

FIELD SUMMARY REPORT
CENTRAL TEXAS PROJECT

WICHITA FALLS NW, NE, SW, SE
ABILENE NW, NE, SW, SE

1:100,000 Map Names:

WICHITA FALLS NW, NE, SW, SE
ABILENE NW, NE, SW, SE

Personnel:

| | | |
|------------------|---|--------|
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Date of Field Trip:

April 11 - 22, 1988

Collateral Data:

USGS Topographical Quadrangle maps 1:24,000, 1:250,000. Soil Surveys for maps where available.

Photography:

The CIR photography in use, is produced by NHAP at a scale of 1:58,000.

The resolution quality and emulsion is generally good throughout all the maps. There are a few dark strips and some instances of spectral reflectance but these are minor and should present no problem during interpretation.

Dates of Photography:

| <u>Abilene NE</u> | <u>Abilene NW</u> | <u>Abilene SE</u> | <u>Abilene SW</u> |
|-------------------|-------------------|-------------------|-------------------|
| 1-23-83 | 11-11-83 | 2-13-83 | 11-11-83 |
| 2-28-83 | 11-12-83 | 3-28-83 | 11-12-83 |
| 1-29-83 | 11-13-83 | 3-01-83 | 11-13-83 |
| 2-13-83 | 11-15-83 | 1-29-83 | 11-15-83 |
| 3-28-83 | | 1-23-83 | |

| <u>Wichita Falls</u> <u>NE</u> | <u>Wichita Falls</u> <u>NW</u> | <u>Wichita Falls</u> <u>SE</u> | <u>Wichita Falls</u> <u>SW</u> |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 2-13-83 | 1-23-83 | 2-13-83 | 11-13-83 |
| 1-29-83 | 11-11-83 | 3-28-83 | 1-23-83 |
| 3-28-83 | 11-12-83 | 1-29-83 | 11-11-83 |
| 1-23-83 | 11-13-83 | 1-23-83 | 11-12-83 |
| 3-06-83 | | 2-28-83 | |
| 2-28-83 | | | |

Geographical Location:

The work area is located in North Central Texas. The coordinates for the Abilene 1:250,000 are:

Lat. 32 degrees 00' N to 33 degrees 00' N
 Long. 98 degrees 00' W to 100 degrees 00' W

The coordinates for the Wichita Falls 1:250,000 are:

Lat. 33 degrees 00' N to 34 degrees 00' N
 Long. 98 degrees 00' W to 100 degrees 00' W

Ecoregion and Physiography:

The Wichita Falls 1:250,000 falls within the Subhumid Prairie Division. In Wichita Falls NW approximately 80% is the Mesquite-Buffalo Grass Section. This covers the Central and Western part of the 1:100,000 and changes from irregular plains to tablelands as you move to the West. The Northern 15% of the map is in the Bluestem-Grama Prairie Section, characterized by smooth plains. And the final 5% of the map is in the Oak-Bluestem Parkland Section, located in the SE corner. Irregular plains characterize the terrain. In Wichita Falls SW, 65% of the 1:100,000 is in the Mesquite-Buffalo Grass Section. This covers the Central and Western part of the map. As you move West the landscape changes slightly from smooth plains to irregular plains. The remaining 35% of the Eastern part of the map is in the Oak-Bluestem Parkland Section. Here the terrain changes from irregular plains to tablelands as you move South. In Wichita Falls NE, 70% of the map is in the Oak-Bluestem Parkland Section with irregular plains, and the Bluestem-Grama Prairie Section makes up the remaining 30%. This section is located in the Northwest corner and is characterized by smooth plains. All of Wichita Falls SE falls within the Oak-Bluestem Parkland Section. The terrain changes from irregular plains to tablelands as you move East-Southeast. Grasslands are the dominant vegetation with shrubs and low trees growing openly and some upland Oak-Hickory deciduous forests. The elevation ranges from 900 ft. to 1700 ft. above sea level for the entire 1:250,000 map.

The Abilene 1:250,000 is also located entirely within Subhumid Prairie Division. In Abilene NW, the Western 40% of the map is in the Mesquite-Buffalo Grass Section. The terrain is characterized by smooth plains. The remaining 60% is in the Oak-Bluestem Parkland Section, with the terrain changing from tablelands to irregular plains as you move East. In Abilene SW, the Mesquite-Buffalo Grass Section covers the Western 60% of the 1:100,000, with the landforms changing from irregular plains to tablelands as you move from North to South. And the Eastern 40% of the map is in the Oak-Bluestem Parkland Section. As you move toward the East end of the map you move from tablelands to irregular plains. Abilene NE is entirely in the Oak-Bluestem Parkland Section. As you move from West to East across the map the terrain from irregular plains back into tablelands. In Abilene SE, 85% of the map is in the Oak-Bluestem Parkland Section. The terrain changes from irregular plains to tablelands moving to the Northeast. The remaining 15% is in the Juniper-Oak-Mesquite Section. This section is located in the Southeast corner and is characterized by irregular plains and tablelands. The general vegetation scheme is the same as in the Wichita Falls maps. The elevation ranges from 1000 ft. to 2300 ft. above sea level for the entire Abilene 1:250,000 map.

