



2029 COASTAL MASTER PLAN
COMMITTED TO OUR COAST

MASTER PLAN COMMUNITY CONVERSATIONS

BARATARIA

BRIAN LEZINA



APRIL 16, 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



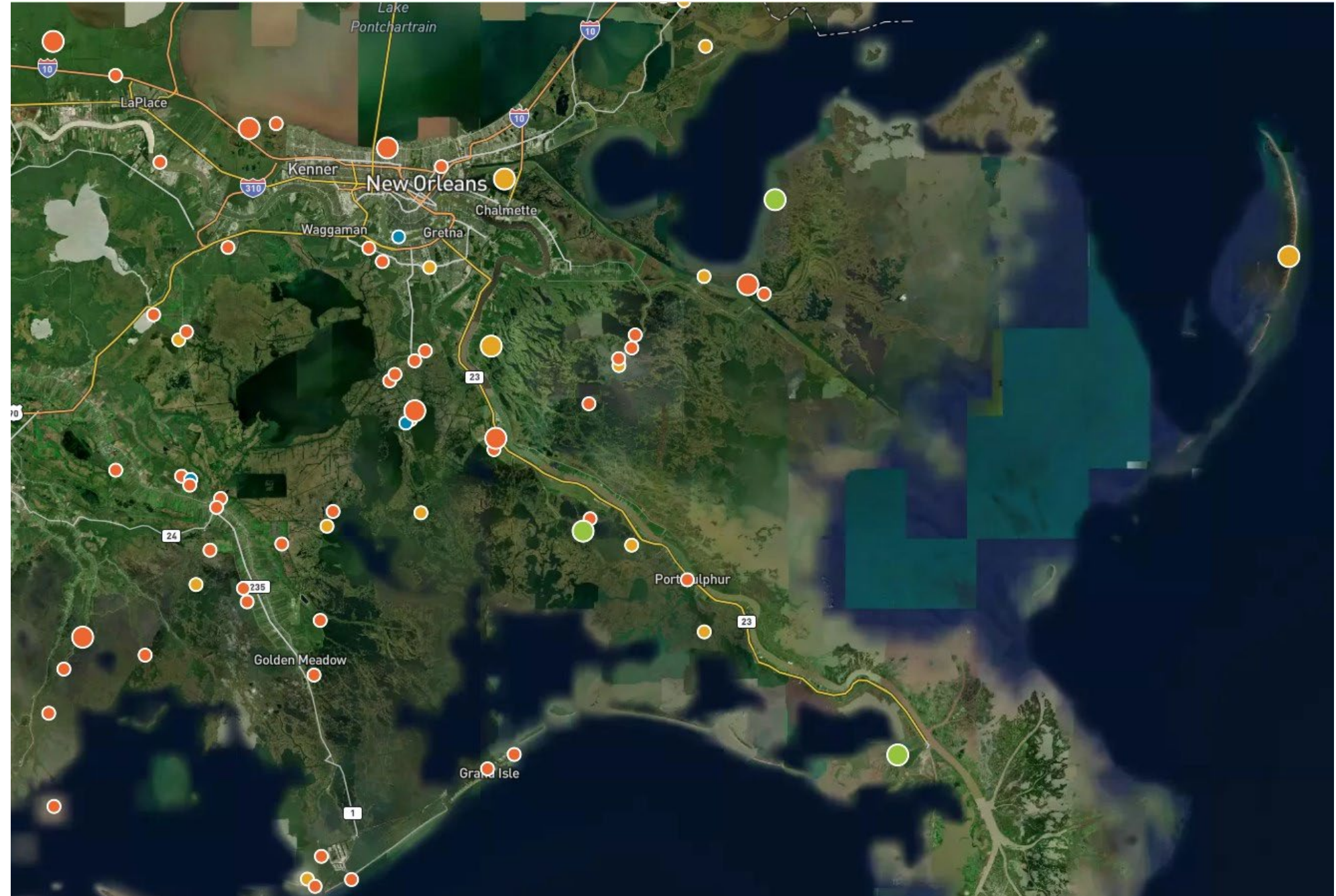
OUR
CULTURE

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

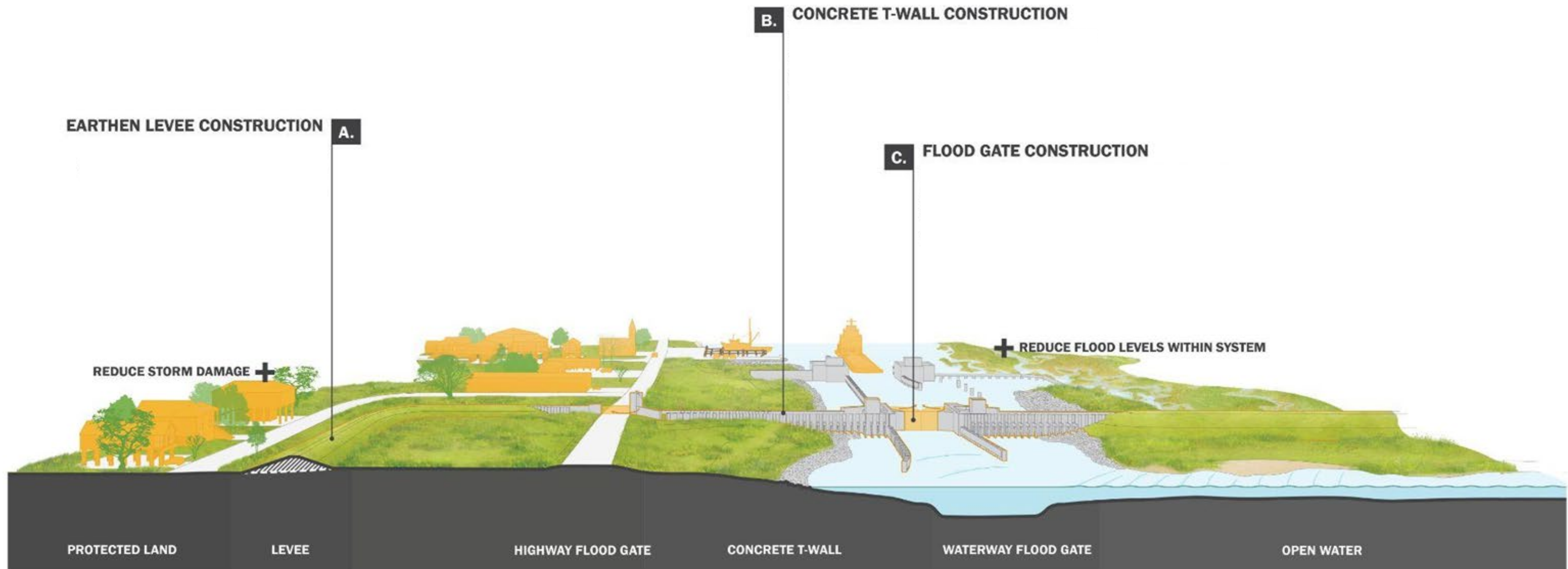


PROJECT TYPES

RISK REDUCTION



Structural Risk Reduction

