

DRAFT

NATIONAL WETLANDS INVENTORY

1:100,000 MAP NARRATIVE

BLYTHEVILLE NW AND SW

DYERSBURG SW

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1:100,000 MAP NARRATIVE

INTRODUCTION

The U.S. Fish and Wildlife Service, Office of Habitat Resources, is conducting an inventory of the wetlands of the United States. The National Wetlands Inventory (NWI) is establishing a wetland data base in both map and computer forms for the entire country. The NWI information will serve to identify the current status of U.S. wetlands and can be used as a reference point from which future changes in wetlands can be evaluated.

PURPOSE

The purpose of Notes to Users is to provide general information regarding the production of NWI maps and wetlands found within a relatively similar geographic area. Notes to Users are not intended to include complete descriptions of all wetlands found in the area nor provide complete plant species information.

AREA COVERED

The study area is defined as the western half of the Blytheville 1:250,000 and the SW Quadrant of the Dyersburg 1:250,000. The area covered lies between 35° - 36° 30' north latitude by 89° - 90° west longitude. (See Index Map A). The study area is bound on the west by the Mississippi River and on the north and south by the state borders of Tennessee. The eastern border is the 89°W long. line. Important wetland areas included are the Mississippi R., the Hatchie R., the Obion R., the Wolf R., the Loosahatchie R., and the North, Middle, and South Forks of the Forked Deer R..

BAILEY'S ECOREGIONS:

The Blytheville SW 1:100,000 lies fully within the Eastern Deciduous Forest Province. The Blytheville NW and Dyersburg SW 1:100,000's are divided into two physiographic regions. They are the Eastern Deciduous Forest and the Outer Coastal Plain Forest Province. The Outer Coastal Plain Forest Province is represented in the western section of Dyersburg SW and the NW section of Blytheville NW in a narrow strip along the Mississippi R. floodplain. The Eastern Deciduous Forest Province covers the remainder of the study area.

In general, the landscape is rolling, but this varies to steep bluffs along the outer edge of the Mississippi River floodplain to the virtually flat Mississippi River floodplain itself.

In the Outer Coastal Plain Forest Province, the forest vegetation is dominated by the magnolia and laurel families (Bailey '80). These forests often have a well defined understory of shrubs and herbaceous plants.

The climax vegetation in the Eastern Deciduous Forest Province include oak (Quercus sp.), maple (Acer sp.), hickory (Carya sp.), sweetgum (Liquidambar styraciflua), and ash (Fraxinus sp.). Low lying areas are dominated by cypress (Taxodium distichum) and willow (salix sp.).

Climate conditions are continental with average annual precipitation being from 35 to 60 inches. A small water deficit may occur during the summer, whereas in spring, a large surplus may develop. The average annual temperature range is 40° - 60° F (4° - 15°C).

Soil is an important element of hydric conditions and is one of the criteria used to determine wetlands. The soils in the study area are widely varied. Most of the hydric soils occur within the river floodplains. Common hydric soils encountered within the study area are Calloway, Falaya, and Waverly series as well as sandy alluvium and swamp series.

Map Preparation

Wetland classification for the NWI maps is in accordance with "Classification of Wetlands and Deepwater Habitats of the United States" by L. M. Cowardin, et. al., 1979.

Wetland classification and delineations were produced by photo interpretation of high level aerial photography. The photography used was NHAP color infrared at a scale of 1:58,000. The photography was taken during April of 1980, February of 1981, and March of 1981. To accurately classify the wetlands, ground truthing, soil surveys, and input from regional USFWS personnel were used to relate various photographic signatures to actual wetland identification and classification.

Collateral data included U.S.G.S. topographic quadrangles (7.5 minute series), SCS soil surveys, and previous photo interpretation.

USER CAUTION

The map documents were prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology and geography. The aerial photographs typically reflected conditions during the specific year and season when they were taken. In addition, there is a margin of error inherent in the use of aerial photographs. Thus a detailed on-the-ground and historical analysis of a single site may result in revision of the wetland boundaries established through photographic interpretation. In addition, some small wetlands and those obscured by dense forest cover may not be included on the map document.

Federal, State and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define limits of proprietary jurisdiction of any Federal, State or local government or to establish the geographical scope of regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, State or local agencies concerning specific agency regulatory programs and proprietary jurisdictions that may affect such activities.

Changes in the landscape and/or land use could have occurred since the time of photography. Therefore, some discrepancies between the wetland map and current field conditions may exist. Any questions concerning wetland omissions, inclusions, or errors should be brought to the attention of the Regional Wetlands Coordinator, Region 4.

