



## **LDWF Properties and Coastal Update**

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Governor's Advisory Commission on Coastal Protection, Restoration and Conservation  
March 26, 2025

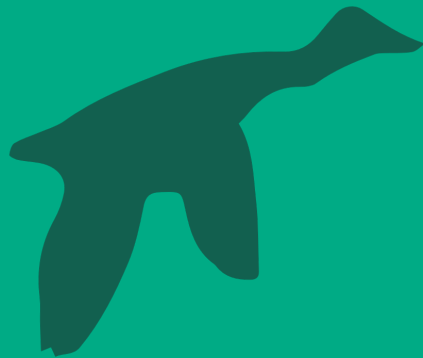


An aerial photograph of a wetland conservation area. A large, light-colored building with a flat roof is situated on a grassy island in the middle of a winding river. The river is surrounded by dense green trees and vegetation. In the background, there are more wetlands and a small pond. The sky is a clear, pale blue.

# WHITE LAKE

WETLANDS CONSERVATION AREA





# Introduction

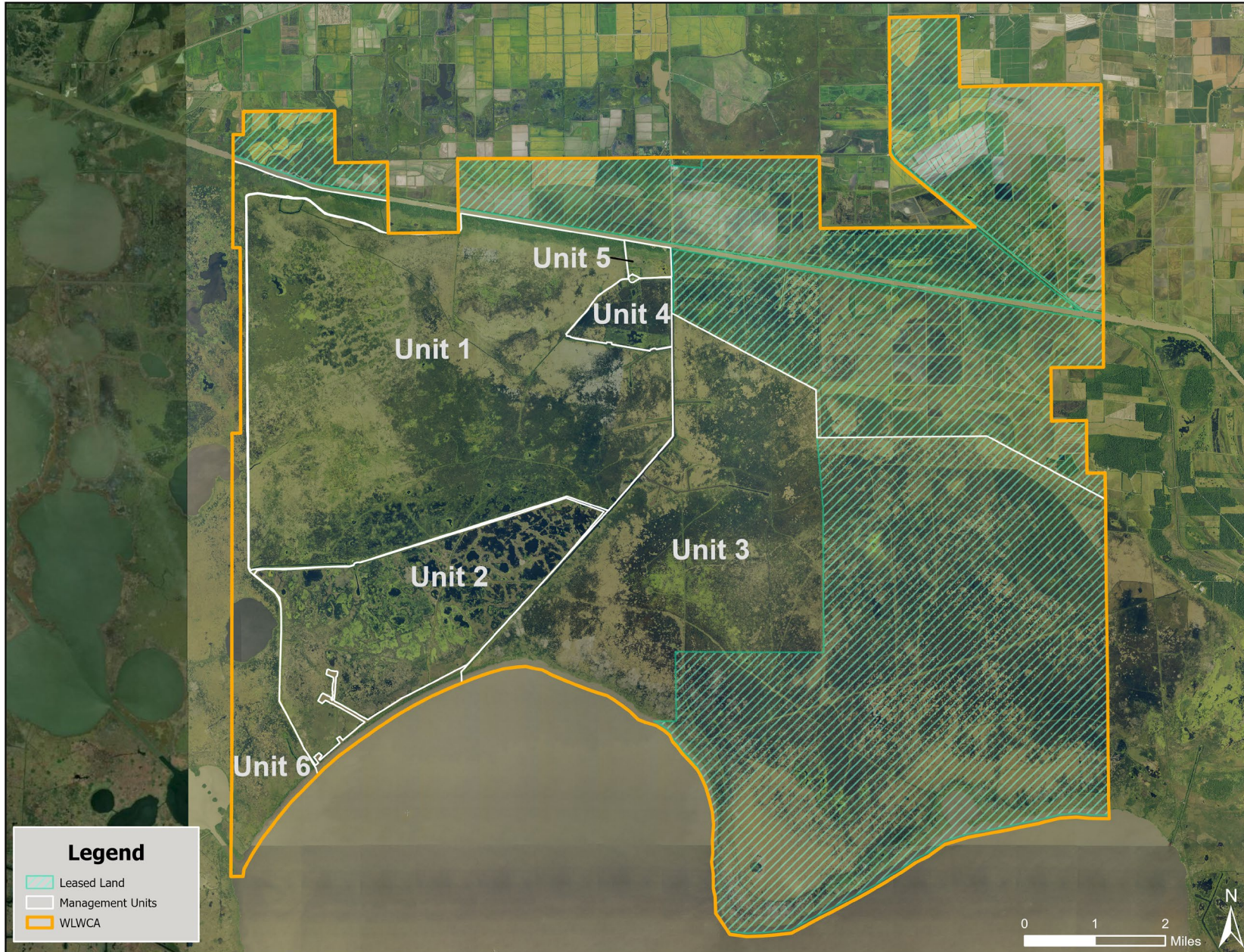


Date: 13 Oct'14  
Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, IPC,  
NRCAN, Esri Japan, METI, Esri China (Hong Kong),  
Esri (Thailand), TomTom, 2013



