

## FIELD SUMMARY REPORT

### I. INTRODUCTION

A. Del Rio SW, SE, NW, NE  
Eagle Pass SE, NE  
Emory Peak SW, SE, NW, NE

B. Del Rio NE

Dolan Springs  
Clark Waterhole  
Satan Canyon  
Rough Canyon  
Miers Ranch  
Carruthers Draw  
Open Hollow  
Carta Valley  
Carta Valley NE  
Carta Valley SE  
FlatRock Creek NW  
FlatRock Creek SW  
FlatRock Creek N  
Black Waterhole

Two-Mile Draw  
Wiley Waterhole  
Kickapoo Caverns  
Indian Creek NE  
Silver Lake  
Cub Lake  
HalfMoon Prairie  
Kelley Peak  
Bull Waterhole  
Hackberry  
Vance  
Campwood  
Montell

Del Rio NW

Crooks Creek N  
Crooks Creek S  
Lozier Canyon N  
Lozier Canyon S  
Pumpville  
Ramsey Canyon  
Harkell Canyon  
Langtry  
Still Canyon  
Shumala  
Zuberbueler Bend  
Zuberbueler Bend NW

Seminole Canyon  
Pecos High Bridge  
Mayfield Canyon  
Bakers Crossing  
Dead Mans Pass  
Comstock  
Box Canyon  
Telephone Canyon  
Lechuguilla Creek  
Gillis Ranch  
California Creek

Del Rio SE

Del Rio NW  
Del Rio NE  
Del Rio SW  
Del Rio SE  
Maverick Dam  
Mud Creek N  
Mud Creek S  
Cow Creek Tank  
Tesquequite Creek SW  
Mud Springs  
Standart  
Tesquequite Creek NE  
Tesquequite Spring  
Pinto Mountain

Brackettville NE  
Spofford  
Imperialist Tank  
Brackettville NE  
Elm Mountain  
Annacacho  
Peloncillo Park  
Salmon Peak  
Turkey Mountain  
Odlaw  
Goofy Lake  
Laguna  
Mustang Waterhole  
Cline  
Olmos Creek

Del Rio SW

Amistad Dam  
Devils River (15')

Eagle Pass NE

Quemado (15')  
Quemado SE  
Eagle Pass W  
Paloma  
Deadmans Hill  
Eagle Pass E  
Eagle Pass SW  
Testado Tank  
Indian Tank  
Eagle Pass NE

El Indio  
Chacon Creek NW  
Chacon Creek NE  
Chacon Creek SW  
Chacon Creek SE  
Sacatosa Tank  
Cometa  
Farias Ranch  
Cayetona Creek  
Quemado W  
Quemado E

Eagle Pass SE

Indio Creek  
San Ambrosio Creek  
Indio Tank  
Salt Well  
Tovar Creek W

Tovar Creek E  
Palo Pedro Creek  
San Pedro Creek  
Chupadera Creek  
Bull Hollow Tank

Emory Peak NE

Pine Mountain West  
Pine Mountain East  
Yellow House Peak  
Stillwell Mountain  
Black Gap  
Dove Mountain  
Cupola Mountain  
San Francisco Shutups  
Beef Gap  
Las Vegas De Los  
Ladrones SW

Las Vegas De Los Ladrones SW  
Bullis Gap  
Candrilla Canyon East  
Panther Gulch West  
Candilla Canyon East  
Panther Gulch West  
McClain Canyon  
Taylor Canyon  
Balcom Canyon  
Shafter Canyon  
San Rosendo

Emory Peak NW

Jordan Gap  
Puerto Potrillo  
Hoeshoe Mountain  
LaMota Mountain  
Paradise Draw  
McKinney Mountain  
Bandera Mesa North  
Bandera Mesa South  
Duff Springs  
Stradleburg Mountain  
Long Hills  
Agua Fria Mountain  
Whirlwind Spring  
Buck Hill  
Dog Canyon  
Packsaddle Mountain

Paso Del Norte  
Santiago Peak  
Graytop  
White Hills  
Maravills Group  
Ye Mesa  
Butterbowl  
Twin Peaks  
Heart Mountain  
Sosa Peak  
Persimmon Gap  
Bone Spring  
Hood Spring  
Hood Spring SE  
Hood Spring NE  
Dagger Flat

