USER REPORT: ROLLA SE, MISSOURI

NATIONAL WETLAND INVENTORY MAPS

DRAFT

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. Photointerpretation conventions, hydric soils lists, and wetland plant lists are also available to enhance the use and application of the classification 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 study area covered by Rolla SE is located in southeast Missouri, lattitude 37°00' to 37°30'N and longitude 90°00' to 91°00'W. Bailey classifies 95% of the vegetation of this area as the Oak-Hickory Forest Section of the Eastern Deciduous Forest Province in the Hot Continental Domain. This area is also known physiographically as the Ozark-Quachita Highlands of the Eastern Highlands. The remainder of the map is described by Bailey as the Southern Plain Forest Section of the Outher Coastal Plain Forest Province in the Subtropical Domain. Physiographically this region is known as the Lower Mississippi Aluvial Plains of the Gulf Atlantic Coastal Plains.

The mapping area contains the northern half of Mingo National Wildlife Refuge and its state owned counterpart , Duck Creek Wildlife Area. This flat swampy plain is contained within an ancient remnant channel of the Mississippi River. In sharp contrast,

the highlands to the north are gently to steeply sloping. This area is one of the most mountainous of the state with elevations surpassing 1400 feet. The dendredic drainage is often swift and actively cutting. The major rivers of the area, the St. Francis River and the Black River have well defined floodplains. Numerous seeps and springs occur throughout these highlands.

Climate:

The continental climate is characterized by frequent and sometimes extreme changes in weather. The summers can be hot and humid, while the winters have periods of severe cold. Precipitation is uniform throughout the year and averages more than 45 inches. The rain is mostly a result of thunderstorm activity which is at its maximum in the spring. The average length of the growing season is 175 days (Gott, 1975).

Vegetation:

The Southern Plain Forest Section is characterized by temperate forest species such as bald cypress (Taxodium distichum) and water tupolo (Nyssa aquatica) which occur in the wetter areas. The drier forests usually have a well developed lower stratum of vegetation which may include ferns, shrubs, and herbaceous plants. The climax vegetation of the mesophytic habitat is the evergreen-oak and magnolia forest (Bailey 1980).

Winter deciduous forest, sometimes called temperate deciduous forest, is characteristic of the Oak-Hickory Section of the Eastern Deciduous Forest Province. It is dominated by tall, broadleaf trees that provide a continuous dense canopy in the summer and shed their leaves completely in the winter. With the removal of the canopy small trees, shrubs, and a thick layer of herbs can develop. Common forested species of this region include oak, ash, hickory, walnut, maple, and elm. In poorly drained areas alder, willow, elm, ash, and hygrophytic shrubs dominate (Bailey 1980).

Soils:

No soil information was available for this area with the exception of a portion of Stoddard County outside the boundaries of Mingo NWR and Duck Creek Wildlife Area. This accounts for a total acreage of less than 10 square miles.

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

TABLE 1: NWI CLASSIFICATION FOR ROLLA SE

NWI CODE (WATER REGIME)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
R2UB (H)	Riverine, lower perennial, unconsolidated bottom	River or drainage ditch	Unconsolidated bottom
R2US (C,A)	Riverine, lower perennial, unconsolidated shore	River flat	Unconsolidated shore
R3UB (H)	Riverine, upper perennial, unconsolidated bottom	River or stream	Unconsolidated bottom
R3US (C,A)	Riverine, upper perennial, unconsolidated shore	River flat	Unconsolidated shore
R4SB (F,C,A)	Riverine, intermittent, stream bed	Stream or creek	Gravel, sand, or mud
L1UB (H)	Lacustrine, limnetic, unconsolidated bottom	Lake	Unconsolidated bottom
L2UB (G,F)	Lacustrine, littoral, unconsolidated bottom	Shallow lake	Unconsolidated bottom
L2AB (G)	Lacustrine, littoral, aquatic bed	Lake marsh	Lemna minor (duckweed) Nelumbo sp. (American lotus) Potomogeton sp. (pondweed)
L2US (C,A)	Lacustrine, littoral, unconsolidated shore	Lake flat or shore	Unconsolidated shore

NWI CODE (WATER REGIME)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PUB (G,F,K)	Palustrine, unconsolidated bottom	Pond borrow pit	Unconsolidated bottom
PAB (G,F)	Palustrine, aquatic bed	Pond	Lemna minor (duckweed) Potomogeton sp. (pondweed)
PUS (C,A)	Palustrine, unconsolidated shore	Shallow pond or flat	Unconsolidated shore
PEM (F,C,A,B)	Palustrine, emergent	Ponded prairie, marsh,depression or drainage area	Typha latifolia (cattail) Scirpus sp. (bullrush) Eleocharis sp. (spikerush) Carex sp. (sedge) Rumex sp. (dock) Polygonomum sp. (smartweed) Juncus sp. (rush) Solidago sp. (goldenrod)
PSS1 (F,C,A,B)	Palustrine, scrub shrub, broad-leaved deciduous	Willow thicket or shrub swamp	Salix sp. (willow) Cephalanthus occidentalis (button bush)
PFO1 (F,C,A,B)	Palustrine, forested, broad-leaved deciduous	Floodplain, swamp or depression	Nyssa aquatica (tupelo) Betula nigra (river birch) Salix spp. (willow) Fraxinus sp. (green ash) Liquidambar styraciflua (sweet gum) Acer saccharinum (silver maple)

