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DRAFT

USER REPORT: JEFFERSON CITY SE, MISSOURI
NATIONAL WETLAND INVENTORY MAPS

A. INTRODUCTION

The U.S. Fish and 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 Jefferson City SE is located in central Missouri, latitude 38° 00' to 38° 30' N and longitude 92° 00' to 93° 00' W. Bailey classifies 80% of the vegetation of this area as the Oak-Hickory Forest Section of the Eastern Deciduous Forest Province in the Humid Warm Summer Continental Division. This area is also known physiographically as the Ozark-Quachita Highlands of the Eastern Highlands. The remaining 20% of the map, the northwest corner, is described by Bailey as the Oak-Hickory Bluestem Parkland Section of the Prairie Parkland Province in the Subhumid Prairie Division. Physiographically this region is known as part of the Mid Continent Plains and Escapments.

The mapping area contains the majority of the Lake of the Ozarks. This lake was formed by the construction of Bagnel Dam on the Osage River. It also has impounding effects on Grandlaize and Gravius Creeks and the Niangua and Little Niangua Rivers. The shoreline is steeply abutted to limestone cliffs and controlled by the release of water for hydroelectric power. The Osage River is widely meandering and has a well developed flood plain. The other major

drainage-ways of the mapping area such as the Maries River, Tavern Creek, and Rocky Ford Creek, are more swiftly cutting and have a more confined floodplain. Seeps and springs are common in the highlands where elevations range from approximately 600 to 1000 feet. On the prairie-parkland plain to the northwest, relief differs only about 100 feet and the drainage-ways are again more meandering.

Climate:

Prairies are typically associated with continental, mid-latitude climates that are subhumid. The Eastern Deciduous Forest represents a response to a continental climate that receives adequate precipitation in all months. In this part of the country, the climate is characterized by a temperate, continental climate typical of that in central Missouri. The winters are short and moderate, except for short, cold periods. The summers are generally hot although the temperatures rarely rise above 95° F. Rainfall is distributed well throughout the year with 84% received in the spring, summer and fall. The growing season averages 183 days beginning April 12 and ending October 20 (Scrivner and Frieze, 1964).

Vegetation:

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).

Vegetation in the Prairie-Parkland is forest-steppe, characterized by the intermingling of prairie, groves, and strips of deciduous trees. In this part of the province, trees often cover the highest hills. Grasses here are the dominant vegetation on the prairies and oak-hickory forests are representative of the forested areas. On flood plains and moist hillsides, there is a richer forest of deciduous trees (Bailey, 1980).

Soils:

No specific soil information was available for the 1:100,000 map with the exception of Moniteau County located in the center of the northern boundary. This represents an area of less than 50 square miles. Within this area, however, four series were identified by the Soil Conservation Service as having hydric characteristics. The Dunning series is an imperfectly to poorly drained soil found along creeks and drainageways. The McGirk series is located at the base of slopes that receive seep water. The Melvin and Raccoon series are both poorly drained, acidic, clay soils that occur in bottomlands or stream terraces. These are usually drained and utilized for agricultural purposes.

D. WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS
 TABLE 1: NWI CLASSIFICATION FOR JEFFERSON CITY SE

NWI CODE (WATER REGIME)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
R2UB (H)	Riverine, lower perennial, unconsolidated bottom	River or drainage ditches	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	Riverine, intermittent, stream bed	Stream or creek	Gravel, sand, or mud
L1UB (H)	Lacustrine, limnetic, unconsolidated bottom	Lake or reservoir	Unconsolidated bottom
L2UB (G,F)	Lacustrine, littoral, unconsolidated bottom	Shallow lake	Unconsolidated bottom
L2AB (G)	Lacustrine, littoral, aquatic bed	Lake marsh	<u>Lemna minor</u> (duckweed) <u>Nelumbo sp.</u> (American Lotus) <u>Potamogeton sp.</u> (pondweed)
L2US (A,B,C)	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, fish hatchery or borrow pit	Unconsolidated bottom
PAB (G,F)	Palustrine, aquatic bed	Pond	<u>Lemna minor</u> (duckweed) <u>Potamogeton</u> 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, drainage area or seep	<u>Typha latifolia</u> (cattail) <u>Scirpus</u> sp. (bullrush) <u>Eleocharis</u> sp. (spikerush) <u>Carex</u> sp. (sedge) <u>Rumex</u> sp. (dock) <u>Polygonum</u> sp. (smartweed) <u>Juncus</u> sp. (rush) <u>Solidago</u> sp. (goldenrod)
PSS1 (F,C,A,B)	Palustrine scrub-shrub, broad-leaved deciduous	Willow thicket or shrub swamp	<u>Salix</u> sp. (willow) <u>Cephalanthus</u> <u>occidentalis</u> (buttonbush) <u>Hibiscus Moscheutos</u> (swamp rosemallow)
PFO1 (F,C,A,B)	Palustrine, forested, broad-leaved deciduous	Floodplain swamp or depression	<u>Betula nigra</u> (river birch) <u>Salix</u> spp. (willow) <u>Fraxinus</u> sp. (green ash) <u>Liquidambar</u> <u>styraciflua</u> (sweet gum) <u>Acer saccharinum</u> (silver maple) <u>Acer Negundo</u> (box elder)

