NATIONAL WETLANDS INVENTORY

1:100,000 MAP NARRATIVE

TENNESSEE FILL-IN PROJECT

NASHVILLE NW

(10 Quads)

DRAFT

NATIONAL WETLANDS INVENTORY
1:100,000 MAP NARRATIVE

TENNESSEE FILL-IN PROJECT

DYERSBURG NE, SE
NASHVILLE NW, SW
BLYTHEVILLE NE
COLUMBIA NW, SW

MAP PREPARATION:

The wetland classifications that appear on these National Wetlands Inventory (NWI) maps are in accordance with Cowardin, et al., Classification of Wetlands and Deepwater Habitats of the United States (1980). The delineations were produced by stereoscopic interpretation of 1:58,000 scale color infrared aerial photographs taken during 4/80, 2/81, 3/81 and 4/81. Initial ground truthing of the photography occurred during 8/18 - 8/22/86.

The user of these maps is cautioned that, due to the limitations of mapping primarily through aerial photointerpretation, a small percentage of wetlands may be unidentified. Changes in landscape or habitat could have occurred since the time of the photography, therefore some discrepancies between the maps and current field conditions may exist. Any questions regarding omissions, inclusions or errors should be brought to the attention of the Regional Wetlands Coordinator, U.S. Fish and Wildlife Service, Region 4, R.B. Russell Federal Building, 75 Spring St. SW, Atlanta, GA, 30303.

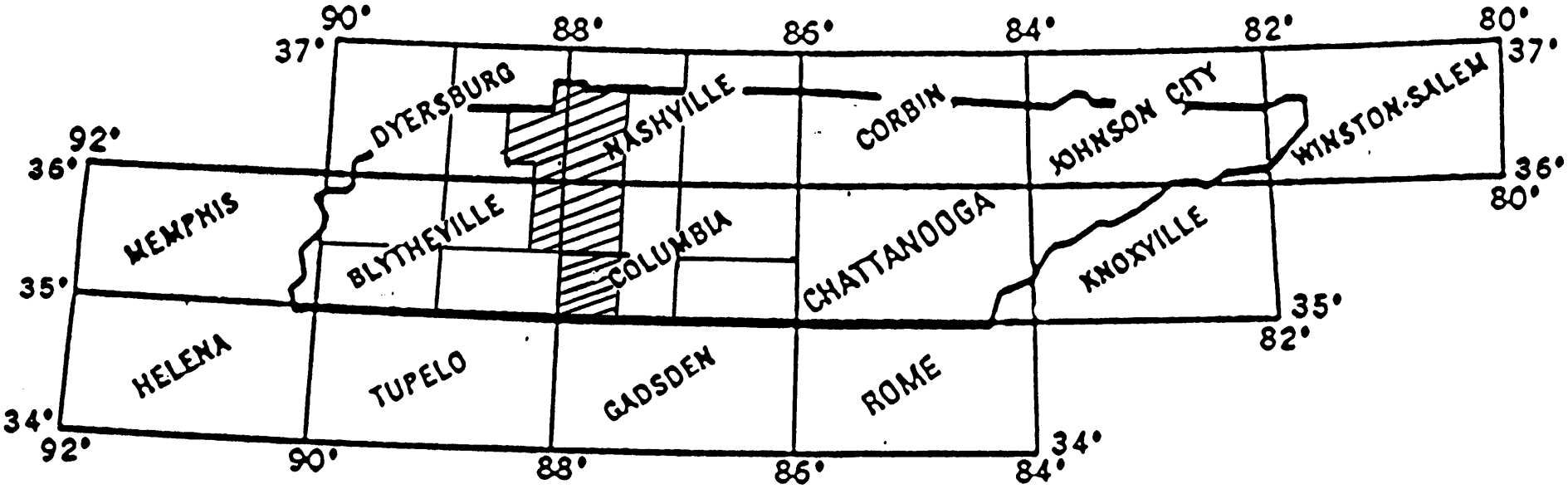
Geography

The maps are located in central/western Tennessee. The mapping area is bounded on the north by the Tennessee/Kentucky border at Kentucky Lake, eastward to New Providence and bounded on the south by the Tennessee/Alabama border. Generally speaking, the Tennessee River bisects the study area in a north/south line.

