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2029 COASTAL MASTER PLAN  
*COMMITTED TO OUR COAST*

# MASTER PLAN COMMUNITY CONVERSATIONS

## RIVER PARISHES

**BRIAN LEZINA**



**APRIL 17, 2024**

# GENERAL OUTLINE

- Welcome + Introduction
- CPRA + The Master Plan
  - What is CPRA?
  - Our Work
    - Projects in the region
  - What is the Master Plan?
- Future Projections for a Changing Coast
  - Land change
  - Flood depths
  - Local and regional damage estimates



**Established following the 2005 storm season, CPRA is the single state entity with authority to articulate a clear statement of priorities to achieve comprehensive coastal protection for Louisiana.**

**CPRA has a mandate to develop, implement, and enforce a comprehensive restoration and risk reduction coastal master plan. In 2023, the 4th update to the master plan was unanimously approved by the Louisiana Legislature.**





OUR  
HOMES



OUR  
JOBS

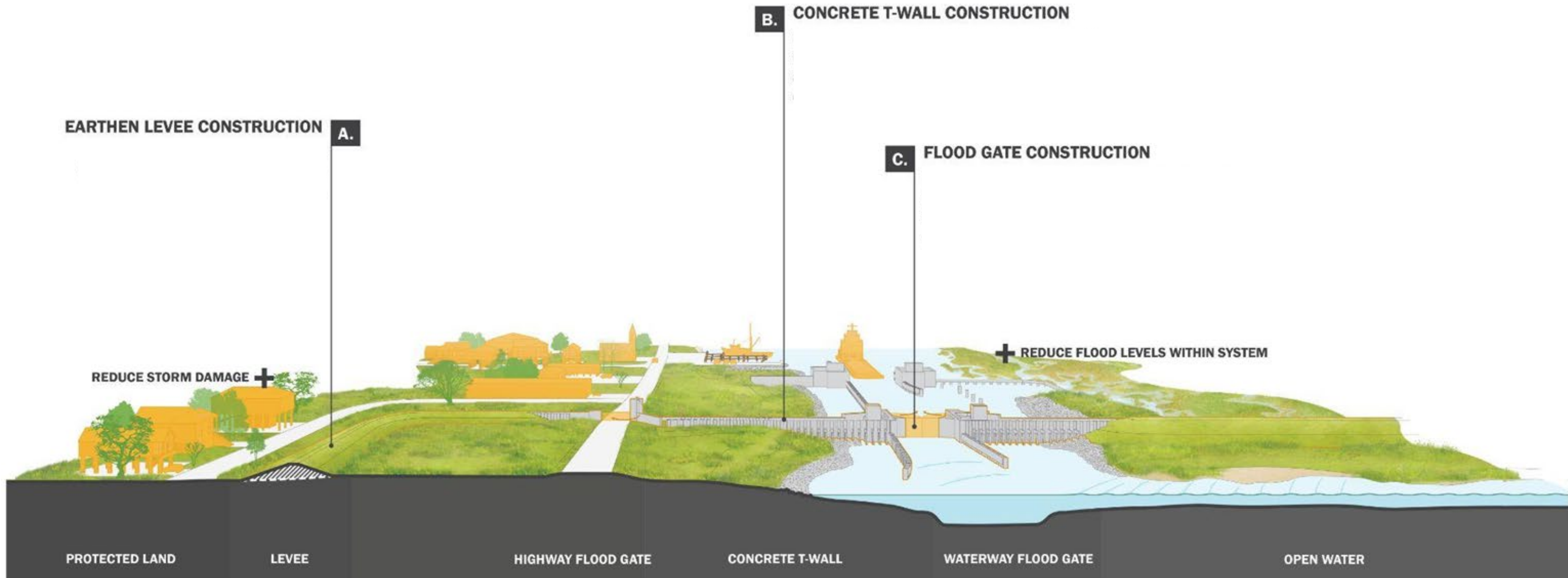


OUR  
CULTURE

# PROJECT TYPES



## Structural Risk Reduction

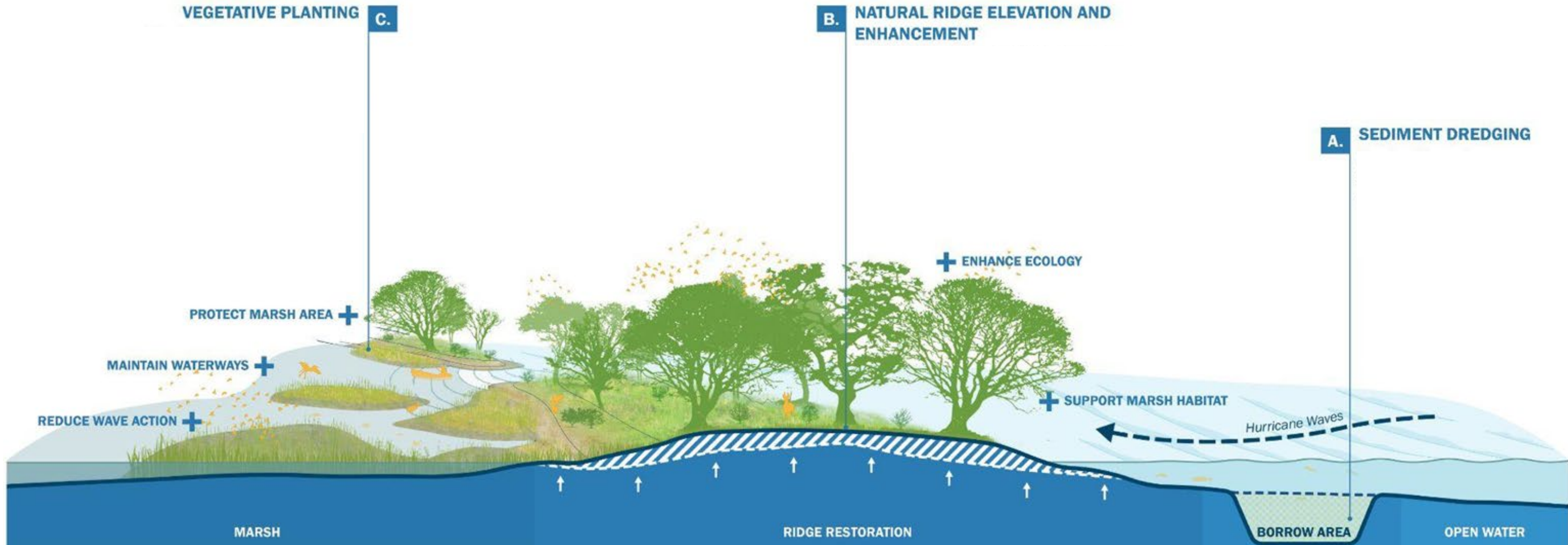


# PROJECT TYPES

## RESTORATION



### Ridge Restoration

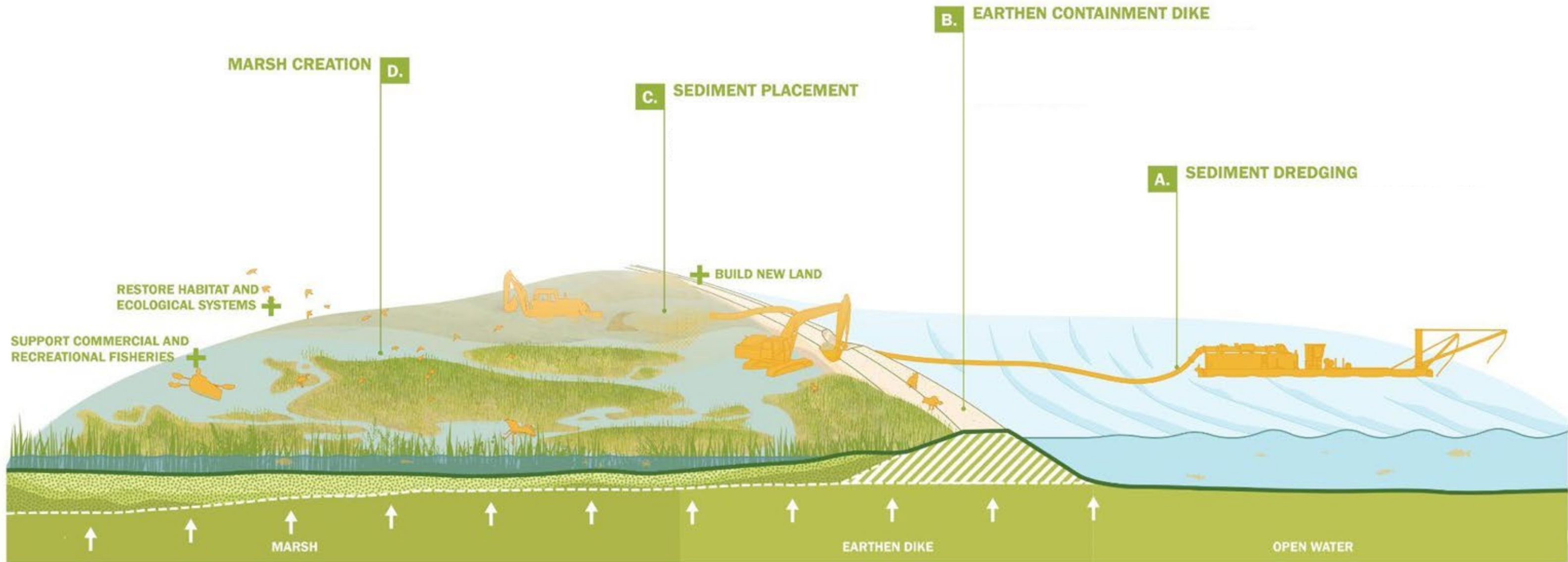


# PROJECT TYPES

## RESTORATION



### Marsh Creation

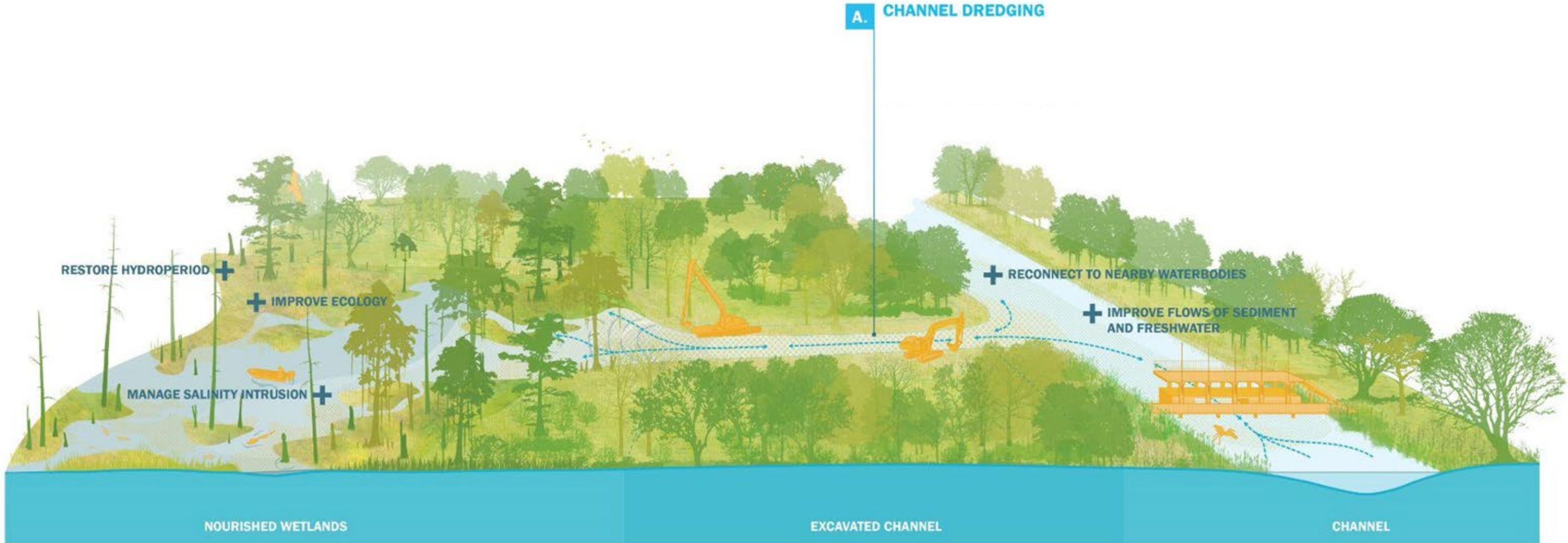