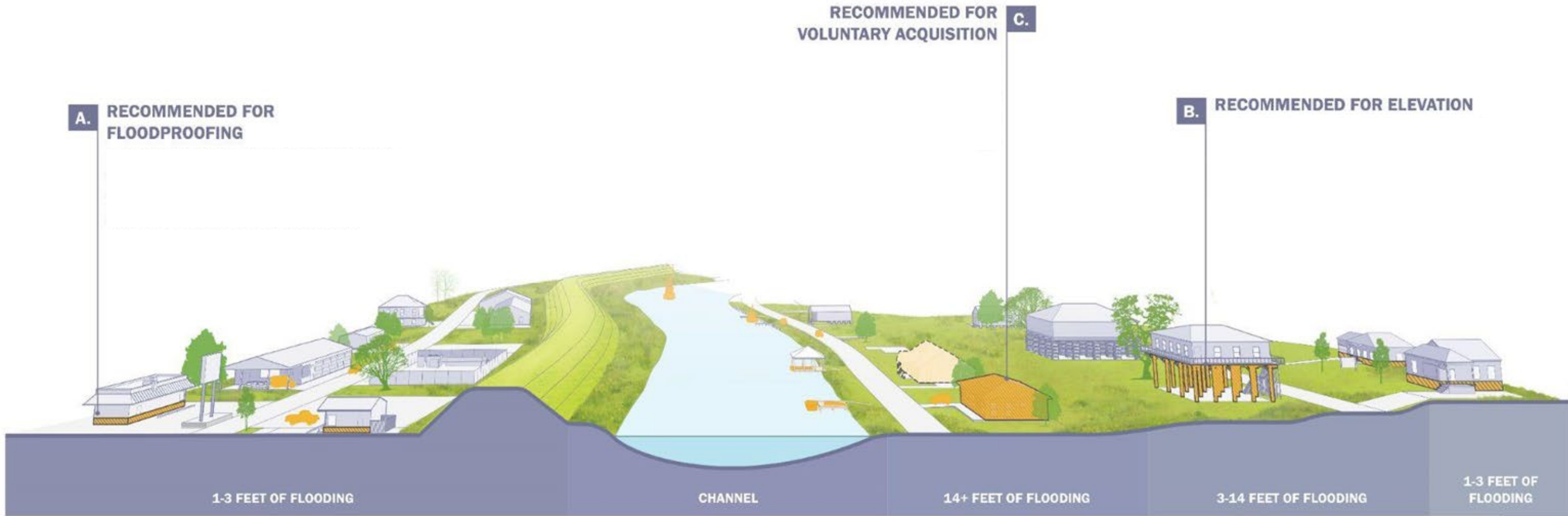


PROJECT TYPES

RISK REDUCTION



Nonstructural Risk Reduction

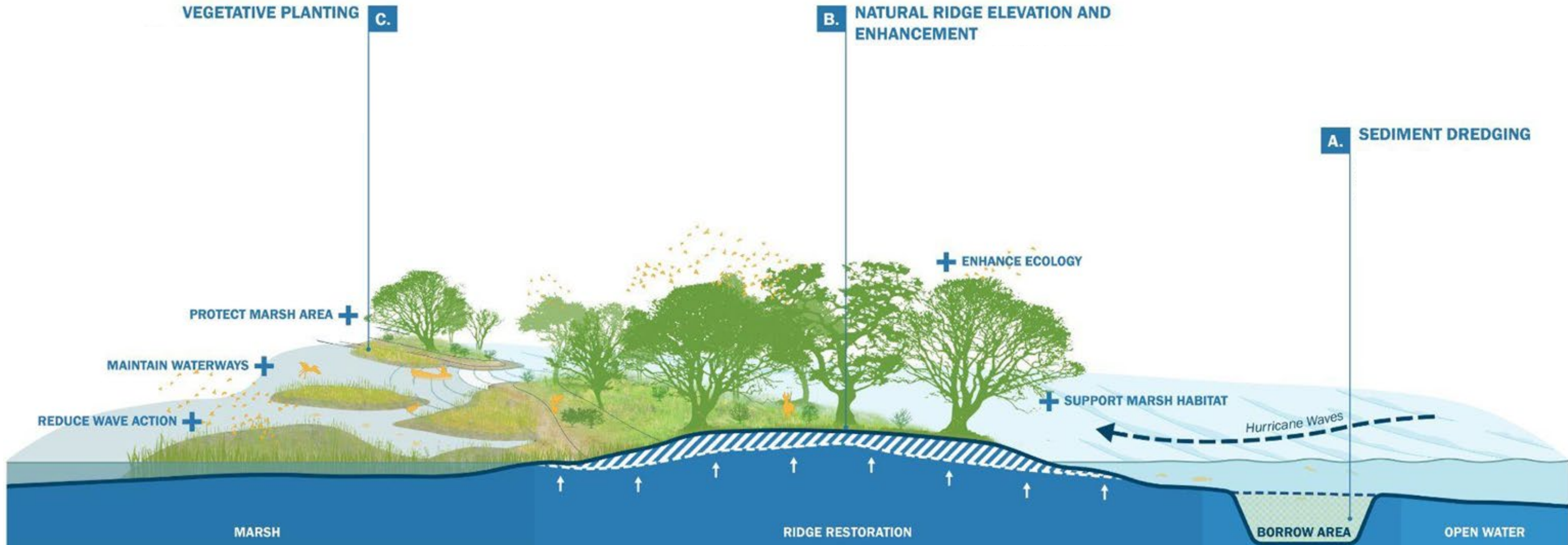


PROJECT TYPES

RESTORATION



Ridge Restoration

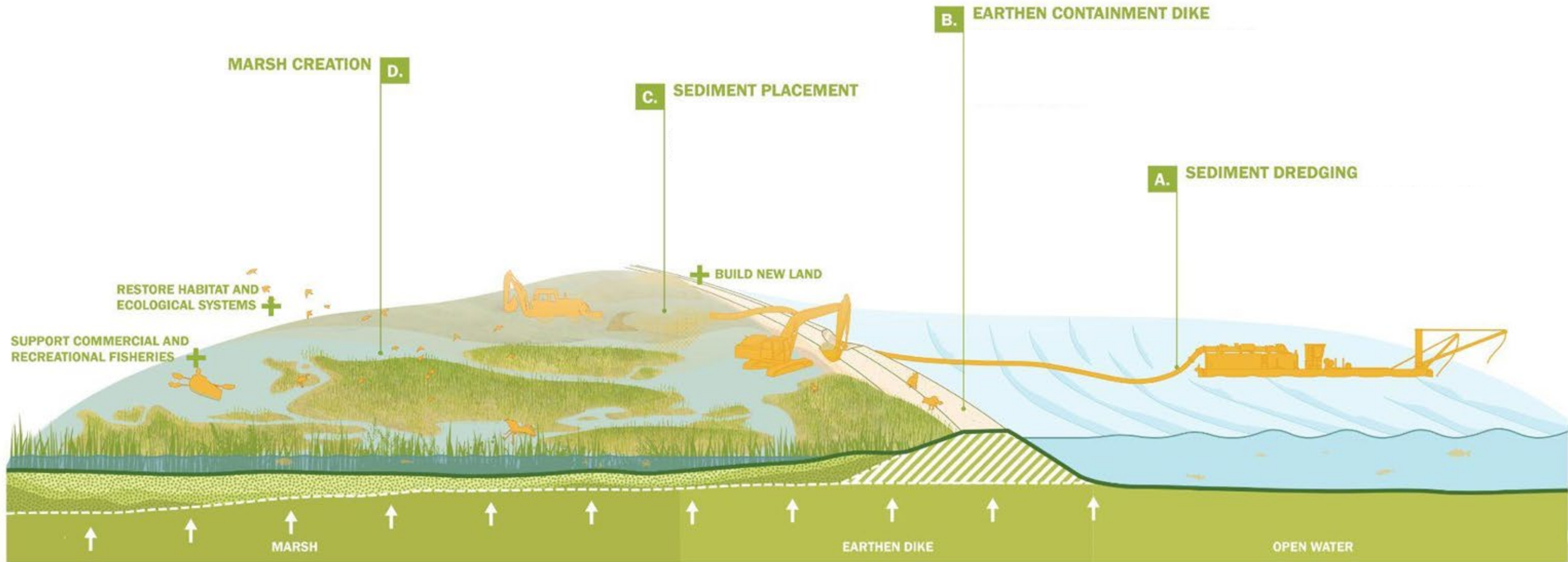


PROJECT TYPES

RESTORATION



Marsh Creation

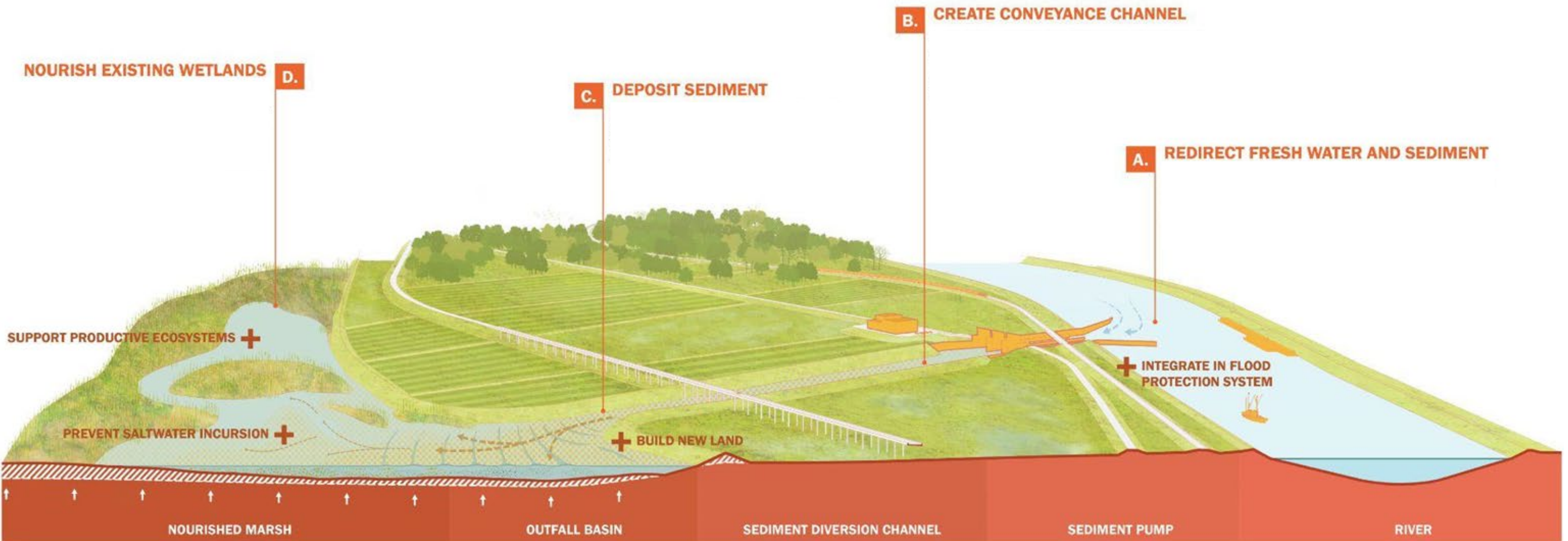


PROJECT TYPES

RESTORATION



Diversion