According to Bailey, Description of the Ecoregions of the United States (1980), the study area is located primarily in the Eastern Deciduous Forest Province. A small portion of the southernmost study area lies within the Southeastern Mixed Forest Province.

The Eastern Deciduous Forest Province, subdivided into the Oak-Hickory Section, is characterized within the study area by rolling hills of moderate local relief (300-500 feet) and well-drained river systems. The area of highest elevation is found in the center of the study area east of the Tennessee River. Due to landform relief in the eastern half of the study area, the rivers have less extensive floodplains than those occurring west of the Tennessee River, where the Dyersburg SE map contains several areas of hardwood bottomland forest.

STUDY AREA OF THE TENNESSEE FILL-IN PROJECT



The Tennessee River, flowing in a northerly direction, bisects the study area. Originating in the Dyersburg SE map, the North, South and Middle Forks of the Obion River all flow westward out of the study area. The Big Sandy River flows northeast through Dyersburg SE and empties into the Tennessee River. Also originating in Dyersburg SE, the Blood River flows northeast into the Tennessee River. The Beech River flows easterly through Blytheville NE and empties into the Tennessee River. The Cumberland River flows southwest to northeast through Nashville NW and SW. The Buffalo River, originating in Columbia SW, flows northward through Columbia NW and empties into the Tennessee River. The Duck River flows northwesterly through Columbia NW and also empties into the Tennessee River.

The Southeastern Mixed Forest Province, located in the southwestern corner of Columbia SW, is characterized by rolling hills of moderate local relief (100-300 feet).

Kentucky Lake, fed by the Tennessee River, and Lake Barkley, fed by the Cumberland River, are the major reservoirs within the project area.

Climate

The study area has a continental, humid temperate climate. The seasons are distinct, with cold winters and warm summers. Average annual temperature ranges between 50° and 60° F. Adequate rainfall occurs year-round with spring and summer producing higher amounts of precipitation due to cold fronts and summer thunderstorms. Average annual precipitation ranges between 40" and 50".

Wetland Communities

The Palustrine system is the predominant classification of wetlands within the project area. The Palustrine forested areas are primarily associated with floodplains, yet may occur in other locations such as backwaters of reservoirs and ponds or in conjunction with karst topography.

Generally speaking, the forested floodplains may be divided into two sections: those occurring east of the Tennessee River and those west of the Tennessee River (i.e., the eastern half of the study area and the western half of the study area). Forested floodplains in the eastern section are usually temporarily flooded and contain such species as green ash (*Fraxinus pennsylvanica*), sycamore (*Platanus occidentalis*), elm (*Ulmus* spp.), sweetgum (*Liquidambar styraciflua*), beech (*Fagus grandifolia*), box elder (*Acer negundo*) and red maple (*Acer rubrum*). Seasonally flooded forests will contain red maple, overcup oak (*Quercus lyrata*), black willow (*Salix nigra*), river birch (*Betula nigra*) and blackgum (*Nyssa sylvatica*). Semipermanent forests contain primarily willows and are generally associated with the backwaters of reservoirs.

The forested floodplains west of the Tennessee River tend to have the same species in temporarily flooded habitat. Seasonally and semipermanently flooded forests will contain, in addition to the previously listed species, water tupelo (Nyssa aquatica) and bald cypress (Taxodium distichum). Particularly in Dyersburg SE, where the major rivers have somewhat more extensive floodplains, tupelo and cypress are common. These two species were only found in the Dyersburg and Blytheville maps.

