

DRAFT

A. 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 soil 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 study area covered by Lawton NE and SE have a 60%-40% split between the Tall Grass Prairie Province, Bluestem-Grama Prairie Section (60%) on the western side and the Prairie Parkland Province, Oak-Bluestem Parkland Section in the east (Bailey, 1980). The uppermost part of the prairie section is irregular plains with 100-300 feet of local relief. To the south of this is an area of tableland with high local relief (1000-3000 feet). The remaining portion 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.

Numerous large reservoirs are located throughout study area in addition to numerous ponds and impoundments. The Red River, Deep Red Creek, East Cache Creek, and Beaver Creek are the main drainages in the Lawton NE, SE maps.

Climate:

The Lawton NE and SE maps are located within a temperate continental climate. The average annual temperature is 62.7°F. Winters are generally mild. Long hot summers are the rule although low humidity is a positive factor.

The bulk of the precipitation falls during spring and summer. Yearly averages range from 27-32 inches per year (Commanche, Cotton and Tillman County soil surveys).

Vegetation:

The vegetation within the Tall-Grass Prairie Province consist primarily of grasses (little bluestem, Junegrass, panicgrass, etc.). On the mixed prairie, grasses are the mainstay along with some forbs. Forested area occur in riparian areas and reservoirs. Deciduous trees in the Prairie Parkland Province also are primarily riparian, and/or found in areas adjacent to reservoirs. Grasses again dominate the prairie vegetation.

Soils:

The following bottomland soils are either loamy or heavy bottomland soil. Port, Pulaski, Gracemont, Miller, Reinach, Cyril, McLain, Yahola, Gracemore and Watonga. The Lincoln soil, made of recent alluvium is found alongside major streams and rivers. These soils vary in wetness capability and internal drainage.

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
L1UB (H)	Lacustrine limnetic unconsolidated bottom	Open water, lake	Unvegetated mud, sand, gravel
L2UB (F,H)	Lacustrine littoral unconsolidated bottom	Shallow open water lake, lake bottom	Unvegetated mud, sand, gravel
L2US (A,C)	Lacustrine littoral unconsolidated shore	Lake bed, lake shore	Unvegetated mud, sand, gravel
L1AB1 (F,H)	Lacustrine littoral aquatic bed	Algal mat	Algae
L1AB3 (F,H)	Lacustrine littoral aquatic bed	Rooted vascular	American lotus (<u>Nelumbo lutea</u>)
L1AB4 (F,H)	Lacustrine littoral aquatic bed	Floating Pond weeds, water weeds	Duckweed (<u>Lemna sp.</u>) (<u>Azola sp.</u>)
L2AB4 (F,H)	Lacustrine littoral aquatic bed	Floating Pond weeds, water weeds	Duckweed (<u>Lemna sp.</u>) (<u>Azola sp.</u>)
R2UB (H)	Riverine lower perennial unconsolidated bottom	Open water river, stream	Unvegetated mud, sand, gravel
R2US (A,C)	Riverine lower perennial unconsolidated shore	River flat, bar	Unvegetated mud, sand, gravel
R4SB (J,A,C)	Riverine inter- mittent streambed	Intermittent stream	Unvegetated mud, sand, gravel
PUB (F,H)	Palustrine unconsolidated bottom	Open water, pond bottom	Unvegetated mud, sand, gravel
PUS (J,A,C)	Palustrine unconsolidated shore	Pond shore, pond bed	Unvegetated mud, sand, gravel

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
PAB1 (F,H)	Palustrine aquatic bed	Algal mat	Algae
PAB3 (F,H)	Palustrine aquatic bed	Rooted vascular	American lotus (<u>Nelumbo lutea</u>)
PAB4 (F,H)	Palustrine aquatic bed	Floating Pond weeds, water weeds	Duckweed (<u>Lemna</u> sp.) (<u>Azola</u> sp.)
PEM1 (J,A,C,F)	Palustrine persistent emergents	Marsh, wet meadow	Bulrush (<u>Scirpus</u> sp.) Cattail (<u>Typha latifolia</u>) Cocklebur (<u>Xanthium</u>) Rush (<u>Juncus</u> sp.) Saltgrass (<u>Distichlis</u> sp.) Sedge (<u>Carex</u> sp.) Smartweed (<u>Polygonum</u> sp.)
PSS1 (A,C,F)	Palustrine scrub shrub, broad leaved deciduous	Shrub wetland	Buttonbush (<u>Cephalanthus</u> <u>occidentalis</u>) Cottonwood (<u>Populus deltoides</u>) Willow (<u>Salix nigra</u>)
PSS2 (J,A,C)	Palustrine scrub-shrub, needle leaved deciduous	Shrub wetland	Salt Cedar (<u>Tamarix</u> sp.)
PFO1 (A,C,F)	Palustrine forested broad leaved deciduous	Forested wetland	Cottonwood (<u>Populus deltoides</u>) Elm (<u>Ulmus</u> sp.) Green Ash (<u>Fraxinus</u> <u>pennsylvanica</u>) Hackberry (<u>Celtis</u> <u>occidentalis</u>) Willow (<u>Salix nigra</u>) Pecan (<u>Carya</u> <u>illinoensis</u>) Sycamore (<u>Platanus</u> <u>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 Lawton 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, 1983, and March of 1984.

Field checks of areas found within Lawton NE and SE 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 Caddo County, Oklahoma; 1973. United States Department of Agriculture, Soil Conservation Service.
- Soil Survey of Comanche County, Oklahoma; 1967. United States Department of Agriculture, Soil Conservation Service.
- Soil Survey of Cotton County, Oklahoma; 1963. United States Department of Agriculture, Soil Conservation Service.
- Soil Survey of Tillman County, Oklahoma; 1974. United States Department of Agriculture, Soil Conservation Service.