**WHITE LAKE**  
WETLANDS CONSERVATION AREA





- 72,000 acres in Vermilion Parish
- Marsh and agricultural land
- Donated in 2002 by British Petroleum
- LDWF leases parts of the land to:
  - Farmers
  - Ranchers
  - Hunters



# Challenges

- Erosion of impoundment levees
- Unit 2 “Cadeau” marsh collapse
- 22 miles of GIWW shoreline unprotected
- Levee breaches along Unit 2, GIWW, Florence Canal
- Intensive management of Unit 4 needed for Whooping Cranes
- Oil & Gas infrastructure creates obstacles to management
- Lodge in need of update, repairs





## Primary Goals/Objectives on White Lake WCA

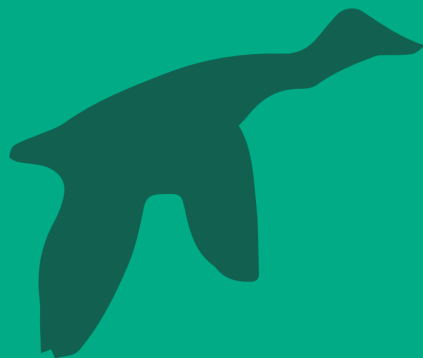
- Sustain and manage the wetland habitat on White Lake WCA
- Manage wildlife species associated with wetlands, with a primary focus on waterfowl
- Maintain an agricultural presence on White Lake WCA leased property when feasible and compatible with waterfowl management



# Master Plan Development

- Collaborative effort between LDWF and CPRA
- Plan due in Oct. 2025
- Will include priority projects and cost estimates
- Goals:
  - Primary
    - Sustain wetland habitat
    - Manage wetland flora and fauna
    - Maintain leased property
  - Secondary
    - Allow public access with minimal impact to wildlife and habitat
    - Host education and outreach activities
    - Facilitate research





