

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

ECOLOGICAL SITE DESCRIPTION

ECOLOGICAL SITE CHARACTERISTICS

Site Type: Rangeland

Site ID: R041XA006NM

Site Name: Loamy Bottom

Precipitation or Climate Zone: 12 to 16 inches

Phase: _____

PHYSIOGRAPHIC FEATURES

Narrative:

This site always occurs in the bottom land position. It is gently sloping to nearly flat or gently undulating bottomlands along intermittent drainages. Elevations range from 4,000 to 5,000 feet above sea level.

Land Form:

1. Flood plain
2. Drainageway
- 3.

Aspect:

1. N/A
- 2.
- 3.

	Minimum	Maximum
Elevation (feet)	4,000	5,000
Slope (percent)	0	2
Water Table Depth (inches)	N/A	N/A
	Minimum	Maximum
Flooding:		
Frequency	Rare	Occasional
Duration	Very brief	Brief
	Minimum	Maximum
Ponding:		
Depth (inches)	N/A	N/A
Frequency	N/A	N/A
Duration	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 in December to February, brief 0-degree F temperatures may be experienced some nights. During June, July and August, some days may exceed 100 degrees F. Frost-free days range from 170 to 240 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 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.

	Minimum	Maximum
Frost-free period (days):	167	187
Freeze-free period (days):	197	203
Mean annual precipitation (inches):	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	95.1
July	1.26	2.33	46.4	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 alluvial from a variety of parent materials, mostly deep to very deep loams or silty loams. They take water readily and have high available water-holding capacity. Because they receive extra water in addition to rainfall, their production is high.

Parent Material Kind: Alluvium

Parent Material Origin: Mixed

Surface Texture:

1. Loamy sand
2. Clay loam
3. Gravelly loam
4. Loam

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 60

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

	Minimum	Maximum
Drainage Class:	<u>Well</u>	<u>Excessively</u>
Permeability Class:	<u>Slow</u>	<u>Rapid</u>
Depth (inches):	<u>60</u>	<u>>72</u>
Electrical Conductivity (mmhos/cm):	<u>0.00</u>	<u>4.00</u>
Sodium Absorption Ratio:	<u>N/A</u>	<u>N/A</u>
Soil Reaction (1:1 Water):	<u>6.6</u>	<u>9.0</u>
Soil Reaction (0.1M CaCl2):	<u>N/A</u>	<u>N/A</u>
Available Water Capacity (inches):	<u>9</u>	<u>12</u>
Calcium Carbonate Equivalent (percent):	<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 site has a plant community that is dominated by grasses, which produce their main growth during July, August and September. Narrow strips or small clumps of walnuts, willows, sycamores, ash and live oak may grow in association with the site, along channels or where shallow underground streams exist. Plant species likely to increase or invade are mesquite, graythorn and other woody species. 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	1,700	2,550	4,250
Forb	60	90	150
Tree/Shrub/Vine	300	450	750
Lichen			
Moss			
Microbiotic Crusts			
Total	2,000	3,000	5,000

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	SPWR2	Giant Sacaton	1200 – 1800	1200 – 1800
2	BOCU	Sideoats Grama	450 – 600	450 – 600
3	PAOB	Vine-mesquite	450 – 750	450 – 750
4	BOBA3	Cane Bluestem	150 – 300	150 – 300
5	LEDU	Green Sprangletop	150 – 300	150 – 300
6	BOGR2 BOHI2 SEVU2 PLMU3 ELEL5	Blue Grama Hairy Grama Plains Bristlegrass Tobosa Bottlebrush Squirreltail	150 – 300	150 – 300
7	DICA8 LYPH MURI PABU ARIST SPCR MUPO2 BOER4 ERIN ANCI MUEM SPCO4	Arizona Cottontop Wolftail Mat Muhly Bulb Panicum Threawn spp. Sand Dropseed Bush Muhly Black Grama Plains Lovegrass Texas Bluestem Bullgrass Spike Dropseed	30 – 150	30 - 150

Plant Type - Forb

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
8	ERIOG SPHAE OXYRO 2FP	Buckwheat spp. Globemallow spp. Locoweed spp. Perennial Forbs	30 – 150	30 - 150

Plant Type – Tree/Shrub/Vine

Group Number	Scientific Plant Symbol	Common Name	Species Annual Production	Group Annual Production
9	LOTUS	Deervetch	150 – 450	150 – 450
	ANTH2	Desert Honeysuckle		
	EPHED	Mormon-tea spp.		
	FAPA	Apacheplume		
	LYP A	Pale Wolfberry		
	BAPT	Yerba-de-pasmo		
10	SENEC	Groundsel spp.	30 – 300	30 - 300
	ACGR	Catclaw Acacia		
	CHLI2	Desert Willow		
	CERE2	Netleaf Hackberry		
	YUEL	Soaptree Yucca		
	QUERC	Oak spp.		
	ARPU	Mexican Manzanita		
VITIS	Grape spp.			

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 1906NM

Growth Curve Name: HCPC

Growth Curve Description: Grassland with scattered woody species and a minor forb component.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
0	0	5	7	10	15	25	25	8	3	0	0

ECOLOGICAL SITE INTERPRETATIONS

Animal Community:

Habitat for Wildlife:

The loamy bottom is found along drainages that have intermittent flooding. These drainage ways provide excellent habitat for wildlife species. Doves and Gambel's quail use the grass, trees and shrubs for nesting and food. Mule deer use the area for cover, food, and water. Many other species of small mammals, birds and reptiles use this area extensively. Wildlife species include: white tailed deer, mule deer, Arizona gray squirrel, desert cottontail, bannertail kangaroo rat, javelina, dove and Gambel's quail.

