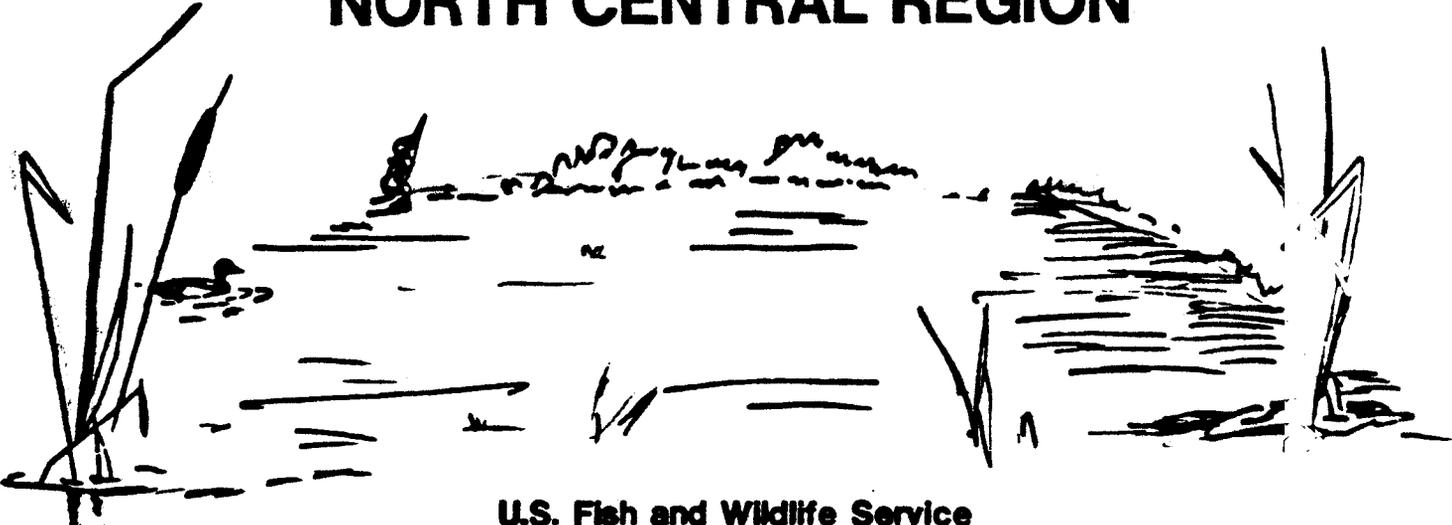


NATIONAL WETLAND INVENTORY USER REPORT 1:100,000 MAP AREA

MAP AREA: CLARKSBURG NE
1:100,000 NAME: MOUNDVILLE
STATE: OHIO



NORTH CENTRAL REGION



U.S. Fish and Wildlife Service
Federal Building, Fort Snelling Twin Cities, Minnesota 55111

**USER REPORT
NATIONAL WETLAND INVENTORY
U.S. FISH AND WILDLIFE SERVICE
REGION 3**



PREPARED BY

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USER CAUTION

Maps for this 1:100,000 scale map were prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with Classification of Wetlands and Deepwater Habitats of the United States, Cowardin, et al., 1979. The aerial photographs reflect conditions during the specific year and season when they were taken. Some small wetlands and those obscured by dense forest cover may not be included on the map document. In addition, there is a margin of error inherent in the use and interpretation 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.

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 design or products of this inventory, to define limits of proprietary jurisdiction of any local, State, or Federal 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 propriety jurisdictions that may affect such activities.

Additional information regarding this map or other National Wetland Inventory activities may be obtained by contacting:

Regional Director, Region 3 (AH/TS)
Attn: Regional Wetlands Coordinator
United States Fish and Wildlife Service
Federal Building, Fort Snelling
Twin Cities, Minnesota 55111

LOCATION OF REPORT
STATE OF OHIO



LOUISVILLE



Region 3

Fish and Wildlife Service

National Wetlands

CHARLESTON

DATE: December 1983

MAP PREPARATION

Basic Data

Photography Used:

<u>Emulsion</u>	<u>Scale</u>	<u>Date</u>	<u>Percent Coverage</u>
1. Black and white	1:80,000	March 1976	16%
2. Black and white	1:80,000	April 1, 1976	10%

