree Yucca	Yucca elata	F/L	D	D	D	D	P	P	U	U	U	U	U	D
Cacti spp.	Opuntia spp.	EP	E	E	E	E	E	E	E	E	E	E	E	E
Agave spp.	Agave spp.	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

Animal Kind: Wildlife

Animal Type: Antelope

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D
Sideoats Grama	<i>Bouteloua curtipendula</i>	EP	D	D	D	D	D	P	P	P	D	D	D	D
Black Grama	<i>Bouteloua eriopoda</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Plains Lovegrass	<i>Eragrostis intermedia</i>	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
Blue Grama	<i>Bouteloua gracilis</i>	EP	U	U	U	U	D	D	D	D	D	D	D	U
Hairy Grama	<i>Bouteloua hirsuta</i>	EP	U	U	U	U	D	D	D	D	D	D	D	U
Sand Dropseed	<i>Sporobolus cryptandrus</i>	EP	U	U	D	D	D	U	U	U	U	U	U	U
Vine-mesquite	<i>Panicum obtusum</i>	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
Threeawn spp.	<i>Aristida</i> spp.	L	U	U	D	D	D	U	U	U	U	U	U	U
Wolftail	<i>Lycurus phleoides</i>	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
Arizona Cottontop	<i>Digitaria californica</i>	EP	U	U	U	U	U	U	D	D	D	U	U	U
Plains Bristlegrass	<i>Setaria vulpiseta</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Tanglehead	<i>Heteropogon contortus</i>	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
Cane Bluestem	<i>Bothriochloa barbinodis</i>	EP	U	U	U	U	U	U	D	D	D	U	U	U
Fluffgrass	<i>Dasyochloa pulchella</i>	EP	U	U	U	U	U	U	U	U	U	U	U	U
Halls Panicum	<i>panicum obtusum</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Purple Grama	<i>Bouteloua radicata</i>	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
Green Sprangletop	<i>Leptochloa dubia</i>	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
Muhly spp.	<i>Muhlenbergia</i> spp.	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
Tobosa	<i>Pleuraphis mutica</i>	EP	U	U	U	U	U	D	D	D	D	D	U	U
Bottlebrush Squirreltail	<i>Elymus elymoides</i>	EP	U	U	D	D	D	U	U	U	U	U	U	U
Globemallow spp.	<i>Sphaeralcea</i> spp.	EP	U	U	P	P	P	D	D	D	D	D	D	U
Lotus spp.	<i>Lotus</i> spp.	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
Milkvetch spp.	<i>Astragalus</i> spp.	EP	T	T	T	T	T	T	T	T	T	T	T	T
Perennial 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
Annual Forbs	Various spp.	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
Catclaw Mimosa	<i>Mimosa aculeaticarpa</i>	L	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Longleaf Ephedra	<i>Ephedra trifurca</i>	L/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Broom Snakeweed	<i>Gutierrezia sarothrae</i>	EP	D	D	D	D	D	D	D	D	D	D	D	D
Baccharis spp.	<i>Baccharis</i> spp.	L/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Sacahuista	<i>Nolina microcarpa</i>	F	U	U	U	U	D	D	U	U	U	U	U	U
Soaptree Yucca	<i>Yucca elata</i>	F	U	U	U	U	D	D	U	U	U	U	U	U
Cacti spp.	<i>Opuntia</i> spp.	EP	E	E	E	E	E	E	E	E	E	E	E	E
Agave spp.	<i>Agave</i> spp.	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: Hidalgo

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

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

Township: 34 S.

Range: 18 W.

Section: 4

Is the type locality sensitive?    Yes             No

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

<b><u>Relationship to Other Established Classifications:</u></b>
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Other References:

Data collection for this site was done in conjunction with the progressive soil surveys within the SE Arizona Basin and Range 41 Major Land Resource Area of New Mexico. This site has been mapped and correlated with soils in the following soil surveys: Hidalgo

Characteristic Soils Are:

Forrest	Frye
Other Soils included are:	

Site Description Approval:

<u>Author</u>	<u>Date</u>	<u>Approval</u>	<u>Date</u>
Don Sylvester	07/21/80	Don Sylvester	07/21/80

Site Description Revision:

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