



# Morganza to the Gulf

A risk reduction project that builds environmental resilience and benefits disadvantaged communities

**Coastal Protection & Restoration Authority Board Meeting  
Wednesday, August 16, 2023**

North Lafourche Levee District  
Executive Director, **Dwayne Bourgeois**

# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## *Differentiating Morganza from other Levee Projects*



- The Morganza to the Gulf (MtG) is not a typical river levee system. Instead, it is a hybrid levee system which includes flood control structures and special features designed into the levee alignment to benefit the ***environment***.
- **Largest open levee system in the U.S.** - MtG contains one lock, 22 floodgates, and 23 environmental control structures that daily allow the natural ebb and flow of the tide through the risk reduction system.

# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## *Adapting to High Sea Level Rise*

Relative Sea-Level Rise worldwide levels



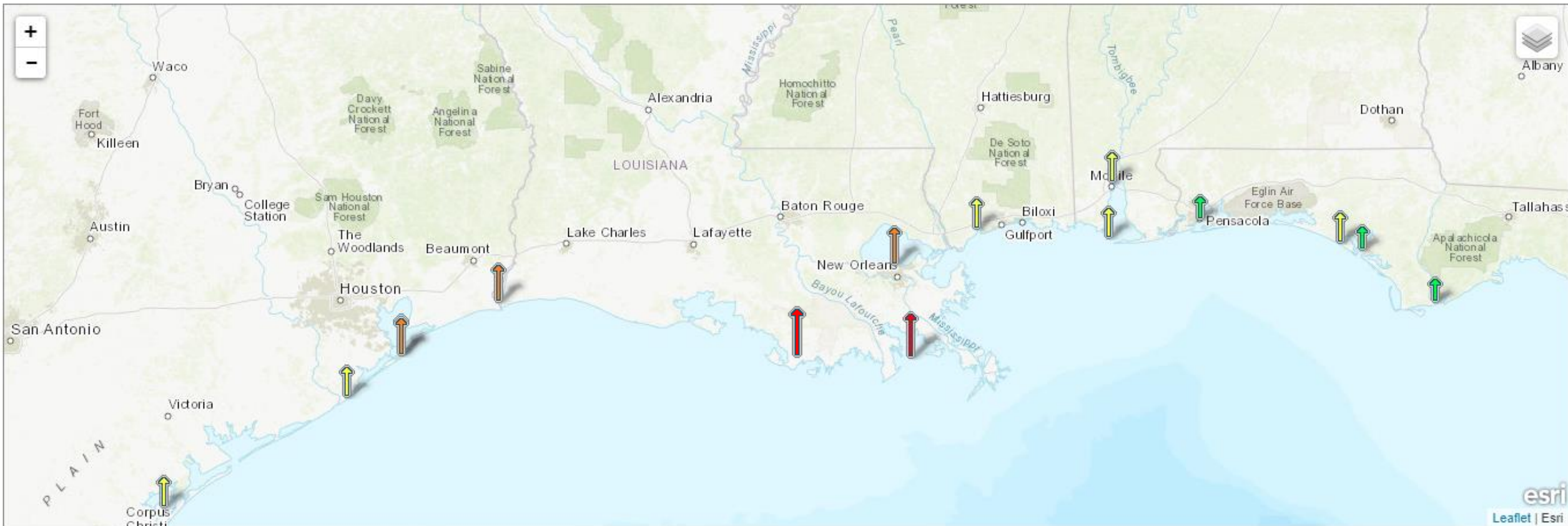
The map above illustrates relative sea level trends, with arrows representing the direction and magnitude of change. Click on an arrow to access additional information about that station.



# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## Adapting to High Sea Level Rise

The Morganza part of Louisiana is ground zero for the **highest** Relative Sea-Level Rise in the world



The map above illustrates relative sea level trends, with arrows representing the direction and magnitude of change. Click on an arrow to access additional information about that station.