Field Check Dates:

1. April 16-17, 1980

Contractor(s) for Photo Interpretation:

1. Earth Satellite Corporation
2. Revised in-house by Irene Kenenski, USFWS

Collateral Data Used:

1. USGS topographic quad sheets
2. USDA Soil Surveys
3. Wetlands Inventory of Ohio, 1955

Mapping Legend: (See Appendix D)

Farmed Wetlands

It is the policy of the Fish and Wildlife Service to not map farmed wetlands in the National Wetlands Inventory unless the wetland is a pothole-like depression, such as those found in the Prairie Pothole Region, intermittently flooded lake bottoms, cranberry bogs, or diked former tidelands in California. Therefore, this map area may contain various amounts of non-depression type wetlands which were farmed on the date of the photography and intentionally not included in the inventory. Many of these omitted wetlands commonly occur in floodplains.

GEOGRAPHY

A. General Location

Degrees Longitude: 80° 0' to 81° 0' West

Degrees Latitude : 39° 30' to 40° 0' North

Largest City : Powhataw Point, Ohio

The Ohio portion of Clarksburg NE lies in the southeastern part of the state and is bordered on the east by the Ohio River and the West Virginia state line. This map includes parts of Belmont and Monroe Counties, and encompasses a portion of the Ohio River drainage basin.

B. Ecoregion

Bailey's Ecoregion Classification and Description (Bailey 1978):

Code: 2214L

Humid Temperate Domain (2000)

The entire Clarksburg NE map is in this Domain.

The climate of this Domain has strong seasonal temperatures and precipitation cycles, and a distinctive winter season. The Humid Temperate Domain comprises the humid midlatitude forests of broadleaf deciduous and needleleaf evergreen trees.

Hot Continental Division (2200)

All of the Clarksburg NE map lies within this Division.

This Division characteristically has hot summer and cool winters. The natural vegetation is winter deciduous forest, where tall broadleaf trees dominate. These trees form a dense canopy in the summer, but lose their leaves in the winter. The shrub layer is weakly developed. A lush herbaceous layer develops in early spring, but diminishes as the dense tree canopy forms and shades the ground. Soils are primarily Alfisols, Inceptisols and Ultisols which are rich in humus and moderately leached.

Eastern Deciduous Forest Province (2210)

The entire Clarksburg NE map area falls within this Province.

The vegetation of this Province represents a response to a climate that receives adequate precipitation all year long. Common tree species of the deciduous forests include beech (Fagus grandifolia), oak (Quercus spp.), birch (Betula spp.), basswood (Tilia americana), elm (Ulmus spp.), maple (Acer spp.), and ash (Fraxinus spp.). Pines develop quickly in forests cleared for logging.

Trees of poorly drained forests consist of alder (Alnus spp.), willow (Salix spp.), ash and elm.

Appalachian Oak Forest Section (2214L)

This Section occurs in lowland areas and covers the entire Clarksburg NE map area.

Oaks are the dominant tree species of this Section.

C. Topography and Land Forms

Hammond's Land Surface Form and Physical Subdivision (Hammond 1965, 1969):

Codes: (II-2) D3

Eastern Highland Physical Division (II) - The entire Clarksburg NE map lies within this Physical Division.

Appalachian Highland Subdivision (2) - This Subdivision covers all of the Clarksburg NE map area.

Hills Class (D3) - All of the Clarksburg NE map area falls in this Class. Less than 20% of the land is in gentle slopes. Local relief ranges from 300 to 500 feet.

HYDROLOGY

Three major river systems drain the Clarksburg NE map area. The Opossum Creek drains the southern part of the map; Sunfish and Captina Creeks drain the central portion. All of these creeks flow into the Ohio River, which borders the map on the east.

There are no natural lakes in the Clarksburg NE map area. There is one reservoir. Wetland density is very low; most are associated with river floodplains.

GEOLOGY

During the Precambrian age, foldbelts were created in the Clarksburg NE area by several disturbances within the earth's crust. These disturbances caused the flowage, recrystallization and metamorphism of rock layers far below the surface of the earth, with granite and other plutonic rocks forced into the deepest layers. Much folding and faulting occurred in the subsurface strata, resulting in mountainous terrain.