The scrub-shrub communities exhibit the same species, though with less diversity, as the forested areas in temporarily flooded conditions. Temporary areas may consist of young trees from the aforementioned list. Willow was found in most seasonal areas along with hibiscus (Hibiscus spp.). Buttonbush (Cephalanthus occidentalis), willow and common alder (Alnus serrulata) are the most commonly occurring species within semipermanently flooded shrub communities. Tupelo and cypress shrub may be found in areas west of the Tennessee River.

Emergent wetlands in a temporarily flooded situation typically contain rushes (Juncus spp.) and sedges (Carex spp.). Woolgrass (Scirpus cyperinus), rushes and smartweed (Polygonum spp.) are typical for seasonally flooded communities. Common cattail (Typha latifolia) and arrow arum (Peltandra virginica) are predominantly found in semipermanently flooded areas.

The only floating vascular plant, water lily (Nymphaea odorata), was seen in both semipermanent and permanently flooded conditions throughout the project area.

Natural and artificial open water bodies of twenty (20) acres or more are classified as Lacustrine. The Lacustrine system includes the classes of unconsolidated bottom, unconsolidated shore and aquatic bed. Nonvegetated Lacustrine substrates which are exposed at some time during the year are classified as unconsolidated shore or unconsolidated bottom. The Lacustrine system is present in the study area as a natural, impounded or excavated water body. Lacustrine aquatic beds are classified similar to those in the Palustrine system.

The Riverine system includes the classes: Unconsolidated bottom, unconsolidated shore and streambed. Unconsolidated bottom and shore are restricted to the Riverine lower perennial subsystem. Streams which do not flow throughout the year are classified as Riverine intermittent streambed. In some cases, streams shown as perennial on the topographic quadrangle are delineated as Riverine intermittent streambed seasonally flooded. This is done where streambeds are actually dry during the later part of the growing season, or flow during most of the year but dry up before the end of the year. Some streams may be excavated to improve drainage or routing.

The special modifiers for beavers (b), drained (d), impounded (h) and excavated (x) are used throughout the project area where applicable.

The purpose of this report is to provide general information about wetland classifications found within the area covered by the Base Map. There has been no attempt to describe all wetlands occurring in the area nor provide complete flora and fauna of those wetlands discussed.

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
L1UB	Lacustrine limnetic unconsolidated bottom	Open water, lake	Unvegetated mud, sand, gravel
L2UB	Lacustrine littoral unconsolidated bottom	Shallow open water lake, lake bottom	Unvegetated mud, sand, gravel
L2US	Lacustrine littoral unconsolidated shore	Lake bed	Unvegetated mud, sand, gravel
L1AB4	Lacustrine limnetic aquatic bed floating vascular	Pond weeds, water weeds	Duckweed (*Lemna* spp.)
L2AB4	Lacustrine littoral aquatic bed floating vascular	Pond weeds, water weeds	Water lily (*Nymphaea odorata*)
R2UB	Riverine lower perennial unconsolidated bottom	Open water river, stream	Unvegetated mud, sand, gravel
R2US	Riverine lower perennial unconsolidated shore	River flat or bar	Unvegetated mud, sand, gravel
R4SB	Riverine intermittent streambed	Intermittent stream	Unvegetated mud, sand, gravel
PUB	Palustrine unconsolidated bottom	Open water, pond bottom	Unvegetated mud, sand, gravel

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
PUS	Palustrine unconsolidated shore	Pond shore	Unvegetated mud, sand, gravel
PAB4	Palustrine aquatic bed floating vascular	Pond weeds, water weeds	Water lily (*Nymphaea odorata*)
PEM1	Palustrine persistent emergents	Marsh or wet meadow	Bulrush (*Scirpus* spp.) Common Cattail (*Typha latifolia*) Rushes (*Juncus* spp.) Sedges (*Carex* spp.) Smartweed (*Polygonum* spp.) Lizard's tail (*Saururus cernuus*)
PSS1	Palustrine broad leaved deciduous scrub/shrub	Shrub wetland	Common alder (*Alnus serrulata*) Buttonbush (*Cephalanthus occidentalis*) Black willow (*Salix nigra*) Hibiscus (*Hibiscus* spp.)
PSS6	Palustrine broad leaved & needle leaved deciduous scrub/shrub forested broad leaved deciduous	Shrub wetland	Common alder (*Alnus serrulata*) Buttonbush (*Cephalanthus occidentalis*) Black willow (*Salix nigra*) Hibiscus (*Hibiscus* spp.) Water tupelo (*Nyssa aquatica*) Bald cypress (*Taxodium distichum*)

