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**USER REPORT: PORT ARTHUR NE, PORT ARTHUR NW,
BRETON SOUND NW, MOBILE SW**

DRAFT

I. INTRODUCTION

The U.S. Fish and Wildlife Service's National Wetland 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 classifications system.

A. 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 cross-reference from wetland codes on the map to common terminology and representative plant species; and (3) to explain local geography, climate, and wetland communities.

B. The maps in this report have been grouped because of physiographic similarities. The major ecological regions in Coastal Louisiana are palustrine forested areas and estuarine salt marsh. The Port Arthur 1:100,000's and the Breton Sound NW 1:100,000 are predominantly estuarine and share the same vegetation and soil types. Mobile SW contains both palustrine forested and estuarine systems.

II. Field Reconnaissance

A. Project Area 1:100,000 Scale Maps:

Port Arthur NW	(20 quads)
Port Arthur NE	(28 quads)
Breton Sound NW	(23 quads)
Mobile SW	(21 quads)

B. Climate:

The region has a subtropical marine climate influenced by the Gulf of Mexico. The summers are long and warm. Winters are mild with only occasional freezing temperatures. Annual average rainfall is approximately 40-60 inches. Heaviest rainfalls occur during the growing season, June through August.

C. Vegetation:

Most of the project areas is in brackish to intermediate salt marsh dominated by marsh hay cordgrass (Spartina patens) and three-square bullrush (Scirpus americanus). Saline salt marsh dominated by Spartina alterniflora is found mainly in the eastern seaward reaches of Breton Sound NW including the Chandaleur Islands. The cheniers are vegetated primarily by live oaks (Quercus virginiana), hackberry (Celtis occidentalis) and sweetgum (Liquidamber styraciflua) where the ridges are high enough (4 - 5 feet above sea level). The Pearl River floodplain contains extensive stands of cypress-tupelo swamp (Taxodium distichum, Nyssa aquatica). Pines occur in temporary wetlands and uplands in the Mobile NW map west of the Pearl River. Where the native loblolly pine (Pinus taeda) has been logged over, it has often been replanted with slash pine (Pinus elliotii). The wetter sloughs and drainages in this area contain an understory of red bays (Persea borbonia) and titis (Cyrilla recemiflora) usually mixed with bald cypress and deciduous hardwoods.

Soils:

The soils are derived primarily from Coastal Plain sediments. The majority of the coastal marsh soils are semifluid clayey muck with a high organic content. The dominant vegetation in these soils is marsh hay (Spartina patens) and three-square bullrush (Scirpus americanus). The soils on the outer fringes of the delta have more mineral content. Here, smooth cordgrass (Spartina alterniflora) predominates. The cheniers in the Port Arthur maps are composed of sand and shell deposits. They tend to be droughty and are usually upland if elevated above the marsh. The pinelands west of the Pearl River occur on level, poorly-drained silty loam soils.

The forested wetlands are primarily temporarily-flooded hardwoods (PFO1A), which occur in the floodplains of the smaller rivers, and semi-permanently flooded cypress-tupelo swamps (PFO2/1F), which appear in the floodplain of the Pearl River. Temporarily-flooded pine forest (PFO4A) and mixed-pine forest (PFO4/1A) are found on the poorly-drained plains on either side of the Pearl River and north of Lake Pontchartrain. The drainages and sloughs in this region often contain bays (Persea borbonia) and titis (Cyrilla recemiflora).

Most of the scrub shrub areas are fields undergoing secondary succession or clearings succeeding back to forest or pine plantations that have not yet reached 20 ft. in height. Naturally occurring shrub can be found in the flood plain of rivers at the transition-zone between saltmarsh and cypress swamp. The most common species here are Baccharis sp. and wax myrtle (Myrica cerifera).

C. Riverine System

The riverine system contains both tidal (R1UBV) and lower perennial (R2UBH) subsystems. The tidal riverine systems extend only a short distance above the estuarine/riverine interface. These R1 systems are usually characterized by adjacent emergent (PEM) or shrubby (PSS) marsh, while the R2 systems usually support cypress-tupelo floodplains (PFO). The Mississippi River is a lower perennial river throughout the map. Many of the natural streams have been ditched, dredged and connected to irrigation canals especially in the western regions. In some places different drainages have been connected. Some irrigation ditches carry water only seasonally (R4SBCx).

D. Lacustrine System

The largest freshwater lake is White Lake which is tidally influenced (L1UBV). Freshwater lakes are not prominent features in this landscape. These lakes often contain aquatic bed, but unless it was visible on the photography, the lake was labelled L1UBH.

WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

NWI CODE (Water Regime)	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/ SUBSTRATE	SOILS
E2EM1 (N,P)	Estuarine, intertidal,	Salt marsh	<u>Spartina patens</u> (marsh hay) <u>S. cynosuroides</u> (big cord grass) <u>Juncus roemerianus</u> (black rush) <u>Scirpus americanus</u> (three square) <u>Distichlis spicata</u> (salt grass) <u>S. alterniflora</u> (smooth cord grass)	Clovelly Gentilly Lafitte Bancker Creole Mer manau Scatlake Andry Delcomb Handsboro Bohicket Timbalier Bellpass Felicity
R1UB (V)	Riverine, tidal, perennial, unconsolidated bottom	River, canal	Sand, mud	
R1US (N)	Riverine, tidal, unconsolidated shore	Sand bar	Sand, gravel	
R1AB4 (H)	Riverine, tidal,	River, canal	<u>Eichornia crassipes</u> (water hyacinth) <u>Lemna</u> sp. (duckweed)	
R2UB (H)	Riverine, lower perennial, unconsolidated bottom	River, canal	Sand, mud	
R2AB4 (H)	Riverine, lower perennial, floating aquatic bed	River, canal	<u>Eichornia crassipes</u> (water hyacinth) <u>Lemna</u> sp. (duckweed)	

WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

NWI CODE (Water Regime)	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/ SUBSTRATE	SOILS
PUB (G,H,V)	Palustrine, unconsolidated bottom	Pond	Sand, mud	
PAB3 (H,G,V)	Palustrine, aquatic bed, rooted vascular	Pond	<u>Nymphaea</u> sp. (water lily) <u>Nelumbo lutea</u> (American lotus) <u>Myriophyllum spicata</u> (water milfoil) <u>Vallisneria</u> sp. (eel grass) <u>Brasenia shreberi</u> (water shield) <u>Nuphar luteum</u> (spatterdock)	
PAB4 (H,G,V)	Palustrine, aquatic bed, floating vascular	Pond	<u>Lemna</u> sp. (duckweed) <u>Azolla caroliniana</u> (mosquito fern) <u>Pistia stratiotes</u> (water lettuce) <u>Eichornia crassipes</u> (water hyacinth) <u>Salvinia</u> sp. (water fern)	
PEM1 (A)	Palustrine, emergent, persistent, temporarily flooded	Wet prairies	<u>Juncus</u> sp. (rush) <u>Cyperus</u> sp. (flat sedge) <u>Carex</u> sp. (sedges) <u>Eleocharis</u> sp. (spike rush) <u>Setaria</u> sp. (foxtail) <u>Panicum vigatum</u> (switch grass)	Hackberry Harahan Brimstone Guyton Crowley-Vidrine Frost Judice Sharkey Leton Frozard Midland Morey Mowata

WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

NWI CODE (Water Regime)	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/ SUBSTRATE	SOILS
PSS1C (F)	Palustrine, scrub shrub, broad-leaved deciduous, seasonally or semi-permanently flooded	Willow thicket, swamp	<u>Salix</u> sp. (willow) <u>Myrica cerifera</u> (wax myrtle) <u>Baccharis</u> sp. (saltbush) <u>Acer rubrum</u> (red maple) <u>Nyssa sylvatica</u> (blackgum) <u>Fraxinus pennsylvanica</u> (green ash) <u>Daubentonia texana</u> (rattlebox) <u>Forestiera acuminata</u> (swamp privet) <u>Cephalanthus</u> <u>occidentalis</u> (buttonbush) <u>Taxodium distichum</u> (baldcypress)	Ouachita Bibb Atmore Frost Basile Guyton Arat Barbary Fausse

WETLAND CLASSIFICATION CODES AND WATER REGIME DESCRIPTIONS

NWI CODE (Water Regime)	NWI DESCRIPTION	COMMON DESCRIPTION	VEGETATION/ SUBSTRATE	SOILS
PFO1/4A(S) PFO4/1A(S)	Palustrine, forested, broad-leaved deciduous/broad- leaved deciduous-pine mixed, temporarily flooded	Pine forests, pine plantation	Bottomland hardwoods <u>Pinus taeda</u> (loblolly pine) <u>Pinus elliotii</u> (slash pine)	Atmore Guyton Morey Mowata Myatt
PFO1C (R)	Palustrine, forested, broad-leaved deciduous, seasonally flooded	Swamp	<u>Quercus nigra</u> (water oak) <u>Q. phellos</u> (willow oak) Fraxinus <u>pennsylvanicus</u> (green ash) <u>Q. falcata</u> (S. red oak) <u>Salix</u> sp. (willow) <u>Q. lyrata</u> (overcup oak) <u>Sapium sebiferum</u> (Chinese tallow) <u>Acer rubrum</u> (red maple) <u>Nyssa aquatica</u> (water tupelo) <u>Taxodium distichum</u> (baldcypress) <u>Carya aquatica</u> (water hickory) <u>Quercus laurifolia</u> (laurel oak)	Guyton Frost Atmore

V. Water Regime Description

Tidal

Salt and Brackish Areas - Marine and Estuarine Systems

- (L) Subtidal-The substrate is permanently flooded with tidal water.
- (M) Irregularly Exposed- Land surface is exposed by tides less often than daily. This corresponds to the area on NOS charts from seaward edge of light green tone (mean low water) to depth contour approximating extreme low water.
- (N) Regularly Flooded-Tidal water alternately floods and exposes the land surface at least once daily.
- (P) Irregularly Flooded- Tidal water floods land surface less often than daily. The area must flood by tide at least once yearly as a result of extreme high spring tide.

Freshwater Tidal Areas - Lacustrine, Palustrine and Riverine Systems.

- (N) Regularly Flooded- Fresh tidal water alternately floods and exposes the land surface at least once daily.
- (R) Seasonally Flooded- Tidal
- (S) Temporarily Flooded- Tidal
- (T) Semi-permanently Flooded- Tidal
- (V) Permanently Flooded- Tidal

VI. IMAGERY

The photography was of good clarity and emulsion with the exception of a partial strip in Mobile SW that was very dark. Photography dated 3/89 was substituted so that good interpretation could be made. The leaves were still on the deciduous vegetation in this photography which makes discrimination between water regimes more difficult. However, collateral data is available to interpret the photography.

VII. MAP PREPARATION

Field checks of areas found within Port Arthur NE, Port Arthur NW, Breton Sound NW and Mobile SW 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, local climate, vegetation, and ecological 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, Inc., St. Petersburg, Florida.

VIII. SPECIAL MAPPING PROBLEMS

None.

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