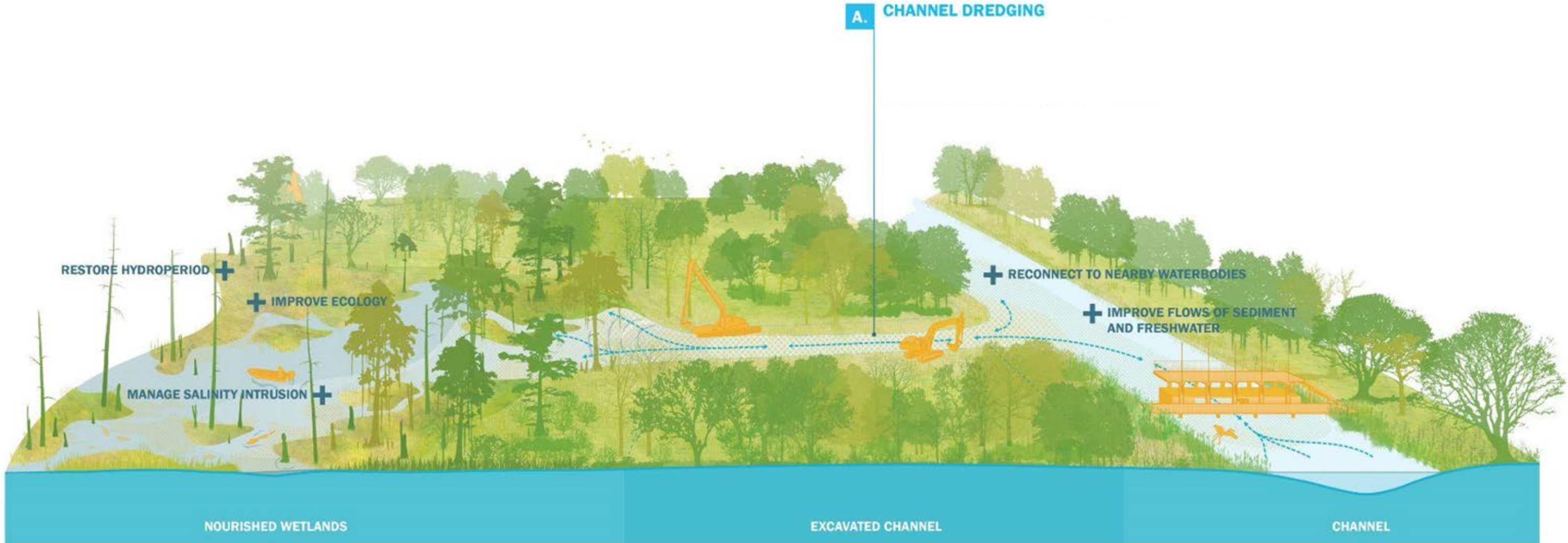


PROJECT TYPES

RESTORATION



Hydrologic Restoration

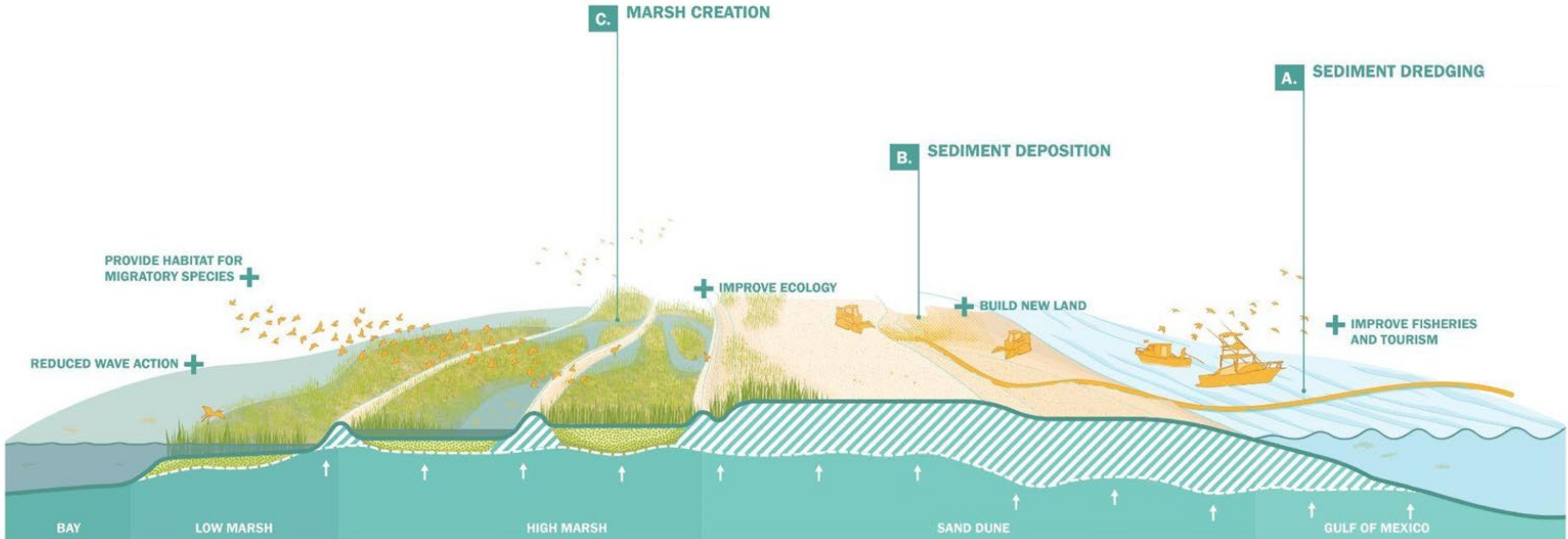


PROJECT TYPES

PROGRAMMATIC RESTORATION



Barrier Island Maintenance



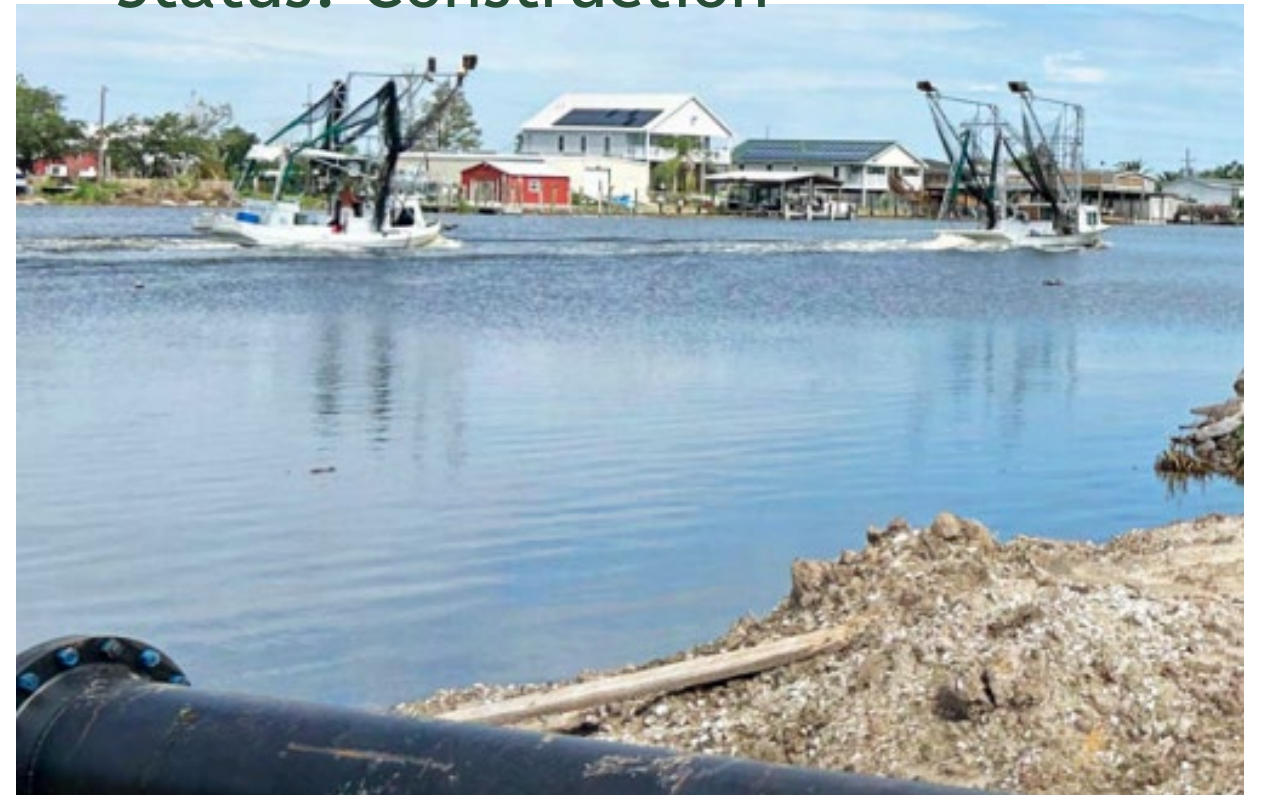
LAFITTE TIDAL PROTECTION SYSTEM

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3 of 10 Planned Projects Completed/Underway