NWI CODE	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/SUBSTRATE
PFO1	Palustrine forested broad leaved deciduous	Forested wetland	Green ash (*Fraxinus pennsylvanica* American elm (*Ulmus americana*) Elm (*Ulmus* spp.) Willow (*Salix nigra*) Sycamore (*Platanus occidentalis*) River birch (*Betula nigra*) Overcup oak (*Quercus lyrata*) Red maple (*Acer rubrum*) Sweetgum (*Liquidambar styraciflua*) Beech (*Fagus grandifolia*) Box elder (*Acer negundo*) Bald cypress (*Taxodium distichum*) Water tupelo (*Nyssa aquatica*) Eastern cottonwood (*Populus deltoides*) Tulip poplar (*Liriodendron tulipifera*) Shagbark hickory (*Carya ovata*) Hickory (*Carya* spp.) Blackgum (*Nyssa sylvatica*)
PF06	Palustrine broad leaved & needle leaved deciduous forest		Black willow (*Salix nigra*) Bald cypress (*Taxodium distichum*) Water tupelo (*Nyssa aquatica*)

REFERENCES

Austin, M.E., C.B. Beadles, R.W. Moore, B.L. Matzek, Clifton Jenkins and S.R. Bacon. 1953. Soil Survey of Stewart County, Tennessee. U.S. Dept. of Agriculture, Division of Soil Survey.

Bailey, Robert G. 1980. Description of the Ecoregions of the United States. U.S. Dept. of Agriculture, Forest Service. Ogden, Utah.

Cowardin, Lewis M., Virginia Carter, Francis C. Golet and Edward T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Dept. of Interior, Fish and Wildlife Service. Wash. D.C.

Flowers, Robbie L., L.D. Williams, D. D. Walker and J.A. Phillips, 1960. Soil Survey of Henderson County, Tennessee. U.S. Dept. of Agriculture, Soil Conservation Service.

Lampley, Eugene T., J. B. Cothran, L. E. Davis, R. B. Hinton, O. L. North and P. T. Steele, 1975. Soil Survey of Montgomery County, Tennessee. U.S. Dept. of Agriculture Soil Conservation Service.

Moore, Charles L., A. B. Clement, B. C. Dagnan and W. C. Jackson, 1984. Soil Survey of Carroll County, Tennessee. U.S. Dept. of Agriculture, Soil Conservation Service.

Odom, L. E., T. Fowlkes, J. Tyer, R.H. Deere, E. A. Townsend and W. C. Sams, 1955. Soil Survey of Decatur County, Tennessee. U.S. Dept. of Agriculture, Division of Soil Survey.

Overton, Joseph R., I. B. Epley, J. A. Blauton and D. D. Walker, 1959. Soil Survey of Lawrence County, Tennessee. U.S. Dept of Agriculture, Soil Conservation Service.

Welles, G. M., N. V. Robbins, M. J. Edwards and C. B. Beadles, 1946. Soil Survey of Humphreys County, Tennessee. U.S. Dept. of Agriculture, Division of Soil Survey.

Wildermuth, Robert, H. M. Smith, L. E. Odom, F. R. Austin, J. R. Overton and A.E. Townsend, 1958. Soil Survey of Henry County, Tennessee. U.S. Dept. of Agriculture, Soil Conservation Service.

Wildermuth, Robert, S. R. Bacon and J.R. Overton, 1958. Soil Survey of Houston County, Tennessee. U.S. Dept. of Agriculture, Soil Conservaton Service.