

COASTAL PROTECTION AND RESTORATION AUTHORITY BOARD

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT UPDATE

COL Cullen Jones, P.E., PMP
Commander
17 May 2023



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STATUS OF THE PERMANENT CANAL CLOSURES AND PUMPS

2

BLUF: Every level of USACE is engaged in delivering design risk reduction levels for this hurricane season.

Concurrently, we are developing the path forward for delivering our commitment of sustainable and reliable pumps that meet design-life specifications.



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HSDRRS PERMANENT CANAL CLOSURES AND PUMPS



① 17th St. PCCP



② Orleans Ave. PCCP



③ London Ave. PCCP



TWO-PHASE RESPONSE TO PUMP CORROSION AT LONDON AVE SITE

Phase I (a) : Repair and restore Pump #1 to service for this hurricane season

Phase I (b): Inspect and, if necessary, repair each of additional 16 PCCP pumps

Phase II: Undertake measures required to deliver 35-year design life pumps



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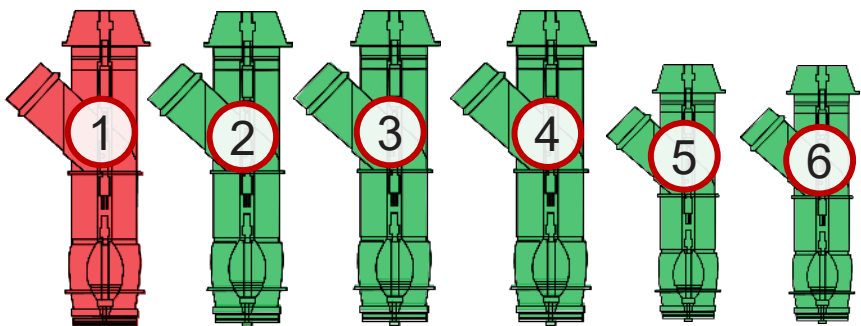
PHASE I: LONDON AVENUE PCCP STATUS

Readiness for 2023 Hurricane Season

IMMEDIATE REPAIR: PUMP #6



INSPECTIONS COMPLETE

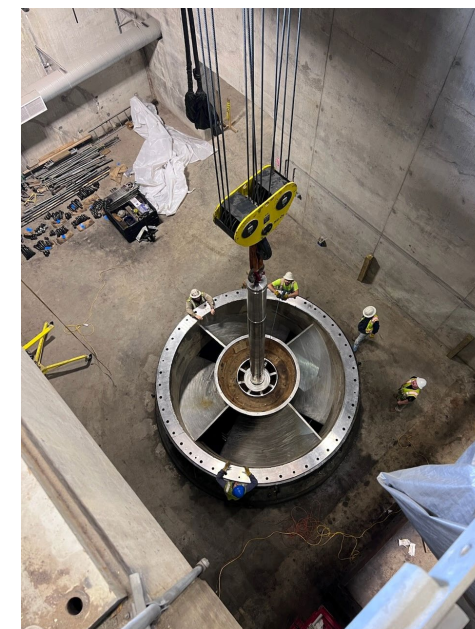


ESTABLISHED PUMPING CAPACITY

- **Pumps Available:** 5 of 6 ready for hurricane season
- **Current Capacity:** 7,200 cubic feet per second (cfs)
- **Max Sewerage and Water Board Discharge:** 7,980 cfs
- **Required capacity for a 10-year rain event:** 5,211 cfs

PUMP #1 REPAIR STATUS

- **Current Target:** Restored and in place by 1 June; wet tests on June 5
- **Repairs include:** Replace or repair & recoat corroded components; replace bearing seals; install new grease shields and lube lines.
- **Challenges:** Fabrication or part deliver lead times impacted schedule. Working with contractor to recover lost time.