Foldbelts were eventually eroded to lowlands and were subsequently buried during the Upper Paleozoic age by several strata of sedimentary rocks. These rocks were referred to as platform areas. The surface of these areas accounts for the present day land forms of Clarksburg NE (Gerlach 1970).

CLIMATE

The climate of Clarksburg NE is rather mild, with average temperatures ranging from 23°F to 42°F in January and from 62°F to 87°F in July. The average annual precipitation ranges from 40 - 44 inches, of which 19 - 21 inches falls during the growing season. Snowfall averages 25 - 35 inches per year, and the ground is usually frost-free from April 25 - October 15 (Collins 1975).

LAND USE

The presettlement vegetation of Clarksburg NE consisted largely of mixed oak forests and oak savannas, which covered virtually the entire map area. A small area of oak, sugar maple, and elm-ash swampland existed in the extreme northeastern corner of the map (Collins 1975).

The area was settled during the late 1700's to the early 1800's. Forests were cleared on a large-scale basis to make room for agricultural crops. The cut trees were used to fuel the furnaces of industry. Deforestation continued until much of the remaining timber was concentrated on small scattered tracts of land. This practice left bare slopes which were subjected to severe water erosion, and much of the topsoil was washed away. Many farms were eventually abandoned; permanent pastures and second-growth forests gradually recovered the denuded slopes (Cochran 1960).

Presently, most of the Clarksburg NE land area consists of oak-hickory woodlots and forests interspersed with cropland and pastures. Coal strip-mining occurs in several locations throughout the map area.

RESOURCES

A. Wetlands

No wetland acreage figure is available for the Clarksburg NE area at the present time.

Steep topography has precluded wetland development in most of the Clarksburg NE map area. Wetlands which occur in the map area are few in number, and include primarily intermittently exposed/permanent open water ponds. A few river floodplain wetlands occur as well.

A list of plant species for wetland types can be found in Appendix C.

B. Wildlife and Fish

The wildlife which inhabit SE Ohio, including Clarksburg NE, are primarily those species associated with the interspersion of second-growth hardwood forests, permanent pastures, cropland and brushland which covers much of the area. These species include the eastern cottontail (Sylvilagus floridanus), white-tailed deer

(Odocoileus virginianus), red fox (Vulpes vulpes, gray fox (Urocyon cinereoargenteus), squirrel (Sciurus sp.), woodchuck (Marmota monax), ruffed grouse (Bonasa umbellus) and bobwhite quail (Colinus virginianus) (Cochran 1960).

Some waterfowl species also inhabit the area, most notably the wood duck (Aix sponsa) and the black duck (Anas rubripes). Captina and Sunfish Creeks are of particular importance to the waterfowl of Clarksburg NE (Rounds 1955, U.S. Fish and Wildlife Service 1957, Weeks 1978).

Sport fishing occurs in farm ponds and in Sunfish and Captina Creeks. Farm ponds are commonly stocked with various combinations of largemouth bass (Micropterus salmoides), sunfish (Lepomis spp.), crappies (Pomoxis spp.), white bass (Morone chrytops), catfish and bullheads (Ictalurus spp.), walleye (Stizostedion vitreum vitreum) and perch (Perca sp.). Species found in Sunfish and Captina Creeks include many forage fish and suckers (Catostomus), and some game fish. Fish populations in these creeks are limited because of the intensity of flash floods and the tendency of the streams to go to pool stage during summer droughts (Langlois n.d., U.S. Fish and Wildlife Service 1969).

C. Soils

Soils which occur in the Clarksburg NE map area exhibit characteristics of the soil order Inceptisol, suborder Ochrept and great group Dystochrept.

Inceptisols are soils with weakly differentiated horizons showing an alternation of parent materials. Soils of this order are usually moist, but may become dry during the warm season of the year. Ochrepts are Inceptisols that have formed in materials containing crystalline clay minerals. The surface horizon of Ochrepts is low in organic matter and exhibits a pale color. Subsurface horizons are altered and have lost mineral materials. Dystochrepts are infertile Ochrepts which are low in bases and have no free carbonates in the subsurface horizon. The average annual temperature of Dystochrepts exceeds 47°F (Soil Conservation Service 1967, Gerlach 1970).

