

**DRAFT**

NATIONAL WETLANDS INVENTORY

NOTES TO USERS

PADUCAH SW

1:100,000 SCALE MAP

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Map Preparation

The wetland classifications that appear on the Paducah SW National Wetlands Inventory (NWI) map are in accordance with Cowardin et. al. (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared aerial photographs taken during 11/81, 4/82, 3/83, 11/83 and 4/84. Initial ground truthing of the photography was completed between 5/20/85 and 5/25/85.

The user of the map is cautioned that, due to the limitation of mapping primarily through aerial photointerpretation, a small percentage of wetlands may have gone unidentified. Changes in the landscape could have occurred since the time of photography, therefore, some discrepancies between the map and current field conditions may exist. Any discrepancies that are encountered in the use of this map should be brought to the attention of Ron Erickson, Regional Wetlands Coordinator; U.S. Fish & Wildlife Service, Region 3, Federal Building, Ft. Snelling, Twin Cities, MN. 55111

Geography

This 1:100,000 scale map is located in the southern tip of Illinois. Baileys Ecoregion Classification (1978) divides the area into two divisions, the Humid Warm-Summer Continental, and the Humid Subtropical Division.

The southern most half of the mapping area (Humid Subtropical) is furthered classified as the Outer Coastal Plain Forest Province, Southern Floodplain Forest Section. This province ranges from the southern gulf coastal plains up along the Mississippi River. The stream and river movement is sluggish, and marshes, swamps and lakes are numerous. There is little relief. Bald Cypress and willow are dominant in the swamps. Other species found in poorly drained area include maple, oaks, elm, ash and hickory.

The northern half of the map (warm-summer continental) is in the Eastern Deciduous Province, Oak-Hickory section. This area is composed primarily of rolling hills. Some areas were once inundated by glaciers. The area is dominated by tall broadleaf deciduous trees which provide a dense canopy in summer. In poorly drained habitats dominant species are willow, ash and elm.

## Climate

Evident by the extensive forests and woodland in the area, precipitation is adequate in all months. Average annual precipitation is between 35 to 60 inches. Due to high evapotranspiration, a surplus of water occurs in spring and a slight deficit occurs in summer. This happens in spite of higher precipitation during summer months. Average annual temperatures are between 40° - 60°F.

## Wetland Communities

As mentioned earlier, the Paducah SW map covers two distinct ecoregions; the Eastern Deciduous Forest Province to the north and the Outer Coastal Plain Forest Province to the south, and along the Mississippi floodplain.

The meandering Mississippi and Ohio Rivers associated swamps and oxbows typify the natural wetland areas. Much of the floodplain however is utilized intensively for agricultural practices. These are some of the most productive bottom lands in the U.S. Much artificial drainage has taken place to utilize these areas. Though many wet depressions and meander scars remain within the farmed land, they are often void of natural vegetation due to agricultural practices. Since these areas do hold water early in the year and are frequented by waterfowl, they are mapped as temporary or seasonal emergent wetlands (PEMA or PEMC). When they are also farmed in late spring, the farmed modifier will be used at the end of the label (PEMAf or PEMCf).

Where agriculture has not invaded the floodplains, lush, productive swamps remain. Characteristic semipermanently flooded trees include bald cypress (Taxodium distichum), tupelo (Nyssa sp.) and willow (Salix sp.). Common species in seasonally and temporarily wet areas are silver maple (Acer saccharinum), red maple (A. rubrum), box elder (A. negundo), eastern cottonwood (Populus deltoides), locust (Gleditsia sp.), slippery and american elm (Ulmus sp.), ash (Fraxinus sp.), pin, white, burr, and water oak (Quercus sp.), hackberry (Celtis sp.) willow (Salix sp.) and dogwood (Cornus sp.). Typical shrubs in seasonal and semipermanent areas include buttonbush (Cephalanthus occidentalis) and willow. Temporarily wet scrub shrub communities were most often tree saplings occurring within or on the edges of forests.

Common seasonal and semipermanently wet emergent habitats include cattail (Typha latifolia), reed grass (Phragmites sp.), sedges (Carex sp.), bulrush (Scirpus), rush (Juncus sp.), sweatflag (Acorus sp.), arrow arum (Peltandra sp.), loosestrife (Lythrum sp.), Water willow (Decadon sp.), and spike rush (Eleocharis sp.). Temporary areas supported a wide variety of grasses along with dock (Rumex sp.) smartweed (Polygonum sp.), and cut grass (Leersia sp.).

Semipermanently wet emergent basins and farm ponds often supported a variety of aquatic vegetation. The only floating vascular plant observed in the field was duckweed (Lemna sp.). Rooted vascular species include water lily (Nymphaea sp.) pondweed (Potamogeton sp.) and creeping willow primrose (Ludwigia sp.).

