

NATIONAL WETLANDS INVENTORY

NOTES TO USERS

for the

1:100,000 Scale Map Areas

Atchafalaya Bay (New Orleans, SW) ~ Mississippi River Delta (Breton Sound SW)
Black Bay (Breton Sound NW) North Islands (Breton Sound NE)
Burrwood Bayou (Breton Sound Terrebonne Bay (New Orleans SE)
South of SW)

INTRODUCTION

In 1974, the U.S. Fish and Wildlife Service directed its Office of Biological Services to conduct an inventory of the nation's wetlands. This National Wetlands Inventory (NWI) became operational in 1977.

Wetland delineations depicted on these maps were produced by stereoscopically interpreting high altitude aerial photography and then transferring this information with a zoom transfer scope to an overlay using the U.S. Geological Survey 7.5' or 15' map series as base information.

Wetlands were identified on the photography by vegetation, visible hydrology, and geography, and subsequently classified in general accordance with Cowardin

et al 1977. Classification of Wetlands and Deep Water Habitats of the United States (An Operational Draft). Where, for pragmatic reasons, strict adherence to this classification system was not possible, mapping conventions developed by NWI were used.

MAP PREPARATION

The wetlands of this area were classified only to the class level of detail using the Cowardin et al. system. Color infrared photography taken during 1974 at a scale of 1:130,000 was used in this mapping effort. Field checking was conducted from April 30 through May 3, 1979, and August 12-15, 1978. Collateral information used included U.S. Geological Survey topographic quadrangle sheets and "Vegetation, water, and soil characteristics of the Louisiana Coastal Region" by R. H. Chabreck (1972).

SPECIAL MAPPING PROBLEMS

1. Determining waterward extent of Estuarine System. This Estuarine/Marine demarcation was estimated from a sediment line visible on the photography.
2. Determining landward extent of Estuarine System. This was a best guess based on photographic signatures and information supplied by personnel at the Delta National Wildlife Refuge.

STUDY AREA

The study area is located on the outer eastern and southern fringes of the Mississippi River Delta. The Gulf of Mexico forms the eastern and southern

boundaries while Atchafalaya Bay forms the western boundary. Interior Louisiana lies to the north. No major cities are located in the study area although New Orleans is nearby. Most of the study area is in Terrebonne, Lafourche, St. Bernard, and Plaquemines Parishes while small portions are located in Orleans, Jefferson, St. Mary, and Iberia Parishes.

Principle industries in the area include the production of raw and refined sugar, commercial fishing, seafood processing, meat packing, fur trapping, sport hunting, marine construction, and pipeline (oil, gas, and water) construction and maintenance. Oil and gas are important natural resources of this area.

The main agricultural crop is sugar cane with corn, soybeans, vegetables, pasture grasses, and hay also being grown. There are some stock and dairy cattle and a few hogs in the area. Most crops are grown on the low narrow natural levees along water courses.

Many natural water bodies are located in the study area and include Breton Sound, Barataria Bay, Gaillou Bay, Four League Bay, Terrebonne Bay, Timbalier Bay, Lost Lake, Lake Barre, Lake Raccourci, and Lake Pelto. Portions of Chandeleur Sound, Lake Borgne, and Atchafalaya Bay also are located in the study area. Many streams and rivers pass through the area with the Mississippi River being the most important.

The climate here is mild, humid, and subtropical with long hot summers and mild cool winters. There is an average of 264 frost free days during the year from February 27 to November 18. The average winter temperature

is 57⁰ Fahrenheit while the average summer temperature is 81⁰ Fahrenheit. Rainfall generally is well distributed throughout the year, but summers tend to be wetter while the falls drier. Precipitation is usually limited to short heavy showers with the annual average being approximately 65 inches. Winds usually come from the south or southeast off the Gulf. Normal Gulf tides range from 12 to 18 inches. Hurricanes occur on the average of one or two in every three to seven years.

Bailey classifies the majority of this area as:

Humid Temperate Domain
Subtropical Division
Outer Coastal Plain Forest Province
Southern Flood Plain Forest Section

Only a small portion of the study area to the extreme west is differently classified with the Section being described as Beech-Sweetgum-Magnolia-Pine-Oak Forest.

Hammond classifies the Land Surface Form and Physical Subdivision of the majority of this area as:

Gulf-Atlantic Division
Lower Mississippi Alluvial Plain Subdivision
Flat Plains (greater than 80% of the area is gently sloping; 0-100 feet relief)

A small portion in the western part of the study area is similarly classified except it is in the Western Gulf-Atlantic Flats Subdivision.