D. Agriculture

Agriculture is of moderate importance in the Clarksburg NE area. The most important agricultural commodity in the area is beef cattle. Other important commodities include dairy cattle, greenhouses and nurseries, poultry and hogs (Collins 1975).

E. Minerals

Active mining operations take place in several locations throughout the Clarksburg NE region. Coal is perhaps the most extensively mined resource, although carbonate rocks, such as limestone and dolomite,

are also extracted. Other mineral resources which occur in the map area include oil and gas pools, oil shale, salt and gypsum (Collins 1975, Gerlach 1970).

Appendix A

REFERENCES

- Bailey, R.G. 1978. Descriptions of the Ecoregions of the United States. USDA For. Serv. Intermtn. Reg. Ogden, Utah. 77 p.
- Cochran, R. 1960. Ohio's Wildlife Resources, Ohio Dept. of Nat. Res. Columbus. 210 p.
- Collins, C.W. 1975. Atlas of Ohio Amer. Printing and Publishing, Inc., Madison, Wisc. 310 p.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U. S. Fish and Wildlife Service, Washington, D. C. FWS/OBS-79/31. 103 p.
- Gerlach, A.C., ed. 1970. National Atlas of the United States of America. USDI Geol. Surv. Washington, D.C. 417 p.
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- Rounds, B.W. 1955. Wetlands Inventory of Ohio. U.S. Fish and Wildlife Service, Office of River Basin Studies, Minneapolis, Minn. 23 p.
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- U.S. Fish and Wildlife Service. 1969. Fish and Wildlife Resources: Ohio River Basin Survey Coordinating Committee Ohio River Basin Survey Comprehensive Study, App. G. Cincinnati. 74 p.
- U.S. Soil Conservation Service. 1967. 1:7,500,000 scale. Distribution of Principal Kinds of Soils: Orders, Suborders and Great Groups. Nat. Coop. Soil Surv. Classif. of 1967. 1 map. p. 86-87. In Gerlach, A.C., ed. 1970. National Atlas of the United States of America. USDI Geol. Surv., Washington, D. C. 417 p.
- Weeks, J.L. 1978. Ohio Wetlands Inventory, 1972-1974. P-R Proj. W-104-R, Ohio Dept. of Nat. Res., Div. of Wildlife, Columbus. 24 p.

ADDITIONAL INFORMATION

The purpose of this report is to provide general information regarding the production of the map and the wetlands found within the area of this map. It does not include descriptions of all wetlands found in the area nor complete species information. For additional information, the following references are recommended:

Snell Environmental Group. 1977. Critical Wetland Areas. Ohio Department of Natural Resources. Columbus. 83 p.

Hammond, E.H. 1964. Analysis of Properties in Land Form Geography: An Application to Broad-scale Land Form Mapping. Annals, Assoc. Amer. Geog. v. 54. p. 11-23.

Appendix B

SPECIAL MAPPING PROBLEMS

Problem 1: Some mixed hardwood forested areas were found to contain many small upland hummocks.

Resolution: The scale of photography and the small size of some areas (often less than 5 acres) made the identification of these hummocks difficult. Careful interpretation allowed many of the larger upland patches to be excluded from wetland delineations. These forested wetlands have a mottled dark gray/light gray signature on the black and white imagery and often contain linear scrub-shrub wetlands.

Problem 2: It was often difficult to accurately identify specific water regimes from the 1:80,000 black and white photography.

Resolution: Combined water regimes (Z, W, Y) were used where necessary.

Appendix C

WETLAND COMMUNITIES

<u>MAP SYMBOLS</u>	<u>LOCAL NAME</u>	<u>DOMINANT VEGETATION</u>	<u>WATER REGIME</u>
PFO1W	Streambank	<u>Acer rubrum</u>	Temporary
PFO1/SS1W	Woodlot	<u>Acer negundo</u>	Intermittently
PSS1W		<u>Acer saccharum</u>	flooded
		<u>Quincus spp.</u>	
		<u>Salix spp.</u>	
		<u>Cornus sp.</u>	
POWZX	Strip-mine excavation Slack pond	Open water	Permanent Intermittently exposed

