

FIELD SUMMARY REPORT
 PECOS NW, NE, SW, SE
 FT. STOCKTON NW, NE, SW, SE

I. INTRODUCTION

Field reconnaissance was conducted during the period of April 9, 1989 through April 21, 1989 to ground truth aerial photography for the Pecos and Ft. Stockton 1:250K's.

- A. 1:100,000's: Pecos NW Ft. Stockton NW
 Pecos NE Ft. Stockton NE
 Pecos SW Ft. Stockton SW
 Pecos SE Ft. Stockton SE
- B. Personnel: Greg Pipkin Geonex-Martel, Inc.
 Dan Jones Geonex-Martel, Inc.
 Curtis Carley U.S.F.W.S.
 *Pat Connor U.S.F.W.S.
 **Joe Johnston U.S.F.W.S.
- C. Date of Field Trip: April 9 - 21, 1989
 * Present April 9 - 14, 1989
 **Present April 14 - 21, 1989
- D. Photography:
 Type: CIR
 Scale: 1:58,000

<u>Series</u>	<u>Date</u>	<u>% Coverage</u>
225	09/24/84	02%
151	10/15/84	04%
153	10/17/84	10%
159	10/19/84	02%
161	10/19/84	04%
167	10/28/84	15%
169	10/28/84	03%
173	11/03/84	04%
175	11/03/84	11%
177	11/04/84	08%
179	11/04/84	02%
181	11/09/84	07%
183	11/10/84	07%
185	11/11/84	11%
187	11/11/84	02%
173	05/01/86	02%
237	05/08/86	07%

E. Collateral Data:

1. 7.5' and 1:250K U.S.G.S. topographic maps.
2. Bailey, Robert G., Description of the Ecoregions of the United States, U.S. Department of Agriculture, 1980.
3. Hydric Soils of the State of Texas, 1985. U.S. Department of Agriculture, Soil Conservation Service.
4. Wetland Plants of the State of Texas, 1986. U.S. Department of the Interior, Fish and Wildlife Service.
5. Soil Surveys for the counties of Terrell, Reeves, Jeff Davis, Pecos, Upton, Midland, Ector, and Crane. U.S. Department of Agriculture, Soil Conservation Service.

II. OVERVIEW

The project area is located in West Central Texas. The map coordinates are as follows:

Pecos Latitude 30'00 N to 31'00 N
1:250K map Longitude 102'00 W to 104'00 W

Ft. Stockton Latitude 31'00 N to 32'00 N
1:250K map Longitude 102'00 W to 104'00 W

The Ft. Stockton study area and 80% of the Pecos study area fall almost entirely in the Tarbush-Creosote Section of the Chihuahuan Desert Province of the Desert Division, according to Baileys Ecoregions. The remaining 20% of the Pecos study area lies in the North Eastern sector of the Grama-Tobosa Section. This area is mostly desert. The topography is characterized by undulating desert plains (elevations near 4,000 feet), cut by washes, dry most of the year. Somewhat isolated mountains rise 2,000 to 5,000 feet. Shallow playa lakes are common to this area, generally, they are dry most of the year. Significant portions of the Tarbush-Creosote Section are covered by shifting sand dunes. The climate is typical desert, however, very localized, torrential rain storms do occur in late summer and early fall. In addition the northern part of the province may receive some winter rain. Average annual temperatures range from 50' to 65'F. Summers are long and hot. Winters are short but, may include brief periods when temperatures fall below freezing (see Appendix I).

III. BIOLOGICAL CHARACTERISTICS OF WETLANDS

- A. Marine: Not present.
- B. Estuarine: Not present.
- C. Lacustrine: All open water bodies and dry salt lakes over 20 acres will be classified in the Lacustrine System. Major reservoirs in the work area include Red Bluff Reservoir and Balmorhea Lake. They will be classified as L1UBHh. During field observation, Red Bluff Reservoir was found at approximately 2,825 feet. Normal pool elevation as indicated by the U.S.G.S. is 2,842 feet. The level of the reservoir on the photography was lower than in-field observations. The main purpose of Red Bluff is for irrigation. Locals at the reservoir indicated that water levels fluctuate from spring to late summer due to irrigation and rarely reach normal pool.