Most soils of this area are classified as wet peat and muck (Histosols) with plant residues moderately decomposed.

The following are regularly used alphanumeric codes found on the wetland maps. A general description and/or community type, including dominant vegetation, is provided. Scientific names are listed in the Appendix.

M10W - Marine, Subtidal Open Water

This represents open ocean without appreciable vegetation.

M2BB - Marine, Intertidal Beach/Bar

High energy beaches with variable water regimes.

E10W - Estuarine, Subtidal Open Water

Brackish water of protected bays, sounds, and tidal streams.

E2FL - Estuarine, Intertidal Flat

Unvegetated, low energy, tidal flats exhibiting a variety of water regimes.

E2BB - Estuarine, Intertidal Beach/Bar

Unvegetated, higher energy beaches located in sounds and bays. Water regimes are variable.

E1AB - Estuarine, Subtidal Aquatic Bed

E2AB - Estuarine, Intertidal Aquatic Bed

Sea grass beds that are dominated by halophila, turtlegrass, widgeongrass, and macroscopic algae.

E2EM - Estuarine, Intertidal Emergents

Several communities are represented by this such as the saltmarsh that is dominated by smooth cordgrass, black needle rush, saltwort, and saltgrass. As salinities decrease, these emergent wetlands become dominated by wiregrass, three-cornered grass, and saltmarsh bulrush. With low salinities characteristic of intermediate marshes this community is dominated by bulltongue, sawgrass, cane, giant bulrush, and wildmillet.

E2SS - Estuarine, Intertidal shrub/scrub

This community is often located on the offshore islands and is dominated by salt tolerant shrubs such as black mangrove, groundsel tree, marsh elder, and wax myrtle.

L10W - Lacustrine, Limnetic Open Water

Deep lakes without appreciable vegetation.

L2FL - Lacustrine, Littoral Flat

Unvegetated flats usually resulting from draw-down.

L2AB - Lacustrine, Littoral Aquatic Bed

Areas of shallow water in lakes that support submerged, floating, and/or floating-leaved vegetation. Common submerged vegetation includes pondweeds, naiads, watermilfoils, elodea, fanwort, and algae. Floating aquatics include duckweeds and water hyacinth while floating-leaved plants include waterlilies, American lotus, spatterdock, watershield, and frogbit.

R10W - Riverine, Tidal Open Water

Fresh water streams and rivers that are tidally influenced. Generally these areas are unvegetated.

R20W - Riverine, Lower Perennial Open Water

Fresh water streams and rivers that are not tidally influenced. Generally these areas are unvegetated.

R1BB - Riverine, Tidal Beach/Bar

Unvegetated river bars that are tidally influenced.

R1FL - Riverine, Tidal Flat

Unvegetated river flats that are tidally influenced.

R2FL - Riverine, Lower Perennial Flat

Unvegetated river flats that are not tidally influenced

R1AB - Riverine, Tidal, Aquatic Bed

R2AB - Riverine, Lower Perennial Aquatic Bed

Submerged, floating and/or floating-leaved aquatics that may or may not be tidally influenced. Vegetation is similar to that described under L2AB.

POW - Palustrine open water

Small ponds generally devoid of vegetation.

PFL - Palustrine Flat

Small flats generally devoid of vegetation

PEM - Palustrine Emergent

Fresh marshes where dominant vegetation includes alligatorweed, arrowheads, bulrushes, cattails, lizard's tail, panic grasses, pickerelweed, sawgrass, sedges, smartweeds, spikerushes, and wild millets.

PSS - Palustrine Shrub/Scrub

Either recently logged wetland or true shrub swamps. The vegetation of the former is dominated by regenerating trees (see PFO) while the latter will be dominated by alder, buttonbush, dogwood, elderberry, swamp privet, water willow, wax myrtle, and/or willows.

PFO - Palustrine Forest

Both drier bottomland hardwoods and wetter swamps and sloughs. The former is dominated by a wide variety of hardwoods that includes ashes, cottonwoods, American elm, hackberry, hickories, ironwood, locusts, maples, oaks, persimmon, river birch, snowbell, sugarberry, sweetgum, sycamore and tulip tree. As wetness increases, more water tolerant tree species become prevalent such as cypress, Drummond's red maple, red maple, green ash, pumpkin ash, Nuttall's oak, overcup oak, swamp black gum, swamp cottonwood, red bay, water hickory, water elm, water locust, and water tupelo.

