

**NATIONAL WETLANDS INVENTORY  
MAP REPORT**

**ATLANTA OUTER PERIMETER  
1:100,000 Scale Maps**

**Greenville NW, Rome NE, Athens NE, Athens SE,  
Atlanta NW, Atlanta SW**

**I. INTRODUCTION**

The United States Fish and Wildlife Service's National Wetlands Inventory (NWI) 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 classification system.

The purpose of the report to users is threefold: (1) to provide localized information regarding the production of NWI maps, including field reconnaissance with a discussion of imagery and interpretation; (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.

**II. FIELD RECONNAISSANCE**

Field reconnaissance of the work area is an integral part of the accurate interpretation of aerial photography. Photographic signatures are compared to the wetland's appearance in the field by observing vegetation, soil, and topography. This information is weighted for seasonality and conditions existing at the time of photography and at ground truthing.

Field Trip Dates

June 17 - 22, 1991

Field Personnel

John Hefner - U.S. Fish and Wildlife Service, Region IV  
Atlanta, Georgia (June 17 - 20, 1991)

Charlie Storrs - U.S. Fish and Wildlife Service, Region IV  
Atlanta, Georgia (June 21 - 22, 1991)

Dennis Fowler - Geonex St. Petersburg Operations, Inc.  
June 17 - 22, 1991

Todd Mecklenborg - Geonex St. Petersburg Operations, Inc.  
June 17 - 22, 1991

Kyle Odom - Geonex St. Petersburg Operations, Inc.  
June 17 - 22, 1991

Aerial Photography

Type: Color Infrared Transparencies

Scale: 1:58,000 NHAP

Dates: Atlanta SW	February 20, 1981 March 9, 1981 December 20, 1981
Atlanta NW	February 20, 1981 March 14, 1981 December 20, 1981 March 8, 1982
Rome NE	February 5, 1981 February 26, 1981 March 14, 1981 April 6, 1982 April 7, 1982
Greenville NW	February 24, 1981 March 6, 1981 March 10, 1981 March 22, 1982 April 18, 1982
Athens NE	March 9, 1981 March 14, 1981
Athens SE	March 9, 1981 March 14, 1981 March 2, 1982

## Collateral Data

United States Geological Survey 7'5" Topographic Quadrangles

United States Geological Survey 1:250,000 Topographic Maps

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

Hydric Soils List of the States of Georgia, Alabama, and South Carolina

Wetland Plant List of the States of Georgia, Alabama, and South Carolina

Soil Conservation Service Soil Surveys

### **III. PHYSICAL DESCRIPTION OF PROJECT AREA**

#### Project Area

The Atlanta Outer Perimeter project consists of three work areas. Atlanta NW and Atlanta SW are located in northeastern Alabama. Rome NE and Greenville NW overlap into Tennessee at the Georgia border. Athens NE and Athens SE lie along the northern Georgia-South Carolina border. (See Appendix A, Locator Map)

Elevations range from 200 to 4,700 feet above sea level. The numerous streams in the work areas range from the fast moving rapids of the Chattooga River in Greenville NW to sluggish streams in Athens SE which is also dotted with swamps and lakes.

#### Climate

The climate of the work areas is fairly consistent throughout the region. Moderately cold winters and hot humid summers are brought to the region by a strong annual temperature cycle. The average annual temperature ranges from 40°F to 70°F. Precipitation falls predominantly in the summer months when minor water deficits occur due to high evapotranspiration. A surplus of water develops in spring. The average annual precipitation ranges in the region from 35 to 60 inches.

#### Geography

The work areas consist of rolling hills to rolling plains in the Atlanta NW and Atlanta SW. Rolling hills grade to true mountains of the Blue Ridge Chain farther northeast in Rome NE and Greenville NW. Further to the southeast these mountains taper to rolling and smooth plains in Athens NE and Athens SE.

## Vegetation

The vegetation in the Outer Perimeter Project includes the Appalachian Oak Forest in the highlands of the north and west and transcends to the Southern Mixed Forest in the rolling and smooth plains of the southeast.

