

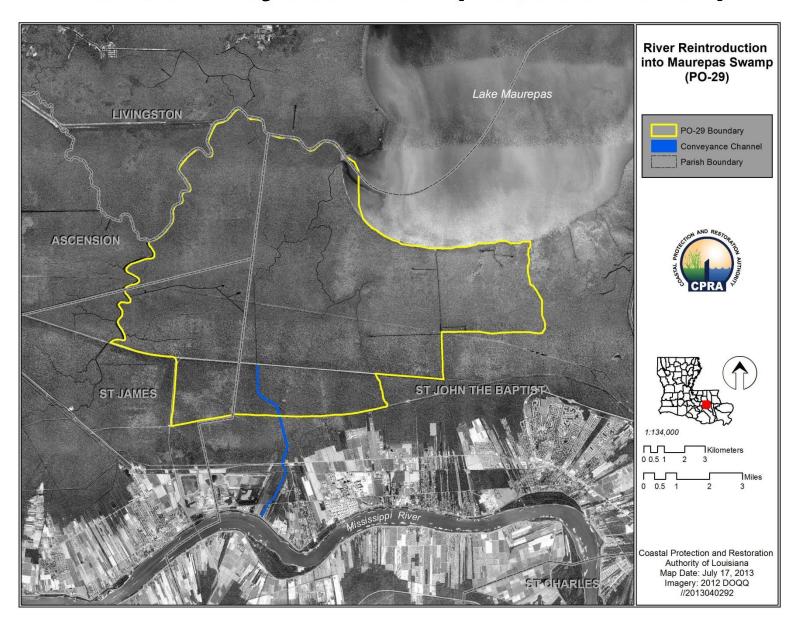
River Reintroduction Into Maurepas Swamp

Project Status Update

Brad Miller
CPRA Project Management



PO-29 Project Area (45,000 acres)



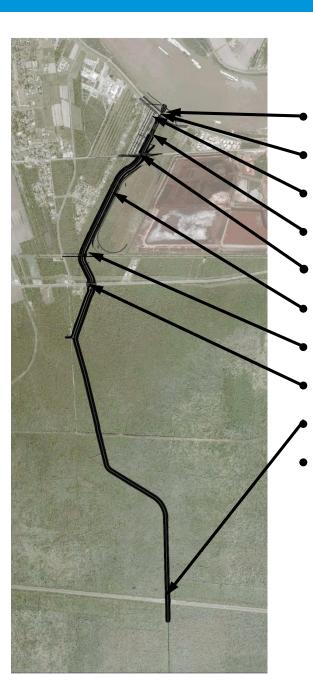
Project Goal

Restore the connection between the Mississippi River and the Maurepas Swamp to increase swamp ecosystem health and function



Project Origins

- Included in several restoration plans:
 - Louisiana Coastal Restoration Plan (1993)
 - Louisiana Coast 2050 Report (1998)
 - Mississippi River Sediment, Nutrient and Freshwater Reintroduction Study (1999)
- CWPPRA PPL 11 Project (EPA)- Authorized 2001
- LCA Plan (2004)- Authorized in WRDA 2007 (Hope Canal)
- 2012, 2017 Coastal Master Plans (001.DI.21)
- 2017 Project Receives RESTORE Pot 2 Funds



Main Project Features

Mississippi River Intake

Headworks

River Road Crossing

Sedimentation Basin

CN RR Crossing

Conveyance Channel

KCS Railroad

Airline Highway Crossing

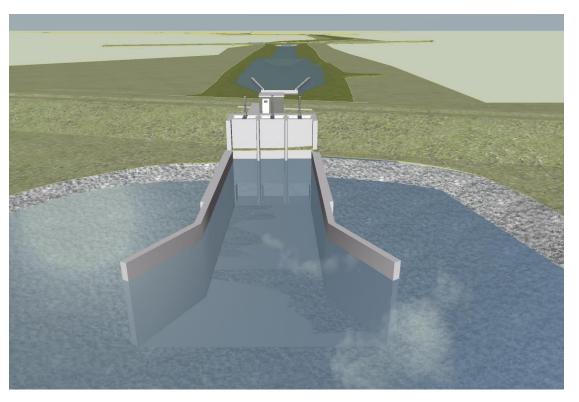
I-10 Crossing

Ancillary Features:

- Lateral Release Valves
- Check Valves Under I-10
- Weirs At Bayou Secret & Bourgeois Canal
- RR Embankment Cuts

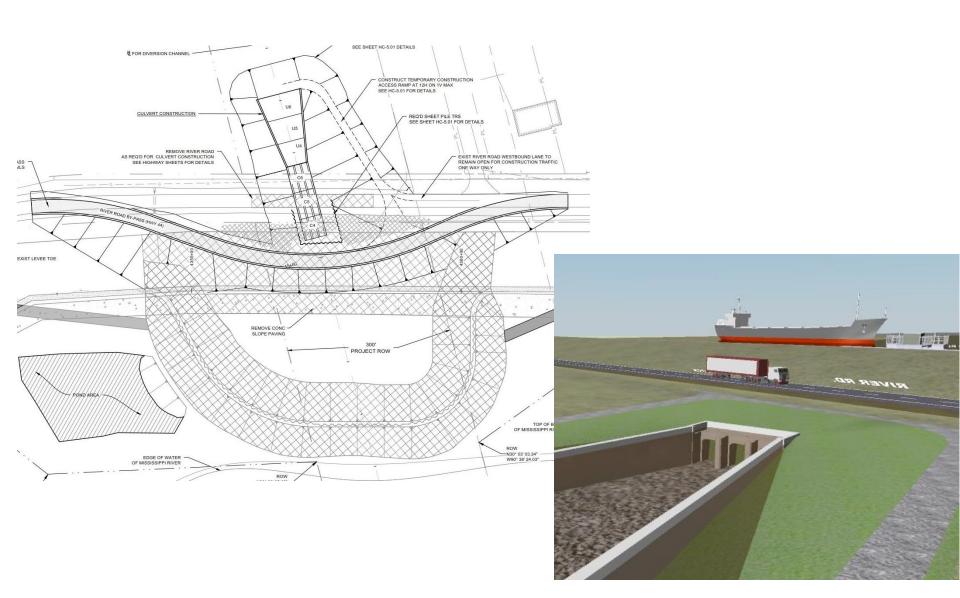
Coastal Protection and Restoration Authority of Louisiana

Main Project Features: Mississippi River Intake

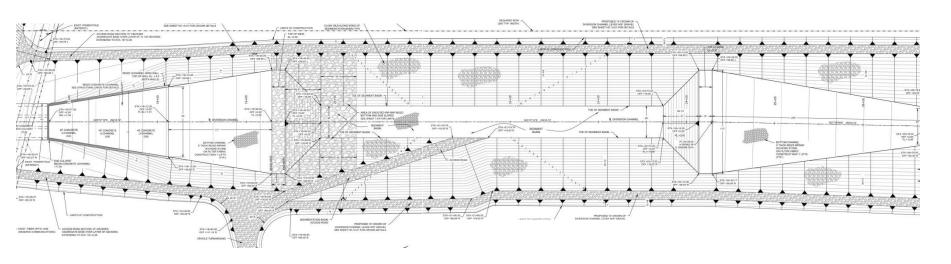


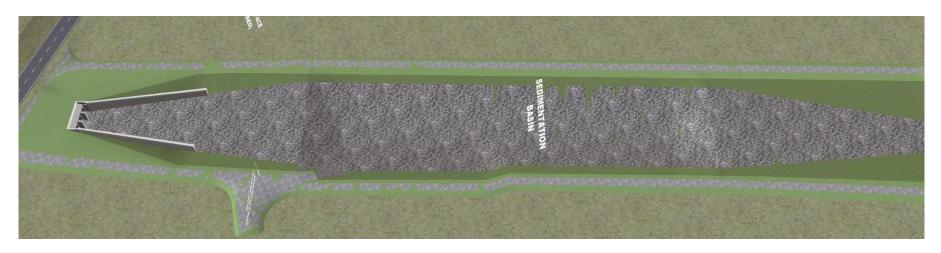
3 10'x10' Box Culverts
Maximum Flow of 2,000 ft³/second