# Past Projects

2010-2011

### Unit 4 Levee Restoration and Pump Upgrade



- LDWF/DU Partnership
- NAWCA grant

2013

### GIWW 1.54 Miles of Rock Breakwater Constructed



- Ducks Unlimited
- \$2.1M from NAWCA, LDWF

2022

### Unit 1 Water Control Structure Added



- LDWF/DU Partnership
- \$650K from multiple donors



2023

## Unit 2 Pump Engine Upgrade



- LDWF
- LA Waterfowl Working Group, \$200K

2024

## Unit 2 Levee Breach Repair



- LDWF/DU Cooperative Endeavor Agreement
- Multiple donors, \$533K

## Island Building Roofs Replaced

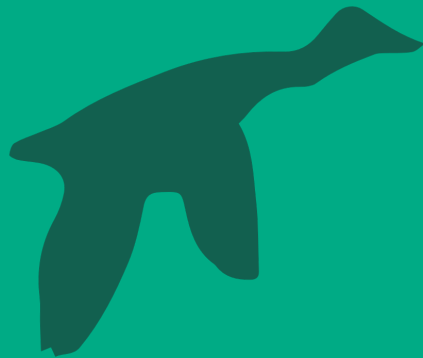


- FP&C
- FEMA funds

## Guillotine Gate Replaced



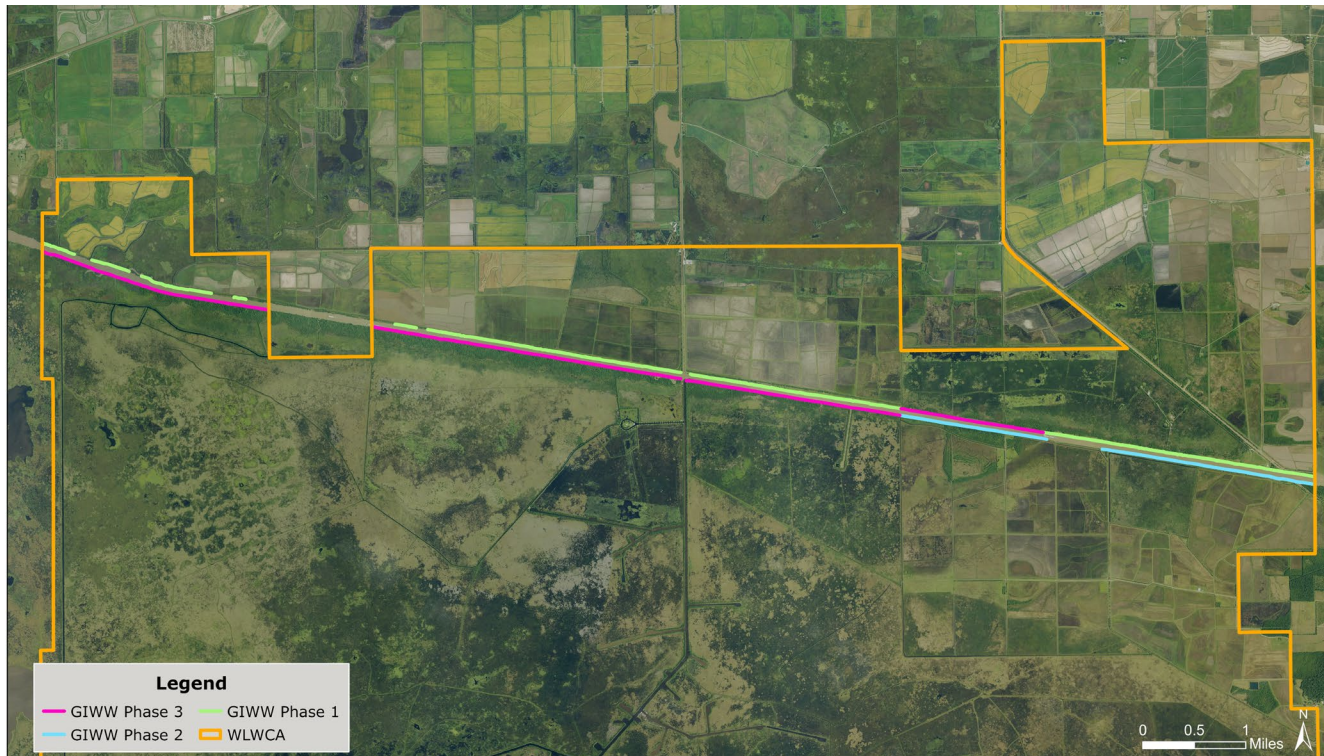
- FP&C
- WL Conservation Fund, \$400K



# Triage Projects



# GIWW Shoreline Protection Project



PHASE	ESTIMATED CONSTRUCTION COST	ENGINEERING & DESIGN COST	TOTAL COST
PHASE 1	\$ 51.0 M	\$ 2.0 M	\$ 53.0 M
PHASE 2	\$ 18.2 M	\$ 709 K	\$ 18.9 M
PHASE 3	\$ 52.4 M	\$ 2.0 M	\$ 54.4 M
<b>TOTAL COST</b>	<b>\$ 121.5 M</b>	<b>\$ 4.7 M</b>	<b>\$ 126.2 M</b>

More than 20 miles of rip rap rock breakwaters needed along the GIWW to protect the shoreline from erosion.



# Unit 2 Impoundment Levee Stabilization Project



ESTIMATED CONSTRUCTION COST	ENGINEERING & DESIGN COST	TOTAL COST
\$ 29.3 M	\$ 1.5 M	\$ 30.7 M



Levee repair is needed to support habitat management and protect from storm surge erosion.



# White Lake North Shoreline Protection Project



ESTIMATED CONSTRUCTION COST	ENGINEERING & DESIGN COST	TOTAL COST
\$ 95.8 M	\$ 3.4 M	\$ 99.2 M

Seven miles of rip rap rock breakwaters along the north shoreline to protect 61,000 acres of marsh from erosion.