# PROJECT TYPES

## RESTORATION



### Hydrologic Restoration



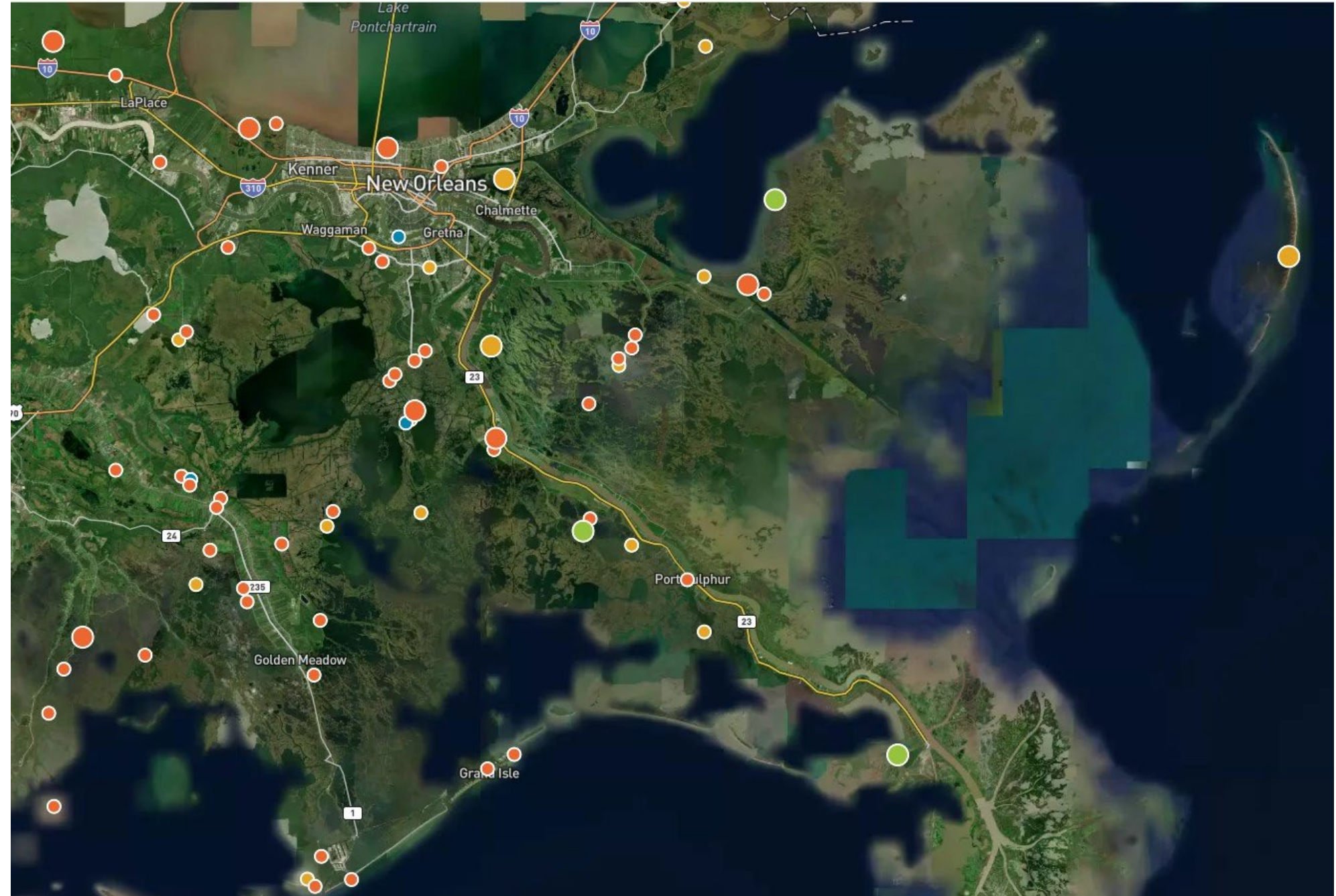


# OUR WORK

## CPRA PROJECTS IN THE REGION (Completed or in construction/design)

- Southeast Region- total investment 2023-2024: \$8.85 billion
  - Total number of active projects: 36
  - Total number of projects in engineering & design: 21
  - Total number of projects in planning: 2

**PROJECTS INCLUDE:** marsh creation, ridge, island, swamp & hydrologic restoration, terracing, shoreline protection, sediment diversions, pump stations, levee & drainage improvements, lock structures, boat launch, education center, and feasibility studies



# WEST SHORE LAKE PONTCHARTRAIN LEVEE, PO-0062

PONTCHARTRAIN

Estimated Cost: \$760 Million

- 18.5 miles of levee in St. Charles and St. John the Baptist Parishes
- 4 pumping stations
- 9 drainage structures
- Interior drainage canal to connect all stations and structures
- 2 ring levees to protect St. James Parish



Status: Construction

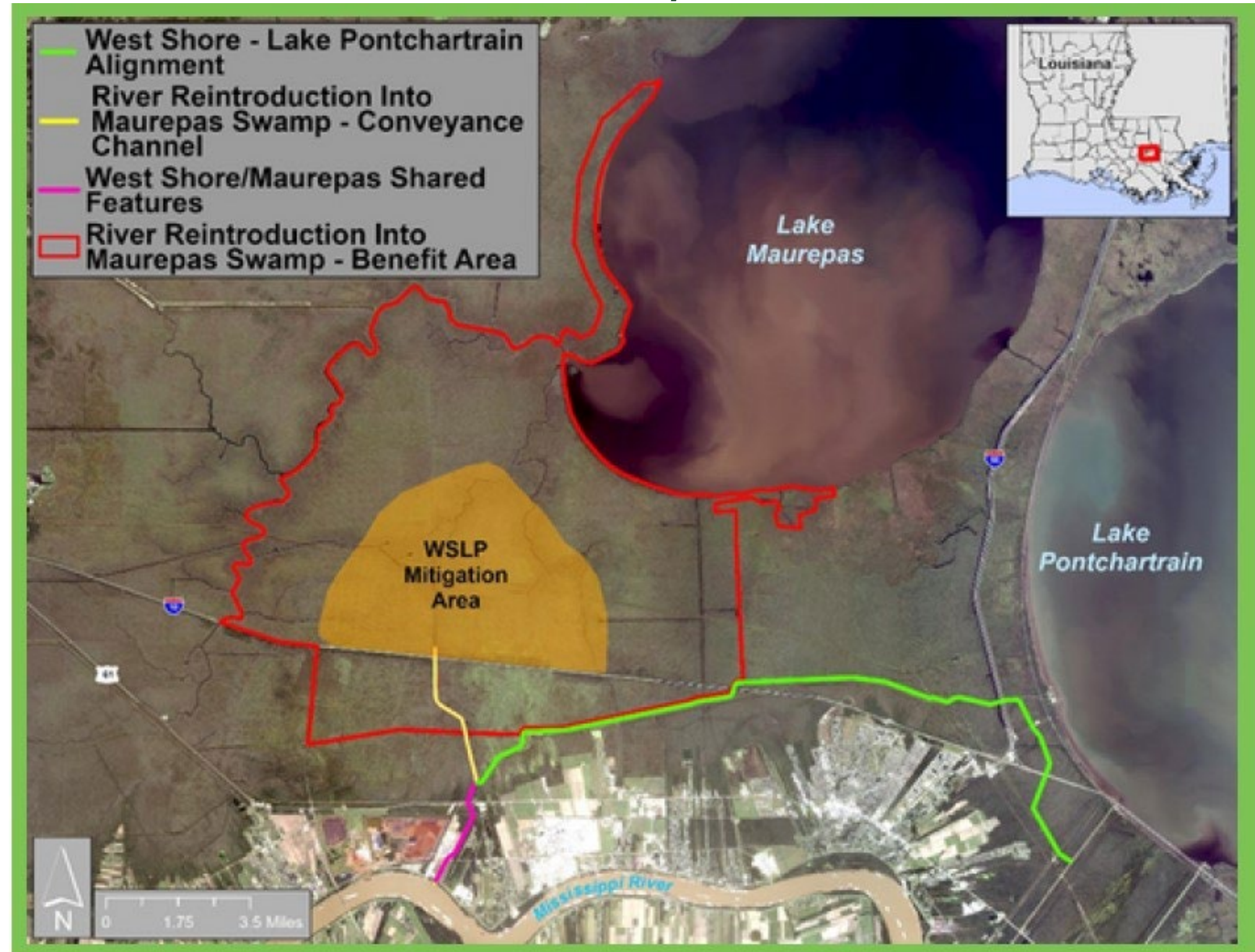
# RIVER REINTRODUCTION INTO MAUREPAS SWAMP, PO-0029

## PONTCHARTRAIN

Estimated Cost: \$330.1 Million

- This project will convey up to 2,000 cfs of fresh Mississippi River water, restoring the natural hydrology and nutrient loading of Maurepas Swamp (Ascension, St. James, and St. John the Baptist Parishes)
- Will benefit 45,000 acres