Appendix D

NATIONAL WETLAND INVENTORY
Information and Legend
For Map Products

Classification System: The U.S. Fish and Wildlife Service uses the "Classification of Wetlands and Deepwater Habitats of the United States", December, 1979, by L. M. Cowardin, et al., to delineate and identify wetlands. This system is hierarchical and structured around a combination of ecological, biological, hydrological and substrate characteristics which permits universal use across the United States, its territories and possessions. It consists of five systems: Marine, Estuarine, Riverine, Lacustrine (lake) and Palustrine (swamps, bogs, marshes) and proceeds in a hierarchical manner through subsystem, class, and subclass. It also contains provisions to use water regime, water chemistry, soil, and special modifiers to provide additional levels of detail.

Figure 1 is an illustration of the classification system to the class level.

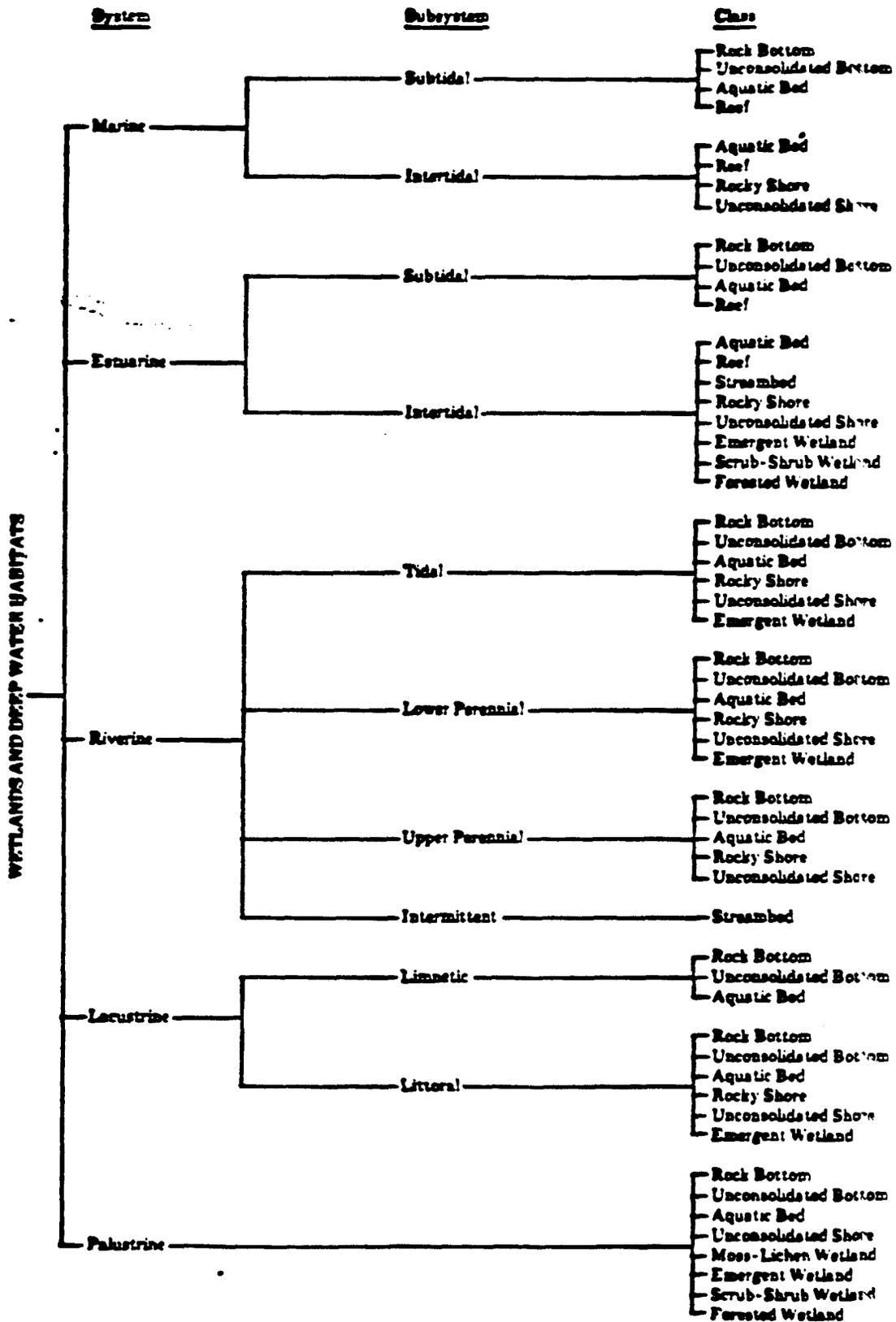


Fig 1. Classification hierarchy of wetlands and deepwater habitats, showing systems, subsystems, and classes. The Palustrine System does not include deepwater habitats.