WETLANDS AND DEEPWATER HABITATS

Wetlands and deepwater habitats within the subject area fall within the Palustrine, Lacustrine and Riverine systems. Deepwater habitats are areas which are permanently flooded (except during periods of extreme drought) and are characterized by open water on the aerial photography. These habitats are present in all systems (see Table 1).

CHARACTERISTICS OF NWI WETLAND SYSTEMS IN BLYTHEVILLE SW AND NW, DYERSBURG SW

MARINE AND ESTUARINE SYSTEMS

Not represented in the study area.

Palustrine

Numerous palustrine open water (ow) areas are present within the study area, with the majority being impounded (h) or excavated (x). Other open water areas are natural ponds or oxbow lakes. Some areas of palustrine open water are vegetated with aquatic bed (AB). These were classified as unknown surface (PAB6). The unknown classification was due to the inaccessibility of the areas in which the aquatic bed occurs.

Palustrine emergents (EM) are not abundant in the study area. Those present are often located in disturbed areas and along the shores of areas of open water. The most common emergents observed in the study area were smartweed (Polygonum sp.), rushes (Juncus sp.), and bulrush (Scirpus sp.). Other less common emergents were cattail (Typha sp.), cutgrass (Leersia sp.), and sawgrass (Cladium sp.). One permanently flooded (H) palustrine open water contained American Lotus (Nelumbo lutea).

Forest and scrub-shrub wetlands dominate the study area. Palustrine scrub-shrub (PSS) and palustrine forested (PFO) wetlands are characterized by woody species. The classification of scrub-shrub or forested wetlands is determined by the height of woody vegetation, the forested being taller than 6 meters and scrub-shrub being less than 6 meters. Commonly encountered species of scrub-shrub in the temporarily flooded (A) water regime are elm (Ulmus sp.), sweetgum (Liquidambar styraciflua), box elder (Acer negundo), and river birch (Betula nigra). Commonly encountered scrub-shrub species in the seasonally flooded (c) water regime are willow (Salix sp.) and sycamore (Platanus occidentalis). In the semi-permanently flooded (F) water regime willow (Salix sp.), buttonbush (Cephalanthus sp.), and hibiscus (Hibiscus sp.) were most commonly seen. Most forested areas are supported on river floodplains under temporarily flooded conditions. Common species occurring here are oaks (Quercus sp.), sycamore (Platanus occidentalis), red maple (Acer rubrum), silver maple (Acer saccharinum), sweetgum (Liquidambar styraciflua), greenash (Fraxinus pennsylvanica), willows (Salix sp.), and river birch (Betula nigra). Common species in seasonal areas include sweetgum (Liquidambar styraciflua), sycamore (Platanus occidentalis), silver maple (Acer saccharinum), oaks (Quercus sp.), with cherrybark oak (Q. falcata pagodifolia), and swamp chestnut oak (Q. mishauxii) being the most abundant. Less common are pin oak (Q. palustris) and willow oak (Q. phellos). Also commonly occurring in the seasonal water regime are red maple (Acer rubrum), willows (Salix sp.), American and winged elm (Ulmus americana), and (U. alata), box elder (Acer negundo) respectively.

Willow (Salix sp.) is the most common species occurring in the semipermanently flooded water regime. Many times occurring in pure stands. Other common species are sweetgum (L. Styraciflua), cypress (T. distichum), locust (Gleditsia sp.), and tupelo (Nyssa aquatica). Somewhat less commonly occurring are willow oak (Q. phellos), swamp chestnut oak (Q. mishauxii), overcup oak (Q. lyrata), and water oak (Q. nigra).

In some instances cypress occurs in pure stands. These occur in semi-permanently flooded (F), intermittently exposed (G) and permanent (H) water regimes. Cypress may also be classified in conjunction with the open water (ow) class.

Lacustrine

Natural or artificial open water bodies greater than 20 acres are classified as Lacustrine. The Lacustrine system on the NWI maps include the classes of open water (L1OW), unconsolidated bottom (L2UB), unconsolidated shore (L2US), and aquatic bed (L1AB). Lacustrine open water is a deepwater habitat. Nonvegetated Lacustrine substrates which are exposed at sometime during the growing season are classified as Lacustrine unconsolidated shore. The modifiers "h" and "x" are used in the study area. Lacustrine aquatic bed will be classified as unknown due to the inaccessability of the areas in which the aquatic bed occurs.