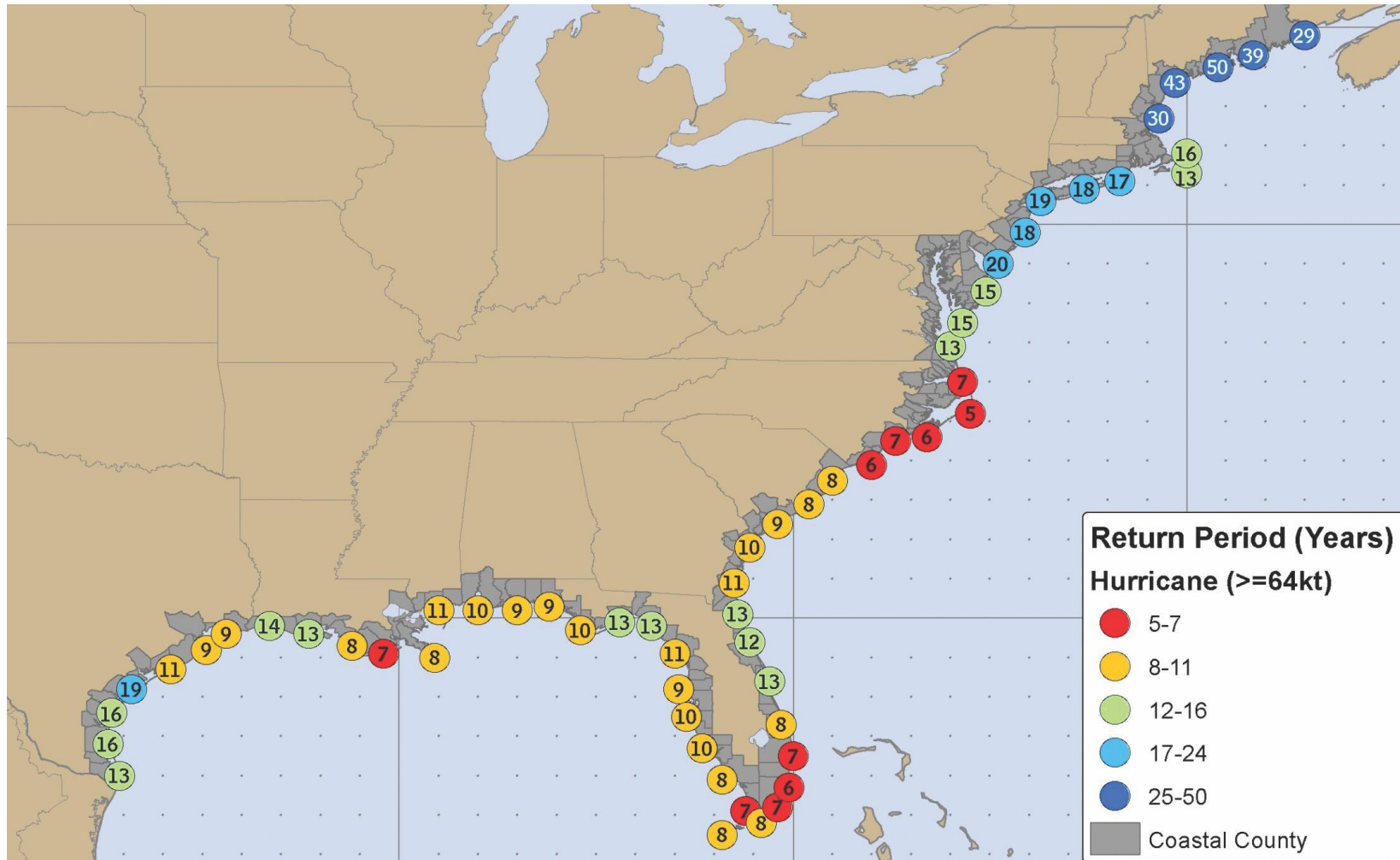


# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## *Confronting Increased Tropical Cyclone Frequency and Strength*

The MtG would reduce flood risk for one of the areas **most exposed** to hurricanes in the U.S.

- NOAA predicts an increase in frequency & intensity of tropical cyclone activity in the Atlantic Basin. The MtG will protect 200,000 residents, homes, businesses, and critical infrastructure from higher and more frequent storm surge.
- The project's design considers Relative Sea Level Rise to provide adaptive management into the future. Floodgates on navigable waterways were designed to include 2.0 feet of structural superiority, which may accommodate higher levels of Relative Sea Level Rise than 2.4 feet.



# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## *Sustaining Louisiana Fisheries and Culture*

The construction of the MtG has a huge benefit to birds and other wildlife in the areas protected by the project

- Home to **Bald Eagles, wildlife, essential fish habitat, 45 naturally occurring unique and imperiled plant species**
- **Restoring the flyway and providing bald eagle habitat** - Besides the magnificent American bald eagle, more than 200 other species of birds have been reported in the Barataria-Terrebonne estuary, a key landing spot for migratory birds on the flyway.



# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## *Sustaining Louisiana Fisheries and Culture*

Louisiana's fisheries are important to the entire U.S.

