# Hypoxia Task Force Louisiana Update

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LOUISIANA GOVERNOR'S OFFICE OF COASTAL ACTIVITIES



# UPDATES

I. Louisiana's Nutrient Reduction and Management Strategy

II. Governor's Second Term Coastal Priorities

# Louisiana's Nutrient Reduction and Management Strategy

**DEQ**

**Louisiana Pollutant Discharge Elimination System (LPDES) Permits**

- Industrial Water Permits
- Municipal & General Water Permits

Nonpoint Source Pollution (NPS) Program

Louisiana Environmental Leadership Pollution Prevention Program (LaELP)

**DAF**

**Master Farmers Program**

- Scientifically based best management practices (BMPs) are implemented to target reduction of pollutants into the air and waters of the state.
- Backed by sound science and is a critical component of Louisiana's overall water resource management programs.

**DNR**

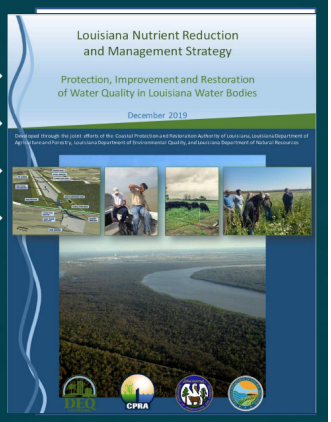
**Coastal Non-Point Pollution Control program**

- Works jointly with LDEQ's NPS Program to educate Louisiana coastal resource users about the available best management measures and to reduce pollutants that may impact coastal waters of Louisiana.

**CPRA**

**Marsh Creation and River Diversions**

- Intercepting nutrients prior to reaching the Gulf






# Approaches

- ✓ Nutrient monitoring & science development
- ✓ Identifying high priority watersheds for BMP implementation
- ✓ Cooperative and innovative efforts for nonpoint source reduction

# NUTRIENT MONITORING & SCIENCE



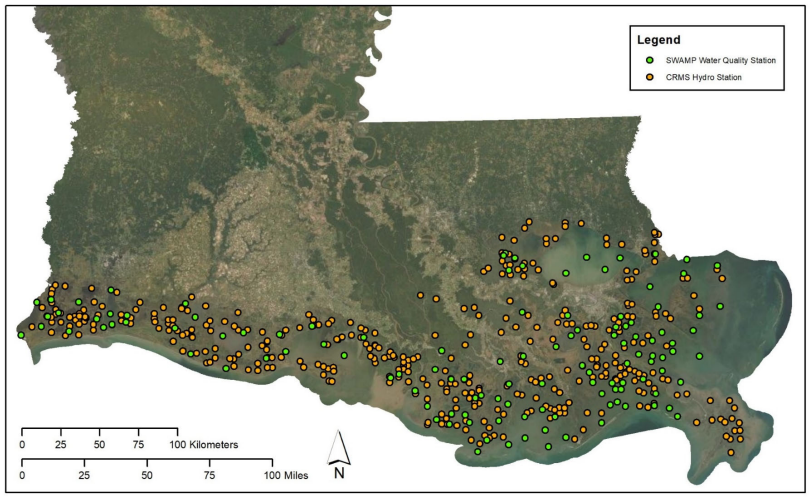
## Hypoxia Task Force Grant

Louisiana received $100,000 in 2019 and additional $70,000 in 2020.

Funded Projects

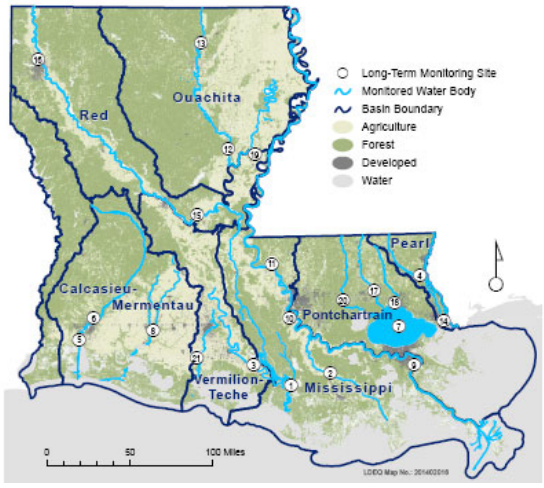
1. Nonpoint Source Program Monitoring
    1. Establish current water quality conditions in watersheds, to identify geographic areas for targeting BMP locations, and track changes in water quality over time from BMP implementation in watersheds.
    2. Nutrient monitoring (N/P) and flow measurements.
    3. Monitoring in 4 southern LA watersheds at an additional 85 sites.
2. Coastal Transect Monitoring
    1. Cooperative effort between DEQ and CPRA – continues previously established monitoring effort for water quality data collection from inshore to offshore waters of Barataria Bay. Fills critical gap on nutrients in coastal area.