Appendix

<u>Common Name</u>	<u>Scientific Name</u>
Alder	<u>Alnus serrulata</u>
Alligatorweed	<u>Alternanthera philoxeroides</u>
American Elm	<u>Ulmus americana</u>
American Lotus	<u>Nelumbo lutea</u>
Arrowheads	<u>Sagittaria</u> spp.
Ashes	<u>Fraxinus</u> spp.
Black Mangrove	<u>Avicennia germinus</u>
Black Needle Rush	<u>Juncus roemerianus</u>
Bladderworts	<u>Utricularia</u> spp.
Bulrushes	<u>Scirpus</u> spp.
Buttonbush	<u>Cephalanthus occidentalis</u>
Cane	<u>Phragmites australis</u>
Cattails	<u>Typha</u> spp.
Coontail	<u>Ceratophyllum demersum</u>
Cottonwoods	<u>Populus</u> spp.
Cypress	<u>Taxodium distichum</u>
Dogwood	<u>Cornus stricta</u>
Drummond's Red Maple	<u>Acer rubrum</u> var. <u>drummondii</u>
Duckweeds	<u>Lemna</u> spp.
Elderberry	<u>Sambucus canadensis</u>
Elodea	<u>Elodea</u> spp.
Fanwort	<u>Cabomba</u> spp.

Frogbit	<u>Limnobium spongia</u>
Giant Bulrush	<u>Scirpus californicus</u>
Green Ash	<u>Fraxinus pennsylvanica</u>
Groundsel Tree	<u>Baccharis halimifolia</u>
Hackberry	<u>Celtis occidentalis</u>
Halophila	<u>Halophila engelmannii</u>
Hickories	<u>Carya spp.</u>
Ironwood	<u>Carpinus caroliniana</u>
Lizard's Tail	<u>Saururus cernuus</u>
Locusts	<u>Gleditsia spp.</u>
Maples	<u>Acer spp.</u>
Marsh Elder	<u>Iva frutescens</u>
Najds	<u>Najas spp.</u>
Nuttall's oak	<u>Quercus nuttallii</u>
Oaks	<u>Quercus spp.</u>
Overcup Oak	<u>Quercus lyrata</u>
Panic Grasses	<u>Panicum spp.</u>
Persimmon	<u>Diospyros virginiana</u>
Pickeralweed	<u>Pontedaria cordata</u>
Pondweeds	<u>Potamogeton spp.</u>
Pumpkin Ash	<u>Fraxinus profunda</u>
Red Bay	<u>Persea borbonia</u>
Red Maple	<u>Acer rubrum</u>
River Birch	<u>Betula nigra</u>
Saltgrass	<u>Distichlis spicata</u>
Saltmarsh Bulrush	<u>Scirpus robustus</u>

Water Willow

Wax Myrtle

Widgeongrass

Wild Millet

Willows

Decodon verticillatus

Myrica cerifera

Ruppia maritima

Echinochloa walteri

Salix spp.

Saltmeadow Corgrass	<u>Spartina patens</u>
Saltwort	<u>Batis maritima</u>
Sawgrass	<u>Cladium jamaicense</u>
Sedges	<u>Carex</u> spp.; <u>Cyperus</u> spp.
Smartweeds	<u>Polygonum</u> spp.
Smooth Cordgrass	<u>Spartina alterniflora</u>
Snowbell	<u>Styrax americana</u>
Spatterdock	<u>Nuphar luteum</u>
Spikerushes	<u>Eleocharis</u> spp.
Sugarberry	<u>Celtis laevigata</u>
Swamp Black Gum	<u>Nyssa sylvatica</u> var. <u>biflora</u>
Swamp Cottonwood	<u>Populus heterophylla</u>
Swamp Privet	<u>Forestiera acuminata</u>
Sweetgum	<u>Liquidamber styraciflua</u>
Sycamore	<u>Platanus occidentalis</u>
Three-cornered Grass	<u>Scirpus olneyi</u>
Tulip Tree	<u>Liriodendron tulipifera</u>
Turtlegrass	<u>Thalassia testudinum</u>
Water Elm	<u>Planera aquatica</u>
Water Hickory	<u>Carya aquatica</u>
Water Hyacinth	<u>Eichhornia crassipes</u>
Waterlillies	<u>Nymphaea</u> spp.
Water Locust	<u>Gleditsia aquatica</u>
Watermilfoil	<u>Myriophyllum</u> spp.
Watershield	<u>Brasenia schreberi</u>
Water Tupelo	<u>Nyssa aquatica</u>