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# Greenville - Spartanburg



## PHOTO-INTERPRETATION CONVENTIONS

Greenville NE, Greenville SE, Spartanburg NW, Spartanburg SW

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**FIELD TRIP DATES**

February 13 - February 17, 1995  
April 10 - April 14, 1995

**PERSONNEL**

John Hefner	-	U.S. Fish and Wildlife Service
Charlie Storrs	-	U.S. Fish and Wildlife Service
Dennis Fowler	-	U.S. Fish and Wildlife Service
Richard Eastlake	-	Geonex, Inc.
Steve Eversole	-	Geonex, Inc.
Chris Martin	-	Geonex, Inc.
Scott Scheirer	-	Geonex, Inc.
Lesley Ward	-	Geonex, Inc.
Mike Woods	-	Geonex, Inc.

**RIVERINE SYSTEMS**

Perennial and intermittent streams shrouded by vegetation will be mapped in the palustrine system.

- 1) There are no tidally influenced rivers in this project area.
- 2) The signature for lower perennial (R2UBH) and upper perennial (R3UBH) rivers is open water.
- 3) The signature for lower perennial (R2RBH) rivers with rock bottom will show open water with protruding rocks.
- 4) The signatures for riverine bars (R2USA/C) range from white to medium gray-blue.
- 5) Intermittent streams (R4SBA/C) usually appear as narrow, steep channels that may or may not show an open water signature on the photography.

**LACUSTRINE SYSTEM**

All water bodies twenty acres or larger in size will be classified as lacustrine. All impounded water bodies will carry the impounded modifier (h). Lakes and reservoirs will be mapped according to the pool elevation obtained from the agency managing the water body. The break between the riverine and the lacustrine systems will be the first contour line above the cited pool elevation. This contour line will also determine the extent to which the impounded modifier will affect the surrounding palustrine wetlands.

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- 1) The signature for L1UBH and L1UBHh is open water.
- 2) Unconsolidated shore (L2USA/L2USC) can range from white (L2USA) to light blue-gray to medium blue-gray (L2USC) in signature.
- 3) The signature for rooted vascular aquatic bed (L2AB3) is usually hazy blackish-green to brownish-yellow or whitish-pink. This can be water lily, water shield or other similar aquatics. The signature for floating vascular aquatic bed (L2AB4) is often a bright pink return, usually indicative of duckweed. These classifications are usually associated with open water.

**PALUSTRINE SYSTEM**

The palustrine system is used to classify bodies of water less than twenty acres and wetlands with persistent vegetation. Also included are portions of perennial and intermittent streams obscured by overhanging vegetation.

**PEM1A**

Emergent, persistent, temporarily flooded. Temporarily flooded emergent areas typically consist of rushes, grasses and sedges that generate a smooth, light blue-green signature. Dead emergents, such as cattails, can have a slightly textured light gray or white return.

**PEM1C/F**

Emergent, persistent, seasonally/semi-permanently flooded. Emergents such as rushes, grasses and sedges in a seasonally flooded situation usually have a smooth, deep blue-green return. Semi-permanently flooded emergents, which are typically cattails, maidencane, rushes and arrow arum, yield a darker green to black signature which is usually accompanied by areas of open water. Again the presence of dead emergents often shows up as a slightly textured light gray or white signature.

**PAB3F/H**

Aquatic bed, rooted vascular, semi-permanently/permanently flooded. The aquatic bed signature associated with water milfoil, water lily, parrot feather or water primrose is generally hazy blackish-green to brownish-yellow or whitish-pink, possibly with areas of open water. This can be the result of beaver activity or impoundment.

**PAB4F/H**

Aquatic bed, floating vascular, semi-permanently /permanently flooded. Duckweed or duckmeal dominated areas produce a bright shiny pink return, possibly accompanied by areas of open water. This can be the result of beaver activity or impoundment. This signature is often found in excavated ponds used for sewage treatment or industrial waste.