# CRMS & SWAMP Water Quality Monitoring






# LDEQ Ambient Water Quality Long-term Nutrient Trends




TKN, NO3NO2, & TP

Period of record 1978-2014, monthly monitoring at 21 long-term sites

Majority of trends decreasing (73%)
- All 21 sites had decreasing trend for TKN
- 12 sites showed decreasing trend for NOx
- 13 sites showed decreasing trend for TP
- Only 1 site showed increasing trend for NOx

•Basins with Ag showed nutrient water quality improvement (either decreasing or no observable trends in nutrients)

# RESTORE Act Center of Excellence

## Research Grants Program

**"Multiple Tools for Determining the Fate of Nitrate in Coastal Deltaic Floodplains"**

**Lead Investigator (Institution):** Robert Twilley (Louisiana State University)

**Goal:** Study how nitrogen moves through the water column and is transformed by wetlands, plants, and microbes in the deltaic floodplain.

**"Determining the Influence of Surface Water Diversions on Physical and Nutrient Characteristics of Wetland Soils"**

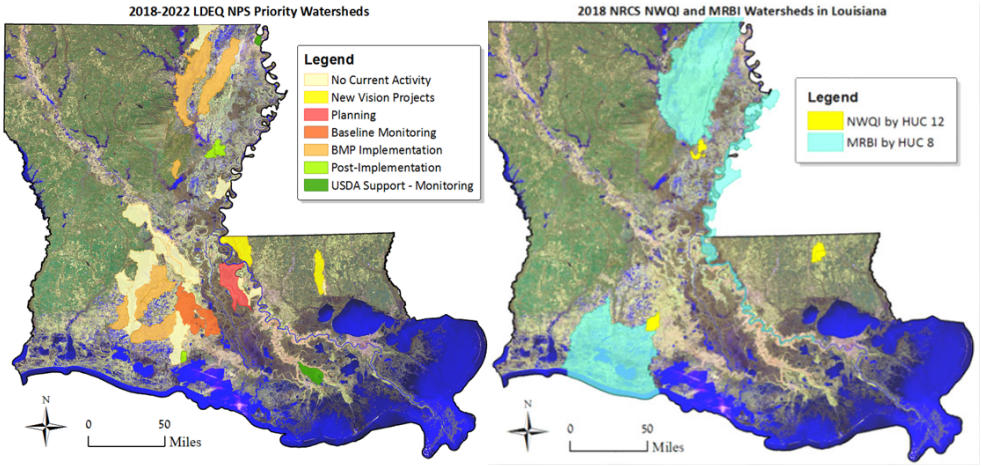
**Lead Investigator (Institution):** John White (Louisiana State University)

**Goal:** Determine impact of Davis Pond Diversion on soil properties, including nutrient content.



# PRIORITY WATERSHEDS

# Priority Watersheds






# NONPOINT SOURCE INNOVATION & COLLABORATION

# Watershed Nutrient Management Plans

I. Project Description: LSU AgCenter will develop producer-specific masters programs and watershed nutrient management plans.
II. Intent: Reduce excessive nutrient pollution from farm practices through enhancing existing NRCS practices.
III. Funding: Mosaic Beneficial Environmental Project (BEP) Consent Decree through LDEQ.
IV. Project Period: July 2019 to June 2022.