Main Project Features: River Road Crossing

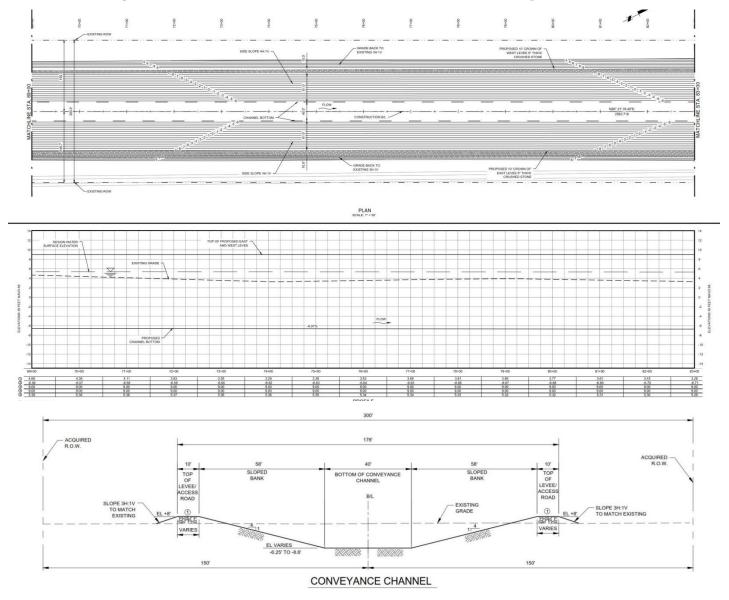


Main Project Features: Sedimentation Basin

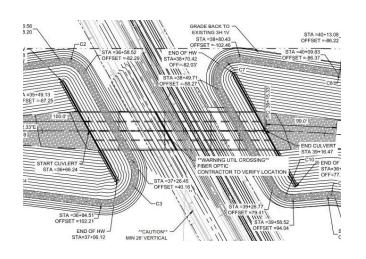


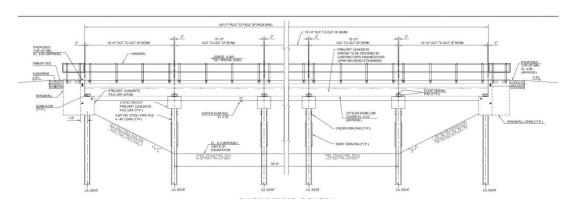


Main Project Features: Conveyance Channel



Main Project Features: RR Crossings

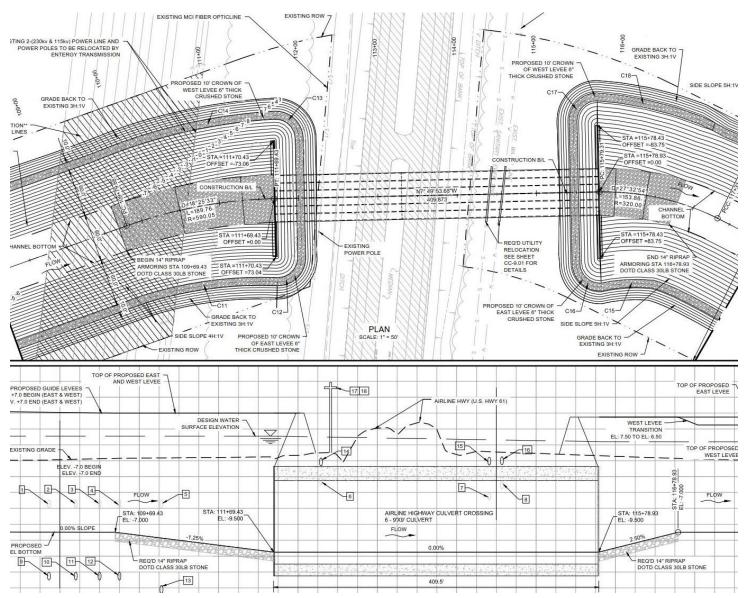




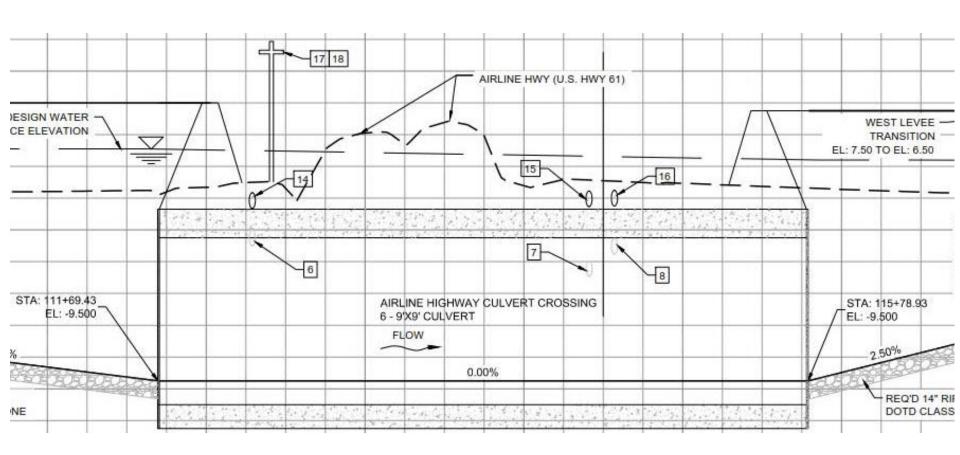




Main Project Features: Airline Hwy Crossing

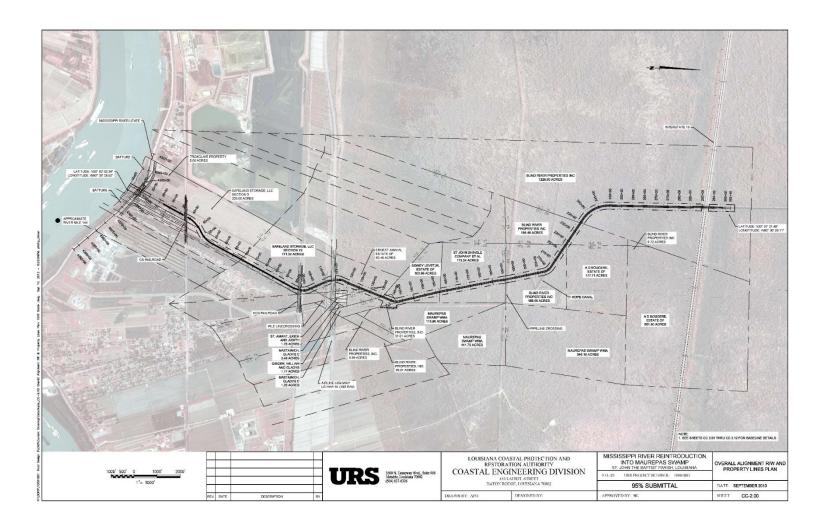


Main Project Features: Airline Hwy Crossing

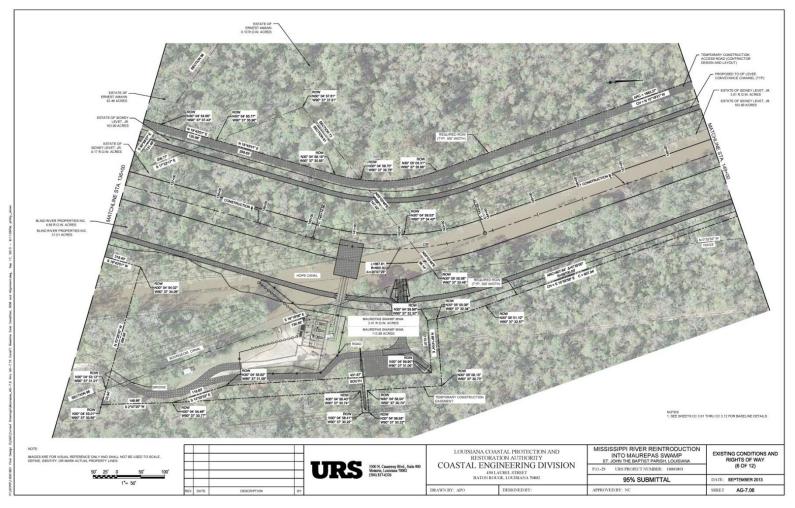


Water flow on drainage ditches paralleling Airline Hwy is maintained

Main Project Features: Pump Station



Main Project Features: Pump Station



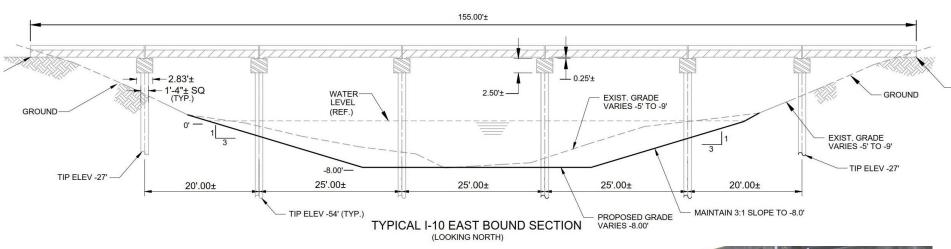