Use of Wetland Legend: Wetland data are displayed on overlays or maps by a series of letters and numbers (alpha numerics) with the first letter representing the system and subsequent alpha numerics representing, in a sequential manner, the subordinate levels of detail down to the modifiers. Where classes and subclasses have been mixed, they are separated by a diagonal line.

Examples

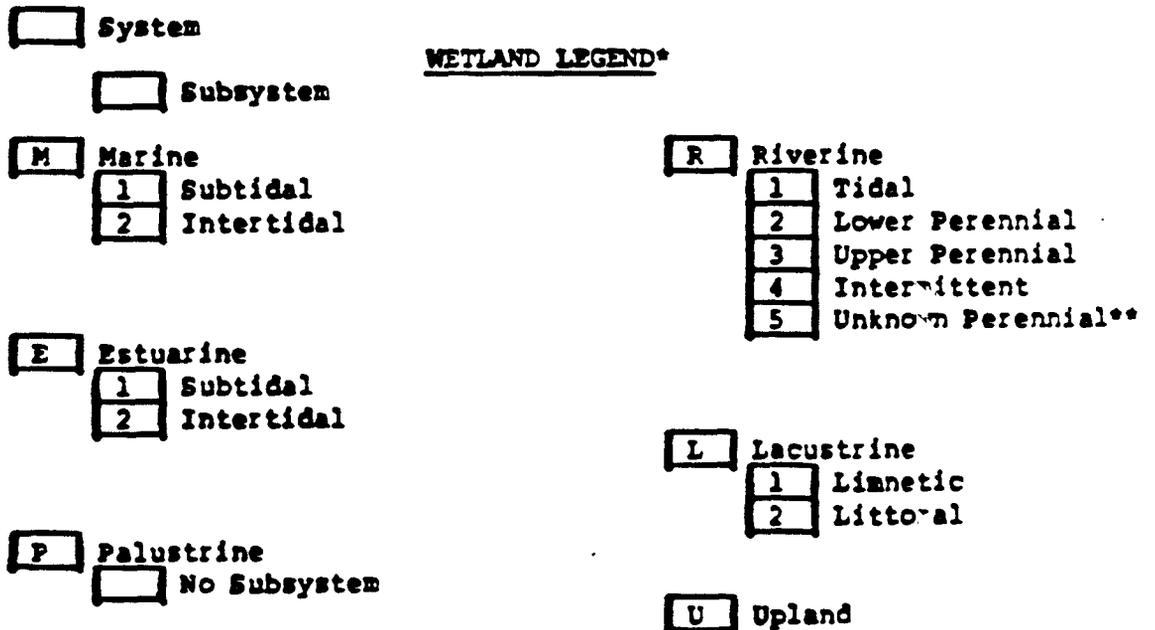
a. Classification of wetlands to water regime and special modifier:

System:	Lacustrine
Subsystem:	Limnetic
Class:	Unconsolidated Bottom
Subclass:	Mud
Water Regime:	Intermittently Exposed
Special Modifier:	Diked/Impounded

L 1 UB 3 G h

b. Mixing of wetland classes and subclasses:

PFO2/EM1P = Palustrine, Forested, Needle-leaved deciduous (PFO2) mixed with Palustrine, Emergent, Persistent (PEM1) with semipermanent water regime (P).



*Should be used in conjunction with "Classification of Wetlands and Deepwater Habitats of the United States," by L. M. Cowardin et al.

**Not included in "Classification of Wetlands and Deepwater Habitats of the United States." Created specifically for National Wetland Inventory mapping effort.