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**PSSIA**

Scrub-shrub, broad leaved deciduous, temporarily flooded. Juvenile species less than twenty feet in height such as alder, box elder, sweet gum, tulip poplar and willow produce a slightly rough textured signature that is light blue-green to brownish-green. While there is a presence of small crowns, there is little sense of height when viewed in stereo. This signature is often found in areas associated with drainages.

**PSSIC/F**

Scrub-shrub, broad leaved deciduous, seasonally/semi-permanently flooded. Juvenile species less than twenty feet in height such as willow, oak, maple, sweetgum and alder yield a slightly rough textured signature that is medium blue-green to dark brownish-green. While there may be the presence of small crowns, there is little height when viewed in stereo.

**PSSIB**

Scrub-shrub, broad leaved deciduous saturated. The crowns of juvenile species less than twenty feet in height such as tulip poplar, sweetgum and willow are very tight in a saturated area causing a smooth, uniform texture. There is often an understory of evergreen shrubs (bays, titi, ilex, etc.) that may lend a pinkish tone to the light blue-green signature.

**PSS4A**

Scrub-shrub, needle leaved evergreen, temporarily flooded. Small crowns of loblolly and long leaf pine can be present in a brick-red, slightly textured signature often found in areas of pine plantation that have been clear-cut and are regenerating. There is little sense of height when viewed in stereo.

**PSS3/4B**

Scrub-shrub, broad leaved/needle leaved evergreen, saturated. These areas consist mainly of pines, bays, ilex and titi which generate a mixed red-orange (broad leaved evergreen) and brick-red (needle leaved evergreen) signature which is slightly textured with smaller crowns occasionally visible. There is very little sense of height when viewed in stereo. This community type is generally found on slopes of drainage ways or in drainages, especially in sandhill areas.

**PFO1A**

Forested, broad leaved deciduous, temporarily flooded. These areas which are comprised of oaks, maples, sweetgum, cottonwood, river birch, sycamore, tulip poplar and green ash generate a blue-green signature on leaf-off photography with possible visibility of an understory. On leaf-on photography the signature is reddish-pink and tree crowns are large and fluffy in appearance.

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**PFO1C**

Forested, broad leaved deciduous, seasonally flooded. Seasonally flooded areas dominated by sweetgum, maples and river birch yield a dark blue-green signature on leaf-off photography or a reddish-pink return on leaf-on photography. Tree crowns are usually smaller and closer together. Fewer species are present and the understory is less apparent than in temporarily flooded areas. The signature shows height when viewed in stereo.

**PFO1F/G**

Forested, broad leaved deciduous, semi-permanently flooded/intermittently exposed. The signature associated with water tupelo and blackgum in a semi-permanently flooded situation is usually dark blue-gray with a canopy of tight compact crowns or dark blue-black with scattered trees and areas of open water. Generally only one or two species are present and there may be an understory of aquatic bed or emergents. This community type is generally found in sloughs, oxbows, swamps and areas associated with open water.

**PFO1/2C,F**

Forested, broad leaved/needle leaved deciduous, seasonally/semi-permanently flooded. This classification refers to areas of dense water tupelo or blackgum interspersed with bald cypress. The signature is dark blue-gray with a canopy of tight compact crowns with fewer fluffy light blue-gray crowns belonging to bald cypress trees distributed throughout. There may be an understory of aquatic bed, emergents or open water. This signature may be found in concert with the PFO1F and/or PFO2F signature and will show height when viewed in stereo. This community type is generally found in sloughs, oxbows or swamps.

**PFO2F/G**

Forested, needle leaved deciduous, semi-permanently flooded, intermittently exposed. This signature is that of pure stands of bald cypress. This signature is light blue-gray with fluffy broad crowns. There may be an understory of aquatic bed, emergents or open water. The signature will show height when viewed in stereo.

**PFO4A**

Forested, needle leaved evergreen, temporarily flooded. Loblolly pine, slash pine and pond pine in temporarily flooded situations produce a brick-red to reddish brown signature depending on the emulsion. The crowns are usually conical and in open stands and an understory is visible. These wetlands are commonly found within pine plantations and ditching is often apparent on the photography. This signature will show height when viewed in stereo.