The Oak Forest is dominated by the tall broadleaf deciduous trees which create a dense canopy. This canopy is lost in winter allowing herbaceous growth to dominate the understory in spring until the canopy again restricts needed light in the summer. Common wetland trees include oaks, birch, maple, elm, ash, tulip, gums, willow, and alder. Logging in this area creates a secondary growth vegetation of virginia, loblolly, and slash pines.

The Southern Mixed Forest consists of tall broadleaf deciduous and needle-leaved evergreen trees. A variety of southern yellow pines make up the majority of these stands. The common wetland trees include oaks, gums, maple, tupelo, and a few scattered cypress.

## Soils

Ultisols predominate in the southeastern lowlands. These range from a well drained, sandy loam surface soil with a clayey subsoil to a loamy sand surface soil with a loamy sub-surface which is somewhat poorly drained.

The northern and western areas consist of Alfisols which characterize these higher latitudes. The Alfisols form soils which have a deep loam, created from quartzite, granite, and humus and are generally well drained.

## **IV. DESCRIPTION OF WETLAND HABITATS IN PROJECT AREA**

A comprehensive wetland plant list and a table of wetland classification codes and water regimes are included in this section for reference.

### Lacustrine

Water bodies greater than 20 acres are included in this system with both limnetic and littoral subsystems represented. Numerous lakes and reservoirs exist within the study area. Major bodies of water include Clark Hill Reservoir, Burton Lake, Chatuge Lake, Blue Ridge Lake, and Nottely Lake.

The nonvegetated water bodies are labeled limnetic or littoral unconsolidated bottom (L1UB or L2UB), depending on the water depth present. The impounded modifier (h) will be utilized on bodies of water impounded by locks or any artificial means. The (b) beaver modifier will be used for beaver impoundments.

## Riverine

Three riverine subsystems are found within the work area; Lower Perennial (R2), Upper Perennial (R3), and Intermittent (R4). Major drainages within the study area are the Tallulah, Chattooga and Ogeechee Rivers.

## Palustrine

Palustrine areas include unconsolidated bottom, unconsolidated shore, aquatic bed, emergent, scrub-shrub and forested. Naturally occurring ponds are identified as unconsolidated bottom permanently or semipermanently flooded (PUBH or PUBF). Excavated or beaver impounded ponds and artificially impounded ponds are labeled with their respective modifier (PUBHx, PUBHb, or PUBHh).

Aquatic bed vegetation was represented by Nymphaea odorata and Brasenia schreberi (PAB3H). Emergent growth ranged from temporarily to semipermanently flooded (PEM1A, PEM1C, and PEM1F). Species included Juncus effusus, Panicum hemitomon, Impatiens pallida, and Saururus cernuus.

The temporarily flooded (PSS1A) scrub-shrub wetlands observed contain on assortment of hardwoods. Ostrya virginiana, Alnus serrulata, and Sambucus canadensis were among species observed. The seasonally flooded (PSS1C) scrub-shrub wetland were generally dominated by Salix nigra, or Cephalanthus occidentalis.

Forested areas temporarily flooded (PFO1A) were represented by Liriodendron tulipifera, Quercus laurifolia, Platanus occidentalis, and Fraxinus pennsylvanica. Other temporarily flooded forest included Pinus elliottii, and Pinus taeda which will be labeled PFO4A. Seasonally flooded forest observed contained Betula nigra, Quercus nigra, Liquidambar styraciflua, and Acer rubrum. Semipermanently flooded forested areas were often impounded by beaver activity. These will be labeled (PFO1Fb) and were dominated by Nyssa sylvatica and Nyssa aquatica. There were also a few isolated cypress domes observed in the area and will be labeled (PFO2F) Taxodium distichum.