Climate:

This area experiences hot summers with frequent thunderstorms in the Spring and Summer. Winters are dry with brief cold spells. The average annual temperature ranges between 55 degrees and 70 degrees F and the average annual precipitation is 25 inches. The average number of frost-free days a year is 220.

Drainage:

The major drainage flow is from Northwest to Southeast. The largest river in the study area is the Brazos River. This runs through Wichita Falls NW, SW, SE and Abilene NE. Possum Kingdom Lake, in Abilene NE, is the major reservoir fed by the Brazos River. The Wichita River runs through Wichita Falls NW and NE, Lake Kemp, in Wichita Falls NW, is the major reservoir fed by the Wichita River. Other major rivers include the Little Wichita River, in Wichita Falls NE, the Sabanna River in Abilene SW and SE and the North Bosque River in Abilene SE.

Vegetation:

1. Broad Leaf Deciduous (PF01) species in forested wetland areas (temporarily flooded wetlands-PF01A) are: Green ash (Fraxinus pennsylvanica), elm (Ulmus sp.),

cottonwood (Populus deltoides), pecan (Carya illinoensis), sugarberry/hackberry (Celtis sp.), oak (Quercus sp.), and willow (Salix sp.). Willow is the predominate specie for seasonal (C) and semi-permanently (F) flooded, wetland forests (PF01C, PF01F). Most of these trees generally appear in riparian communities of tributaries to larger streams or flood plain areas.

2. The scrub/shrub community consists of the above mentioned young trees below twenty (20) feet in height, as well as (Baccharis sp.), for temporary wetlands (PSS1A). Seasonally flooded (C) shrub communities will have primarily willow (PSS1C). Semi-permanently flooded (F) shrub wetlands consist of willow and/or buttonbush (Cephalanthus occidentalis) (PSS1F). Willow dominates in backwater areas of reservoirs and impoundments along with buttonbush. Intermittently flooded (J) shrub communities consist of salt cedar (Tamarix sp.) (PSS2-Neddle leaf deciduous). Salt cedar also occurs as a temporarily flooded community (PSS2A). Salt cedar primarily occurs in riparian situations, but may invade upon the backwaters of some reservoirs (impoundments) in a seasonal condition. This usually stresses the plant causing it to die. Forested and scrub/shrub communities are common along rivers and their tributaries, as well as around reservoirs and impoundments.
3. Emergents of temporarily flooded (PEM1A) areas are sunflower (Helianthus sp.), sumpweed (Iva sp.), sacaton (Sporobolus sp.), cocklebur (Xanthium strumarium), smartweed (Polygonum sp.), rushes (Juncus sp.) and dock (Rumex sp.). Seasonally flooded emergents (PEM1C) consist of sedges (Carex sp.), spike rush (Eleocharis sp.), Sporobolus sp., Polygonum sp., and Juncus sp.. cattail (Typha latifolia), bulrush (Scirpus sp.) three square (Scirpus sp.), and sedges (Carex sp.) are the primary emergents in semi-permanently flooded situation (PEM1F).
4. Aquatic bed consist of algal mats (PAB1), American lotus (Nelumbo lutea), a rooted aquatic bed (PAB3). Other aquatic beds were noted but not identified due to inaccessibility. Although no floating aquatic bed (AB4) was seen in the field, the PI may see duckweed (Lemna sp.) on the photography.

LACUSTRINE

1. All open water bodies 20 acres or larger will be classified as unconsolidated bottom (L1UB or L2UB) as data indicates. Water regimes of semi-permanent (F) or permanent (H) flooding are used with the preceding class.
2. Non-vegetated shoreline will be classified as unconsolidated shore (L2US) with water regimes of temporary (A) or seasonally flooded (C). Exposed bottom is denoted as L2UBF.

RIVERINE

1. Perennial streams on the topos, with water shown on photography will be R2UBH. R4SBC will be used in situations where the stream does not appear to flow throughout the year, for example, if the topographic maps shows a stream to be perennial, but no water is shown on the photography.
2. R4SBC is the designation used for perennial streams as shown on the topographic map (but no water on photography or field check), and intermittent stream beds (as per topographic map) with water shown on photography.
3. R4SBA is used only in intermittent situations. The topographic map shows the stream as intermittent and there is no water shown on the photography or field check. Generally these are located at the beginning of a drainage system.

