Field Summary Report

FINISH OKLAHOMA Project

Date of Field Trip: April 6-17, 1987

Personnel:

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1:100,000 Map Names:

Perryton NE, NW, Clinton NE (22 quads), SE (23 quads), Lawton NE (25 quads), SE (14 quads), Sherman NW (16 quads).

Collateral Data:

USGS topographical quads - 1:24,000, 1:62,500, and 1:250,000.

Soil surveys for all maps where available.

Photography:

The CIR photography being used is produced by NHAP with a scale of 1:58,000. Flight dates are variable: The Perryton map photo dates are in spring of 1984-85. The Lawton photos are from the spring of 1983 and 1984. The Clinton photos have a range from September through November for the year of 1981, as does the Sherman NW map. The emulsion and resolution are good throughout the work area. The September photos exhibit dry conditions which is typical for the time of year. October and November photos display more water as this is a wetter period. The late winter/spring photograpny shows almost identical amounts of water as the late fall photos, although the vegetation has yet to "leaf out". There are 2 strips of June 1985 photography located in the Perrytons which reflect "normal" conditions and exhibit a red signature for most vegetation (upland, wetland and agricultural).

Ecoregion and Physiography:

Perryton NW and NE are located in the eastern two-thirds of the panhandle of Oklahoma. Characterized in "Description of the Ecoregions of the United States," Bailey, as a shortgrass prairie, the panhandle also has a semiarid climate. As part of the Great Plains - Shortgrass Prairie Province and Grama-Buffalograss Section, these maps primarily consist of shortgrass and scattered trees.

Perryton NW is described as flat plains with 100-300 feet of local relief. Perryton NE has 80% of its map area with tableland of moderate relief (300-500 feet). The remainder of Perryton NE is flat plains.

The climate for this region is semiarid. The yearly temperature averages are 56.6°F to 57.4°F, with precipitation annual averages of 16.94 inches to 19.33 inches. The evaporation rate for this region is very high.

Three-quarters of Clinton NE and SE is located within the Tall-Grass Prairie Province, Bluestem-Grama Prairie Section. The last quarter of the map is situated in the Prairie Parkland Province, Oak-Hickory-Bluestem Parkland Section.

The Bluestem-Grama Prairie Section is located within the southeast corner of Clinton SE, the physiography is primarily irregular plains of 100-300 feet in relief, while moderate relief tablelands of 300-500 feet in local elevation completes this section. The Oak-Bluestem Parkland Prairie Section is dominated by irregular plains of 100 to 300 feet. Vegetation is a mix of prairie grasses and forest.

The continental climate allows for average temperatures of 60.5°F and precipitation averages range from 25 to 32 inches per year.

The Lawton NE and SE maps have a 60%-40% split between the Tall-Grass Prairie Province, Bluestem-Grama Prairie Section (60%) on the west and Prairie Parkland Province, Oak-Bluestem Parkland Section in the east. The uppermost part of the province is described as irregular plains with 100-300 feet of relief. To the south of this is tablelands of high relief (1,000-3,000 feet). The remaining area of this initial 60% is smooth plains of 100-300 feet in local elevation. The Oak-Bluestem Parkland Section has irregular plains of 100-300 feet of relief which completes the Lawton NE, SE maps.

The climate for the Lawton maps is a temperate continental (dry subhumid type). The average annual temperature is 62.7°F with a yearly precipitation average of 27-32 inches.

The Sherman NW map is situated in the Prairie Parkland Province, Oak-Bluestem Section. Local relief may range from 100-300 feet on the irregular plains near the Red River and to the north. In the southeast corner of the map, the tablelands of moderate relief (300-500 feet) complete the map area.

There are some climatic differences north and south of the river. On the Oklahoma side, the yearly temperature average is 62°F and 36 inches for yearly precipitation average. South of the river in Texas, 65°F is the average annual temperature with 32 inches of average annual precipitation.

Vegetation

The forested wetland community for the project maintains similar species throughout. In the Perryton maps, cottonwood (Populus deltoides) and willow (Salix nigra) predominate. Other species may include elm (Ulmus sp.), green ash (Fraxinum pennsylvanica) and hackberry (Celtis occidentalis). The remaining maps of the project will have all of the above and sycamore (Platanus occidentalis), box elder (Acer negundo), pecan (Carya illinoensis) honey locust (Gleditsia triacanthos).With the exception of the willow, all of these trees are primarily in temporary flooded conditions. The willow is predominately seasonally flooded and is the main specie for semipermanent conditions. All of these trees may be found in floodplain or riparian habitat.

The scrub/shrub species for temporarily flooded situations will include young trees of the aforementioned species. In addition to these is Baccharis sp. Willow is the dominant seasonal and semipermanently flooded specie.