The major dry salt lakes in the study area are Toyah Lake, Juan Cordona Lake, Imperial Reservoir and Soda Lake. They will be classified as L2USC, A, or J depending on photo signature. Sewage treatment ponds and cooling ponds associated with the oil industry will carry the L1UBKHx label.

- D. Riverine: There is the only major perennial river located within the study area, the Pecos, which will be classified R2UBH. Gravel bars and beach bars located along the Pecos and other perennial streams will be labeled R2USA or J. If a perennial stream, as indicated on the topo, has no water present on the photo it will be classified as R4SBC. If a stream has been labeled R2UBH and has dried up or gone underground the exposed streambed will be labeled R2USA.

Intermittent streams, as indicated on the topo, will be classified R4SBA, J, or C depending on photo signature.

Main irrigation canals will be labeled R4SBKCx.

- E. Palustrine: Forested wetlands (PF01) broad leaved deciduous are located along the flood plains of the drainages. Due to the deeply cut nature of the washes and streams, forested areas are very infrequent. Species representative typically found in these areas include willow (Salix sp.), cottonwood (Populus deltoides), hackberry (Celtis laevigata varreticulata), soapberry (Sapindus drummondii), elm (Ulmus sp.), and walnut (Juglans microcapa). Water regimes are either A or J.

Scrub shrub wetlands in the study area may be either broad leafed deciduous (SS1) or needle leafed deciduous (SS2). The SS2 wetlands consist of the exotic invader species salt cedar (Tamarix sp.), most of these areas are either the A or J water regime. A few areas of Tamarix were found in seasonal or saturated locations associated with seeps below dams. Baccharis (Baccharis glutinosa), desert willow (Chilopsis linearis), and seedlings of willow, cottonwood, hackberry, soapberry, elm and walnut were found in the SS1 wetlands. The three water regimes C, A, and J are used.

Emergents (PEM1) are denoted as persistent and have water regimes classified as temporary (A), seasonal (C), and saturated (B). Nearly all emergents seen during the field check were associated with seeps either as natural springs such as those found at the Monahans Sand Dunes Park or down stream of dams or as impoundments as was observed at both Red Bluff Dam and the Balmorhea Lake Dam. One notable exception was in the Monahans Draw which receives discharge from the sewage treatment plant in Odesa. Large areas of PEM1C (Typha latifolia, and Scirpus sp.) have been created in a draw that would normally not exist. Other emergent vegetation observed included sedges (Carex sp.), spike rush (Eleocharis sp.), smartweed (Polygonum sp.), cocklebur (Xanthium strumarium), marsh boltonia (Boltonia asteroides), and ragweed (Ambrosia sp.).

Playa depressions were observed mostly in Pecos NE and are generally classified as PUSA or J. The majority contain hydric soils such as Lipan clay. Basins containing a significant percentage of mesquite were not delineated. Those containing hydrophytic vegetation are classified as emergent with a water regime appropriate to the photo signature.

Earthen stock tanks associated with pumps or windmills are classified as PUSKCx or PUSKAX by photo signature. Cooling ponds located at oil pumping stations carry the "x" modifier also. Tanks located on slopes carry the impounded modifier "h".

Gravel mines located near the Pecos River are labeled PUBHx. These are not to be confused with "borrow pits" that are labeled as gravel pits on the topo and are generally located along or near to roads. Borrow pits are delineated as PUSCx if they contain water on the photography.

Sludge pits and brine ponds associated with oil wells were not delineated, nor were concrete stock tanks, which appear as perfectly round open water bodies.

IV. IMAGERY, PRELIMINARY DELINEATIONS, FIELD CHECKING

A. Conditions of Imagery:

There are 12 different dates of photography for the study area. Though differences in the overall tone of the emulsion do exist, none of the photography is expected to present any unusual problems for photo interpretation. Soil surveys are used where available and topographic maps are followed closely as an aid to interpretation.

V. SUMMARY

No special or unusual problems are anticipated.

APPENDIX I

ECOREGIONS OF THE PECOS - FT. STOCKTON WORK AREA

- 2521L - Humid Temperature Domain
Subhumid Prairie Division
Prairie Brushland Province
Mesquite-Buffalo Grass Section
- 3211L - Dry Domain
Arid Desert Division
Chihuahuan Desert Province
Grama-Tobosa Section
- 3212L - Dry Domain
Arid Desert Division
Chihuahuan Desert Province
Tarbush-Creosote Bush Section