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**PFO4/1A - PFO1/4A**

Forested, needle leaved evergreen/broad leaved deciduous, temporarily flooded. This signature is a mixture of blue-gray return associated with oaks, maples, sweetgum and tulip poplar and crowns of loblolly or slash pine that are fluffy brick-red, reddish brown or purplish. There may be an understory visible through the canopy and this signature will show height when viewed in stereo. Mixed subclasses are used sparingly when the two subclasses are evenly distributed. The predominant subclass is listed first when the mixed subclass is used.

**PUBH**

Unconsolidated bottom, permanently flooded. This is an open water signature of less than twenty acres. Most are farm ponds and have an impounded (h) modifier.

**PUSAC**

Unconsolidated shore, temporarily/seasonally flooded. This classification usually used for small impoundments that have been breached or are empty for whatever reason. The temporarily flooded signature is often a white scoured return, while the seasonally flooded signature may range from a light to dark smooth blue-gray return.

**SPECIFICS:**

- 1) Soil surveys, as available, will be used as collateral data in determining wetland/upland breaks.
- 2) Impounded (h), partially drained/ditched (d), excavated (x), beaver (b), artificial substrate (r), and spoil (s) modifiers will be used where applicable.
- 3) Hydrological connections will be made when applicable.
- 4) Sewage ponds will carry the artificially flooded water regime (K) with any applicable modifiers.
- 5) Existing NWI maps will be used as collateral data.
- 6) The 1:40,000 scale photography will have its uplands mapped according to the Anderson's A Land Use and Land Cover Classification System for use with Remote Sensor Data. The 1:58,000 scale photography will only have the wetlands mapped.

Upland Mapping Conventions

- 1) Upland mapping will follow the system as put forth in A Land Use and Land Cover Classification System for use with Remote Sensor Data, by James R. Anderson, Ernest E. Hardy, John T. Roach, and Richard E. Witmer.
- 2) Level I and II will be utilized for all classes except for Water (5) and Wetland (6). The NWI classification system will be utilized for these classes.
- 3) Five (5) acres will be the minimum upland mapping unit.
- 4) Primary state roads and interstate highways (indicated by red on topographic maps) will be classified as transportation corridors (14), secondary and smaller roads and other Transportation Corridors will not be delineated except where they bisect a wetland. The section of roadway or corridor that splits the wetland will delineated and classified (14).
- 5) Long distance powerline cuts, water/gas/oil pipeline easements, telephone lines or other transportation/utilities facilities will generally not be included in the Transportation, Communications and Utilities (14) classification. These utility easements/cuts very rarely constitute the dominant land use for the land with which they are associated.
- 6) Wetland mapping will adhere to existing NWI mapping conventions.
- 7) (42P) Forested Plantations will have a (P) added to the needle leaved evergreen category.

South Carolina Land Use and Land Cover Classification System

	Level I	Level II
1)	Urban or Built-up Land	11 Residential 12 Commercial and Services 13 Industrial 14 Transportation, Communications, and Utilities 15 Industrial and Commercial Complexes 16 Mixed Urban or Built-up Land 17 Other Urban or Built-up Land
2)	Agricultural Land	21 Cropland and Pasture 22 Orchards, Groves, Vineyards, Nurseries, and Ornamental 23 Confined Feeding Operations
3)	Rangeland	31 Herbaceous Rangeland 32 Shrub and Brush Rangeland

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| 4) | Forest Land | 41 Deciduous Forest Land<br>42 Evergreen Forest Land<br>43 Mixed Forest Land   |
| 5) | Water       | NWI Classification System  |
| 6) | Wetland     | NWI Classification System  |
| 7) | Barren Land | 71 Dry Salt Flats<br>72 Beaches<br>73 Sandy Areas other than Beaches<br>74 Bare Exposed Rock<br>75 Strip Mines, Quarries, and Gravel Pits<br>76 Transitional Areas<br>77 Mixed Barren Land |
| 8) | Tundra      | 81 Shrub and Brush Tundra<br>82 Herbaceous Tundra<br>83 Bare Ground Tundra<br>84 Wet Tundra<br>85 Mixed Tundra   |