Riverine

The Riverine system includes the classes open water (OW), unconsolidated shore (US), and streambed (SB). Open water and unconsolidated shore are restricted to the riverine lower perennial (R2) subsystem. Streams which do not flow year round are classified as riverine intermittent streambeds (R4SB). some streams are excavated (x) to improve drainage. In cases of streamside vegetation, these are mapped as palustrine features.

Water Regime

Hydrologic characteristics are an important aspect of wetlands. The following water regimes describe in general terms the duration and timing of surface inundation, as well as ground-water fluctuations.

Temporarily Flooded (A) -- Surface water present for brief periods during growing season, but water table usually lies well below surface.

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

Seasonally Flooded (C) -- 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 variable, ranging from a saturated condition to one in which the water table is well below the surface of the ground.

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

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

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

Special modifiers included on these NWI maps, where applicable, are:

Partly Drained (d) -- The water level has been artificially lowered, but the area is still classified as a wetland because soil moisture is sufficient to support hydrophytes. Drained areas are no longer considered wetlands when they are unable to support hydrophytes.

Diked Impounded (h): Created or modified by a barrier, dike, or dam which obstructs the inflow or outflow of water.

Excavated (x): Lies within a basin or channel excavated by man.

Bibliography

- Bailey, R.G., 1980. Description of the Ecoregions of the United States. U.S. Department of Agriculture, Forest Service.
- Cowardin, L.M., et. al., 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 Madison County, Tennessee, April 1978. U.S. Department of Agriculture, Soil Conservation Service.
- Soil Survey of Fayette County, Tennessee, March 1964. U.S. Department of Agriculture, Soil Conservation Service.
- Soil Survey of Shelby County, Tennessee, November 1970. U.S. Department of Agriculture, Soil Conservation Service.
- Soil Survey of Lake County, Tennessee, September 1969. U.S. Department of Agriculture, Soil Conservation Service.
- Soil Survey of Obion County, Tennessee, January 1973. U.S. Department of Agriculture, Soil Conservation Service.
- Soil Survey of Dyer County, Tennessee, November 1965. U.S. Department of Agriculture, Soil Conservation Service.

Table 1

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION SUBSTRATE
L10W	Lacustrine open water	Lake	Open water
L2US	Lacustrine littoral unconsolidated shore	Lake Bed	Unvegetated mud, sand, gravel
L2UB	Lacustrine littoral unconsolidated bottom	Lake Bottom	Unvegetated mud, sand, gravel
L2AB6	Lacustrine unknown floating aquatic bed	Pondweeds, waterweeds	Unknown
R20W	Riverine lower perennial open water	River, stream	Open water, year-round flow
R4SB	Riverine intermittent streambed	Intermittent stream	Unvegetated river bottom
R2US	Riverine unconsolidated shore	River bar, river flat	Unvegetated mud, sand, gravel
POW	Palustrine open water	Pond	Open water
PAB6	Palustrine aquatic bed	Pondweeds, waterweeds	Unknown
PUS	Palustrine unconsolidated shore	Pond shore	Unvegetated mud, sand, gravel
PEM1	Persistent palustrine emergents	Marsh, wet meadow	<u>Polygonum</u> sp. (smartweed) <u>Juncus</u> sp. (rushes) <u>Scirpus</u> sp. (bulrush)
PSS1	Palustrine scrub-shrub, broadleaf deciduous	Shrub swamp	<u>Salix</u> sp. (willow) <u>Cephalanthus</u> sp. (buttonbush)
PSS6	Palustrine scrub-shrub, deciduous	Shrub swamp	<u>Ulmus</u> sp. (elm) <u>Taxodium distichum</u> (cypress) <u>Salix</u> sp. (willow)

Table 1

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION SUBSTRATE
PF01	Palustrine forested, broadleaf deciduous	Forested wetland	<u>Quercus sp.</u> (oaks) <u>Platanus occidentalis</u> sycamore <u>Acer rubrum</u> (red maple) <u>Acer saccharinum</u> (silver maple) <u>Liquidambar styraciflua</u> (sweetgum) <u>Fraxinus pennsylvanica</u> (greenash) <u>Salix sp.</u> (willows) <u>Betula nigra</u> (river birch)
PF06	Palustrine forested, deciduous	Forested wetland	<u>Taxodium distichum</u> (cypress) <u>Fraxinus sp.</u> (ash) <u>Betula nigra</u> (river birch) <u>quercus bicolor</u> (swamp white oak) <u>Salix sp.</u> (willow)
PF02	Palustrine forested, needle-leaved deciduous	Forested swamp	<u>Taxodium distichum</u> (cypress)