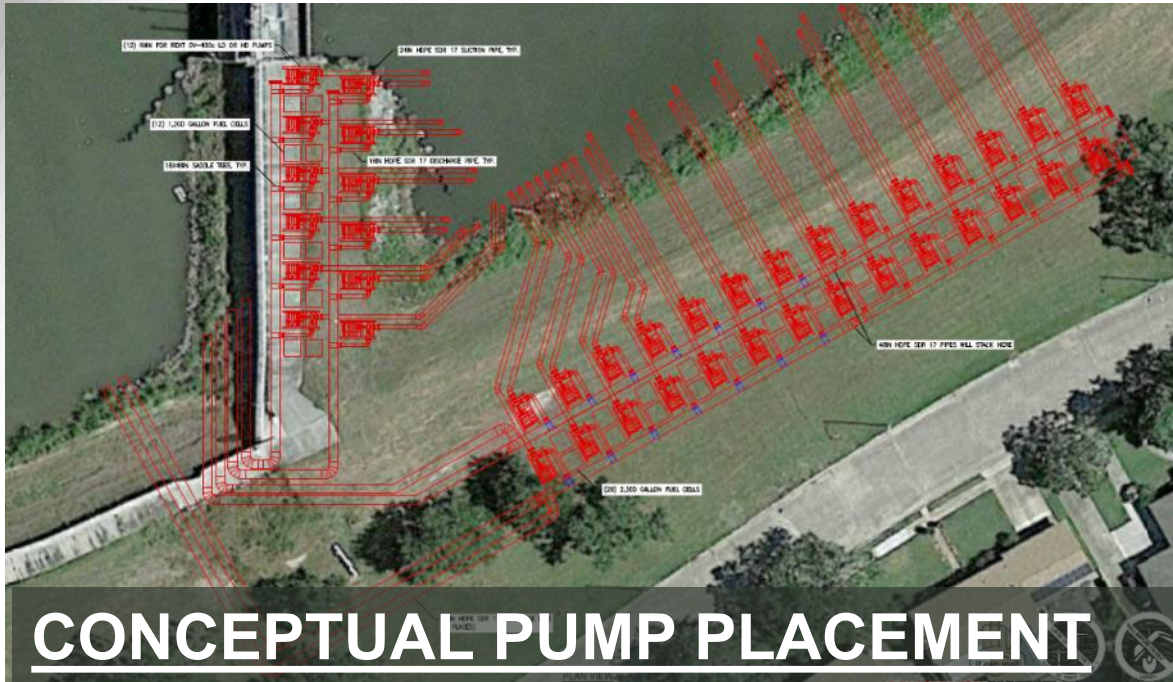
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PHASE I: HURRICANE SEASON READINESS CONTINGENCY

TEMPORARY PUMP SUPPORT

- Support from **U.S. Navy Supervisor of Salvage and Diving (SUPSALV)**
- Provides **1,000 cfs** in additional pump capacity by **1 June 2023**
- Remain onsite until London Ave. PCCP can deliver designed pump capacity (restoration of Pump #1)

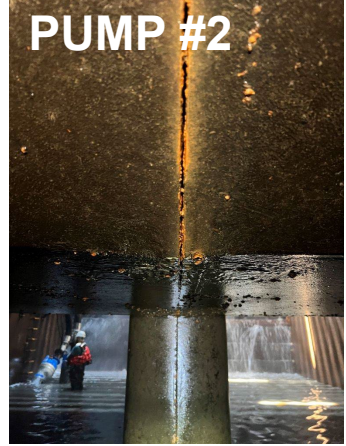
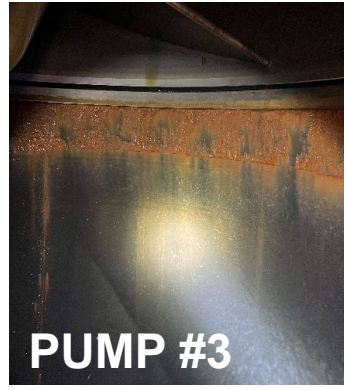
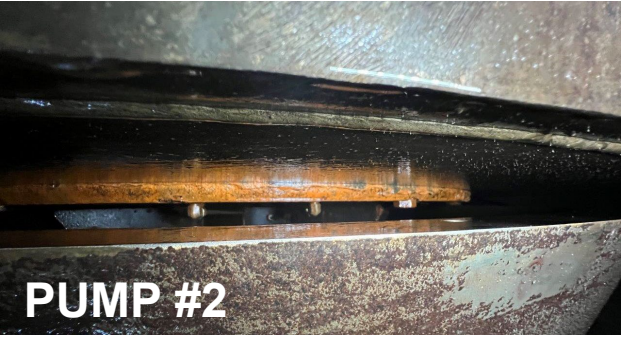


