

DRAFT

A. INTRODUCTION

The U.S. Fish & Wildlife Service's National Wetlands Inventory is producing maps showing the location and classification of wetlands and deepwater habitats of the United States. The Classification of Wetlands and Deepwater Habitats of the United States by Cowardin et al. is the classification system used to define and classify wetlands. Photointerpretation conventions, hydric soils lists and wetland plant lists are also available to enhance the use and application of the classification system.

B. PURPOSE

The purpose of the notes to users is threefold: (1) to provide localized information regarding the production of NWI maps, including specific imagery and interpretation discussion; (2) to provide a descriptive crosswalk from wetland codes on the map to common names and representative plant species, and (3) to explain local geography, climate, and wetland communities.

C. STUDY AREA

Geography:

The Sherman NW map covers an area located in south central Oklahoma and north central Texas. Being in the Prairie Parkland Province, Oak Bluestem Section the local relief may range from 100-300 feet on the irregular plains near the Red River and to the north. In the remaining portion of the maps the tableland of moderate relief, 300-500 feet, complete the map area (Bailey, 1980).

There are several major streams and rivers besides the Red River, which contributes to the drainage system of this study area. The Elm Fork Trinity, Clear Creek, Denton Creek, Big Sandy Creek and the West Fork Trinity all flow in a NW to SE pattern. Numerous large reservoirs are located in the study area along with numerous impoundments and ponds.

Climate:

This study area has a temperate continental climate. There are some climatic differences north and south of the Red River. On the Oklahoma side, the yearly temperature average is 62°F and has a precipitation average of 36 inches per year. South of the River in Texas, 65°F is the yearly average temperature with 32 inches of precipitation for the annual average (Love and Jefferson County, Oklahoma; Cooke County, Texas soil surveys).

Vegetation:

Grasses dominate the vegetation in the prairie locations, while cottonwood and willows are the main deciduous trees found in the floodplain areas. Other tree species may include elm, sycamore, and hackberry. Upland trees may include blackjack oak and post oak.

Soils:

The soils of the bottom lands and terraces are flooded at sometime during the year. The Tinn, Frio, Gaddy, Gowen, Miller, Mabank, Pulexas, and Yahola soils are predominantly clayey and loamy on nearly level lands. These soils all exhibit individual characteristics and internal drainage patterns.

| NWI CODE        | NWI DESCRIPTION   | COMMON DESCRIPTION                      | VEGETATION/SUBSTRATE                                  |
|-----------------|---|---|---|
| L10B<br>(H)     | Lacustrine<br>limnetic unconsolidated<br>bottom         | Open water, lake                        | Unvegetated mud,<br>sand, gravel                      |
| L20B<br>(F,H)   | Lacustrine<br>littoral unconsolidated<br>bottom         | Shallow open water<br>lake, lake bottom | Unvegetated mud,<br>sand, gravel                      |
| L2US<br>(A,c)   | Lacustrine<br>littoral unconsolidated shore             | Lake bed,<br>lake shore                 | Unvegetated mud,<br>sand, gravel                      |
| L1AB1<br>(F,H)  | Lacustrine<br>littoral<br>aquatic bed                   | Algal mat                               | Algae   |
| L1AB3<br>(F,H)  | Lacustrine<br>littoral<br>aquatic bed                   | Rooted vascular                         | American lotus<br>( <u>Nelumbo lutea</u> )            |
| L1AB4<br>(F,H)  | Lacustrine<br>littoral<br>aquatic bed                   | Floating<br>Pond weeds,<br>water weeds  | Duckweed ( <u>Lemna sp.</u> )<br>( <u>Azola sp.</u> ) |
| L2AB4<br>(F,H)  | Lacustrine<br>littoral<br>aquatic bed                   | Floating<br>Pond weeds,<br>water weeds  | Duckweed ( <u>Lemna sp.</u> )<br>( <u>Azola sp.</u> ) |
| R2UB<br>(H)     | Riverine lower<br>perennial<br>unconsolidated<br>bottom | Open water<br>river, stream             | Unvegetated mud,<br>sand, gravel                      |
| R2US<br>(A,C)   | Riverine lower<br>perennial<br>unconsolidated<br>shore  | River flat, bar                         | Unvegetated mud,<br>sand, gravel                      |
| R4SB<br>(J,A,C) | Riverine inter-<br>mittent<br>streambed                 | Intermittent stream                     | Unvegetated mud,<br>sand, gravel                      |
| PUB<br>(F,H)    | Palustrine unconsolidated<br>bottom                     | Open water, pond<br>bottom              | Unvegetated mud,<br>sand, gravel                      |
| PUS<br>(J,A,C)  | Palustrine unconsolidated<br>shore                      | Pond shore,<br>pond bed                 | Unvegetated mud,<br>sand, gravel                      |