250 CFS Capacity 3 125 CFS Pumps

Coastal Protection and Restoration
Authority

Main Project Features: Pump Station



Main Project Features: I-10 Crossing





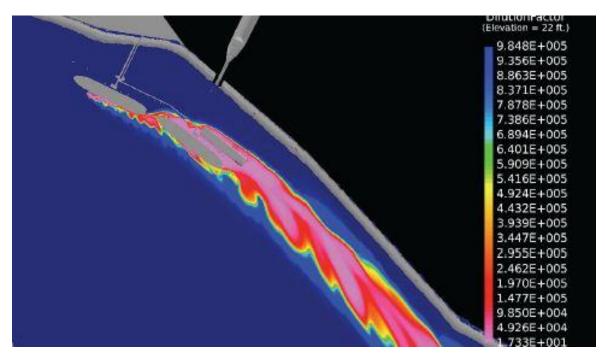


Implementation Progress to Date

- CWPPRA Phase 0 Study (2001)
 - Site Evaluation
 - Size Evaluation
 - Drainage/Water Quality Issues
- Modeling Report (2007)
 - Secondary Benchmark
 - Topographic and Bathymetric Survey
 - Hydrologic Data Collection
 - 1D SWMM Model Study
 - ADCIRC 2D Hydrodynamic Model
- 30% Design Report (2008)
- 95% Design Report (2014)

Implementation Progress to Date (cont'd)

- Simulation of Flow near Proposed Dock Facility (2015, 2017)
 - Analyzed impacts of potential spills in river
 - Unlikely that spills from Pin Oak dock would enter diversion
 - Infrastructure from Dock 2 may decrease velocities and cause sediment deposition in front of intake, but will not affect discharge.
 - New MOU language requires Pin Oak to mitigate for any sedimentation



Moving Forward/Next Steps

- Landrights
- Permitting
- Operations, Maintenance, Monitoring, Adaptive Management (OMM&AM)
- Final Design

- Title updated through May 2015
- Title will need to be brought up to date
- Some access routes have changed, additional title work will be needed
- Acquisition tracts will need to be surveyed and appraised
- Proceed with making offers to owners

- Joint Permit Application Spring 2013
- Joint Public Notice August 2013
- USACE determined EIS required May 2014
 - NOI published October 2014
- CPRA re-engaged USACE in Fall 2017