NWI CODE (WATER REGIME)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PFO1 (F,C,A,B)	(cont'd)		Acer rubrum (red maple) Ulmus rubra (slippery elm) Platanus occidentalis (sycamore) Quercus lyrata (overcup oak)
PFO2 (G,F)	Palustrine, forested, needle-leaved deciduous	Cypress dome, slough or swamp	Taxodium distichum (bald cypress)
PFO5 (F,C,A)	Palustrine, forested, dead	Reservoir backwaters	Dead trees
PFO6 (G,F)	Palustrine, forested, deciduous	Cypress and tupelo, mixed swamp	Taxodium distichum (bald cypress) Nyssa aquatica (tupelo) Quercus lyrata (overcup oak)

Water Regime Description:

(J) Intermittently Flooded - Substrate is usually exposed, but surface water present for variable periods without detectable seasonal periodicity. Weeks or months or even years may intervene between periods of inundation. The dominant plant communities under this regime may change as soil moisture conditions change. Some areas exhibiting this regime do not fall within our definition of wetland because they do not have hydric soils or support hydrophytes.

(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) Seasonally 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 very 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 classification that appears on the Rolla SE National Wetlands Inventory (NWI) Base Maps 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 of 1983, April of 1984, and March of 1985.

Field checks of areas found within Rolla SE 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 surveys, 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 mnay 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

None

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 III
Federal Building
Ft. Snelling (AH/TES)
Twin Cities, MN 55111

To order maps only, contact:
National Cartographic Information Center
U.S. Geological Survey
507 National Survey
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.