Site preparations underway on April 26 with 19 pumps arriving May 19



PHASE I: 17TH STREET PCCP STATUS

Readiness for 2023 Hurricane Season

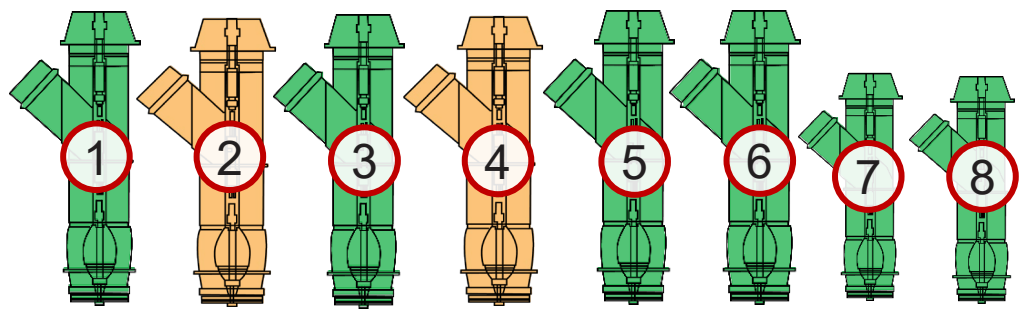


AVAILABLE PUMPING CAPACITY

- **Pumps Available:** 8 of 8 pumps approved; 6 of 8 pumps online
- **Current Capacity:** 10,800 cfs immediately available; full 12,600 cubic feet per second (cfs) if stoplogs removed
- **Max Sewerage and Water Board Discharge:** 10,330 cfs
- **Required capacity for a 10-year rain event:** 9,527 cfs

INSPECTIONS UNDERWAY

- Manufacturer has determined all 8 pumps are reliable for Hurricane Season 2023.
- Pumps #2 & 4 has been approved by manufacturer and restored. Stoplogs remain in place.
- Contractor conducting additional investigations on Pump #2 & 4 to inform long-term repair path forward





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PHASE I: ORLEANS AVENUE PCCP STATUS

Readiness for 2023 Hurricane Season

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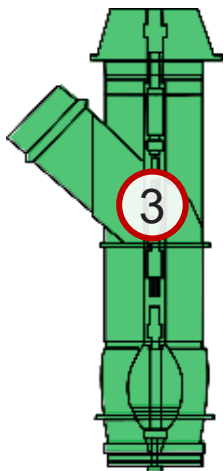
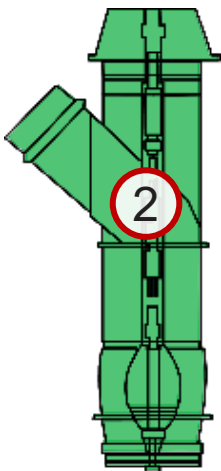
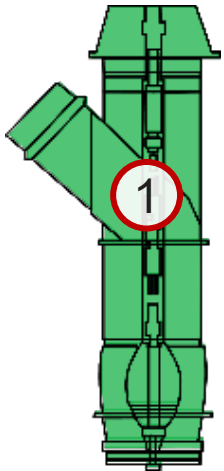


AVAILABLE PUMPING CAPACITY

- **Pumps Available:** 3 of 3 ready for hurricane season
- **Current Capacity:** 2,700 cubic feet per second (cfs)
- **Max Sewerage and Water Board Discharge:** 2,690 cfs
- **Required capacity for a 10-year rain event:** 2,455 cfs