Wetland Legend (continued)

Class

Subclass

CLASSES AND SUBCLASSES

- AB** Aquatic Bed
- 1 Algal
 - 2 Aquatic Moss
 - 3 Rooted Vascular
 - 4 Floating Vascular
 - 5 Unknown Submergent**
 - 6 Unknown Surface**

- EM** Emergent
- 1 Persistent
 - 2 Nonpersistent

- FO** Forested
- 1 Broad-Leaved Deciduous
 - 2 Needle-Leaved Deciduous
 - 3 Broad-Leaved Evergreen
 - 4 Needle-Leaved Evergreen
 - 5 Dead
 - 6 Deciduous**
 - 7 Evergreen**

- ML** Moss/Lichen
- 1 Moss
 - 2 Lichen

- OW** Open Water/
Unknown Bottom**

- RB** Rock Bottom
- 1 Bedrock
 - 2 Rubble

- RF** Reef
- 1 Coral
 - 2 Mollusk
 - 3 Worm

- RS** Rocky Shore
- 1 Bedrock
 - 2 Rubble

- SB** Streambed
- 1 Bedrock
 - 2 Rubble
 - 3 Cobble/Gravel
 - 4 Sand
 - 5 Mud
 - 6 Organic
 - 7 Vegetated

- SS** Scrub/Shrub
- 1 Broad-Leaved Deciduous
 - 2 Needle-Leaved Deciduous
 - 3 Broad-Leaved Evergreen
 - 4 Needle-Leaved Evergreen
 - 5 Dead
 - 6 Deciduous**
 - 7 Evergreen**

- UB** Unconsolidated Bottom
- 1 Cobble/Gravel
 - 2 Sand
 - 3 Mud
 - 4 Organic

- US** Unconsolidated Shore
- 1 Cobble/Gra
 - 2 Sand
 - 3 Mud
 - 4 Organic
 - 5 Vegetated

**Not included in "Classification of Wetlands and Deepwater Habitats of the United States." Created specifically for National Wetland Inventory mapping efforts.

MODIFIERS TO WETLAND CLASSIFICATION

WATER REGIME MODIFIERS

Nontidal

A	Temporary
B	Saturated
C	Seasonal
D	Seasonally Flooded-Well Drained
E	Seasonally Flooded-Saturated
F	Semipermanent
G	Intermittently Exposed
H	Permanent
J	Intermittently Flooded

Nontidal Combined

Z	Intermittently Exposed/ Permanent (G,H above)**
W	Intermittently Flooded/ Temporary (A,J above)**
Y	Saturated Semipermanent/ All Seasonals (B,C,D,E F above)**

Nontidal and Tidal

U	Unknown**
K	Artificial

Tidal

L	Subtidal
M	Irregularly Exposed
N	Regularly Flooded
P	Irregularly Flooded
R	Seasonal - Tidal
S	Temporary - Tidal
T	Semipermanent - Tidal
V	Permanent - Tidal

WATER CHEMISTRY MODIFIERS

Coastal Salinity

1	Hyperhaline
2	Euhaline
3	Mixohaline (Brackish)
4	Polyhaline
5	Mesohaline
6	Oligohaline
0	Fresh

Inland Salinity

7	Hypersaline
8	Eusaline
9	Mixosaline
0	Fresh

pH Freshwater

a	Acid
t	Circumneutral
l	Alkaline

**Not included in "Classification of Wetlands and Deepwater Habitats of the United States." Created specifically for National Wetland Inventory mapping effort.

OTHER MODIFIERS

Special

b	Beaver
d	Partially Drained/ Ditched
f	Farmed
h	Diked/Impounded
r	Artificial
s	Spoil
x	Excavated

Soils

g	Organic
n	Mineral

Statement to Users: The overlays/maps were prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with "Classification of Wetlands and Deepwater Habitats of the United States." The aerial photographs typically reflect 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 a 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 this map. Federal, State, and local regulatory agencies with jurisdictions 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 the limits of proprietary jurisdiction of any Federal, State, or local government or to establish the geographical scope of the regulatory programs and proprietary jurisdictions that may affect such activities.

To Order NWI Topical Wetland Overlays/Maps: A National Wetland Inventory Order Form is required and can be obtained by writing to the address on the letterhead.