PALUSTRINE

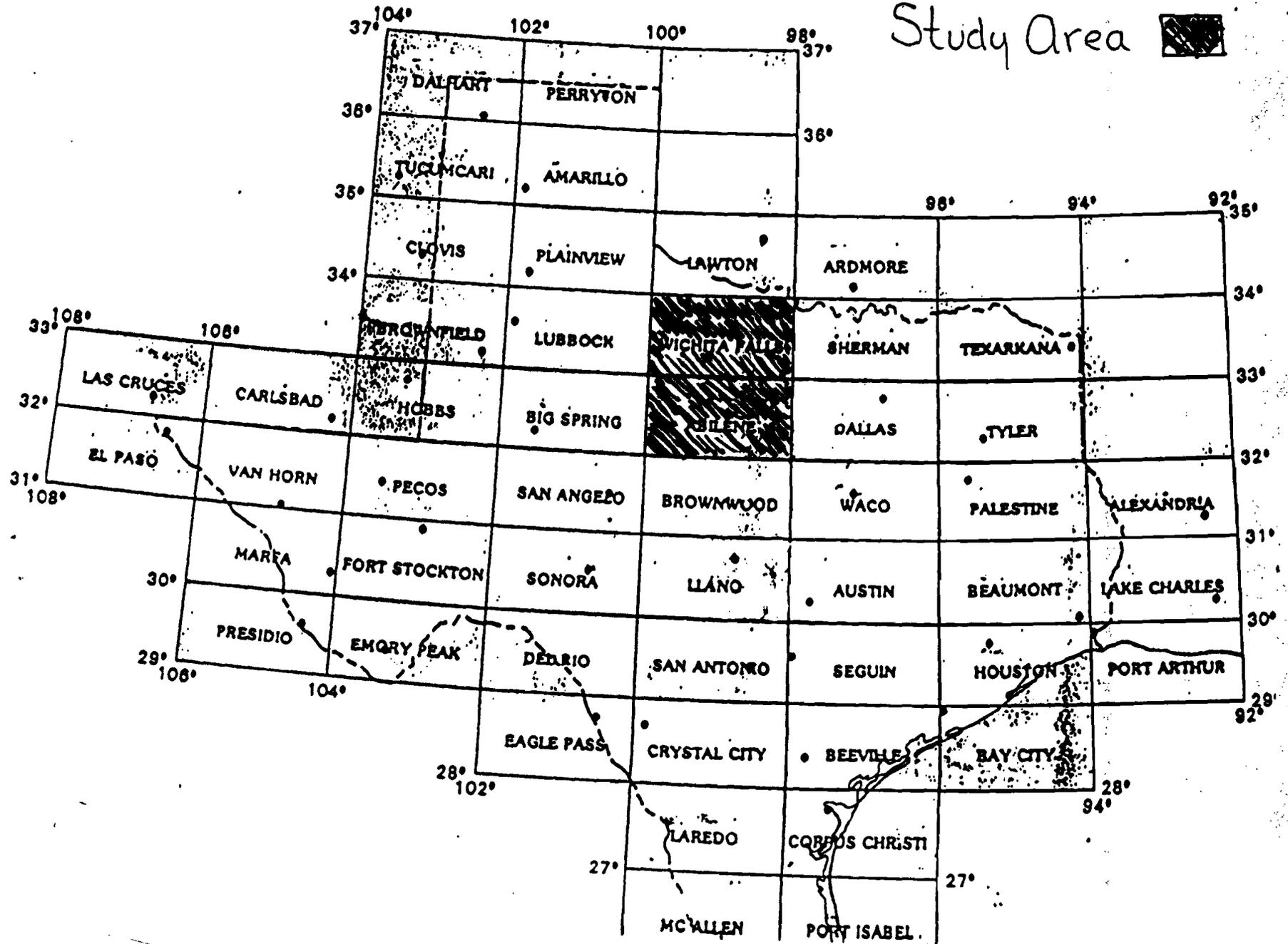
1. Ponds are classified as PUSA-C or PUBF-H. The temporary pond (A) has little or no water (shown as intermittent on the topographic map or not shown). The seasonal (C) ponds contain water on the photography and are intermittent on the topographic map. PUS's are generally for small ponds and/or dot size polygons. The larger ponds (1/2 acre or larger) tend to be semi-permanent (F) to permanently (H) flooded. (Shown as perennial on the topographic map). If shown as perennial on the topo and no water on photography the pond may be considered seasonal.

2. Aquatic beds (AB) are classified as AB1 (Algal), AB3 (rooted vascular) or AB4 (floating vascular). These may also be found in lacustrine systems. The water regimes are limited to semi-permanent (F) and permanently (H) flooded.
3. Emergents (PEM1) are only classified within the palustrine system and denoted as persistent. The water regimes are temporary (A), seasonal (C), and semi-permanent (F).
4. Scrub/shrub (PSS1 - broad leaf deciduous) wetlands may have water regimes of temporary (A), seasonal (C), or semi-permanent (F); and (PSS2 - needle leaf deciduous) may have water regimes of temporary (A), occasionally seasonal (C) in backwaters of reservoirs, and intermittently flooded (J) along a riverine system.
5. Forested wetlands (PF01 - broad leaf deciduous) are classified with temporary (A), seasonal (C), or semi-permanent (F) water regimes. Some areas may contain dead trees which will be PF05 with a semi-permanent (F) or permanent (H) water regime.
6. Depressional areas with hydric soils such as Randall or Roscoe clay, which have standing water on the photography or appear as dark areas, will be classified as PEM1A or PEM1Af if depression appears to farmed periodically.

SPECIAL MODIFIERS

1. Special modifiers to be used are excavated (x), impounded (h), partially drained/ditched (d), and farmed (f).

TEXAS



Study Area 