INSPECTION COMPLETE

- **PCCP JV made immediate repairs to pumps pulled during inspection.**
 - Repair work included cleaning, coating and installation of grease shields.
- **All pumps determined reliable for hurricane season**





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PHASE II: DELIVERING THE PROJECT AS DESIGNED⁸

USACE COMMITMENT:

Ensure all 17 pumps meet the 35-year design life specification

- 1. ONGOING:** Identify Underlying Cause
- 2. ONGOING:** Secure Necessary Funding
- 3. ONGOING:** Develop scope and finalize design
- 4. ONGOING:** Identify most beneficial acquisition strategy

TARGETED MOBILIZATION DATE: DECEMBER 1, 2023

Phase II will be a multi-year effort with work to occur outside of hurricane season
(Dec 1 to May 31)



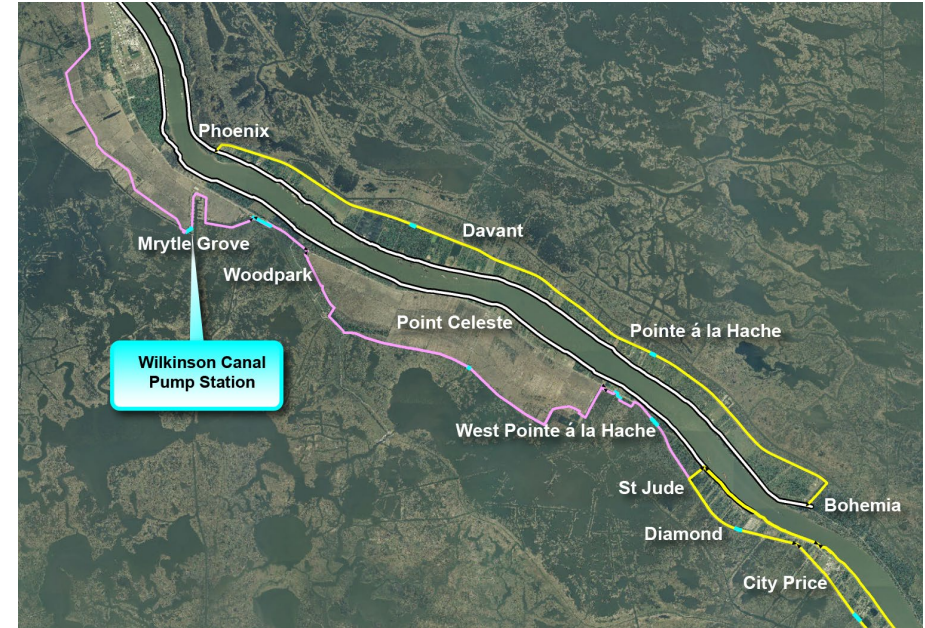
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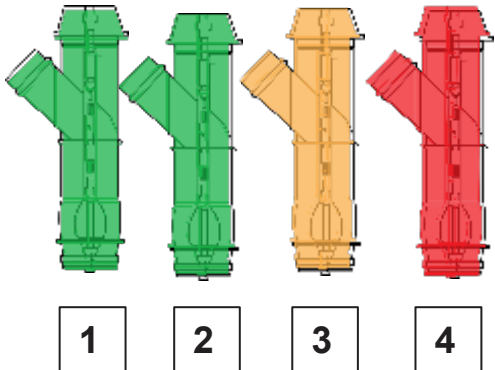
NOV – WILKINSON CANAL PUMP STATION



Pump Station Design Capacity and Status

- Design capacity: 1,000 cfs (4 pumps @ 250 cfs each)
- Current capacity: 500 cfs (Pumps 1 & 2 @ 250 cfs each)
- Hurricane Season 2023: 2 pumps operational, PS @ 50% capacity
- Hurricane Season 2024: Pumps 1-4 operational, PS @ 100% capacity
- Simulations show that reduced pump capacity has no impact on water levels at HWY 23, assuming road is at elevation 0 to 2 ft NAVD
- The 25-year event is not expected to threaten HWY 23