## OBSERVED WETLAND VEGETATION

### AQUATIC BED

Brasenia schreberi  
Hydrocotyle umbellata  
Nymphaea odorata

### EMERGENT

Arundinaria gigantea  
Carex sp.  
Impatiens pallida  
Juncus californicus  
Juncus effusus  
Juncus roemerianus  
Panicum hemitomon  
Peltandra virginica  
Polygonum punctatum  
Saururus cernuus  
Scirpus cyperinus  
Sparganium americanum  
Spartina bakeri  
Typha latifolia  
Urtica sp.  
Xanthium strumarium

### SCRUB-SHRUB

Acer negundo  
Alnus serrulata  
Carpinus caroliniana  
Cephalanthus occidentalis  
Hibiscus moscheutos  
Ligustrum sinense  
Morus rubra  
Ostrya virginiana  
Sabal minor  
Salix nigra  
Sambucus canadensis  
Toxicodendron radicans  
Typha latifolia  
Vitis sp.

### FORESTED

Acer rubrum  
Betula nigra  
Celtis occidentalis  
Fraxinus pennsylvanica  
Juglans nigra  
Liquidambar styraciflua  
Liriodendron tulipifera  
Nyssa aquatica  
Nyssa sylvatica  
Persea borbonia  
Pinus elliotii  
Pinus taeda  
Platanus occidentalis  
Populus deltoides  
Quercus bicolor  
Quercus laurifolia  
Quercus lyrata  
Quercus michauxii  
Quercus nigra  
Quercus phellos  
Taxodium distichum  
Ulmus rubra

# WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

**Table 1 - Cowardin Classification Codes and Descriptions**

NWI CODE WATER REGIME	NWI DESCRIPTION	COMMON DESCRIPTION	CHARACTERISTIC VEGETATION
R2UB (H)	Riverine, lower perennial, unconsolidated bottom	Rivers	Unconsolidated bottom
R3UB (H)	Riverine, upper perennial, unconsolidated bottom	Rivers	Unconsolidated bottom
R4SB (C,F)	Riverine, intermittent stream bed	Streams, creeks	Streams, creeks
L1UB (H)	Lacustrine, limnetic, unconsolidated bottom	Lakes	Unconsolidated bottom
L2UB (H)	Lacustrine, littoral, unconsolidated bottom	Lakes	Unconsolidated bottom
PUB (H)	Palustrine, unconsolidated bottom	Ponds, borrow pits, or impoundments	Unconsolidated bottom
PAB (F,H)	Palustrine, aquatic bed	Ponds or deep marshes	<u>Brasenia schreberi</u> <u>Nymphaea odorata</u>
PEM (A,B,C,F)	Palustrine, emergent	Meadows, marshes, depressions, or drainage areas	<u>Scirpus californicus</u> <u>Sagittaria lancifolia</u> <u>Sparganium americanum</u>
PSS (A,B,C,F)	Palustrine, scrub-shrub	Willow thicket, river banks	<u>Salix nigra</u> <u>Cephalanthus occidentalis</u>
PFO (A,B,C,F)	Palustrine, forested	Floodplains, depressions, or meadow rims	<u>Liquidambar styraciflua</u> <u>Taxodium distichum</u> <u>Quercus laurifolia</u> <u>Nyssa sylvatica</u>

## V. WATER REGIME DESCRIPTION

### Non-Tidal

- (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 substance 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 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.

## VI. MAP PREPARATION

The wetland classification that appears on the National Wetlands Inventory (NWI) Base Map (Figure 1) is in accordance with Cowardin et al. (1977). The delineations were produced through stereoscopic interpretation of 1:58,000 scale color infrared photography. The majority of the photography was taken during the winter of 1981.

Field checks of areas found within the Atlanta Outer Perimeter 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, 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 Geonex St. Petersburg Operations.

## **VII. MAP ACQUISITION**

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

John Hefner  
Regional Wetland Coordinator  
U.S. Fish and Wildlife Service - Region IV  
R.B. Russell Federal Building  
75 Spring Street S.W.  
Atlanta, GA 30303

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.

APPENDIX A  
LOCATOR MAP  
1:250 000 SCALE