Status: Headed to bid



# **MASTER PLAN PROCESS**

# WHAT IS THE COASTAL MASTER PLAN?

SCIENCE-BASED, STAKEHOLDER INFORMED

- Prioritization effort
  - How can the state spend its money most cost-effectively over the next 50 years to reduce storm surge-based flood risk and restore and maintain coastal wetlands?
- Developed through a process that ensures adaptive management
  - Required by law to be updated every 6 years
- Built on world class science and engineering
- Advances a comprehensive and integrated approach to restoration and risk reduction
- Incorporates extensive public input and review
- Illustrates how people and communities will experience a changing coast to allow preparation and adaptation into the future.



# 2029 COASTAL MASTER PLAN PROCESS

A MULTI-STEP PROJECT PRIORITIZATION EFFORT

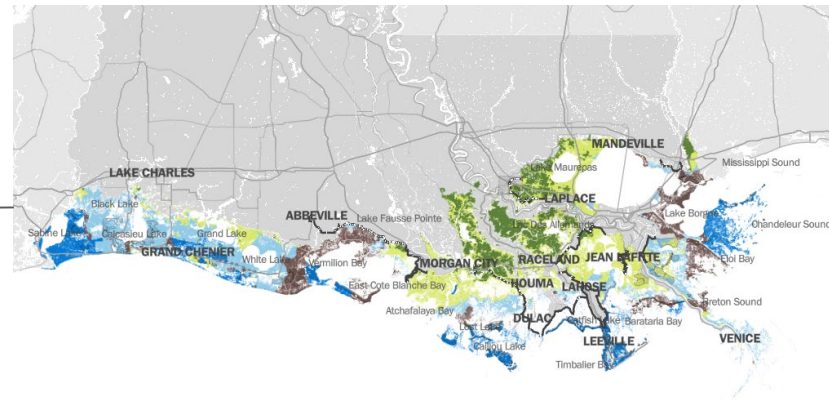
## Identify Current & Future Coastal Challenges



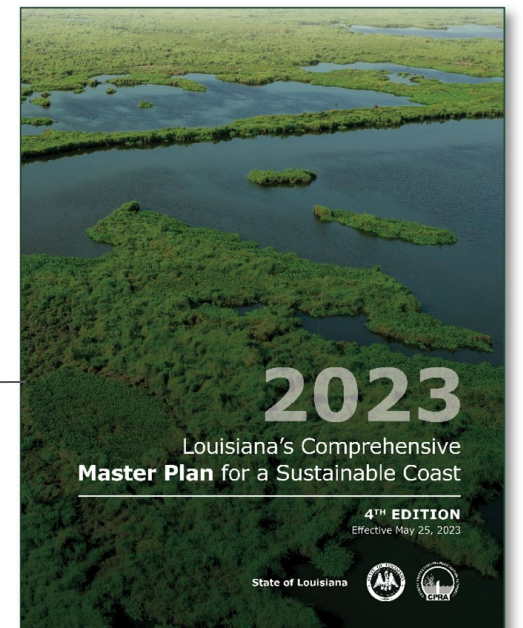
## Develop Projects



## Model, Refine & Select Projects



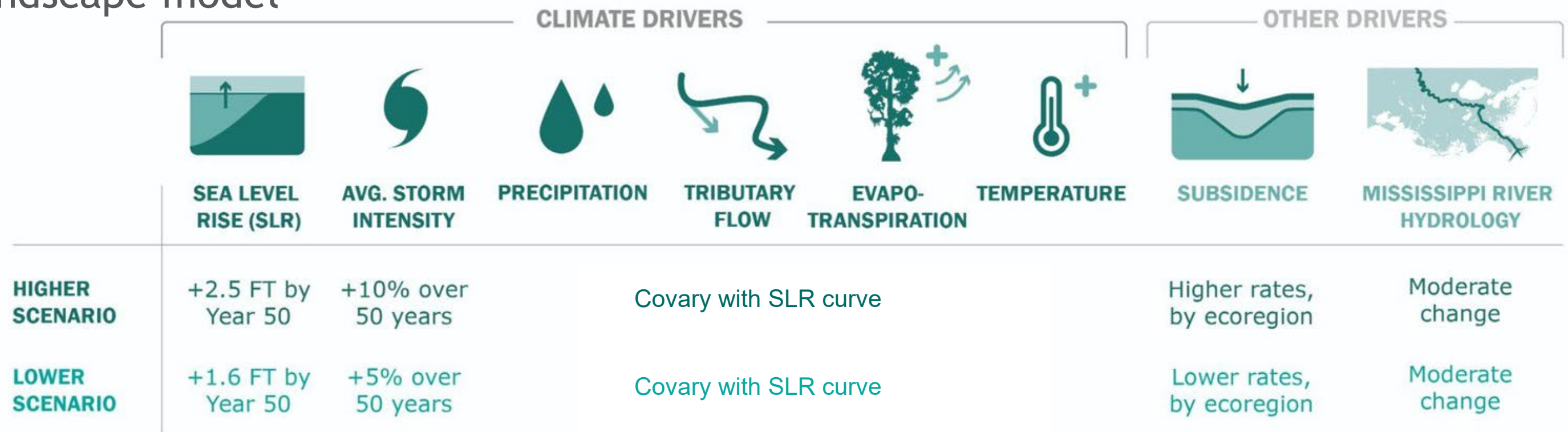
## Draft Coastal Master Plan



**FUTURE PROJECTIONS  
OF A  
CHANGING COAST**

# ENVIRONMENTAL SCENARIOS + FLOODING

- MP23 scenarios were developed by varying values for environmental drivers in the landscape model



- Master Plan is tasked to respond to coastal land loss and threats from **storm surge-based** flooding - flooding generated by a hurricane or tropical storm