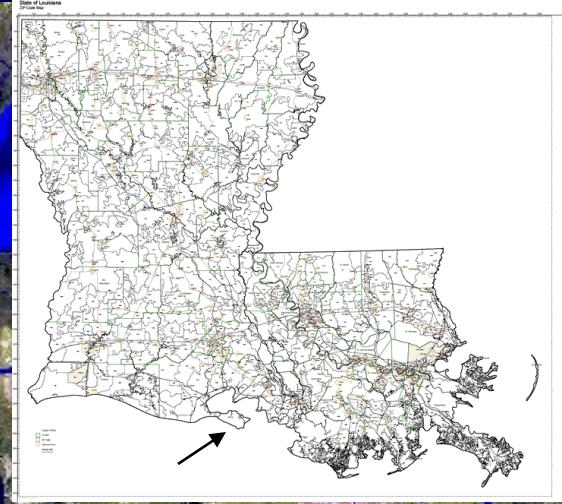
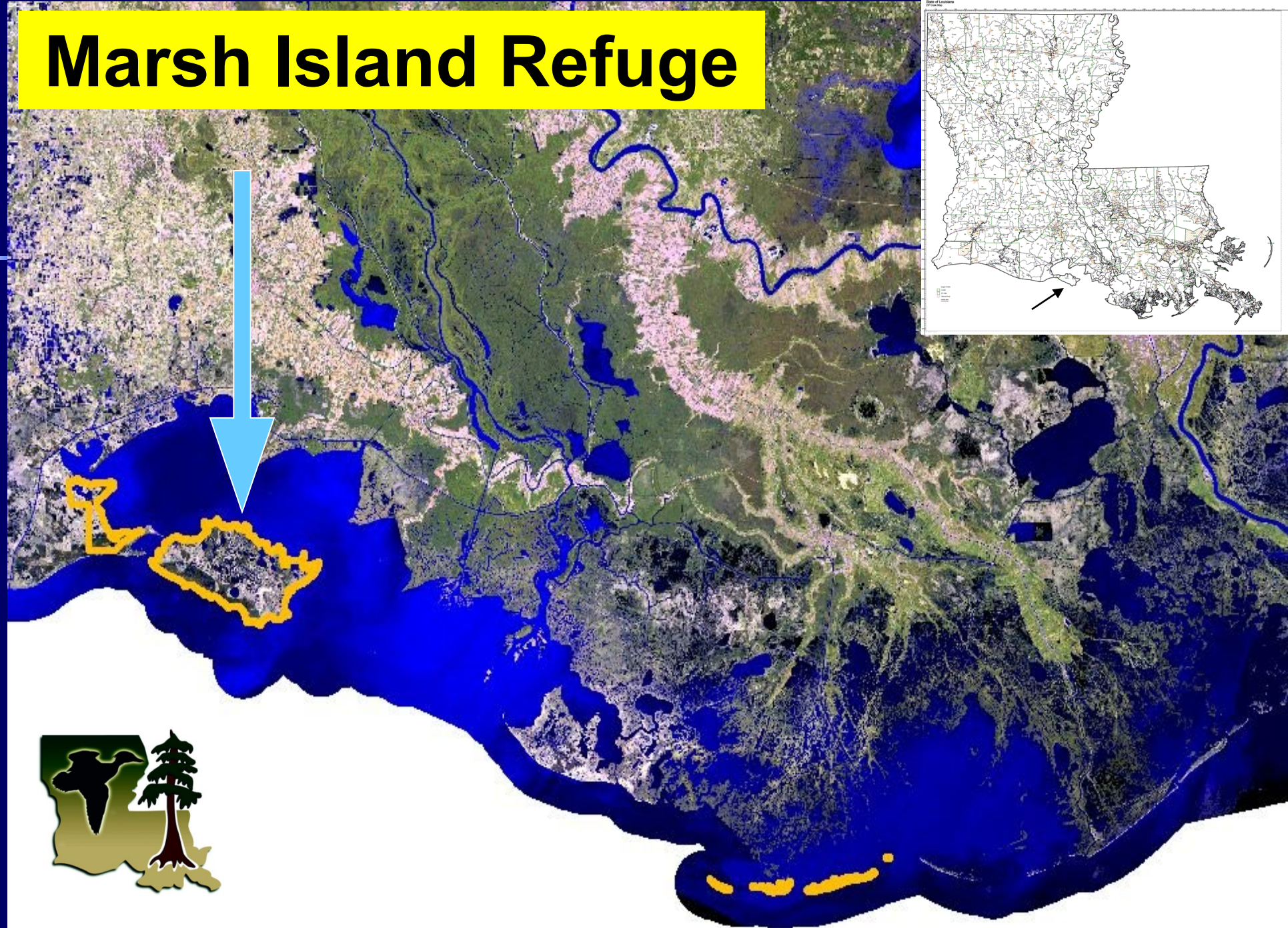


An aerial photograph of a marsh landscape, showing a complex network of winding waterways and patches of green vegetation. The entire image is covered with a semi-transparent blue overlay. Centered over this background is the text "Marsh Island Wildlife Refuge" in a white, bold, serif font.