- From LA Dept. of Wildlife & Fisheries: More than **\$41 million** of seafood produced annually in the area protected by MtG.
- Fisheries industry is uniquely tied to Acadian and Native American culture. They are continually threatened and in need of protection.



# MORGANZA TO THE GULF ENVIRONMENTAL BENEFITS

## *Protecting Results in observed Marsh Recovery and Restoration*

Louisiana contains one of the largest expanses of coastal wetlands in the U.S.

- Unfortunately, 90% of the total coastal marsh loss in the nation occurs in South Louisiana
- MtG provides **Marsh Recovery** - wetlands terracing inside and outside the system converts barren open water to healthy marsh
- **Preservation of Animal and Plant Habitat** - With an open levee system, existing marsh and newly created wetlands continue to be nourished. The levees can also protect the marsh from damages from hurricanes, which is very helpful considering the amount of coastal land loss that occurs during such events.





# LOUISIANA'S COMMITMENT TO CLIMATE MITIGATION AND ADAPTATION

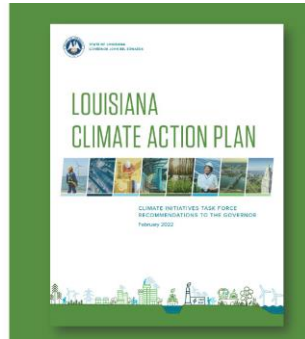
*State is aligned with Biden Administration's Goal of Net Zero by 2050, while investing \$50 Billion in our Coast by 2050*

## Climate Executive Order

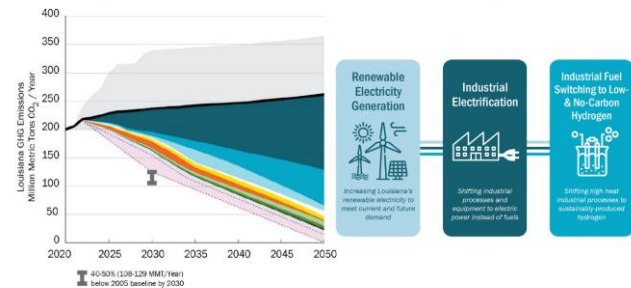


## Taking Action: Louisiana's 2022 Climate Action Plan

- 8 Portfolio Sections
- 28 Carbon Reduction Strategies
- 84 Specific Actions



## The Big Three: Louisiana's Climate Policy Pillars



# MORGANZA TO THE GULF SOCIO-ECONOMIC BENEFITS

## *Protecting Disadvantaged Communities and Lower Middle-Income Populations*

- The MtG system provides significant flood risk reduction benefits to **low to moderate income families** in rural areas that help avoid the physical and economic hardships of extreme weather
- The positive benefits of the MtG for underserved and marginalized communities, including those of color and Indigenous peoples, were captured in the design and justification for the project
- Regional economic growth resulting from proposed action will also create additional jobs, thereby benefiting minority and/or low-income groups living within the project area.
- Recovering from natural disasters takes much longer for disadvantaged populations. Completing MtG would greatly improve the resilience of these communities.

