

**DRAFT**

**NATIONAL WETLANDS INVENTORY**

**NOTES TO USERS**

**1: 100,000 SCALE MAP**

**VINCENNES NW**

# NATIONAL WETLANDS INVENTORY

## 1:100,000 MAP NARRATIVE

### VINCENNES NW

#### 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 a complete description of all wetlands found in the area nor provide complete plant species information.

#### MAP PREPARATION

Wetland classification for the NWI maps is in accordance with the "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 and November of 1985 and May of 1984. To correctly classify the wetlands, ground truthing, soil surveys, and input from regional U.S.F.W.S. personnel were used to relate the various photographic signatures to actual wetland identification and classification. Initial ground truthing with the photography occurred in May of 1986. Collateral data included U.S.G.S. topographic maps (7.5 and 15 minute series), and vegetation information.

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 or habitat 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 and Wildlife Service, Region 3, Federal Building, Ft. Snelling, Twin Cities, MN 55111.

## GEOGRAPHY

The mapping area covered is located in south eastern Illinois, just north of Mount Carmel and extending northward to 39°00' N. latitude. The western boundary lies along 88°00' W. longitude. The eastern boundary is along the Indiana/Illinois border defined by the Wabash River. Lawrenceville is in the approximate center of the area with the towns of Robinson and Oblong falling on the northern border.

Baileys ecoregion classification (1980) identifies the area in the Prairie Parkland Province, Oak-Hickory-Bluestem Parkland section. It is characterized by its gently rolling topography, with steep bluffs and ravines bordering the valley floodplains. The vegetation consists of both prairies and deciduous forests, resulting primarily from the local conditions of soil and slope. The forested stands are generally restricted to the floodplains, depressions, and on moist slopes. The prairies consist largely of grasses, however, much of the area is now under till. Soil is an important element of hydric conditions and is one of the criteria used to define wetlands. Surveys, prepared by the Soil Conservation Service, serve as an aid in properly identifying wetland habitats.

## CLIMATE

Climatic conditions for the study area fall into the subhumid classification. Temperatures are high in the summer (can average up to 55°F) and are mild in winter. The average annual precipitation is between 23-40 inches and occurs primarily during the growing season.

## WETLAND COMMUNITIES

Wetlands and deepwater habitats within the area fall within the Palustrine, Lacustrine, and Riverine systems. Deepwater habitats are areas which are permanently flooded and are characterized by open water on the aerial photography. These habitats are present in the Riverine and Lacustrine systems, while wetland habitats are present in all systems. (See table 1)

Numerous palustrine unconsolidated bottom (PUB) areas are present within the study area, with the majority being excavated (x) or impounded (h) farm ponds. All of the farm ponds are delineated as intermittently exposed (G), except in instances where the pond is 1-2 acres in size. In this case, the pond may be classified as semipermanently flooded (F). Sewage treatment ponds will be classified as artificially flooded, impounded (PUBKh). Other unconsolidated bottom areas present are natural ponds.

Palustrine water bodies are often vegetated with a rooted vascular and floating vascular aquatic bed (PAB). This mixed community of mosses, duckweed (*Lemna* spp.), and other weeds, was often not discernable on the photography. These aquatics are only classified when visible on the photography or ground truthed as such.

Palustrine emergents (PEM) are abundant in the area. They range from temporarily (A) to seasonally (C) and semipermanently (F) flooded water regimes. Species commonly encountered in temporarily and seasonally flooded habitats include reed canary grass (Phalaris arundinacea), ragweed (Ambrosia spp.), golden rod (Solidago spp.), sedge (Carex spp.), cocklebur (Xanthium sp.), smartweed (Polygonum spp.), spike rush (Eleocharis spp.), (Cyperus spp.), and foxtail (Setaria spp.). Species present in semipermanently flooded areas include cattail (Typha spp.), reed canary grass, and smartweed. Emergents found in seasonal and semipermanent conditions are often located in old river meanders, sloughs, low pockets, and in backwaters of impounded reservoirs.

Basins located in agricultural fields are often found to support emergents when not drained or otherwise manipulated. Some basins hold water early in the growing season, but are later farmed. The farmed modifier (f) is used when delineating such emergent habitats.

Palustrine scrub shrub (PSS) and palustrine forested (PFO) wetlands are characterized by woody species. The scrub shrub habitats are often found on the perimeters of emergent wetlands, with either temporary or seasonal water regimes. Willow (Salix spp.) is the dominant species of the scrub shrub habitat, along with buttonbush (Cephalanthus occidentalis), green ash (Fraxinus pennsylvanica) and silver maple (Acer saccharinum). The palustrine forested wetlands are found predominantly in the floodplains of the drainages in the area. The majority of the forested wetlands flood on a temporary basis. Common species occurring in these areas include silver maple, green ash, willow, cotton wood (Populus deltoides), elm (Ulmus spp.), box elder (Acer negundo), osage orange (Maclura pomifera), oak (Quercus spp.), sycamore (Platanus occidentalis), hackberry (Celtis spp.), honey locust (Gleditsia triacanthos), slippery elm (Ulmus rubra), and swamp chestnut oak (Quercus prinus). Old meander scars, sloughs and low pockets often support seasonally flooded forests supporting the following species: silver maple, willow, elm, cottonwood, sycamore, red maple, river birch (Betula nigra) and green ash. No semi-permanently flooded forests were observed in the field.