Salt cedar (Tamarix sp.) is the only needle leafed deciduous shrub within the project area. This plant is generally associated with a floodplain habitat, in primarily a temporary setting, although it may be flooded seasonally.

The emergents of the project area are more diverse than the other communities. Temporarily flooded wetlands will include species such as: Cyperus sp., cockleburr (Xanthium strumarium), great ragweed (Ambrosia trifida), Dock (Rumex sp.), saltgrass (Distichlis, sp.) Juncus sp., Aster sp., sunflower (Asteraceae sp), wild rye (Elymus sp.), switchgrass (Panicum virgatim). Seasonally flooded species will consist of Carex sp., Eleocharis sp., Cyperus sp.,Juncus sp., three square (Scirpus sp.) and smartweed (Polygonum sp.). The semipermanently flooded community will contain primarily cattails (Typha latifolia) and bulrush (Scirpus sp.)

Aquatic beds in both semipermanent and permanently flooded situations contained species of: duckweed (Lemma sp.), water primrose (Primulaceae sp.), buttercup (Ranunculaceae sp.), penny wort (Hydrocotyle americana) and algal mats.

FS/seh/NWI#6

Mapping Conventions for Finish Oklahoma

Lacustrine

1. All open water bodies 20 areas 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 preceeding class.

2. Non-vegetated shoreline will be classified as unconsolidated shore L2US with water regimes of temporarily or seasonally flooded. Exposed bottom is denoted as L2UBF.

Riverine

1. Perennial streams 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.

2. R4SBC is the designation used for perennial streams (no water on photography or field checked) and intermittent streambeds with water shown on photography.

3. R4SBA is used only in intermittent situations. Generally these are located at the beginning of a drainage system.

4. Riverine flats and bars are designated as R2US (temporary or seasonally flooded).

Palustrine

1. Ponds are classified as PUSA-C or PUBF-H. The temporary (with little or no water) and seasonally flooded (with water). 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 to permanently flooded. Intermittent on topo - A or C, Perennial topo - F or H.

2. Aquatic beds (AB) are classified as AB1 (algal), AB3 (rooted vasular) or AB4 (floating vascular). These may also be found in Lacustrine systems. The water regimes are limited to semi-permanent and permanently flooded.

3. Emergents (PEM1) are only classified within the Palustrine system and are only 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 A,C, or F.

5. Scrub/shrub (PSS2-needle leaf deciduous) wetlands may have A or C water regimes.

6. Forested wetlands (PF01-broad leaf deciduous) are classified with A,C, or F water regimes. Some areas may contain dead trees which will be PF05F-H.

PLAYAS

Within the project area playas exist only in the panhandle of the state. This particular area lies within the borders of Texas and Beaver County. In Beaver County the Randall Soil (Vw-1) is the only soil associated with playas. While in Texas County there is the Randall and Lofton (IIIw-1) which is also associated with playas. The Lofton is sometimes found in the same depression as the Randall, with the Lofton on a bench and Randall lying lower in the depression.

The identification and classification of playas will depend on certain characteristics: 1) Well defined (readily visible) including farmed areas. 2) Topographical depression. 3) Associated soils. The photo interpreter will always use #1 in conjunction with #2 and/or #3.

Temporarily flooded playas tend to have a moderately dark signature. Seasonally flooded playas have a mottling or white signature, this may include semipermanent areas also. Farmed playas will have furrow or plow marks and a well defined perimeter. These particular wetlands will use the special modifier 'f'. If the perimeter of the playa is indistinguishable from adjacent farming, the playa basin will not be delineated, irregardless of soil type. This is due to the fact, some farmers have filled in playas and changed the existing drainage pattern.

The Randall soil is capable of temporary to semipermanent flooded conditions, whereas the Lofton soil will primarily have temporary conditions only.

In Perryton NE there is an area of small basins (depressions) which, depending on the time of year, may have water in them or be farmed. These depressions are not to be confused with playas.

After discussing the situation with USFWS and Martel personnel, it has been concluded that in order to delineate these basins, they should meet the following guidelines: 1. Have standing water in the depressions. 2. Intermittent pond symbols on topo or soil survey. 3. Depression symbol on topo. 4. A very well-defined perimeter which shows none or little farming activity.

Only number "1" is required at all times, although "number 4" should be corroborated by the other guidelines. In order to maintain consistency with maps already completed with the state the PI's, when identifying such an area, will classify the depressions as PUSA or U (Upland). The PI's will also be conservative when doing the classification.

Special Modifiers

Special modifiers to be used are excavated (x) or impounded (h). These are found in all three systems. Partially drained/ditched (d) is used for instances of draining and/or ditching wetlands. The farmed modifier (f) will only be used in association with playas.