- Established Maurepas Technical Advisory Group (TAG) in 2015
 - Provides recommendations for developing Operations, Maintenance, Monitoring, and Adaptive Management (OMM&AM) plan
 - Assists in developing targets for ecological success of the project (Hydrology, Forest Structure Integrity, Salinity, Soil surface elevation, and Nutrients)
 - Assists in addressing remaining scientific uncertainties

- H&H model to incorporate landscape changes
- Finalization of main project feature design
- LDOTD permit (US 61), USACE Section 404/408/10 comments
- Pipeline/Parish/Landowner coordination
- Real Estate and ROW drawing updates
- Survey updates
- Supplementary soil sampling
- Possible re-design to accommodate WSLP project
- Final Plans and Specs

Project Schedule

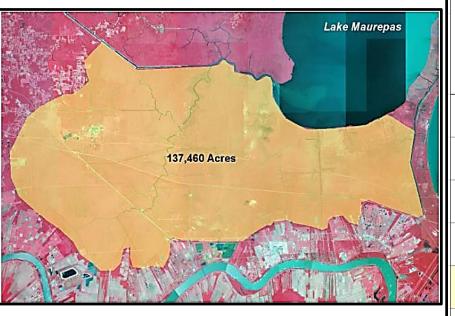
- September 2017: Received RESTORE Funding
- 2017-2020: Permitting, Landrights, Final Design,
 Pre-construction Monitoring and Modeling
- Construction (if funding secured) ~ 4 years
- Post-construction and beyond: implementation of OMM&AM plan

- Q. How will the Diversion Impact Local Drainage?
- A. Local Drainage will not be negatively impacted.



Coastal Protection and Restoration Authority of Louisiana

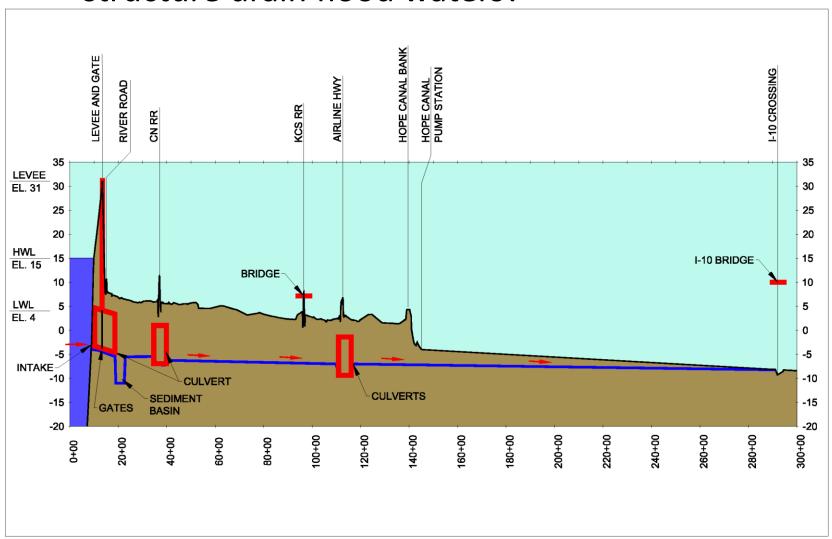
• If the Garyville Reserve area floods can the structure drain flood waters?



| | Days Required to Drain | | |
|--------------------|------------------------|---------------------------|-----------------------------|
| Flow Rate (cfs) | Drain Entire Basin | Lower Water Level 1-ft | Lower Water Level 0.5-ft |
| 100 | 3,465 | 693 | 347 |
| 500 | 693 | 139 | 69 |
| 1,000 | 347 | 69 | 35 |
| 1,500 | 231 | 46 | 23 |
| 2,000 | 173 | 35 | 17 |
| 4,000 | 87 | 17 | 9 |
| 10,000 | 35 | 7 | 3 |