Pump Operation and Repair Tracker



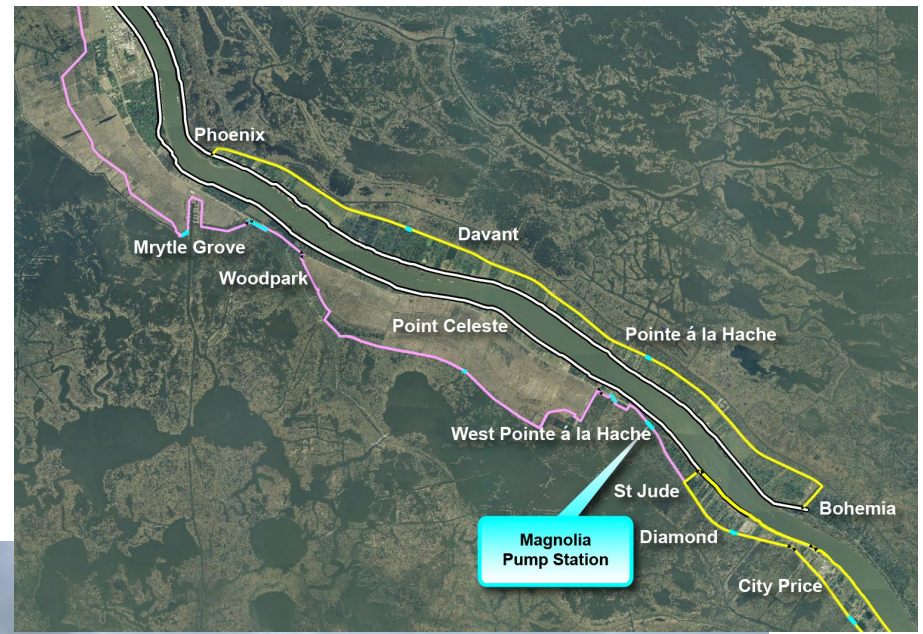
<p>Currently operational; to be removed for service/maintenance. Est. Final Return to Service: Nov 2023</p>
<p>Wet test pending; Est. Final Return to Service: May 2023</p>
<p>Repairs ongoing; Est. Final Return to Service: June 2023</p>

Project Timeline

- May 2021** – Wilkinson PS Technical Services contract awarded
- Feb 2022** – Pumps #3 & #4 removed for repairs, PS operates at 50% capacity
- Apr 2023** – Pumps #3 & #4 returned for reinstallation. Pump #4 shutdown during trial run on 04/28. Pump #3 operated successfully.
- May 2023** – Pump #4 removed, returned to the shop, disassembled, and inspected
- Jun 2023** – Pump #4 returned for reinstallation, wet testing and return to service
- Nov 2023** – Pumps #1 and #2 returned to final service



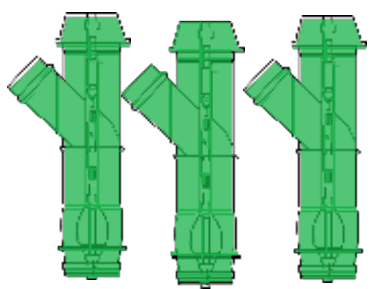
NOV - MAGNOLIA PUMP STATION



Pump Station Design Capacity and Status

- Contract completed and turned over to non-Federal sponsor March 2023
- Design capacity: 275 cfs (3 pumps @ ~91.7 cfs each)
- Current capacity: 275 cfs
- Hurricane Season 2023: 275 cfs, all pumps operational
- Warranty items currently being addressed, however do not impact pump station operation and are expected to be resolved prior to 1 June 2023