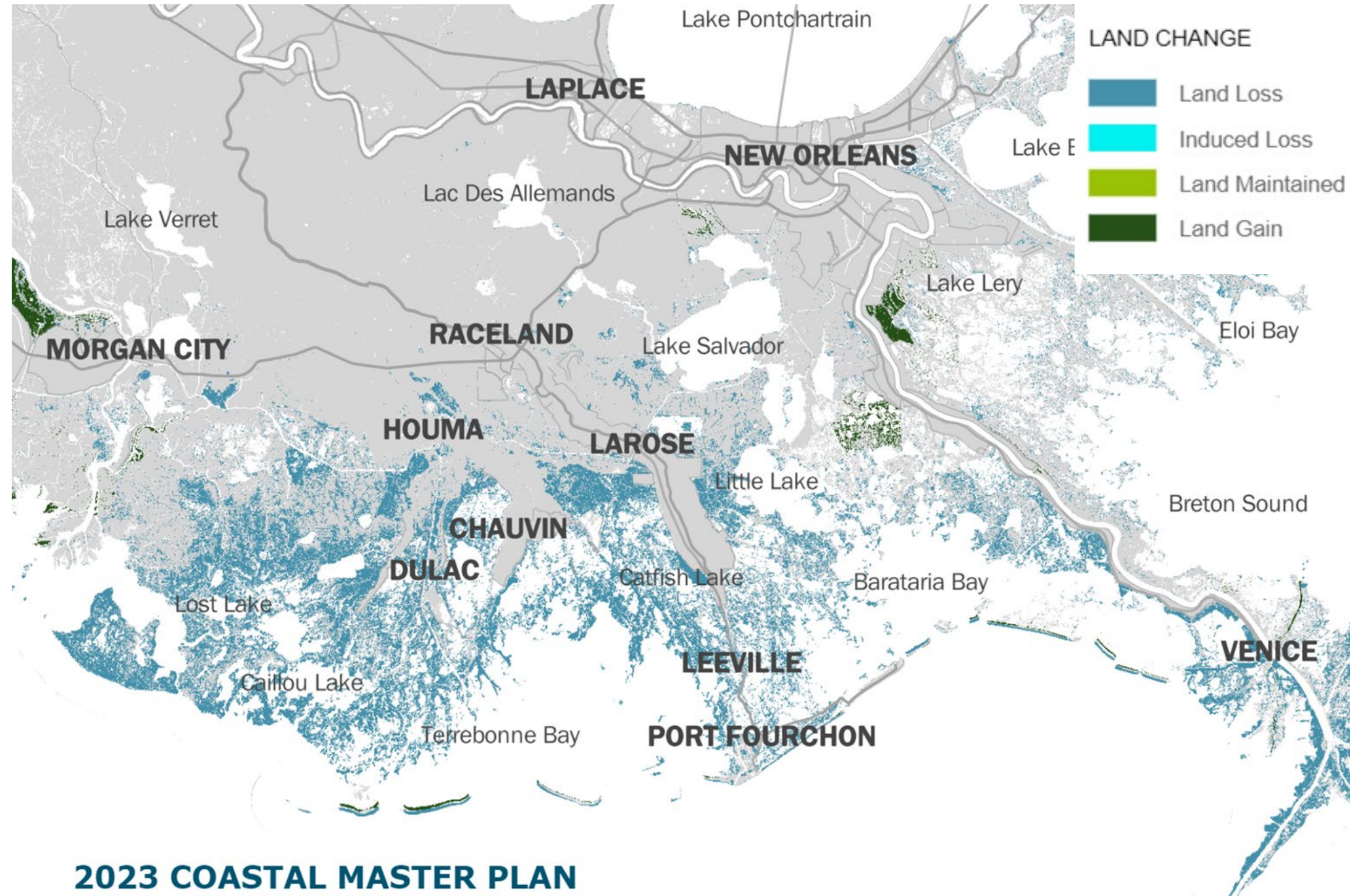


# BARATARIA REGION

## PROJECTED FUTURE LAND CHANGE

Future Without Action, Year 50 -

Projected land change without Coastal Master Plan projects on the landscape



### 2023 COASTAL MASTER PLAN FUTURE WITHOUT ACTION

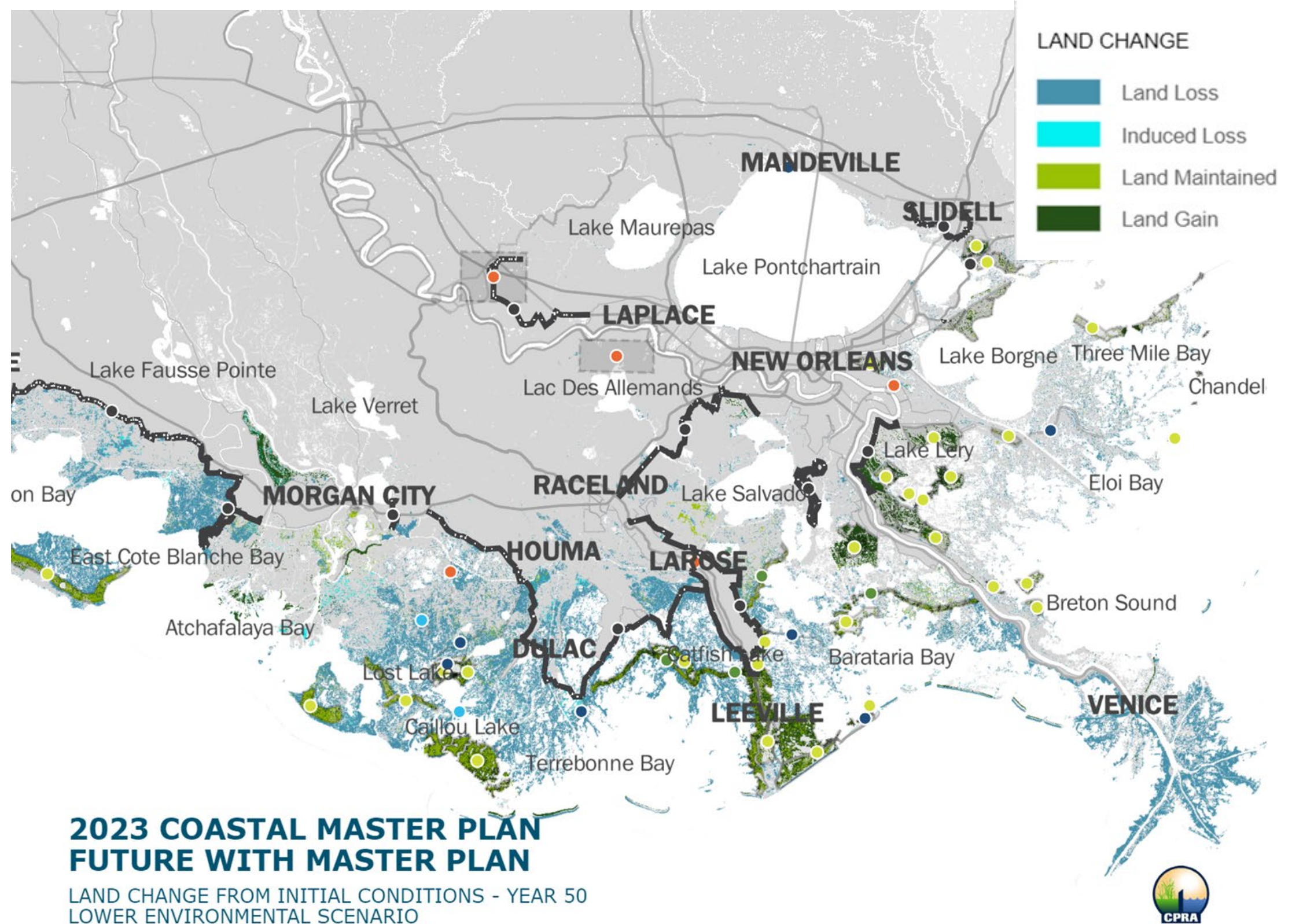
LAND CHANGE FROM INITIAL CONDITIONS - YEAR 50  
LOWER ENVIRONMENTAL SCENARIO

# BARATARIA REGION

## PROJECTED FUTURE LAND CHANGE

Future With Action, Year 50 -

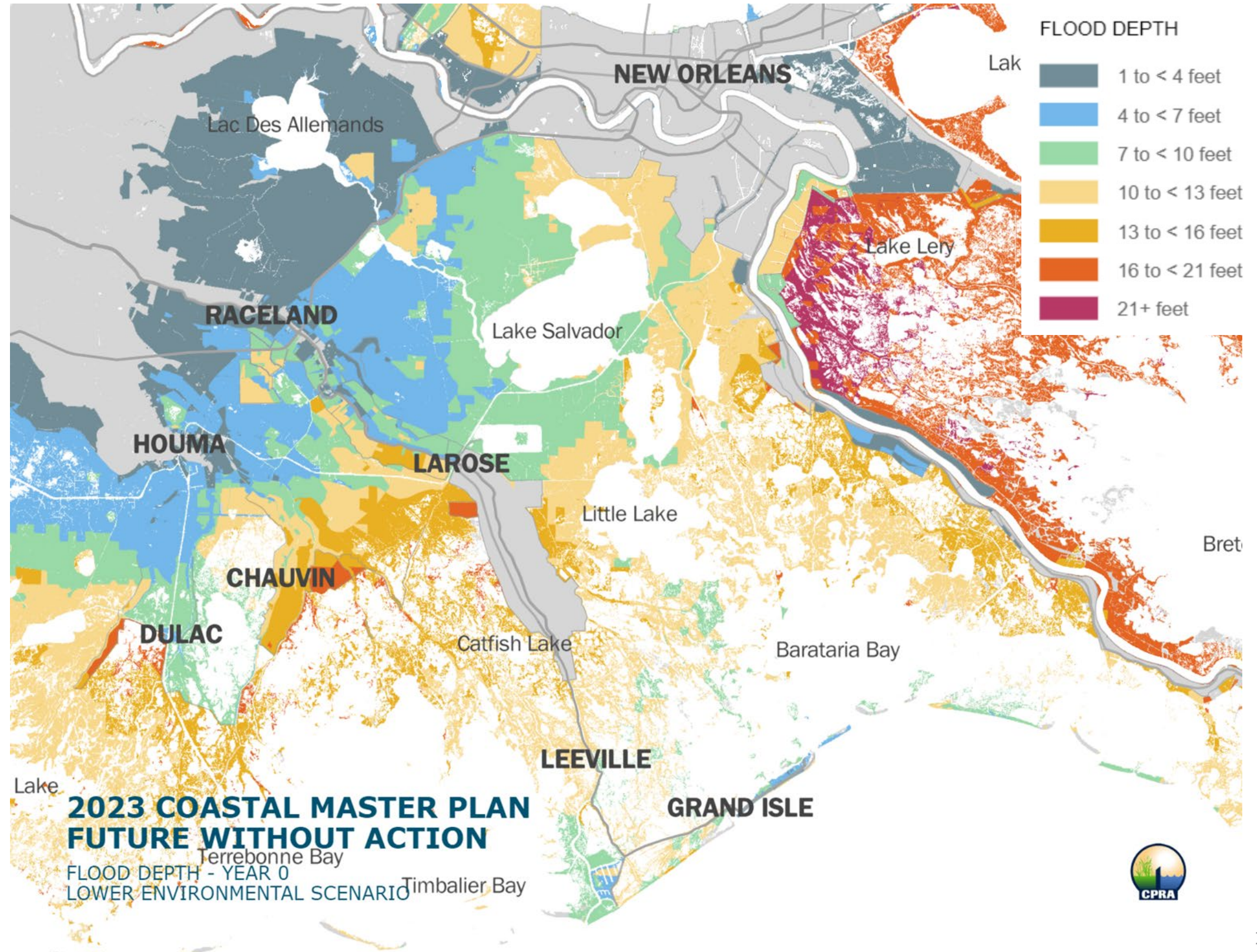
Projected land change with Coastal Master Plan projects on the landscape