Hydrology Functions:

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

Hydrologic Interpretations

Soil Series	Hydrologic Group
Arizo	A
Glendale	B
Hawkeye	A
Pima	B

Recreational Uses:

Native trees and shrubs break the monotony of an otherwise grassland and increase the aesthetic appeal. The four seasons are apparent on this site, unlike the desert areas of Arizona. Horseback riding, wildlife observation, hunting, and hiking are the main activities on this site.

Wood Products:

No Data

Other Products:

Grazing:

Livestock water is not usually a problem on this site. Although there is a wide diversity of plants, primary forage production is from tall grasses. The problems of erosion, poisonous and noxious plant invasions, and easy accessibility require extra management efforts to protect and maintain this site. The forage is high quality during July through September when plants are green and growing. Quality deteriorates from September or first frost to March 1, which is the time of lowest quality. Stocking rates should be evaluated and livestock numbers adjusted based on actual use experience and climatic fluctuations.

Other Information:

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index	Ac/AUM
100 - 76	1.5 – 2.0
75 – 51	2.0 – 2.5
50 – 26	2.5 – 7.0
25 – 0	7.0+

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
Giant Sacaton	Sporobolus wrightii	EP	D	D	D	D	D	P	P	P	U	U	U	D
Sideoats Grama	Bouteloua curtipendula	EP	P	P	P	P	P	P	P	P	P	P	P	P
Vine-mesquite	Panicum obtusum	EP	D	D	D	D	D	D	D	D	D	D	D	D
Cane Bluestem	Bothriochloa barbinodis	EP	U	U	U	U	U	U	P	P	D	U	U	U
Green Sprangletop	Leptochloa dubia	EP	U	U	D	D	D	U	U	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
Plains Bristlegrass	Setaria vulpisetata	EP	D	D	D	D	P	P	P	P	P	D	D	D
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
Buckwheat spp.	Eriogonum 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
Globemallow spp.	Sphaeralcea spp.	EP	U	U	D	D	D	D	D	D	U	U	U	U
Locoweed	Oxytropis spp.	L	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
Deervetch	Lotus spp.	EP	D	D	P	P	P	P	P	P	D	D	D	D
Desert Honeysuckle	Anisacanthus thurberi	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
Mormon-tea	Ephedra spp.	L/S	D	D	D	D	D	D	D	D	D	D	P	P
Apacheplume	Fallugia paradoxa	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
Pale Wolfberry	Lycium pallidum	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
Yerba-de-pasmo	Baccharis pteronioides	L	E	E	E	E	E	E	E	E	E	E	E	E
Groundsel	Senecio spp.	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
Catclaw Acacia	Acacia greggii	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
Desert Willow	Chilopsis lineacis	L/S	U	U	U	U	U	D	D	D	D	D	D	U
Netleaf Hackberry	Celtis reticulata	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
Soaptree Yucca	Yucca elata	F/L	D	D	D	D	P	P	U	U	U	U	U	D
Mexican Manzanita	Arctostaphylos pungens	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
Grape spp.	Vitis spp.	F/S/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

Animal Kind: Wildlife

Animal Type: Deer

Common Name	Scientific Name	Plant Part	Forage Preferences											
			J	F	M	A	M	J	J	A	S	O	N	D
Giant Sacaton	<i>Sporobolus wrightii</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
Sideoats Grama	<i>Bouteloua curtipendula</i>	EP	U	U	U	U	D	D	D	D	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
Cane Bluestem	<i>Bothriochloa barbinodis</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
Blue Grama	<i>Bouteloua gracilis</i>	EP	U	U	U	U	D	D	D	D	D	D	U	U
Hairy Grama	<i>Bouteloua hirsuta</i>	EP	U	U	U	U	D	D	D	D	D	D	U	U
Plains Bristlegrass	<i>Setaria vulpiseta</i>	EP	U	U	U	U	D	D	D	D	D	D	U	U
Tobosa	<i>Pleuraphis mutica</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
Bottlebrush Squirreltail	<i>Elymus elymoides</i>	EP	U	U	D	D	D	U	U	U	U	U	U	U
Buckwheat spp.	<i>Eriogonum</i> spp.	EP	U	U	D	D	D	D	D	D	U	U	U	U
Globemallow	<i>Sphaeralcea</i> spp.	EP	U	U	D	D	D	D	D	D	U	U	U	U
Locoweed spp.	<i>Oxytropis</i> spp.	L	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
Deervetch	<i>Lotus</i> spp.	EP	U	U	D	D	D	D	D	D	U	U	U	U
Desert Honeysuckle	<i>Anisacanthus thurberi</i>	L/S	D	D	D	D	D	D	D	D	D	D	D	D
Mormon-tea	<i>Ephedra</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
Apacheplume	<i>Fallugia paradoxa</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
Pale Wolfberry	<i>Lycium pallidum</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
Yerba-de-pasmo	<i>Baccharis pteronioides</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
Groundsel	<i>Senecio</i> spp.	L	U	U	D	D	D	D	D	D	U	U	U	U
Catclaw Acacia	<i>Acacia greggii</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
Desert Willow	<i>Chilopsis lineacis</i>	L/S	D	D	D	D	D	D	D	D	D	D	D	D
Netleaf Hackberry	<i>Celtis reticulata</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
Soaptree Yucca	<i>Yucca elata</i>	F/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
Mexican Manzanita	<i>Arctostaphylos pungens</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
Grape spp.	<i>Vitis</i> spp.	F/S/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

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: 32 S

Range: 21 W

Section: 13, 14, 23 & 24

Is the type locality sensitive? Yes No

General Legal Description: Where Smuggler's Trail crosses Clanton Draw at the corner of sections 13, 14, 23 & 24, T. 32 S., R. 21 W.

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

Arizo	Glendale
Hawkeye	Pima

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	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