Pump Operation Tracker



100% operational

- 1
- 2
- 3





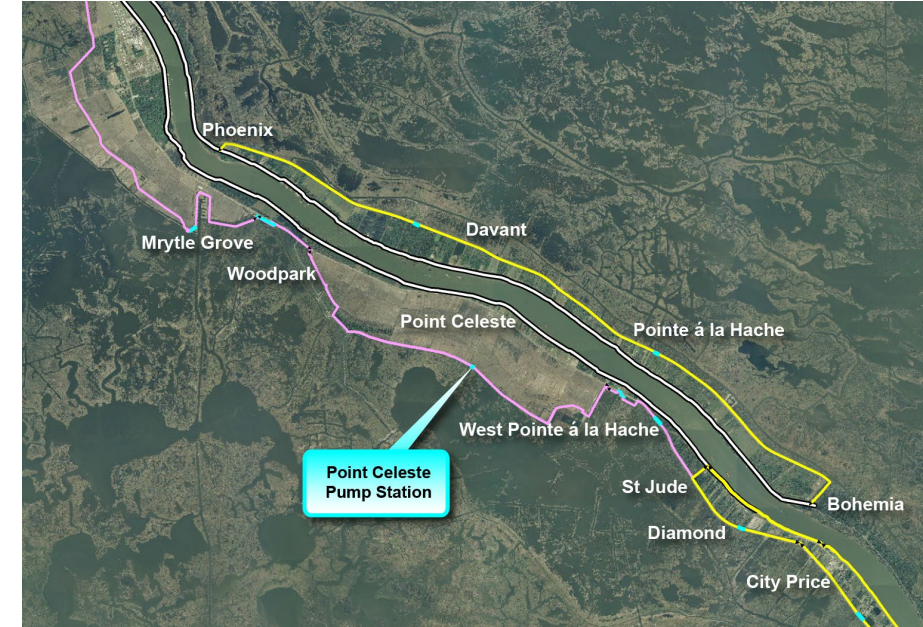
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POINT CELESTE PUMP STATION



Pump Station Design Capacity and Status

- Non-Federal pump station
- Design capacity: 520 cfs
- Current capacity: ~275 cfs (as reported by PPG)
- USACE completed 50-year level of risk reduction for fronting protection and turned over to NFS in 2022
- Temporary pumps provided following Hurricane Ida as part of USACE Unwatering Mission
- Non-Federal sponsors requested to utilize a portion of DRSA 2022 funding to expedite rehab/replacement of Point Celeste PS under the authority of Sec. 8152 of WRDA 2022





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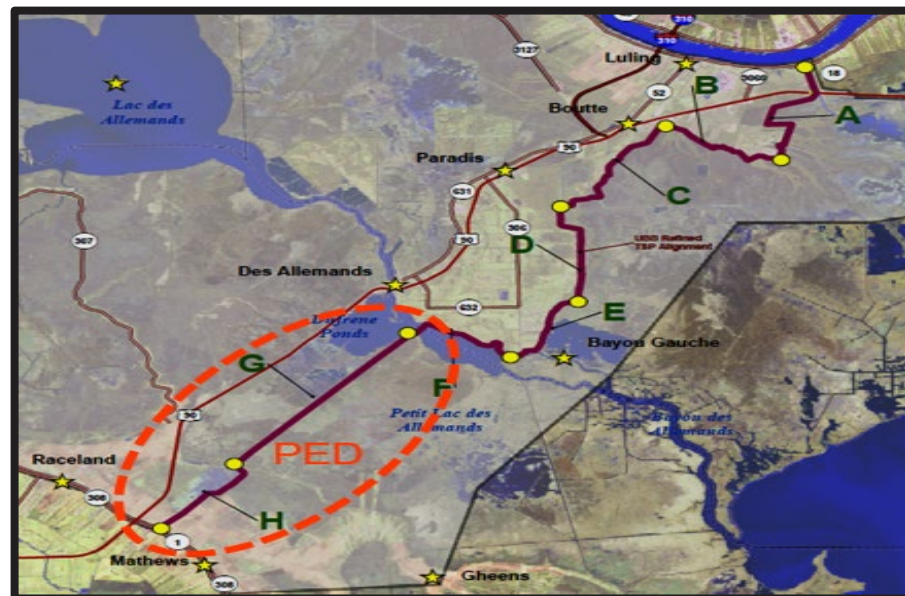
UPPER BARATARIA BASIN