# BARATARIA REGION

## PROJECTED STORM SURGE-BASED FLOOD DEPTHS

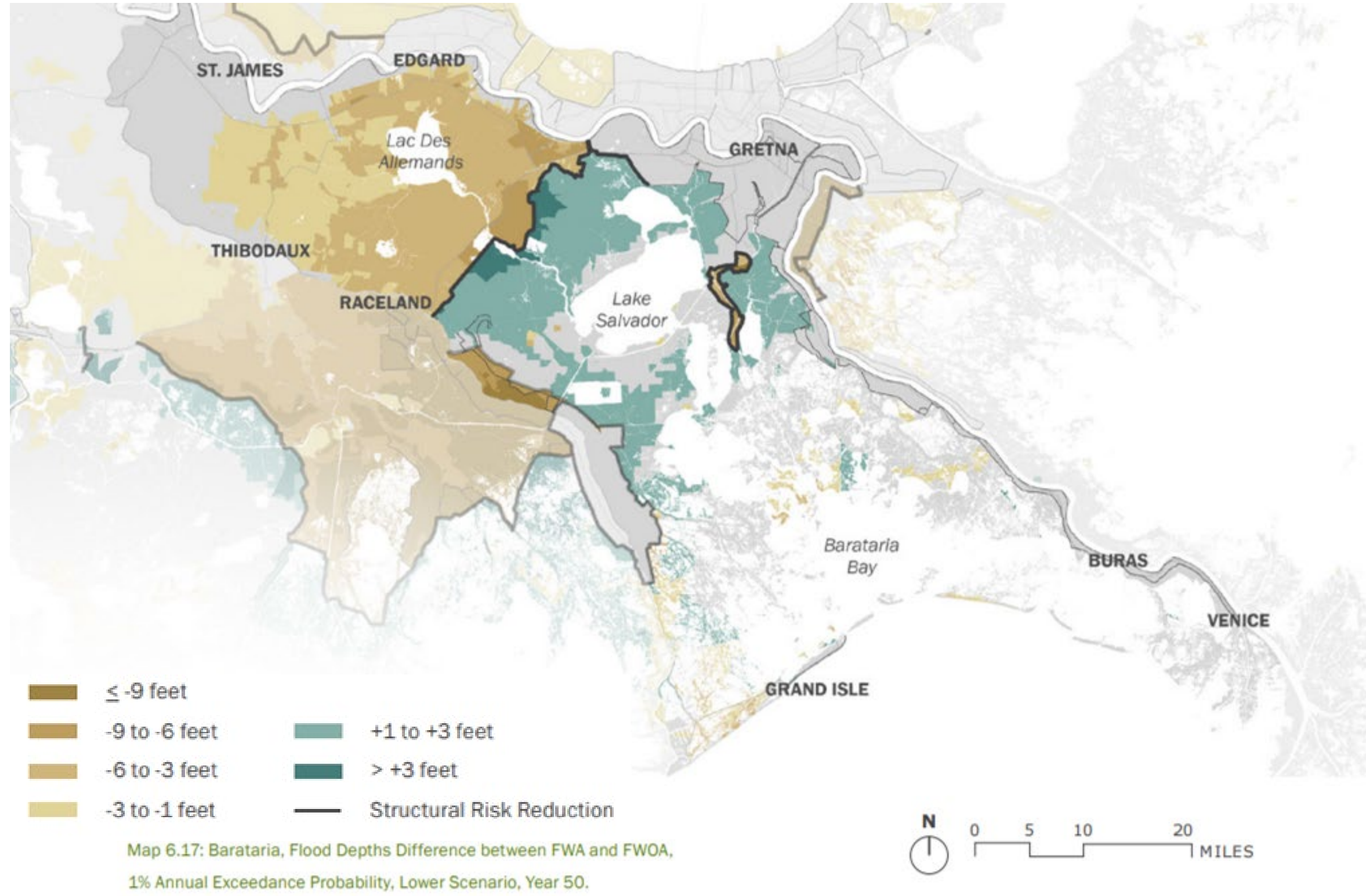
Projected flood depths with a 1% probability of occurrence (100-year flood) in Future Without Action



# BARATARIA REGION

## PROJECTED FLOOD DEPTHS

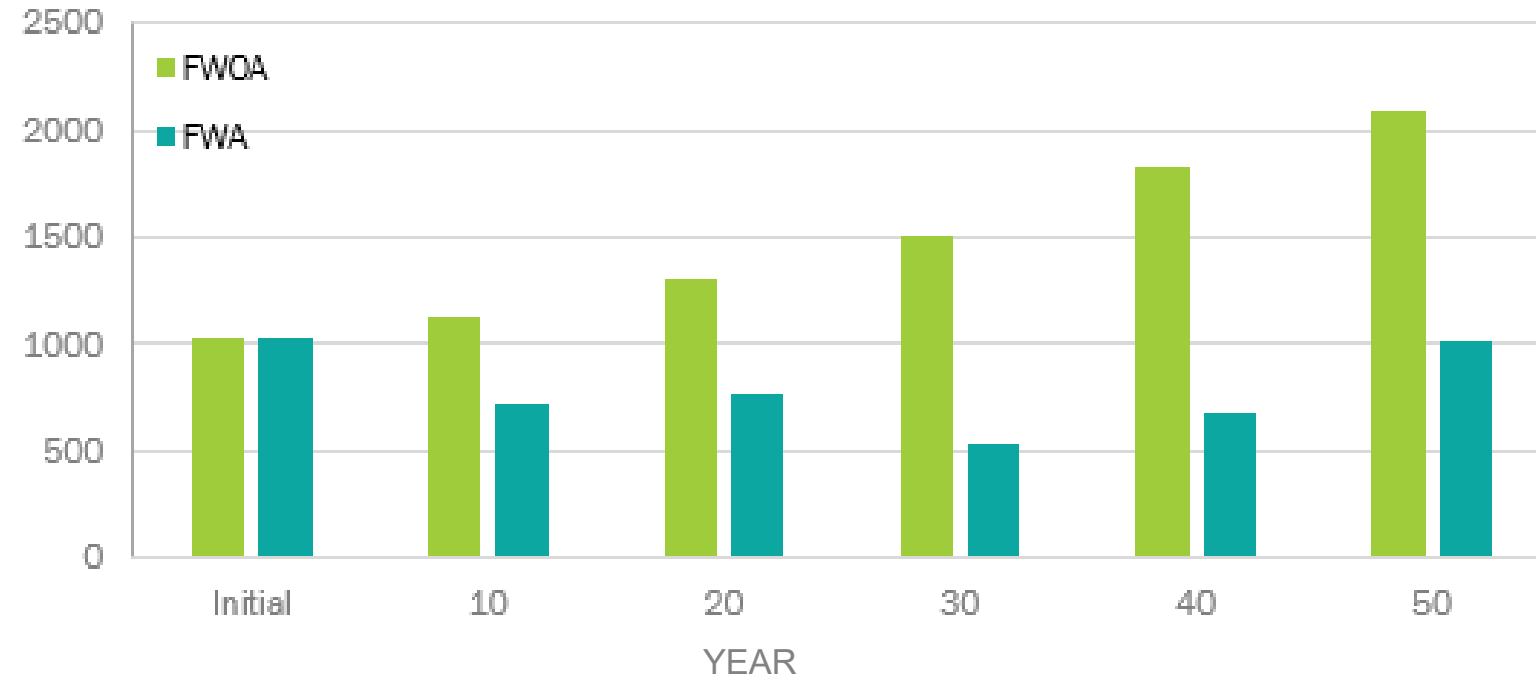
Projected flood depth difference between Future With Action and Future Without Action for a 1% probability of occurrence (100-year flood)