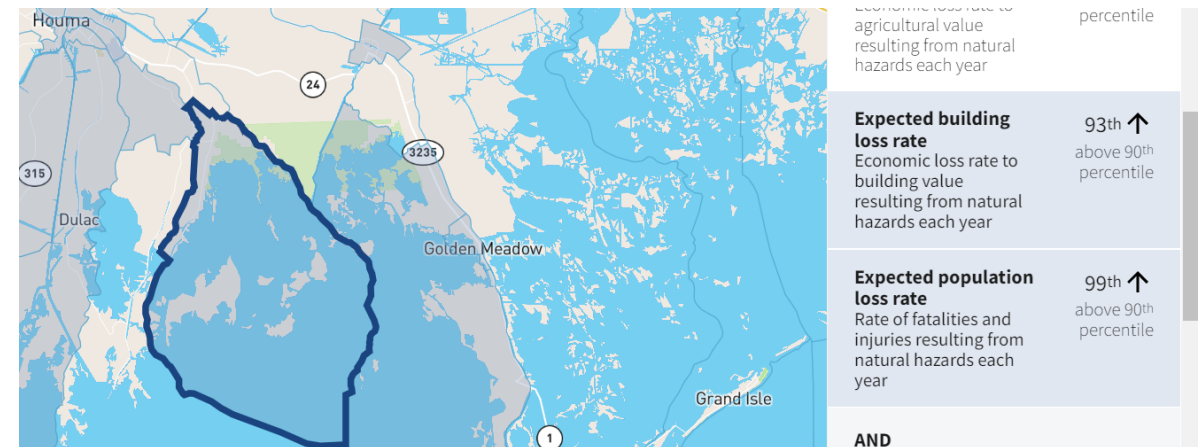
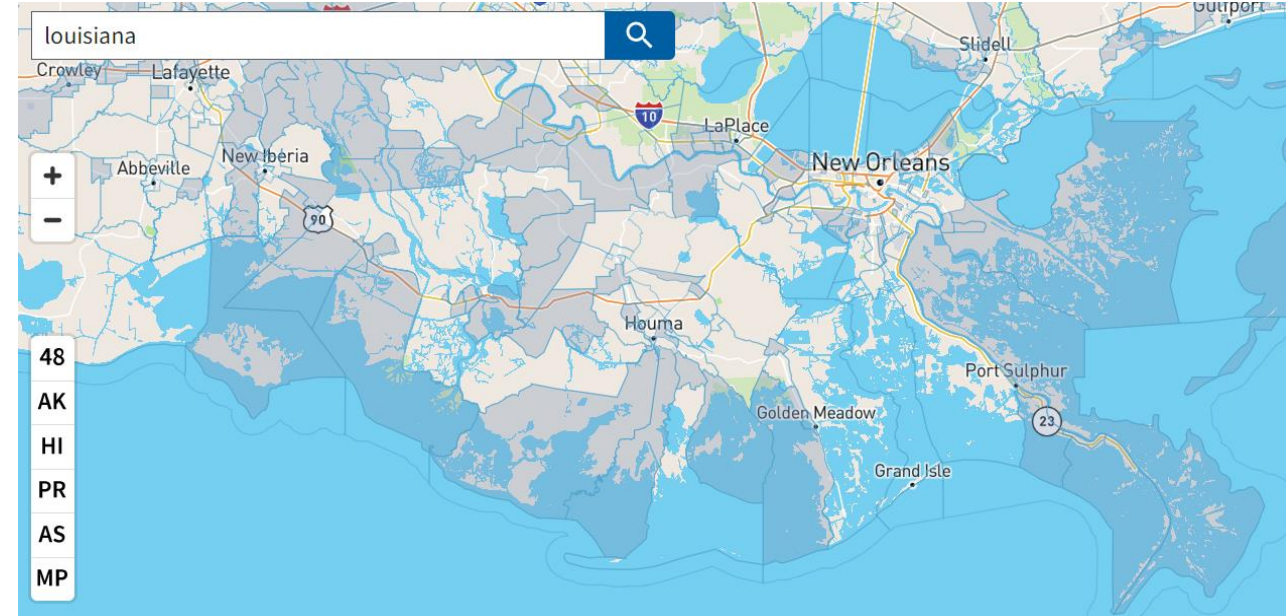


# MORGANZA TO THE GULF SOCIO-ECONOMIC BENEFITS

## Climate and Economic Equity Solutions

### Identifying MtG within the Biden Administration's Justice40 Initiative

- **Justice40 seeks** that 40% of the overall benefits of federal investments in climate and clean energy flow to disadvantaged communities
- **Supporting MtG would help fulfill President Biden's Justice40 Initiative**
- 86,393 Terrebonne and Lafourche residents live in disadvantaged census tracts.
- 28% minority population in Terrebonne and Lafourche- Hispanic, Asian, African American, and Native American
- Without a completed MtG system, 92% of buildings are at risk of loss from natural hazards.
- According to the CEQ's CEJST, the average percentile for expected population loss is 95%.
- We need MtG to keep our vulnerable coastal communities going into the future.



# MORGANZA TO THE GULF SOCIO-ECONOMIC BENEFITS

## *Protecting Existing and Authorized Coastal Restoration Projects*

- Louisiana continues to implement its **Coastal Master Plan**, which serves as a model around the world for comprehensively adapting to the impacts of climate change in its ongoing efforts to develop and complete coastal protection and restoration projects.
- MtG protects constructed shoreline protection, marsh creation, salinity control, recreational enhancement projects. It will also benefit future projects.



*The groundbreaking of HNC Lock Complex*

An aerial photograph of a vast, shallow body of water, likely a bay or estuary, with numerous small islands of green marshland scattered throughout. Two speedboats are moving from the bottom right towards the top center, leaving long, dark, parallel wakes behind them. The sky is clear blue with a few wispy clouds. In the far distance, a city skyline is visible on the horizon.

MORGANZA  
TO THE  
GULF

*This is  
a historic  
opportunity.*