Overview

- Chiefs Report signed in January 2022
- 30-mile levee and floodwall system
 - Pre-construction Engineering & Design (PED) Underway
 - 100% Federally Funded
 - \$8M Funded via DRSA
 - Draft P&S for Reaches G & H (~9 miles)
- Agreements
 - 24 May 2022: Work In-Kind MOU with CPRA
 - 26 Sept 2022: Design Agreement with CPRA

Current Status

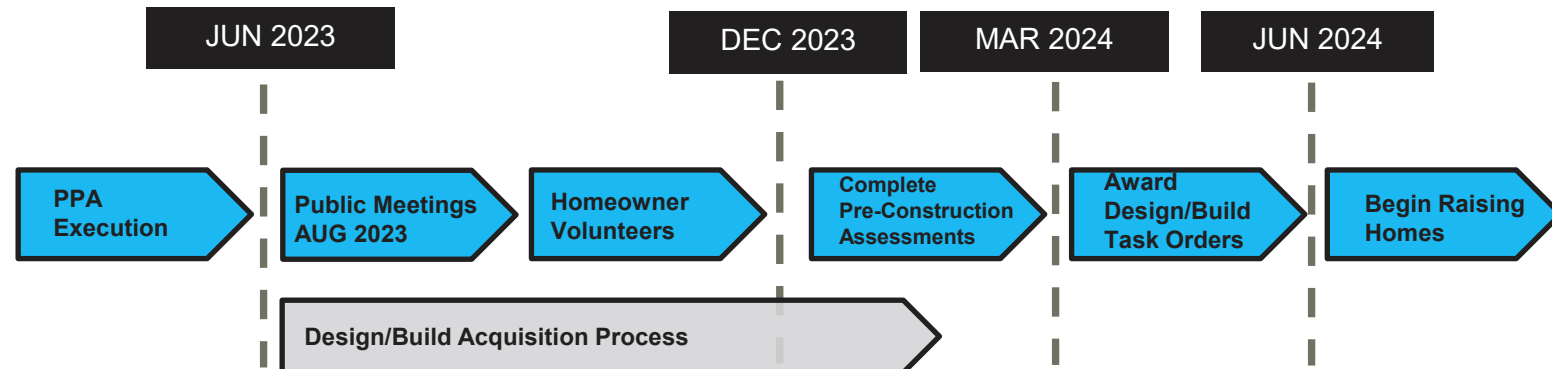
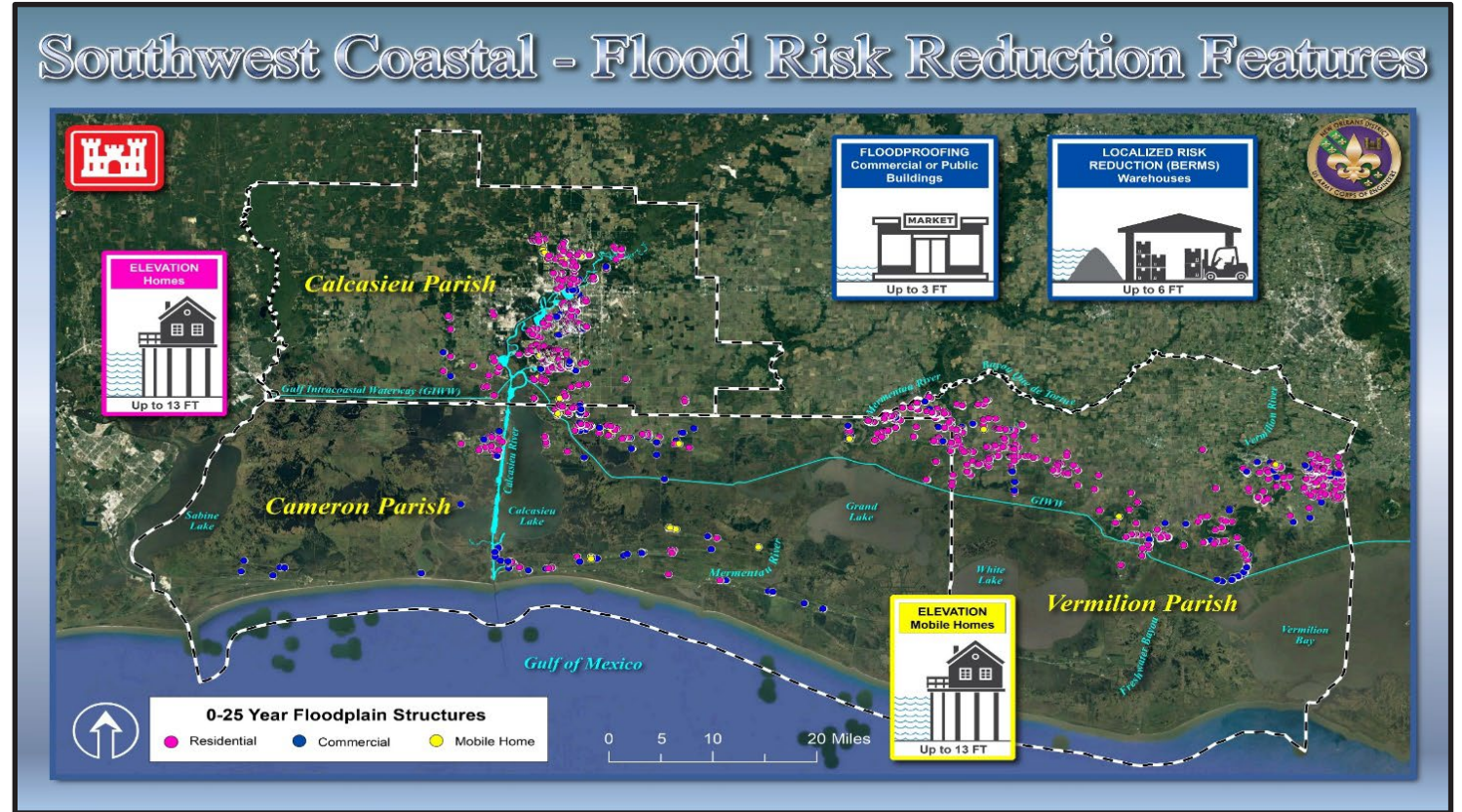
- Record of Decision
 - Signed by ASA(CW) on 8 May 2023
- Basis of Design
 - Published on 7 April 2023
- Field Investigations



SOUTHWEST COASTAL

Project Overview

- Project Features
 - Structure Raising
 - Ecosystem Restoration
- \$6.8B Estimated Cost
 - \$1.3B for Coastal Storm Risk Management
 - \$296M received
 - » Raising 800 to 1,000 structures
 - \$5.5B for Ecosystem Restoration
 - \$10M received
 - » 6 miles of shoreline protection at Rockefeller Refuge
- Memorandum of Understanding (MOU)
 - State credit for design work completed for 1st increment of ecosystem restoration features
 - May 2023
- Project Partnership Agreement
 - June 2023





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REEVALUATION REPORTS

Disaster Supplemental Funds (100% Federal)

- Addition of resiliency features to projects
- Rapid recovery following events

Grand Isle



- Offshore Breakwaters
- Jetty Extension
- Restoring Cypress Forest
- Periodic Nourishment
- Sand Engines
- Dune Elevation

West Shore Lake Pontchartrain



- Turf Reinforcement
- Wave Berms
- Restoring Cypress Forest
- Pump Station Redundancy
- Dewatering Features
- St. James Project Features

Comite River Diversion



- Reinforced Channel Banks
- Additional Clearing and Snagging
- Local Channel Improvements
- Dredging
- Pumps
- Detention Ponds