| NWI CODE          | NWI DESCRIPTION  | COMMON DESCRIPTION                     | VEGETATION/SUBSTRATE  |
|-------------------|--|--|---|
| PAB1<br>(F,H)     | Palustrine<br>aquatic bed                                | Algal mat                              | Algae   |
| PAB3<br>(F,H)     | Palustrine<br>aquatic bed                                | Rooted vascular                        | American lotus<br>( <u>Nelumbo lutea</u> )  |
| PAB4<br>(F,H)     | Palustrine<br>aquatic bed                                | Floating<br>Pond weeds,<br>water weeds | Duckweed ( <u>Lemna sp.</u> )<br><br>( <u>Azola sp.</u> )   |
| PEM1<br>(J,A,C,F) | Palustrine<br>persistent<br>emergents                    | Marsh, wet meadow                      | Bulrush<br>( <u>Scirpus sp.</u> )<br>Cattail<br>( <u>Typha latifolia</u> )<br>Cocklebur<br>( <u>Xanthium</u> )<br>Rush<br>( <u>Juncus sp.</u> )<br>Saltgrass<br>( <u>Distichlis sp.</u> )<br>Sedge<br>( <u>Carex sp.</u> )<br>Smartweed<br>( <u>Polygonum sp.</u> )   |
| PSS1<br>(A,C,F)   | Palustrine<br>scrub shrub,<br>broad leaved<br>deciduous  | Shrub wetland                          | Buttonbush<br>( <u>Cephalanthus<br/>occidentalis</u> )<br>Cottonwood<br>( <u>Populus deltoides</u> )<br>Willow ( <u>Salix nigra</u> )   |
| PSS2<br>(J,A,C)   | Palustrine<br>scrub-shrub,<br>needle leaved<br>deciduous | Shrub wetland                          | Salt Cedar<br>( <u>Tamarix sp.</u> )  |
| PF01<br>(A,C,F)   | Palustrine<br>forested<br>broad leaved<br>deciduous      | Forested wetland                       | Cottonwood<br>( <u>Populus deltoides</u> )<br>Elm ( <u>Ulmus sp.</u> )<br>Green Ash ( <u>Fraxinus<br/>pennsylvanica</u> )<br>Hackberry<br>( <u>Celtis<br/>occidentalis</u> )<br>Willow ( <u>Salix nigra</u> )<br>Pecan ( <u>Carya<br/>illinoensis</u> )<br>Sycamore<br>( <u>Platanus<br/>occidentalis</u> ) |

**WATER REGIME MODIFIERS**  
(non-tidal)

(A) Temporarily Flooded--Surface water present for brief periods during growing season, but water table usually lies well below soil surface. Plants that grow both in uplands and wetlands are characteristic of this water regime.

(B) Saturated--The substrate is saturated to surface for extended periods during the growing season, but surface water is seldom present.

(C) Seasonally Flooded--Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is very variable, extending from saturated to a water table well below the ground surface.

(F) Semipermanently Flooded--Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land's surface.

(G) Intermittently Exposed--Surface water is present throughout the year except in years of extreme drought.

(H) Permanently Flooded--Water covers land surface throughout the year in all years.

(K) Artificially Flooded--The amount and duration of flooding is controlled by means of pumps or siphons in combination with dikes or dams.

(U) Unknown--The water regime is not known.

## F. MAP PREPARATION

The wetland classification that appears on the Sherman National Wetlands Inventory (NWI) Base Map (Figure 1) is in accordance with Cowardin et. a. (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. The photography was taken during January, February, and March of 1984.

Field checks of areas found within Sherman NW and SW photography were made prior to the actual delineation of wetlands. Field check sites were selected to clarify varying signatures found on the photography. These photographic signatures were then identified in the field using vegetation types and soil types, as well as additional input from field personnel.

Collateral data included USGS topographic maps, SCS soil surveys, climate, vegetation, and ecoregional information.

The user of the map is cautioned that, due to the limitation of mapping primarily through aerial photo interpretation, a small percentage of wetlands may have gone unidentified. Since the photography was taken during a particular time and season, there may be discrepancies between the map and current field conditions. Changes in landscape which occurred after the photography was taken would result in such discrepancies.

Aerial photo interpretation and drafting were completed by Martel Laboratories, Inc., St. Petersburg, Florida.

## G. SPECIAL MAPPING PROBLEMS

None.

## H. MAP ACQUISITION

To discuss any questions concerning these maps or to place a map order, please contact:

Regional Wetland Coordinator (ARD-E)  
U.S. Fish and Wildlife Service - Region II  
P.O. Box 1306  
Albuquerque, NM 87103

To order maps only, contact:

National Cartographic Information Center  
U.S. Geological Survey  
National Center  
Reston, VA 22092

Maps are identified by the name of the corresponding USGS 1:24,000 scale topographic quadrangle name. Topographic map indices are available from the U.S. Geological Survey.

LITERATURE CITED

Bailey, Robert G., 1980. Description of the Ecoregions of the United States. U.S. Department of Agriculture Forest Service. Miscellaneous Publications No. 1391

Cowardin, L.M.; V. Carter; F.C. Golet and E.T. LaRoe, 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, U.S. Fish and Wildlife Service. Biological Services Program, Washington, D.C., 103 p.

Soil Survey of Cooke County, Texas; 1979. United States Department of Agriculture, Soil Conservation Service.

Soil Survey of Jefferson County, Oklahoma; 1973. United States Department of Agriculture, Soil Conservation Service.

Soil Survey of Love County, Oklahoma; 1966. United States Department of Agriculture, Soil Conservation Service.

TEXAS