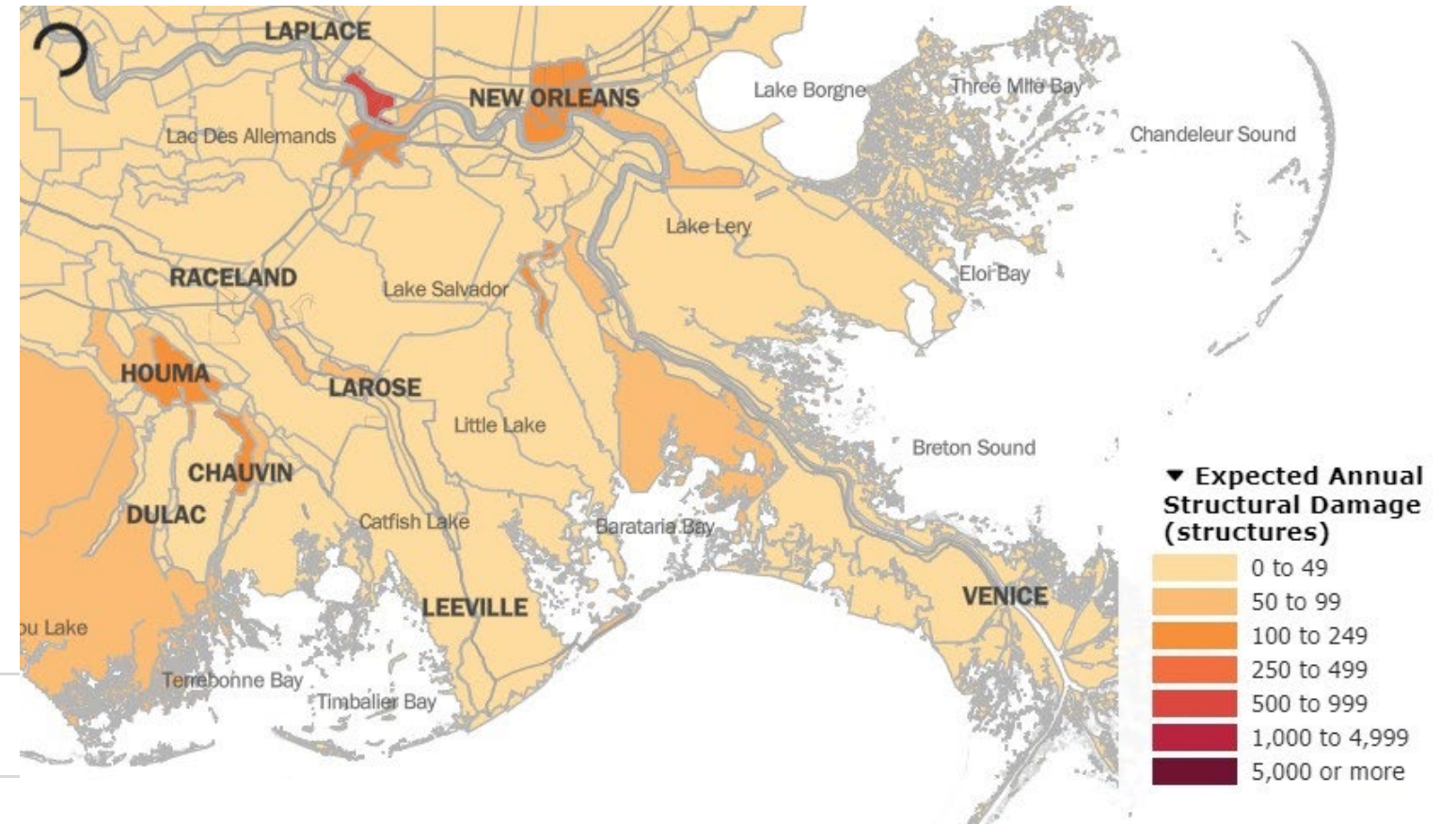
# BARATARIA REGION

## PROJECTED FUTURE DAMAGES FROM TROPICAL EVENTS

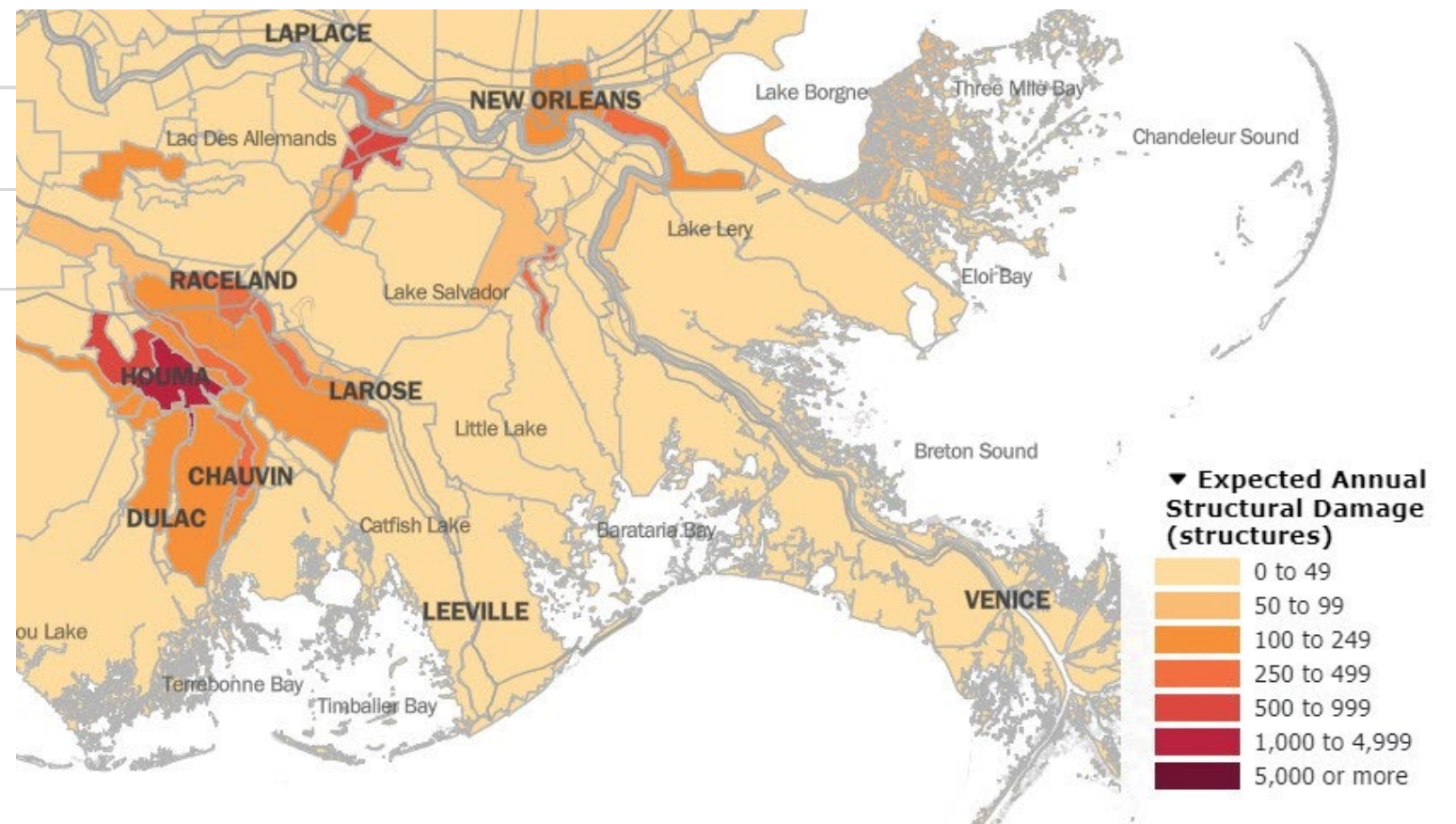
**Expected Annual Damage, Structural Equivalents: Lower Scenario**



\*Note: Areas showing damage are based on existing structures as of that year; later years may have fewer structures remaining on the landscape, which is reflected in the magnitude of damages.



Damages of Structures (EASD) - FWOA, Lower Scenario, Year 0



Damages of Structures (EASD) - FWOA, Lower Scenario, Year 50

# **EXPERIENCING COASTAL CHANGE**

# GRAND ISLE HIGH TIDE FLOODING

FUTURE WITHOUT ACTION, BARATARIA

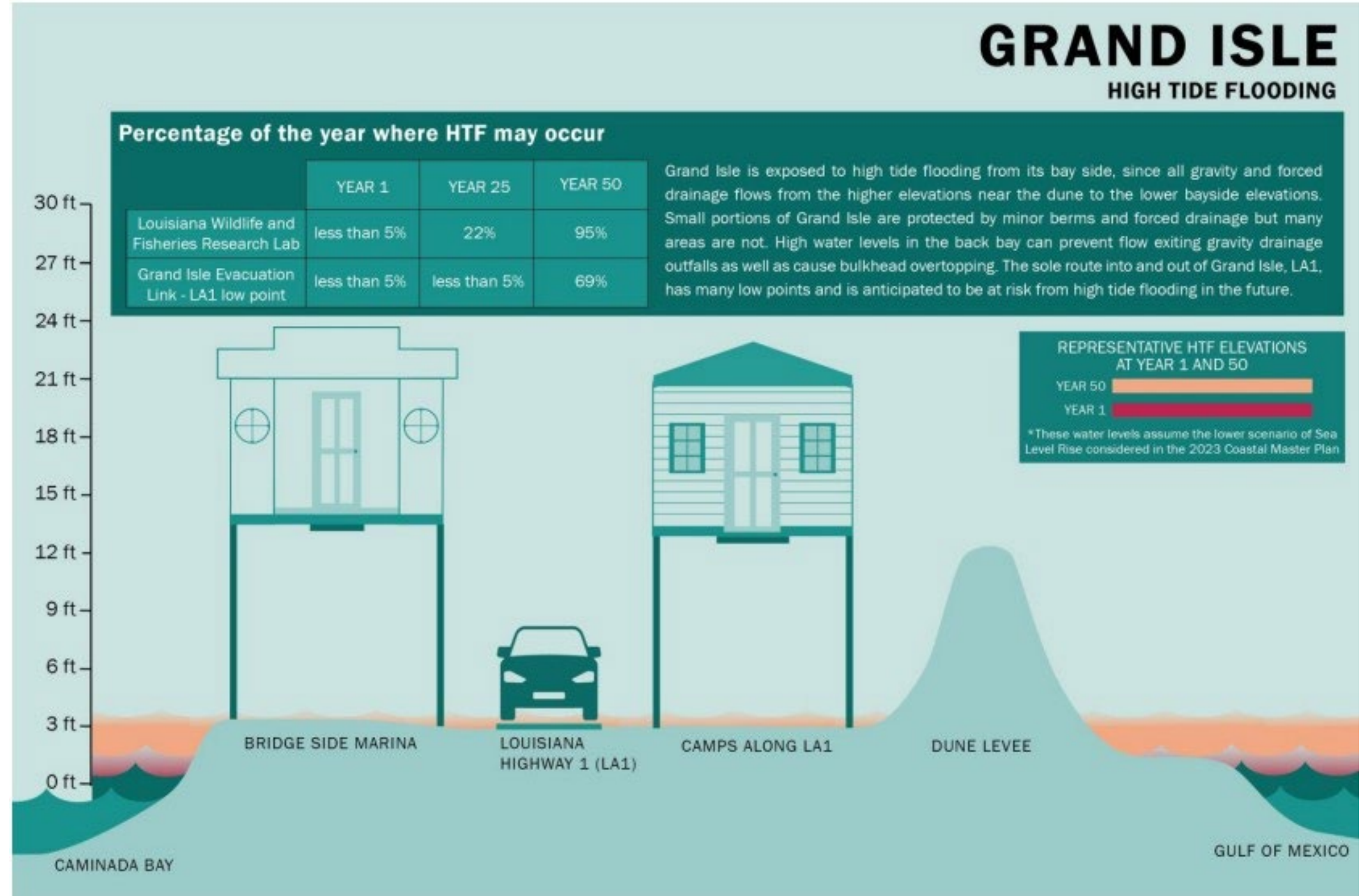
Example: Grand Isle Evacuation Link, LA-1 low point

Currently floods less than 5% of days.

Without action:

In 25 years projected to flood less than 5% of days.