Major river systems include the Mississippi, the Ohio and a small portion of the Cache. Near the confluence of the Mississippi and Ohio rivers expansive swamps and oxbow lakes remain. These areas include Horseshoe Lake, Clear Lake, Fish Lake, Minor Lake and Axe Lake. In the state of Missouri, west of the Mississippi, many of the river systems consist of a bedrock bottom. These bottoms are usually only covered with water on a temporary basis, with the exception of the main stream channel which flows year round. These river systems approach our minimum mapping units. The exposed bedrock has been classified rather than the narrow channel of perennial water.

| NWI CODE | NWI DESCRIPTION                                    | COMMON DESCRIPTION      | CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES  |
|----------|--|-------------------------|---|
| R4SB     | Riverine, Intermittent, Streambed                  | Creek, Streambed        | Unvegetated. Sand Cobble-Gravel   |
| R2UB     | Riverine, Lower Perennial<br>Unconsolidated Bottom | River                   | Unvegetated. Mud Sand, Cobble-Gravel  |
| R2RB1    | Riverine, Lower Perennial. Rocky Bottom            | River<br>Rock Bottom    | Unvegetated. Rock Bottom. Bedrock   |
| R2US     | Riverine Lower Perennial. Unconsolidated shore     | River Flat              | Unvegetated. sand to Cobble-Gravel  |
| L1UB     | Lacustrine Limnetic Unconsolidated Bottom          | Open water, Lake        | Unvegetated. Sand to Mud  |
| L2UB     | Lacustrine Littoral Unconsolidated Bottom          | Shallow Lake            | Unvegetated Sand to Mud   |
| L2US     | Lacustrine Littoral Unconsolidated Shore           | Lake Shore              | Unvegetated. Sand to Cobble-Gravel  |
| L1AB     | Lacustrine Limnetic Aquatic Bed                    | Pond Weeds, Water Weeds | Duckweed ( <u>Lemna sp.</u> )   |
| PUB      | Palustrine Unconsolidated Bottom                   | Open water, Pond        | Unvegetated Sand to Mud   |
| PAB      | Palustrine Aquatic Bed                             | Pond Weeds, Water Weeds | Duckweed ( <u>Lemna sp.</u> )<br>Water Lily ( <u>Nymphaea sp.</u> )<br>Creeping willow primrose ( <u>Ludwigia sp.</u> ) |

| NWI CODE | NWI DESCRIPTION                                     | COMMON DESCRIPTION | CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES   |
|----------|---|--------------------|--|
| PEM      | Palustrine<br>Persistent<br>Emergents               | Marsh or Meadow    | Cattail ( <u>Typha latifolia</u> )<br>Reedgrass<br>( <u>Phragmites sp.</u> )<br>Sedges<br>( <u>Carex sp.</u> )<br>Bulrush<br>( <u>Scirpus sp.</u> )<br>Rush<br>( <u>Juncus sp.</u> )<br>Sweetflag<br>( <u>Acorus sp.</u> )<br>Loosestrife<br>( <u>Lythrum sp.</u> )<br>Spikerush<br>( <u>Eleocharis sp.</u> )<br>Dock<br>( <u>Rumex sp.</u> )<br>Smartweed<br>( <u>Polygonum sp.</u> )<br>Cutgrass<br>( <u>Leersia sp.</u> )<br>Water Willow<br>( <u>Decodon sp.</u> ) |
| PF02     | Palustrine<br>Forested<br>Needleleaved<br>Deciduous | Cypress Swamp      | Bald Cypress<br>( <u>Taxodium distichium</u> )   |
| PF01/2   | Palustrine<br>Forested<br>Mixed Deciduous           | Forested Wetland   | Tupelo ( <u>Nyssa sp.</u> )<br>Bald Cypress<br>( <u>Taxodium distichium</u> )  |
| PF01     | Palustrine<br>Forested<br>Broadleaved<br>Deciduous  | Forested Wetland   | Silver Maple ( <u>Acer saccharinum</u> )<br>Red Maple<br>( <u>Acer rubrum</u> )<br>Box elder<br>( <u>Acer negundo</u> )<br>Cottonwood<br>( <u>Populus deltoides</u> )<br>Locust<br>( <u>Gleditsia sp.</u> )<br>Slippery elm<br>( <u>Ulmus rubra</u> )  |

| NWI CODE | NWI DESCRIPTION                                    | COMMON DESCRIPTION | CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES  |
|----------|--|--------------------|---|
| PF01     | Palustrine<br>Forested<br>Broadleaved<br>Deciduous | Forested Wetland   | American elm<br>( <u>Ulmus americana</u> )<br>Ash ( <u>Fraxinus sp.</u> )<br>Pin, White, Burr and<br>Water oaks<br>( <u>Quercus sp.</u> )<br>Hackberry<br>( <u>Cetis sp.</u> )<br>Willow ( <u>Salix sp.</u> ) |

## BIBLIOGRAPHY

The purpose of this report is to provide general information about wetland classifications found within the area covered by the Base Map. There has been no attempt to describe all wetlands occurring in the area nor provide complete faunal and floral lists of those wetlands discussed. The references listed below refer to literature cited in the text of this report.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1977. Classification of wetlands and deepwater habitats of the United States (an operational draft). USDI. Fish and wildl. Serv. Wash., D.C. 100 p.

Bailey, R.G. 1978. Description of the ecoregions of the United States. USDA For. Serv., Intermt. Reg., Ogden, UT. 77 p.

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