I. LITERATURE CITED

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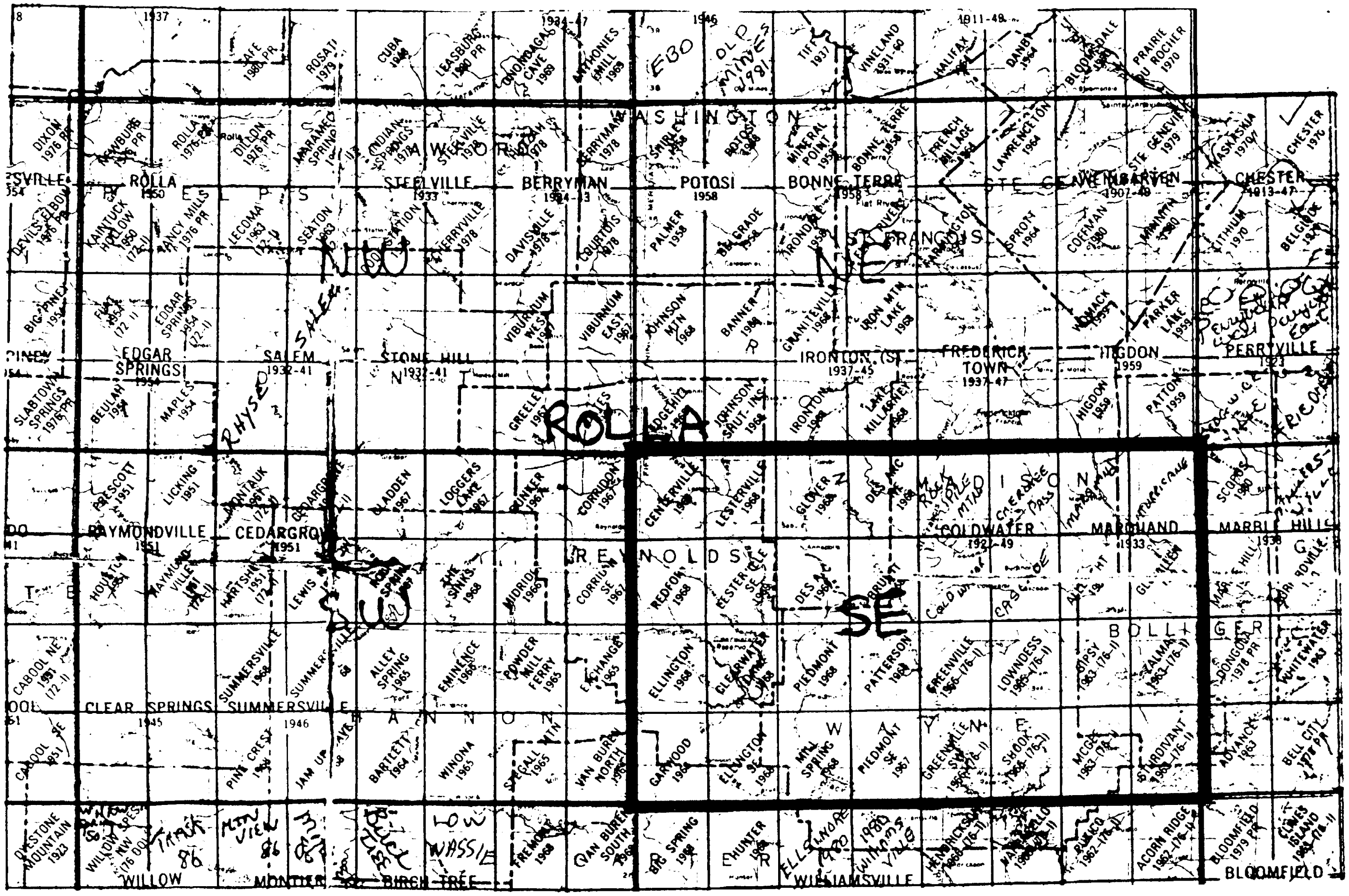
NWI#BWP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POTOSI
BONNE TERRE
CHESTER
EDGAR SPRINGS
SALEM
STONE HILL
IRONTON
FREDERICK TOWN
HIGDON
PERRYVILLE
RAYMONDVILLE
CEDARGROVE
COLDWATER
MARQUAND
MARBLE HILL
CLEAR SPRINGS
SUMMERSVILLE
WILLOW
BIRCH TREE
WILLIAMSVILLE
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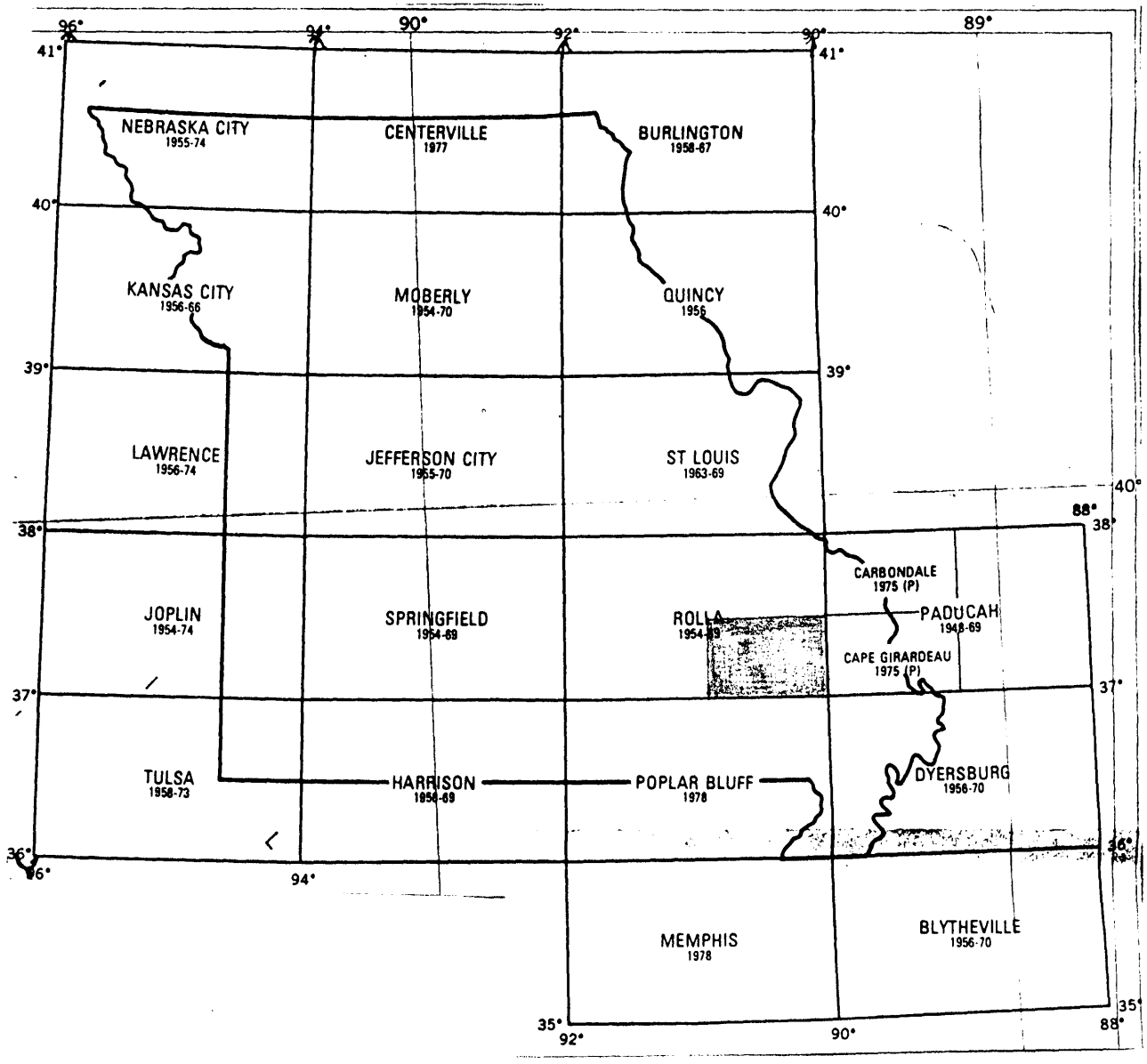

LOCATION MAP