Coastal Protection and Restoration Authority of Louisiana

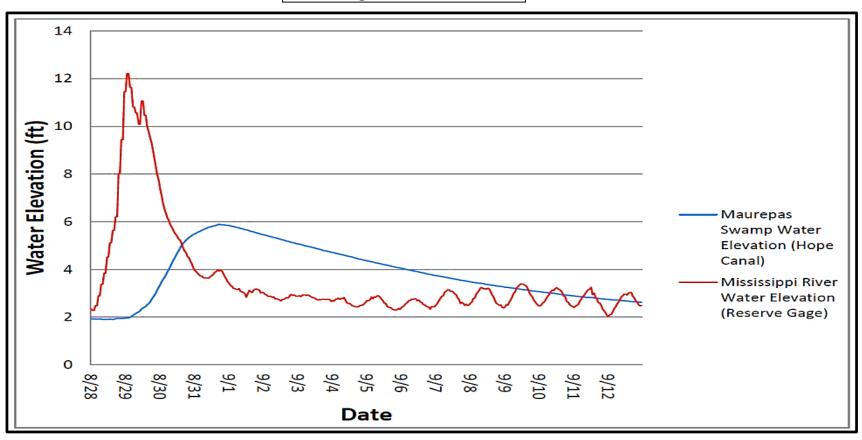
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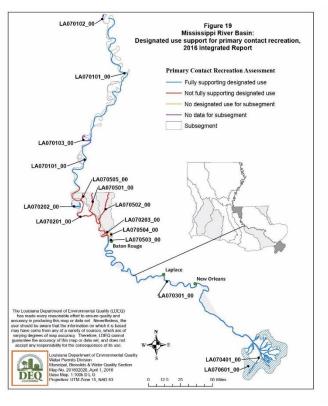
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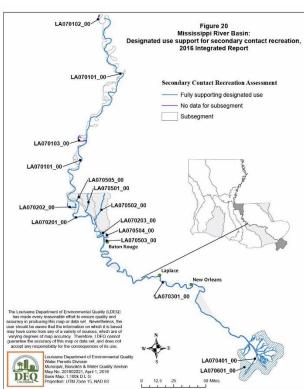
Swamp & River Water Levels

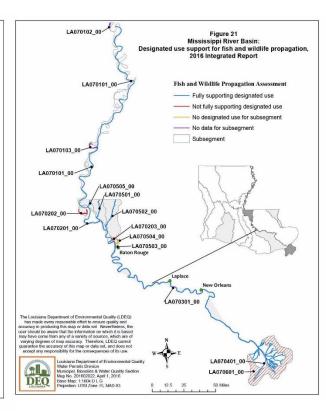
During Hurricane Isaac



- Q. Is Mississippi River water safe to put into the Swamp?
- A. The LDEQ has not identified this section of river as impaired for primary contact, secondary contact, or fish and wildlife propagation.

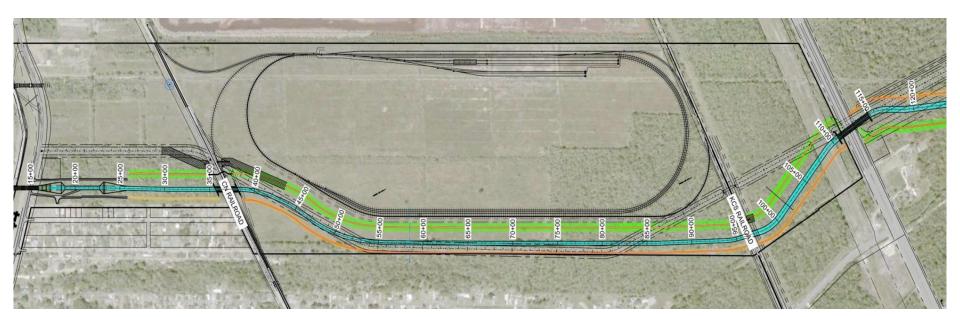






- Q. Isn't the West Shore Lake Pontchartrain Hurricane Protection Levee Project in the same area? Can the two projects coexist?
- A. Yes, with coordination the projects can coexist.





Mississippi River Reintroduction into Maurepas Swamp





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