Emory Peak SE

Sue Peaks  
Ernst Valley

Boquillas  
Stillwell Crossing

Emory Peak SW

Sauceda Ranch  
Santana Mesa  
The Solitario  
Lajitas  
Yellow Hill  
Amarillo Mountain  
Mesa DeAnguila  
Hen Egg Mountain  
Terlingua  
Castalon  
Christmas Mountains  
Tule Mountains  
Cerro Castellan

Smokey Creek  
Sombbrero Peak  
The Basin  
Reed Camp  
Grapevine Hills  
Panther Junction  
Glenn Spring  
Mariscal Mountain  
McKinney Spring  
Roys Peak  
San Vincente  
Solis

C. Personnel

Dennis Fowler	Martel Laboratories
Greg Pipkin	Martel Laboratories
Curtis Carley	USFWS

D. Date of Trip

February 7, 1988 - February 19, 1988

E. Available Photography

<b>Del Rio NE</b>	<b>Del Rio NW</b>	<b>Del Rio SE</b>
06-08-85	02-16-85	02-16-85
10-15-84	06-08-85	02-23-85
02-15-84	02-23-85	10-16-84
10-16-84	10-15-84	02-15-85
02-16-85		10-15-84
		06-08-85
<b>Del Rio SW</b>	<b>Eagle Pass NE</b>	<b>Eagle Pass SE</b>
02-16-85	10-16-84	10-15-84
	02-15-85	02-15-85
	02-16-85	
	10-15-84	
<b>Emory Peak NE</b>	<b>Emory Peak NW</b>	<b>Emory Peak SE</b>
09-24-85	09-24-85	09-24-85
10-28-84	05-01-86	10-28-84
11-03-84	11-11-84	
10-17-84	05-08-86	
10-03-85	09-23-85	
11-11-84	11-04-84	
	10-18-84	
<b>Emory Peak SW</b>		
11-09-84		
05-01-86		
11-11-84		
05-08-86		
09-23-85		
11-04-84		
10-18-84		

Scale: All photography is 1:58,000  
Type: All photography is color infrared

## F. Collateral Data

1. Coverage on all quads by 7.5' USGS Topographic Quadrangles.
2. Soil Surveys

## II. STUDY AREA

The Texas study area is contained in two different provinces. Three-quarters of Del Rio NE and one-quarter of Del Rio SE are within the Juniper-Oak-Mesquite Savanna section of the Prairie Brushland Province. This province is a region of rolling plains, plateaus, and dissected canyons. Elevations range from sea level to 3600 feet.

This area experiences long, hot summers and short, mild winters. Average annual temperatures are 60<sup>o</sup> F to 70<sup>o</sup> F. The annual range of frost-free days is from 250 to 300. Precipitation ranges from 20 to 30 inches and falls primarily during the growing season.

The rest of the study area is in Tarbush-Creosote bush section of the Chihuahuan Desert Province of the Desert Division. Because of the severe aridity of most of this province the Rio Grande and the Pecos rivers and a few larger tributaries are the only perennial streams. Undulating plains are characteristic of the area. Elevations range up to 4000 feet. Isolated mountains range in elevation from 2000 feet to 5000 feet. Streambeds or washes are dry most of the year but fill with water following a rainstorm.

The climate is arid. Spring and early summer are particularly dry. The summer rains usually begin during July and continue through October. Normally, they are localized torrential thunderstorms. Average annual temperatures range from 50<sup>o</sup> to 65<sup>o</sup> F. Summers are hot and long. Winters are normally short, usually mild but may include brief periods when temperatures fall below freezing.

The characteristic vegetation of the area is a number of thorny shrubs. Short grasses are usual between clumps of these shrubs. On deep soils, mesquite is many times the dominant vegetation. A few cottonwoods and other trees may grow along streams. Much of the more westerly area is dominated by creosote bush. Ocotillo, cholla, prickly pear, and lechiguilla are some of the other common upland plants. Some isolated mountain areas rise to a great enough elevation to support a band of oak-juniper woodland. A few also support ponderosa pines.

### III. BIOLOGICAL CHARACTERISTICS OF WETLAND HABITATS

#### Marine:

Not represented

#### Estuarine:

Not represented

#### Riverine:

The major rivers in the study area are the Rio Grande, the Pecos, the Nueces, the West Nueces, Las Moras Creek, Pinto Creek, Terlingua Creek and Devil's Run.

