

DRAFT

NATIONAL WETLANDS INVENTORY

NOTES TO USERS

1: 100,000 SCALE MAP

PEORIA SW

NATIONAL WETLANDS INVENTORY

1:100,000 MAP NARRATIVE

PEORIA SW

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 May of 1983 and March of 1986. 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 on December 13, 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 area covered by Peoria SW map is located in central Illinois, covering from 89°00'W to 90°00'W longitude and 40°00'N to 40°30'N latitude. Bailey's Ecoregion Classification (1980) identifies the area in the Prairie-Parkland Province, Oak-Hickory-Bluestem Parkland Section (2511L).

The topography of the area has been glaciated. It is characterized predominantly by partially flat, smooth plains in the central and eastern portions of the area. Irregular plains are found towards the west and northwestern section. Twenty to fifty percent of this area is gently sloping. Located along the Illinois River Valley are flat plains, which are also in the northwestern corner of the area.

Vegetation in the project area is classified by Bailey as forest-steppe. Trees grow commonly near streams and on north facing slopes. The upland forest is dominated by oak and hickory while the floodplains are dominated by a fertile forest of deciduous trees. Prairie vegetation consist primarily of grasses, however, much of the area is tilled.

The largest river system located in the northwestern corner of the project area is the Illinois river. It has been described as a sluggish river, primarily due to it's nearly level floodplain and relatively insignificant volume. (Mills, Starrett and Belrose) This is largely due to the extensive lock and dam systems and that the river is located in the Illinois Valley, a glacial feature. The Sangamon River, Mackinaw River, Little Mackinaw River and Salt Creek are the other major drainages in the area. These and other numerous creeks and streams serve as tributaries to the Illinois and flow predominately westward at a slightly steeper gradient. The major lakes in the area are the bottomland lakes found along the Illinois. They are Lake Chautauqua, Clear Lake, Goose Lake and Rice Lake. Numerous small impounded reservoirs and ponds are also scattered throughout the area.

CLIMATE

The climate of the project area is classified by Bailey as being the Subhumid Prairie Division in the Humid Temperate Domain. This is a continental climate characterized by great temperature changes throughout the year. Temperatures often drop below 0°F in the winter and reach 100°F in the summer. The average annual winter and summer temperatures are 32° and 72°F respectively. The average annual temperature is 53°F. The average annual precipitation is approximately 38 inches. The greatest amount falls in May and June which averages more than 4 inches per month. This is also during the early part of the growing season. The months of December - February experience the least amount of rainfall at an average of 2 inches per month. Prolonged dry periods during the growing season are not unusual. Major droughts are infrequent. Precipitation during the summer months occurs mostly as showers and thunderstorms, usually of brief durations.

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), smartweed (Polygonum spp.), sedge (Carex spp.), spike rush (Eleocharis spp.), foxtail (Setaria spp.), giant ragweed (Ambrosia trifida), wild rye (Elymus spp.), cocklebur (Xanthium spp.), evening primrose (Oenothera bennis), pigweed (Chenopodium album), velvet leaf (Abutilon theophrasti), greebriar (Smilax spp.), stinging nettle (Urtica spp.), ragweed (Ambrosia spp.), poison ively (Rhus radicans) and grape vine (Vitis spp.). Species present in semipermanently flooded areas would 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. The

palustrine forested wetlands are found predominately 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 (Acer saccharinum), red maple (Acer negundo), cotton wood (Populus deltoides), green ash (Fraxinus pennsylvanica), american elm (Ulmus americana), box elder (Acer negundo), honey locust (Gleditsia triacanthos), sycamore (Platanus occidentalis), osage orange (Maclura pomifera) and overcup oak (Quercus lyrata). Old meander scars, sloughs and low pockets often support seasonally flooded forests supporting the following species: silver maple, willow, elm, cottonwood, sycamore, red maple 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. Most rivers and streams emptying into the Illinois floodplain or other major drainages in the area were identified as perennial by U.S.G.S. and are labeled accordingly (R2UBH). 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.

Mills, H.B., Starrett, W.C., Bellrose, F.C., 1966. Man's Effect on the Fish and Wildlife of the Illinois River. Illinois Natural History Survey Biological notes No. 57 Urbana, Illinois.

Downey, C.E., Odell, R.T., 1969. Soil Survey of Montgomery County, Illinois. U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the Illinois Agricultural Experiment Station.

Phillips, D.B., Goddard, T.M., 1983. Soil Survey of Bond County, Illinois. U.S. Department of Agriculture, Soil Conservation Service, in cooperation with the Illinois Agricultural Experiment Station.

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
R 4S B	Riverine, intermittent, streambed	Creek, streambed, canal	Unvegetated. Sand to cobble-gravel
R 2UB	Riverine, lower perennial, unconsolidated bottom	River	Unvegetated. Mud to sand, cobble-gravel
R 2US	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.
PUB	Palustrine unconsolidated bottom	Open water	Unvegetated. Sand to mud
PAB	Palustrine, aquatic bed	Pond Weeds, water weeds	Duckweed (<u>Lemna</u> spp.)
PEM	Palustrine	Marsh or meadow	Reed canary grass (<u>Phalaris</u> spp .) Spike Rush (<u>Eleocharis</u> sp.) Sedges (<u>Carex</u> sp.) Smartweed (<u>Polygonum</u> sp.) Cocklebur (<u>Xanthium</u> sp.) Giant Ragweed (<u>Ambrosia trifida</u>) Wild Rye (<u>Elymus</u> sp.) Evening primrose (<u>Oenothera biennis</u>)

NWI#67

TABLE 1

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION AND PHYSIOGRAPHIC FEATURES
PEM (cont)	Palustrine emergents	Marsh or meadow	Pigweed (<u>Chenopodium album</u>) Velvet leaf (<u>Abutilon theophrasti</u>) Greenbriar (<u>Smilax</u> sp.) Stinging nettle (<u>Urtica</u> sp.) Ragweed (<u>Ambrosia</u> sp.) Poison ively (<u>Rhus radicans</u>) Grape vine (<u>Vitis</u> sp.) Foxtail (<u>Setaria</u> sp.)
PSS	Palustrine scrub shrub	Shrub wetland	Willow (<u>Salix</u> sp.)
PFO	Palustrine forested	Forested wetland	Silver Maple (<u>Acer saccharinum</u>) Cottonwood (<u>Populus deltoides</u>) Box elder (<u>Acer negundo</u>) Green ash (<u>Fraxinus pennsylvanica</u>) Honey locust (<u>Gleditsia triacanthos</u>) Sycamore (<u>Platanus occidentalis</u>) Osage orange (<u>Maclura pomifera</u>) Red maple (<u>Acer rubrum</u>) Overcup oak (<u>Quercus lyrata</u>) American elm (<u>Ulmus americana</u>)

NWI #67