# Marsh Island Wildlife Refuge



# Marsh Island Refuge





# Background Information (cont.)



- Originally 76,000 acres
- Due to shoreline erosion, current acreage is approx. 69,800 acres



# Background Information (cont.)

- Brackish/intermediate marsh
- Important for wintering ducks and geese
- Important nursery grounds for shrimp, crabs, and other marine fish
- Was a freshwater cypress swamp about 5,000 years ago (during Sale/Cypremort delta lobe), but has since separated from the mainland and become more of a brackish marsh system





# Management Objectives

- To maintain and improve Marsh Island as wintering waterfowl habitat
- To maintain a variety of habitat types to promote wildlife/fishery diversity
- To maintain population densities of furbearers and alligators to prevent damage to habitat or other species of wildlife
- To provide recreational activities for the public



# Resource Management

- Water level management
  - Fixed crest weirs
  - Flap-gated water control structures (variable-crest)
- Controlled marsh burning
- Habitat enhancement
- Data collection / monitoring / research

# Marsh Island Water Control Structures





# Marsh Island Water Management Units



# Update

- . Data Gap Analysis Complete.
- . Survey and Geotechnical Investigations to commence soon.
- . Marsh Island Wildlife Refuge project planning document to follow data collection.



# High Priority / Critical Locations

- Eastern region
  - Marsh fragmentation
  - Shoreline erosion
  - Receding marsh buffer
- Loss of Oyster reefs
  - Erosion has accelerated
  - Critical habitats degraded
  - Ecological and economic benefits diminished

# Identification of Potential TV-0104 Project Features



## Critical Needs

- Shoreline protection features along eastern shoreline
- Marsh creation and/or nourishment within southeast quadrant
- Reintroduction of oyster reefs along eastern and southeastern offshore areas



# Data Collection Plan



Survey and Geotechnical Investigations to commence soon

1. Topo/bathymetric Surveying
2. Magnetometer Surveying
3. Geotechnical Investigations

Waiting on permit authorization to begin data collection.



## Rockefeller Wildlife Refuge





# Rockefeller Wildlife Refuge Restoration Efforts

- Gulf of America Shoreline Protection Projects benefiting Rockefeller Wildlife Refuge
- Completion of ME-35 Gulf Shoreline Protection. approximately 3,200 ft at a cost of \$13 million. Approximately 5 miles of protection has been completed (ME-18, ME-37, & ME-35)
- Southwest Coastal ME-41 Gulf Shoreline Protection Project. Approximately 6 miles of shoreline protection is being considered in the Southwest Coastal plan. Approximately \$30 million has been obligated from Congress. The project will be administered by the Army Corps. of Engineers and CPRA.
- CWPPRA PPL35 proposal, Rockefeller Wildlife Refuge Gulf Shoreline Protection West for E&D funding (Project is valued at \$35 - \$39 million).
- Recent vegetation plantings on the beach of RWR took place of 10,000 costal plants, involving CRCL, youth groups, and Cheniere LNG staff.





# Rockefeller Wildlife Refuge Restoration Efforts cont'd

Louisiana Watershed Initiative Mermentau Inundation Relief Project

- \$25 million. Project is under construction on RWR







## Restoration Efforts at our other Coastal Refuges and WMAs

- Working with St Charles Parish on their master planning to include features on Salvador/Timken WMAs.
- Working with CPRA on TV-100 Engineering and Design for State Refuge projects.
- Work with NGOs (Restore the Earth) to plant 1000s of acres of wetlands.
- Working with CPRA, advising on the DWH funded PAL Hydro Restoration E&D.
- Participating in CPRA Atchafalaya Master Planning and broader Coastal Master Planning Efforts.
- State Wildlife - Hog Bayou Unit Water Control Structure Replacement (NAWCA, DU, LDWF funding) – will be submitting wetland permit application soon





## Office of Wildlife's highly active within the LATIG and their DWH Restoration efforts

- Raccoon Island Restoration - LDWF is closely involved in data collection and design
- North Chandeleur and New Harbor Island Restoration - LDWF is conducting weekly wildlife surveys during nesting seasons and is weighing in on many aspects of project design
- PAL Hydrologic Restoration – along with Coastal Operations, staff are advising on the modeling and design efforts.
- Terrebonne HNC Island - LDWF was very active in this project's development and is closely monitoring this LATIG Project's ongoing construction
- Staff dedicated to the success of previously constructed LATIG projects, playing a key role in their Operations & Maintenance
  - Queen Bess Island – monitoring vegetation, maintaining nesting habitat, banding birds, etc.
  - Rabbit Island - monitoring vegetation, maintaining nesting habitat, monitoring nesting birds.
  - North Breton Island – Assisting USFWS where needed.







# Questions?