In 50 years projected to flood ~69% of days



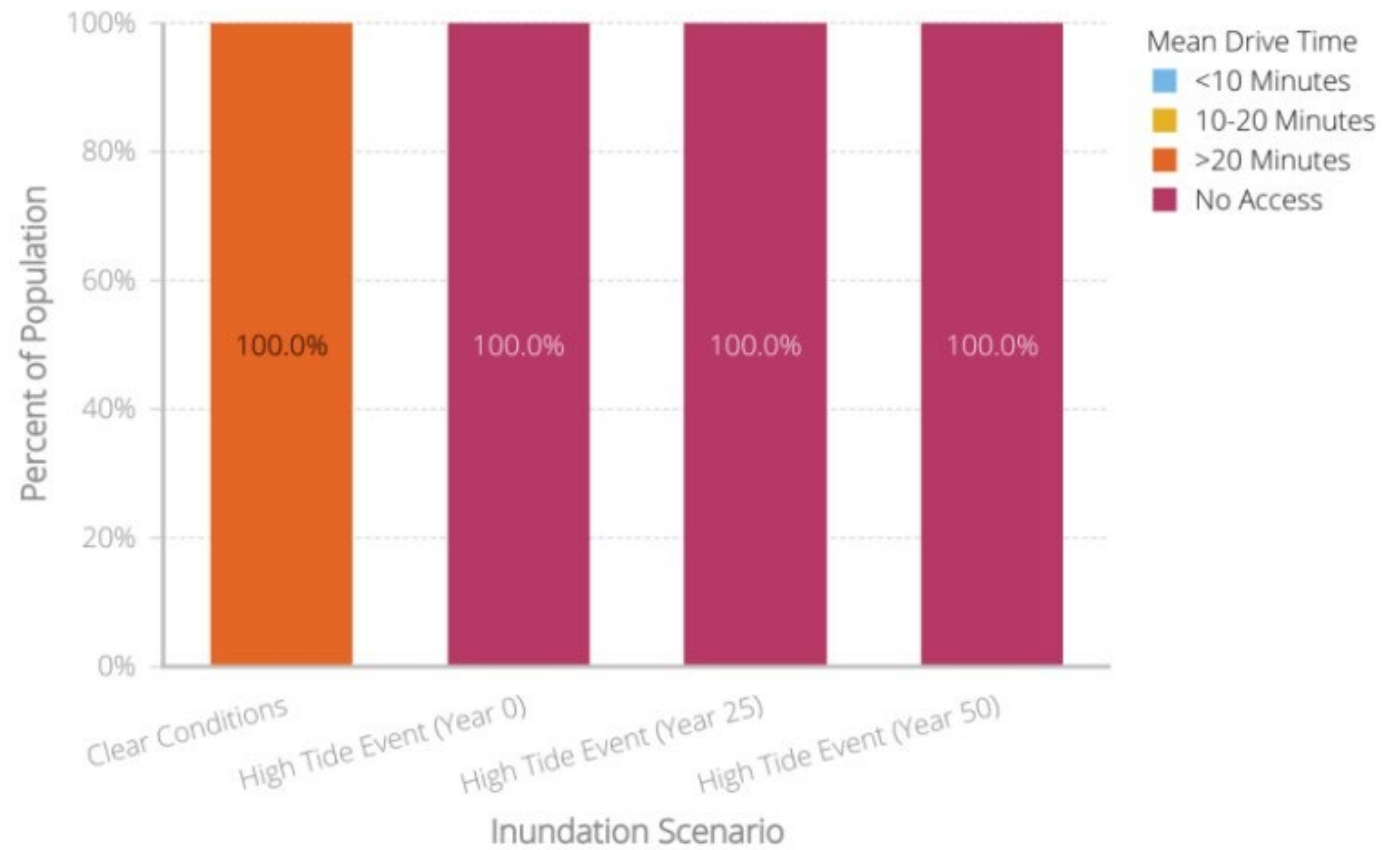
# GRAND ISLE HIGH TIDE FLOODING

FUTURE WITHOUT ACTION, BARATARIA

Drive time access to nearest LERN Tier 1 hospital by population

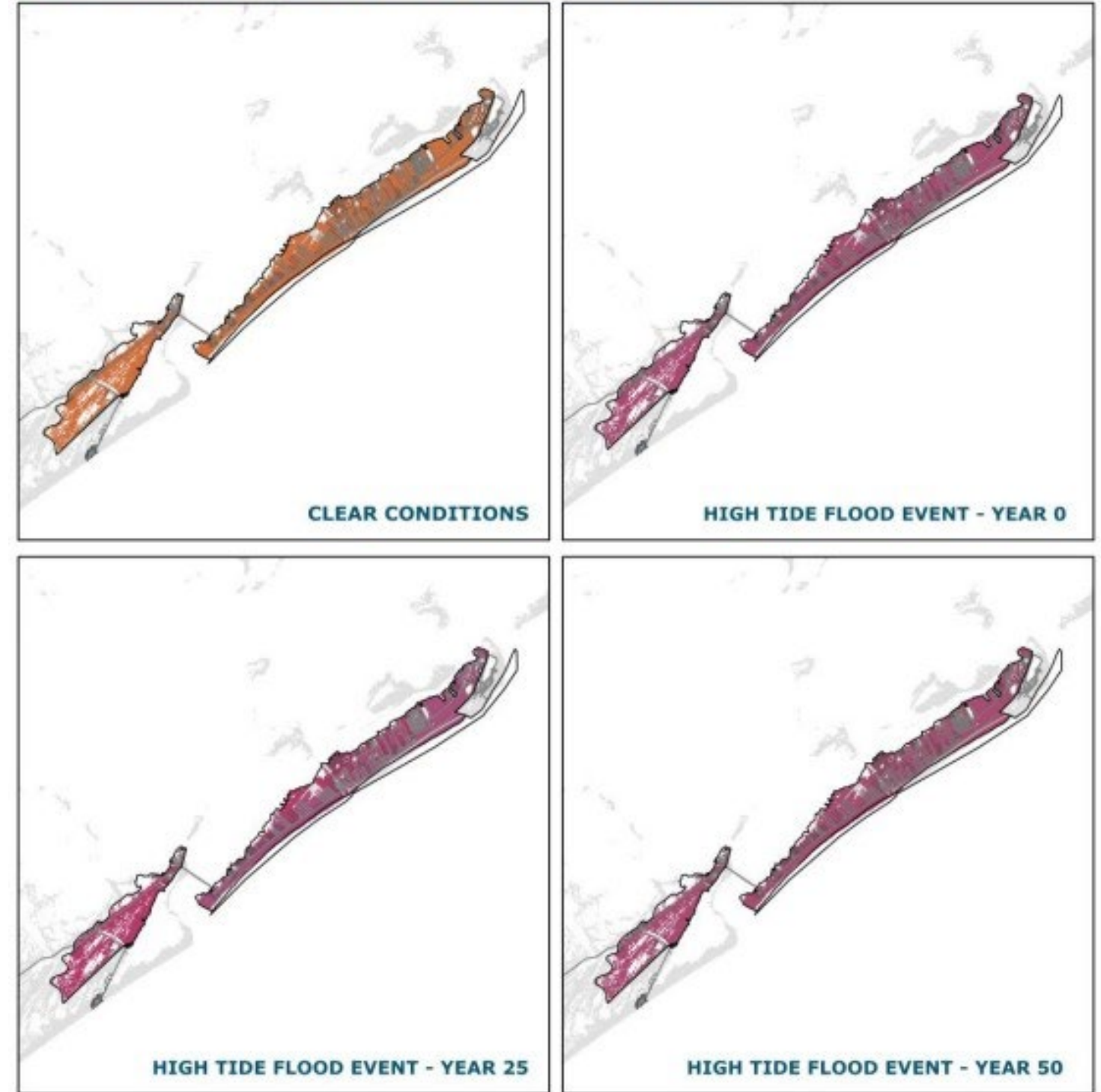
## Access to Nearest LERN Tier 1 Hospital