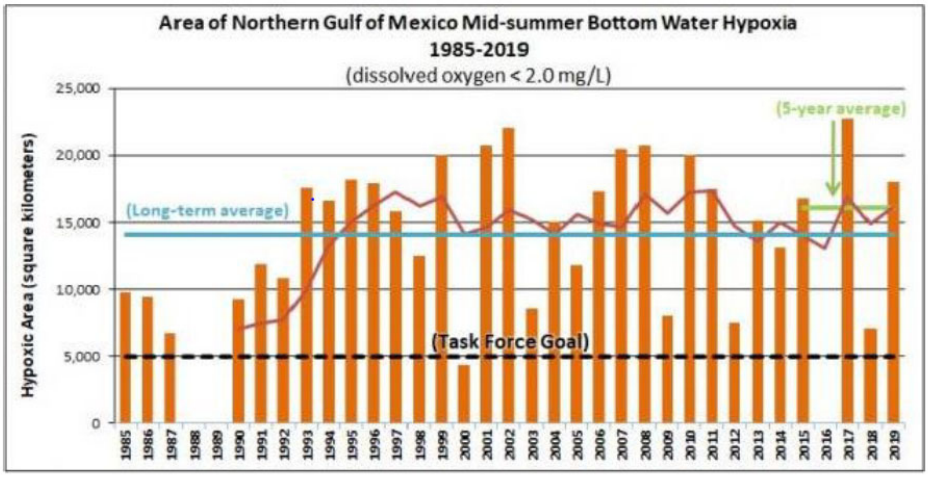
# Water Quality Trading Program

I. Project Description: Trading as market-based, cost effective means to achieve water quality goals for point and nonpoint source pollution.
II. Project Timeline
    I. 2017: Louisiana State Legislature authorized creation of program, which allowed for both point and nonpoint sources to participate.
    II. October 2019: Water Quality Trading regulations finalized and published.
    III. Current Progress: Working with stakeholders interested in participation.

# GOVERNOR'S SECOND TERM COASTAL PRIORITIES



## Largest Hypoxic Zone in the U.S.




*Area of the Northern Gulf of Mexico Mid-summer Bottom Water Hypoxia from 1985 to 2019*
*(Source: Nancy N. Rabalais, LUMCON, and R. Eugene Turner, LSU)*

# Local Impacts: Seafood & Fishing Industries

**Burdens:**

- Competition among vessels
- Higher fuel costs
- Increased bycatch

(Jordan 2018; Marohn 2018)

Over 53,000 jobs in the state are related to the seafood and recreational fishing industries (USDC et al. 2018).

**The Louisiana Shrimp Association and Louisiana Oyster Task Force have passed resolutions to support Hypoxia Task Force goals.**



# Louisiana's Role in a Watershed-Scale Problem

In its unique position at the mouth of the Mississippi-Atchafalaya River Basin, Louisiana faces the aggregate effects of nutrients introduced to the system in each up-river state.

# Coastal Priorities


Photo credit: Mark Schleifstein, NOLA.com, Times Picayune

# Coastal Priorities

Governor Edwards's Priorities for Second Term:

- Integrate the goals of flood protection, ecosystem restoration, navigation, water quality, and fisheries habitat.
  - **Renewed commitment to reducing nutrient pollution in the Mississippi River**
- Manage the Mississippi and Atchafalaya Rivers more holistically
- Establish a task force on the future management of the Atchafalaya Basin
- Promote and maintain a thriving oyster resource and industry in Louisiana
- Establish Climate Initiative Task Force and Resilience Initiative
- Innovation and Collaboration Hub at The Water Institute of the Gulf

# 2020 WRDA – Work in Progress

**House Bill, Section 128. Harmful Algal Bloom Demonstration Program.**

*Secretary shall carry out a demonstration program to determine the causes of, and implement measures to effectively detect, prevent, treat, and eliminate, harmful algal blooms associated with water resources development projects.*

Specifies the coastal and tidal waters of the State of Louisiana as a focus area.

**House Bill, Section 210. Lower Mississippi River Comprehensive Study.**

*Secretary shall conduct a comprehensive study of the Lower Mississippi River Basin, from Cape Girardeau, Missouri, to the Gulf of Mexico, to identify actions to be undertaken by the Corps for comprehensive management of the basin for the purposes of flood risk management, navigation, ecosystem restoration, water supply, hydropower, and recreation.*

Specifies consideration of Union and Ama diversions, Manchac Landbridge Diversion, increase Atchafalaya flow to Terrebonne, and natural features and nature-based features including levee setbacks and instream and floodplain restoration.



# 2020 WRDA – Work in Progress (cont.)

**Section 308. Upper Mississippi River System Environmental Management Program.**

Would increase funding authorization long-term resource monitoring, including research on water quality issues affecting the Mississippi River (including elevated nutrient levels) and the development of remediation strategies.

# Oyster Management & Rehabilitation Strategy

Lead agency: Louisiana Department of Wildlife and Fisheries

Issue: Oyster resources at all-time lows on public oyster areas

Action: $132 million strategy (still in draft form)

$25.6M of NRDA approved in August 2020 for oyster-related projects

- 2 brood reefs (10-acres each) in St. Bernard Parish
- 2 new public oyster reefs (200 acres each) in Mississippi Sound and Terrebonne Parish
- Production of at least 500 million oyster larvae to be distributed across Louisiana's public oyster areas



# Hypoxia Commitments

- Recommit to supporting and following the science
- Raise as a priority in Louisiana
- Increase coordination and collaboration
- Foster innovative policies
- Identify needs and secure resources

# Thank You

## Questions?

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