

C

DRAFT

NATIONAL WETLANDS INVENTORY

NOTES TO USERS

1:100,000 SCALE MAP

DAVENTON SW

(IOWA PORTION ONLY)

USER REPORT: DAVENPORT SW NATIONAL WETLANDS INVENTORY MAP

A. INTRODUCTION

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. Photo interpretation conventions, hydric soils lists and wetland plant lists are also available to enhance the use and application of the classifications 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 area being discussed in this report lies in southeastern Iowa, adjacent to the Mississippi River; from 41° 00' to 41° 30' North Latitude and from 91° 00' to 92° 00' West Longitude. Bailey (1980) classifies this area as being in the Prairie Parkland Province. (See Appendix I). The Interior Middle Upland Western Plains covers Davenport SW (Hammond 1965 and 1969). This land surface forms is characterized by gently rolling hills, although there are some broad flat areas. Davenport SW is dissected by moderately sloping drainage ways and was glaciated during the Wisconsin Ice Age.

The Cedar, Iowa, and Skunk Rivers are the most prominent drainages in the study area. These drainages all flow in a Southeastern direction emptying into the Mississippi River. It is along these rivers that the forested floodplains are found.

A portion of the Mississippi flyway is located in the work area. This flyway is one of the nations most important bird migration routes. A chain of refuges exist along the flyway. One of these refuges, The Lake Louise National Wildlife Refuge, is located in Davenport SW. This refuge is an extensive wetland that is controlled to provide migratory birds with food, water and undisturbed resting areas.

Climate:

The climate of Davenport SW is in the Subhumid Prairie Division (Bailey, 19^o0). The annual precipitation is approximately 30 inches. 75% of this precipitation falls in the growing season (April-September). The average snowfall is 20-40 inches. The average summer temperature is 73° F. A temperature of 90° F is reached at least twenty days during the warmest summer months. Average winter temperature is 29° F.

Vegetation:

The Davenport SW 100,000 scale map is covered by Prairie-Parkland vegetation. The vegetation of the Prairie-Parkland is forest-steppe, characterized by the intermingling of prairie and strips of deciduous trees. Much of the work area is under cultivation and forested stands are generally restricted to flood plains.

Soils:

Bottomland soils within Davenport SW are of the Wabash-Titus-Dolbee association and Nodaway-Lawson-Klum association. Soils of the Wabash-Titus-Dolbee association are poorly drained to very poorly drained, silty and clayey soils. These soils are found along the major rivers and on the wide floodplain of the Mississippi River. Soils of the Nodaway-Lawson-Klum association are moderately well drained to poorly drained, loamy and silty soils. These soils are found along both the major and minor streams. Three soils included in these associations, Wabash, Zook and Coland, are also found on the Hydric Soils of the State of Iowa.

In Upland areas, wetlands can be found on the soils of the Nira-Otley-Mahaska association, Mahaska-Taintor association, Givin-Hendrick-Ladoga association and Weller-Pershing-Grundy association. These associations have some poorly drained soils that are level to nearly level.

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

Table - Cowardin Classification Codes and Descriptions (1 of 2)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
L1UB (H)	Lacustrine, limnetic, unconsolidated bottom	Lakes	Sand, mud
L2US (A,C)	Lacustrine, littoral, unconsolidated shore	Shallow Lake	Sand, mud
R2UB (G,H)	Riverine, lower perennial, unconsolidated bottom	River	Sand, mud
R3UB (G,H)	Riverine, upper perennial, unconsolidated bottom	River/Stream	Sand, cobble, gravel bottom
R3AB (G,H)	Riverine, upper perennial, aquatic bed	River/Stream	Algae
R2US (A)	Riverine, lower perennial, unconsolidated shore	Sand Bar	Sand, cobble, gravel
R4SB (C,F)	Riverine, intermittent streambed	River/stream	Sand, mud, cobble, gravel
PUB (F,G,K)	Palustrine, unconsolidated bottom	Pond	Sand, mud
PAB (F,G)	Palustrine, aquatic bed	Farm Pond, deep Marsh, Reservoir	<u>Lemna minor</u> (duckweed) Green algae <u>Potamogeton</u> sp. (pondweed)
PEM (A,C,F)	Palustrine, emergent	Marsh, meadow, depressions, drainages, backwaters	<u>Typha</u> sp. (cattail) <u>Scirpus fluviatilis</u> (river bullrush) <u>Eleocharis</u> sp. (rush) <u>Carex</u> sp. (sedge) <u>Rumex crispus</u> (curly dock) <u>Hydrophyllum virginianum</u> (virginia waterleaf) <u>Solidago</u> sp. (goldenrod) <u>Rhus radicans</u> (poison ivy) <u>Urtica dioica</u> (stinging nettle) <u>Equisetum</u> sp. (horsetail) <u>Polygonum</u> sp. (smartweed) <u>Ambrosia trifida</u> (giant ragweed) <u>Xanthium</u> sp. (cocklebur) <u>Setaria</u> sp. (foxtail)