Grand Isle, Louisiana



Data Source: Louisiana Department of Health

## GRAND ISLE NEAREST HOSPITAL DRIVE TIME



## Cumulative Drive Time by CLARA Centroid





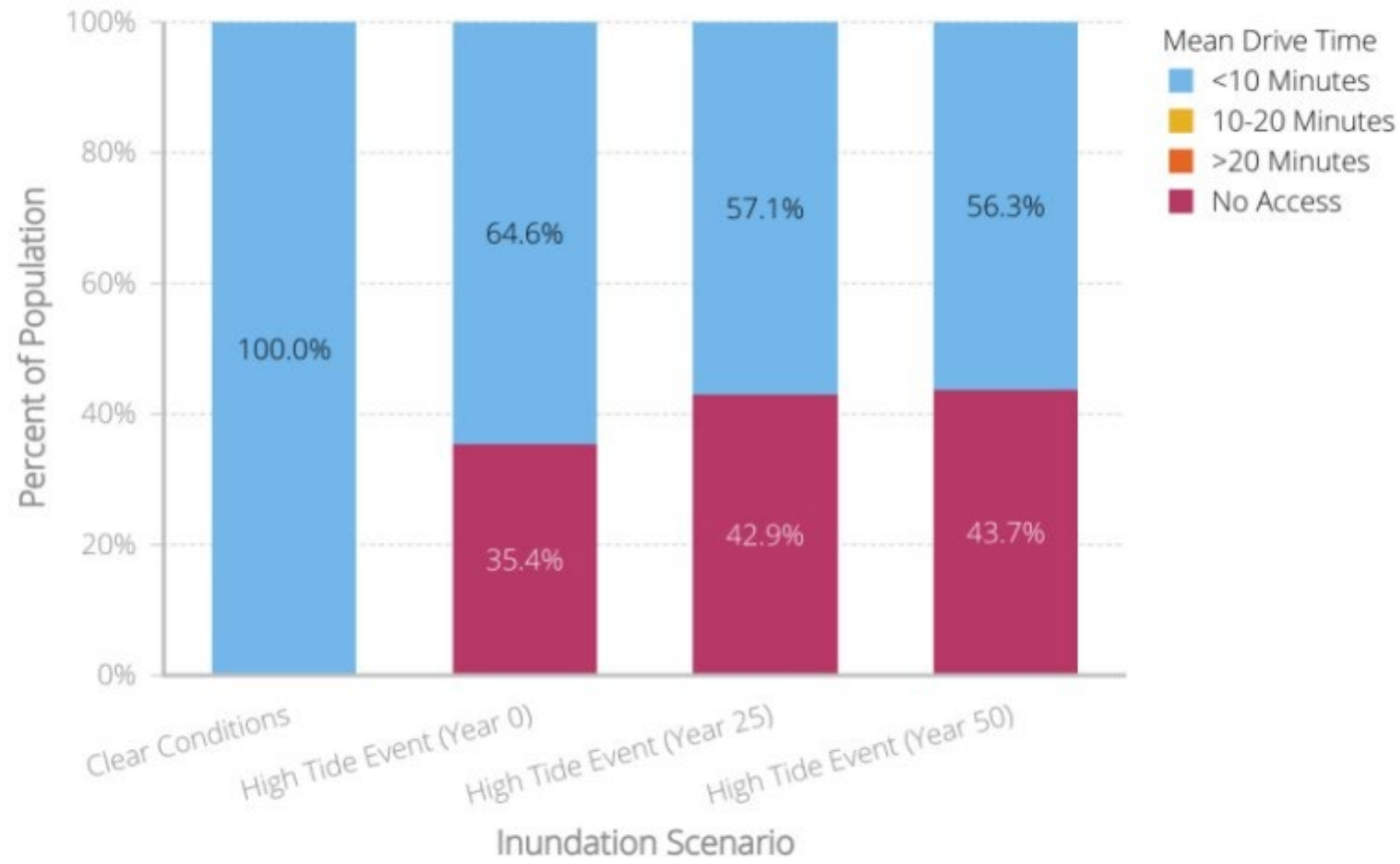
# GRAND ISLE HIGH TIDE FLOODING

FUTURE WITHOUT ACTION, BARATARIA

Drive time access to nearest grocery store by population

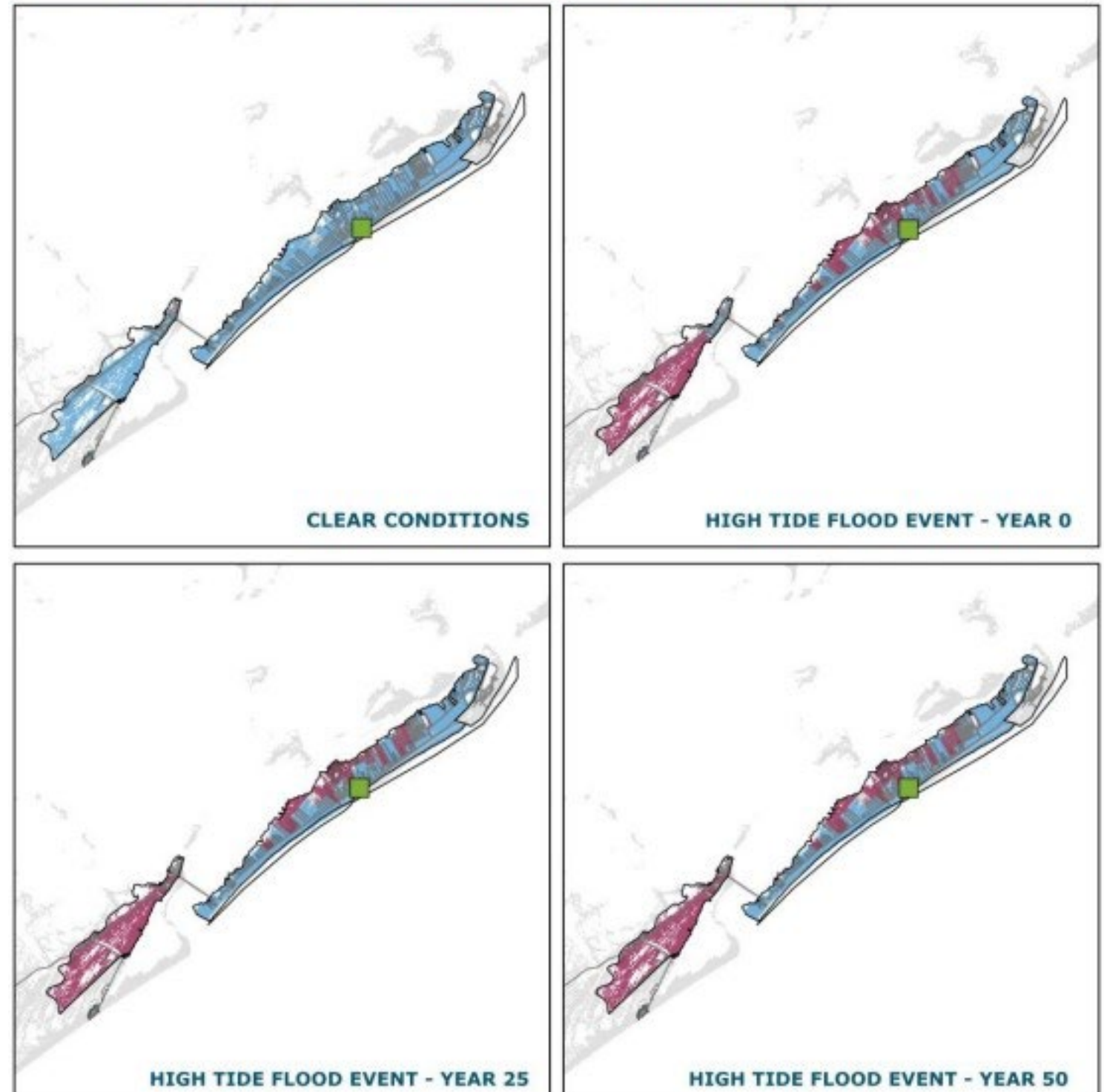
## Access to Nearest Grocery Store

Grand Isle, Louisiana

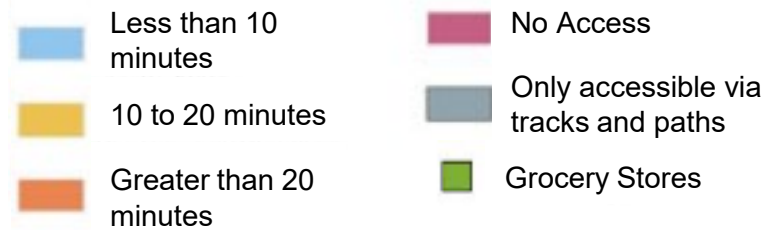


Data Source: ESRI Community Analyst

## GRAND ISLE NEAREST GROCERY STORE DRIVE TIME



### Cumulative Drive Time by CLARA Centroid

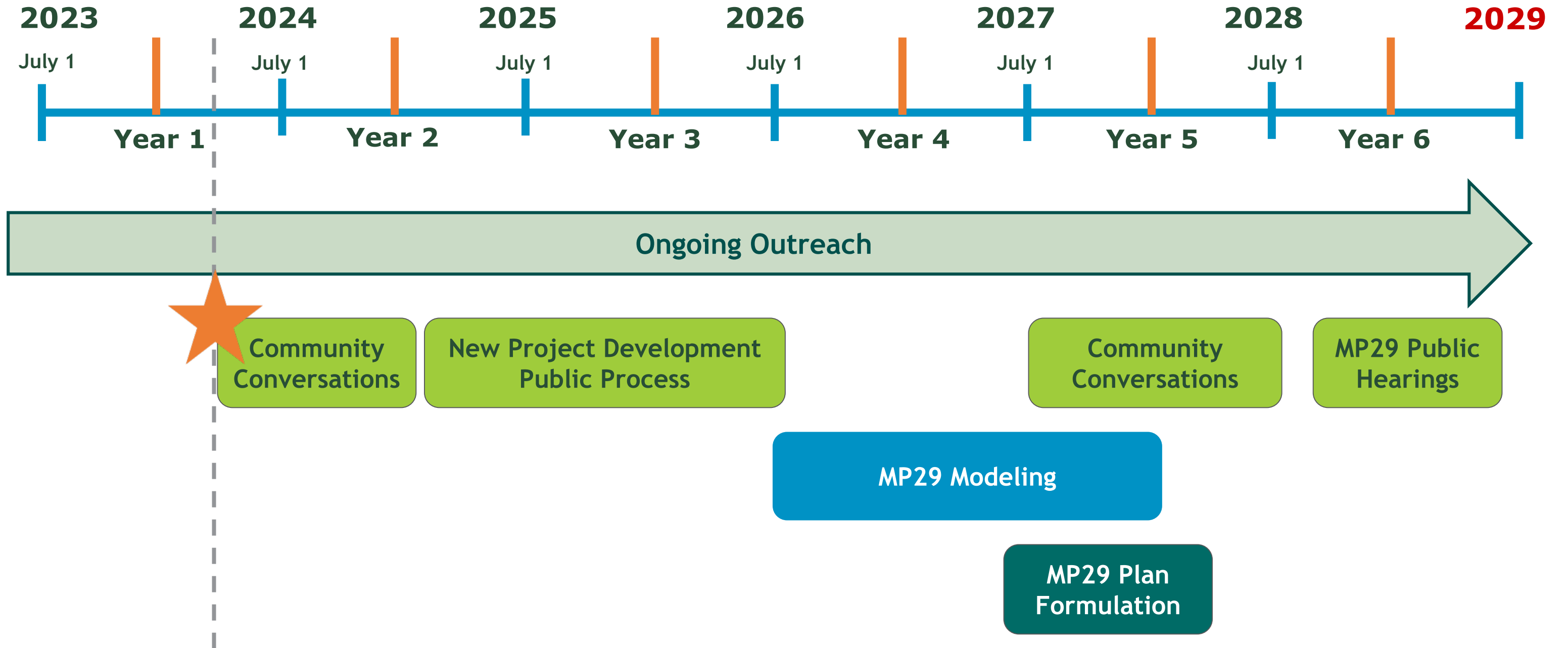


# STAY INVOLVED

[masterplan@la.gov](mailto:masterplan@la.gov)

# 2029 COASTAL MASTER PLAN TIMELINE

DEVELOPING THE MASTER PLAN FRAMEWORK



# UPCOMING COMMUNITY CONVERSATIONS

- Next MP29 Community Conversations roadshow in early 2025
- Focus on New Project Development + the public solicitation process
- Plan to do small group discussions and workshop projects concepts on maps to address community members' concerns and goals



# DISCUSSION

[masterplan@la.gov](mailto:masterplan@la.gov)

## **SMALL GROUP TABLE DISCUSSION**

- **What are the most important coastal issues for you and your community, now and into the future?**
- **What sorts of environmental changes and resulting challenges have you seen in your community over the years?**

**THANK YOU!**

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