The classification R2UBH will be used on large perennial streams. Some smaller perennials will also be classified R2UBH but the presence of upstream springs will be required for this classification to be used.

Spring fed intermittent streams east of the Pecos river will be classified R4SBC or R4SBA, depending on size. West of the Pecos River, these streams will be classified R4SBA.

All other streams will be classified R4SBJ or R4SBA if they are devoid of vegetated cover.

Unconsolidated shore along rivers will be classified R2USJ, R2USA or R2USC. Rivers impounded by overflow type dams will be classified PUBHh or L1UBHh, depending on the size.

Some streams may have been excavated. If this is evident, the excavated modifier ("x") will be used. A specific example of this is the Maverick County Canal. It will be classified R2UBHx. Other main arteries in this irrigation system will be classified R4SBKx.

#### Lacustrine:

No natural lakes were observed during field checking or on reiview of the photography. There are impounded reservoirs in the study area. They will be classified L1UBHh. Amistad Reservoir will be classified L1UBHh. The normal pool level of 1117' will be used to delineate this reservoir.

Palustrine:

Forested and scrub-shrub wetlands will be classified as temporarily (A) or intermittently flooded (J). Subclasses of "1" and "2" will be used. The plant community will be the same for both water regimes. The forested wetlands consist of Cottonwoods (Populus spp.), willows (Salix spp.), Huisache (Acacia smallii), and Retama (Parkinsonia aculeata). The scrub-shrub wetland consist of Salt Cedar (Tamarix spp.), Willow, Cottonwoods, Seepwillow baccharis (Baccharis glutinosa), Huisache and Retama.

Emergent wetlands were observed in the field. They will be classified PEM1 with the intermittently flooded (J), temporarily flooded (A), and seasonally flooded (C) water regimes. The make-up of the "J" and "A" wetlands is Rivercane (Arundo donax) and Smartweed (Polyginum sp.). The seasonally flooded emergents include these with the addition of cattail (Typha latifolia).

Stock tanks will be classified PUS. The water regimes of intermittently flooded (J), temporarily flooded (A), and seasonally flooded (C) will be used. Only the larger ponds with strong water signature will be classified seasonally flooded. Gravel pits that are associated with larger flood plains will be classified PUBFx or PUBHx, according to size and designation on the USGS Quadrangle.

The special modifiers excavated (x) and diked-impounded (h) will be used with all palustrine wetland as applicable.

IV. IMAGERY, PRELIMINARY DELINEATIONS, FIELD CHECKING

A problem was observed on the imagery flown during October of 1984. Standing water is evident in areas that normally would be dry. Ground truthing and data obtained from the International Boundary and Water Commission helped to resolve this problem. Areas that appear as shrubs with standing water under them were observed to be slight depression with thick stands of mesquite. These will not be classified as wetlands. Rainfall data from nearby gauges were also used as collateral data.

Gauge #1 - 10 miles NE of Eagle Pass, all data is from 1984.

09/16	.12"
09/29	.81"
09/30	.14"

Gauge #2 - 15 miles N of Eagle Pass, all data is from 1984

10/09	.27"	10/13	.35"
10/10	.10"	10/14	1.07"
10/11	2.18"	10/15	.01"
10/12	.05"		

Compared to the average precipitation in this area, these are high rainfall amounts. This also explains the standing water in unexpected areas.

Other depressions that are similar in nature but slightly vegetated to unvegetated totally were observed in the same general vicinity. A big difference is that these are indicated on the USGS Quadrangles as intermittent water. These areas will be classified PUSJ, PUSA, or if twenty acres or more, L2USJ, L2USA.

All of the imagery has good resolution.

#### IV. EXPECTATIONS VS GROUND VERIFICATION

The dryness of the area was not unexpected. The intermittently flooded (J) water regime was used more extensively than was first envisioned but upon inspection and study of collateral data, it is used correctly.

#### SUMMARY

The extreme aridity and high air and soil temperatures makes the development of wetland communities tenuous at best. Even in this desert area wetlands exist.

Overall, the imagery is of good quality and should allow detailed interpretation. Attention should be paid to collateral data and field checksites. As always, direct on-site analysis of local communities affords more detailed information as needed by the user.

/jrg:wp/nwi