NWI CODE (WATER REGIME)	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
PFO1 (F, C, A, B) (cont'd.)			<u>Acer rubrum</u> (red maple) <u>Ulmus rubra</u> (slippery elm) <u>Platanus occidentalis</u> (sycamore) <u>Quercus lyrata</u> (overcup oak) <u>Populus sp.</u> (cottonwood) <u>Quercus palustris</u> (pin 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 Jefferson City 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, March of 1985, and March of 1986.

Field checks of areas found within Jefferson City 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 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

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 & 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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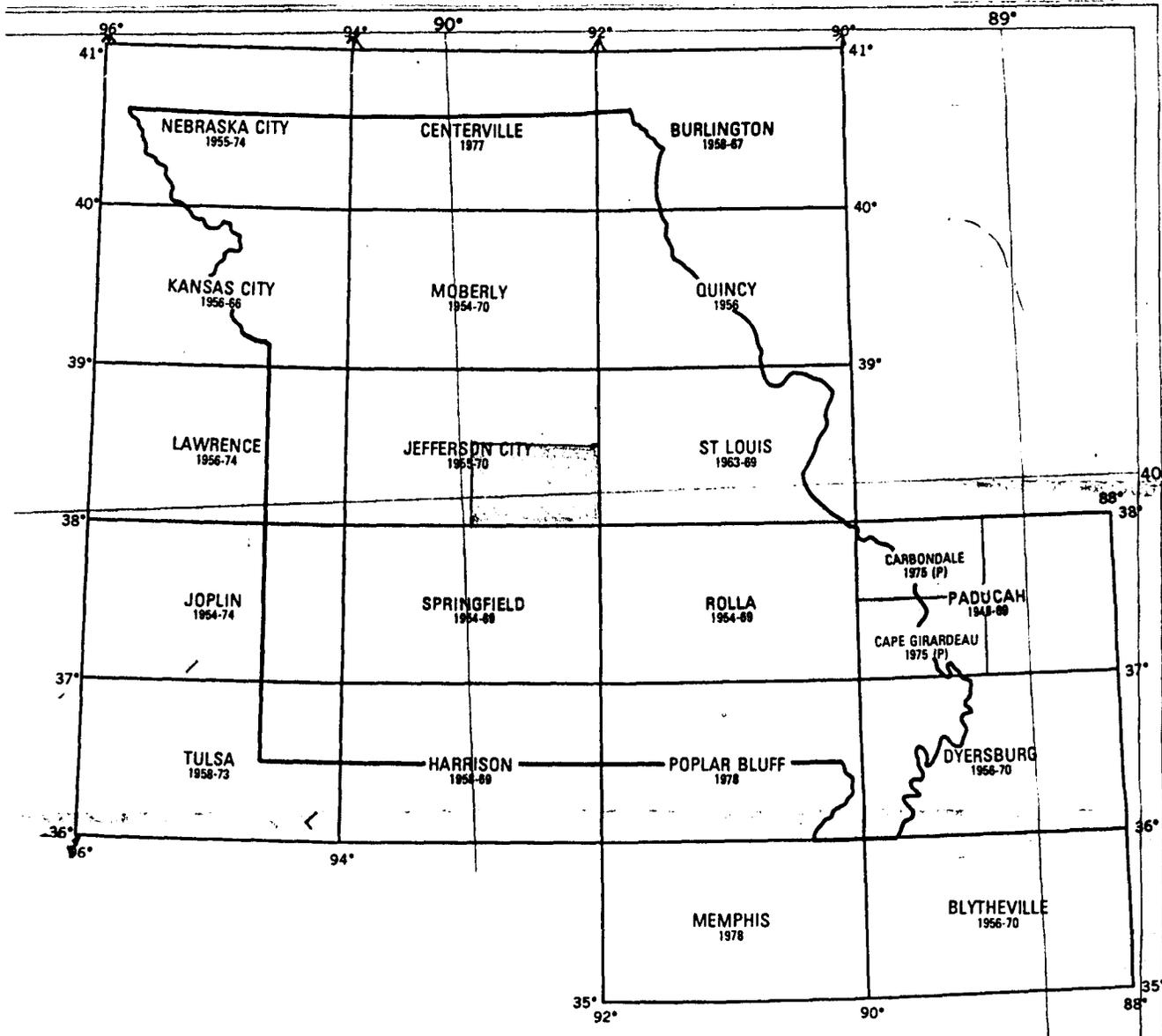
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LOCATION MAP

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