The riverine system includes the classes: unconsolidated bottom (UB), unconsolidated shore (US), and streambed (SB). Unconsolidated bottom and shore are restricted to the riverine lower perennial (R2) subsystem. Intermittent streams are classified as having semipermanent flow (R4SBF). U.S.G.S. topographic information is used to determine intermittent and perennial breaks along the riverine system. Small perennial and intermittent streams are often entrenched, drawing down quickly after flooding. Forested areas along these channels often do not pond or retain water. Many rivers and streams are excavated (x) to improve drainage. In instances of streamside vegetation which sustains flooding, the stream is delineated as a palustrine feature.

Natural or artificial open water bodies greater than 20 acres are classified as lacustrine. These large bodies have been created through excavation (x) or by impounding (h) rivers and streams. Strip mines greater than 20 acres will be classified limnetic and permanent. Sewage treatment plants with impoundments greater than 20 acres will be considered artificially flooded. Power plant reservoirs which are also larger than 20 acres will carry the impounded modifier and be classified limnetic. Generally, these large open water systems are classified as limnetic (L1) with an unconsolidated bottom, and are considered to be permanently flooded (H).

#### BIBLIOGRAPHY

Bailey, Robert G., 1980. Description of the Ecoregions of the United States. U.S. Department of Agriculture Forest Service, Ogden, UT.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe, 1977. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, D.C.

Reed, P.B. Jr., 1986. Wetland Plants of the State of Illinois 1986. U.S. Department of Interior, Fish and Wildlife Service, Army Corps of Engineers, Environmental Protection Agency, Soil Conservation Service, in cooperation with the National and Regional Wetland Plant List Review Panels.

Young, K., Chairman, Soil Survey Division, SCS, Washington, D.C., 1985. Hydric Soils of the State of Illinois 1985. U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the National Committee for Hydric Soils.

TABLE 1

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES
R4SB	Riverine, intermittent, streambed	Creek, Streambed, Canal	Unvegetated. Sand to cobble-gravel
R2UB	Riverine, lower perennial, unconsolidated bottom	River	Unvegetated. Mud to sand, cobble-gravel
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</u> spp.)
PUB	Palustrine unconsolidated bottom	Open water, pond	Unvegetated. Sand to mud
PAB	Palustrine aquatic bed	Pond weeds, water weeds	Duckweed ( <u>Lemna</u> spp.) Pondweed ( <u>Potamogeton</u> spp.)
PEM	Palustrine emergents	Marsh or meadow	Cattail ( <u>Typha latifolia</u> ) Reed canary grass ( <u>Phalaris</u> spp.)

TABLE 1

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES
PEM (con't)	Palustrine emergents	Marsh or meadow	Bullrushes ( <u>Scirpus</u> sp.) Spike Rush ( <u>Eleocharis</u> sp.) Sedges ( <u>Carex</u> sp.) Arrowhead ( <u>Sagittaria</u> sp.) Smartweed ( <u>Polygonum</u> sp.) Cutgrass ( <u>Leersia</u> sp.) Dock ( <u>Rumex</u> sp.) Cocklebur ( <u>Xanthium</u> sp.) Giant Ragweed ( <u>Ambrosia trifida</u> ) Velvetleaf ( <u>Abutilon theophrasti</u> )
PSS	Palustrine scrub shrub	Shrub wetland	Willow ( <u>Salix</u> sp.) Buttonbush ( <u>Cephalanthus occidentalis</u> )
PFO	Palustrine forested	Forested wetland	Silver maple ( <u>Acer saccharinum</u> ) Cottonwood ( <u>Populus deltoides</u> ) Willow ( <u>Salix</u> sp.) Box elder ( <u>Acer negundo</u> ) Green ash ( <u>Fraxinus pennsylvanica</u> ) Slippery elm ( <u>Ulmus rubra</u> ) American elm ( <u>Ulmus americana</u> )

NWI#14

TABLE 1

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES
			Honey locust ( <u>Gleditsia triacanthos</u> ) Sycamore ( <u>Platanus occidentalis</u> ) River birch ( <u>Betula nigra</u> ) Red Mulberry ( <u>Morus rubra</u> ) Hackberry ( <u>Celtis sp.</u> )

NWI#19