

FIELD SUMMARY REPORT
MIDDLE RIO GRANDE PROJECT

I. PURPOSE

The purpose of this project is to identify and map wetland, riparian and upland areas within the approximate 100 year floodplain of the Rio Grande River. Generally, the farthest extent of agriculture away from the river will be the limit of the 100 year floodplain.

II. WORK AREA

The work area runs from just south of Valverde, New Mexico to the upper part of Elephant Butte Reservoir, about 20 miles north of Truth or Consequences, New Mexico. The area is covered by 32 7.5' U.S.G.S. topographic maps starting in Raton SW and running through Aztec SE, Albuquerque NE and SE, Socorro NE and SE, Tularosa NE and NW and ending in Tularosa SW.

III. FIELD TRIP PERSONNEL

Warren Hagenbuck	USFWS
Curtis J. Carley	USFWS
Dwayne Asher	U.S. Forestry Service
Jim Dick	Geonex-Martel, Inc.

IV. FIELD DATES

August 20-25, 1989

V. COLLATERAL DATA

U.S.G.S. Topographic Quadrangle Maps 1:24,000; 1:250,000
Soil Surveys

VI. PHOTOGRAPHY

Type: Color Infrared Transparencies

Scale: ~~1:2,000~~
1:20,000

The resolution quality is generally good throughout the project area. The emulsion, though dark on some photos, should not pose a problem during interpretation.

A. Dates of Photography

March 6, 1989
March 7, 1989

VII. PHYSICAL CHARACTERISTICS

The study area lies in the Rio Grande River valley, running approximately from Latitude 36°10' N Longitude 106°00' W to Latitude 34°30' N Longitude 107°15' W. It falls within the Great Plains Short Grass Steppe Province (Semiarid Division) in Raton Sw, Aztec SE, Albuquerque NE and SE and Socorro NE and SE, and moves into the Chihuahuan Desert Province (Arid Division) in Socorro SE and Tularosa NE, NW, and SW.

Vegetation throughout the region is dominated by short prairie grasses. Juniper is also common in the rolling plains outside the floodplain and in the higher elevations. Shrubs like creoste bush and sagebrush were more prevalent in the southern part of the work area.

The area experiences hot days and cool nights in the summer and cool winters with cold spells. The average annual temperature is approximately 54 F. The average annual relative humidity is approximately forty-three percent, which varies throughout the day. The average annual precipitation is approximately 8 inches, with most of this falling from July to October. The average annual snowfall in the valley is near 10 inches. Precipitation and snowfall amounts are higher in the mountains, temperatures are cooler.

VIII. BIOLOGICAL CHARACTERISTICS OF WETLAND AND RIPARIAN HABITATS

A. Wetland Habitats

Wetland communities in the northern part of the work area, along the Rio Grande River, are dominated Fremont Cottonwood (Populus fremontii), Willow (Salix sp.) and Russian Olive (Elaeagnus augustifolia). Usually the Russian Olive could be found right along the banks of the river with the Cottonwood behind it. Also, Salt Cedar (Tamarix sp.) and a few Juniper (Juniperus monosperma) could be found in isolated areas. As the work area moves futher south along the Rio Grande the Cottonwood and Russian Olive thin out and Salt Cedar dominated the wetland community.

Possible determinations for Palustrine forested and Scrub/Shrub wetland habitats are:

PFO1C,A,J	Cottonwood
PSS1C,A,J	Russian Olive, Juniper, Willow
PSS2C,A,J	Salt Cedar
PSS1/2C,A,J	Russian Olive - Salt Cedar mix
PFO1/SS1C,A,J	Cottonwood - Russian Olive mix
PFO1/SS2C,A,J	Cottonwood - Salt Cedar mix

The wetter water regime "C" (seasonally flooded) is associated with hydric soils and impounded areas along the River. The water regime of "A" (temporarily flooded) will be the most commonly used with an occasional "J" (intermittently flooded) water regime in isolated cases.

Bars along the Rio Grande in which the vegetation has willow and emergents were seen reinnhabiting during field reconnaissance.

Several Palustrine emergent wetland communities were found throughout the length of the study area. These communities occurred in slews and impounded areas. Seasonally and temporarily flooded emergent wetlands (PEM1C,A) included Juncus sp. and Eleocharis sp. Semi-permanently and seasonally flooded emergent wetlands (PEM1F,C) included cattail (Typha latifolia), Bulrush (Scirpus sp.), Phragmites sp. and Cyperus sp.

Aquatic beds consisted of agal mats (PAB1) and (PAB3) Parrot feather (Myriophyllum brasiliense). This was found in isolated areas in the diversion canals that run along the Rio Grande.

B. Riparian Habitats

Riparian communities consisted of Cottonwood, Russian Olive, Salt Cedar, and a small amount of Mesquite near La Joya Wildlife Refuge. For this study the riparian classification system will be used on communities that fall outside of the diversion canals that run parallel with the river and are still within the 100 year floodplain. Areas that are impounded by roads or dams will still be considered Palustrine.

The riparian classification system used will be as follows:

Rp - riparian
FO - forested
SS - Scrub/Shrub
CW - Cottonwood
MB - Mixed broadleaved; Cottonwood and Russian Olive
SC - Salt Cedar
MQ - Mesquite

Example: RpFOCW - riparian cottonwood habitat

IX. UPLAND LANDUSE CLASSIFICATION SYSTEM

Upland landuse will be determined within the 100 year floodplain of the Rio Grande River. The classification system will be a slightly altered form of Anderson's upland classification system.

Agriculture will be broken into three categories:

- UAc - cropland; hay and alfalfa
- UAt - tilled land; corn, wheat, and peppers
- UAo - orchards; apples etc.

Urban areas will be broken into two categories:

- UUr - residential and highly populated areas, also commercial and industrial areas will be included
- UUm - mixed rural areas with agriculture and residential areas

Rangeland areas or areas that are neither urban or agriculture will be classified as Urm - rangeland mixed