Table - Cowardin Classification Codes and Descriptions (2 of 2)

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PEM (cont)			<u>Phalaris arundinacea</u> (reed canary grass) <u>Smilax</u> sp. (green briar) <u>Geum laciniatum</u> (rough avens) <u>Scirpus cyperinus</u> (wool grass) <u>Bidens</u> sp. (beggarticks) <u>Phragmites</u> sp. (common reed)
PSS1 (A,C,F)	Palustrine, scrub-shrub, broad-leaved deciduous	Shrub,swamp	<u>Salix nigra</u> (willow) <u>Sambucus canadensis</u> (elderberry) <u>Cephalanthus occidentalis</u> (button bush)
PFO1 (A,C,F)	Palustrine, scrub-shrub, broad-leaved deciduous	Forested swamp floodplains	<u>Betula nigra</u> (river birch) <u>Salix nigra</u> (black willow) <u>Fraxinus pennsylvanica</u> (green ash) <u>Carya laciniosa</u> (shellbark hickory) <u>Acer saccharinum</u> (silver maple) <u>Acer negundo</u> (box elder) <u>Ulmus americana</u> (american elm) <u>Platanus occidentalis</u> (sycamore) <u>Quercus bicolor</u> (swamp white oak) <u>Populus deltoides</u> (cottonwood) <u>Quercus palustris</u> (pin oak) <u>Tilia americana</u> (basswood) <u>Cornus amomum</u> (silky dogwood) <u>Celtis occidentalis</u> (hackberry) <u>Liriodendron tulipifera</u> (yellow poplar)
h	Diked, Impounded	Dam or levee, reservoir	NA
x	Excavated	Channelized or ditched, strip mine	NA

Water Regime Description

- (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) Seasonably 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 extremely 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 classifications that appear on the Davenport SW National Wetlands Inventory (NWI) Base Map (Figure 1) are in accordance with Cowardin et al (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. The photography was taken during April 1983, May 1983 and April 1984.

Field checks of areas found within Davenport SW 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 survey, climate, vegetation, and ecoregional 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. 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 photointerpretation and drafting were completed by Martel Laboratories, Inc., St. Petersburg, Florida.

G. **SPECIAL MAPPING PROBLEMS**

The most significant problems encountered were determining upland-wetland breaks in flooded photography and tying photography with different emulsions. For this reason, photo signature, topo information and soil surveys were closely compared for interpretation.

H. **MAP ACQUISITION**

To discuss any questions concerning these maps or to place a map order, please contact:

Ron Erickson
Regional Wetland Coordinator
U.S. Fish and Wildlife Service - Region 3
Federal Building, Ft. Snelling
Twin Cities, MN 55111

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.

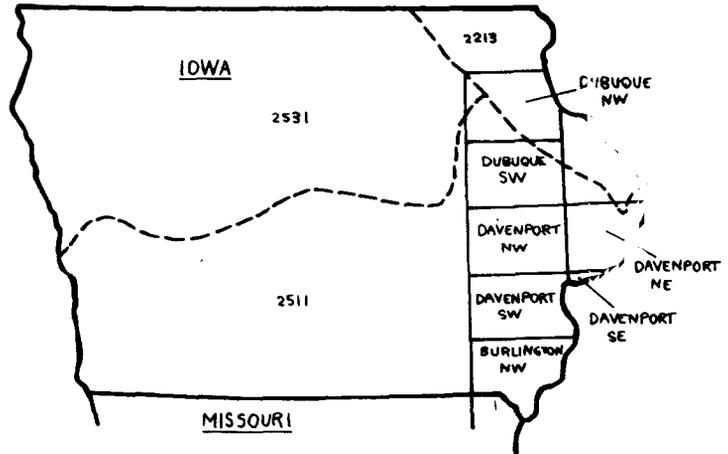
/mtrm:NWI

APPENDIX I

ECOREGIONS OF THE MISSISSIPPI RIVER ROUNDOUT PROJECT AREA

Prairie Parkland Province
2511-Oak-Hickory-Bluestem
Parkland Section

Tall Grass Prairie Province
2531-Bluestem Prairie Section



Eastern Deciduous Forest Province
2213-Maple-Basswood/Oak Savanna Section

Collateral Data

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

Cowardin, L.M.; V. Carter; F.C. Golet and E.T. LaRue, 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.

U.S.D.A. Soil Survey of Des Moines county.

Hydric Soils of the State of Iowa; 1985. U.S. Department of Agriculture, Soil Conservation Service.

Wetland Plants of the State of Iowa; 1986. U.S. Department of the Interior, Fish and Wildlife Service.