[project lead is the Lafitte Independent Levee District]

- Fisher School Basin Flood Risk Reduction
 - Estimated Cost: \$33.5 M
 - Provides flood risk reduction to the 453-acre Fisher School Basin
 - Status: Completed May 2020
- Rosethorne Tidal Protection
 - Estimated Cost: \$40.1 M
 - Provide additional protection in the event of 10-year rainfall or tidal event
 - Status: Construction
- Lower Lafitte Basin Tidal Surge
 - Estimated Cost: \$20.7 M
 - 3-mile long levee strengthens tidal surge protection for Jean Lafitte
 - Status: Construction



Levee work on Lower Lafitte Tidal Protection

NONSTRUCTURAL RISK REDUCTION

PROGRAMMATIC

Nonstructural Risk Reduction measures include:

- Floodproofing, elevation, or voluntary acquisition of at-risk properties
- Program is 100% voluntary

Status: Planning (Southeast), Engineering & Design (Southcentral), and Construction (Southwest)



MISSISSIPPI RIVER LONG DISTANCE SEDIMENT PIPELINE + BAYOU DUPONT

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Mississippi River Long Distance Sediment Pipeline (BA-0043-EB)

- \$66.3 million estimated cost
- 542 acres of land benefitted
- Provides an access corridor to use sustainable sediment sources to restore/nourish wetlands
- Status: Completed



Bayou Dupont Sediment Delivery Marsh Creation #3 & Terracing (BA-0164)

- \$12.7 million (CWPPRA funds)
- 144 acres of marsh creation
- 9,679 linear feet of earthen terraces
- Status: Operations, Monitoring & Maintenance



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

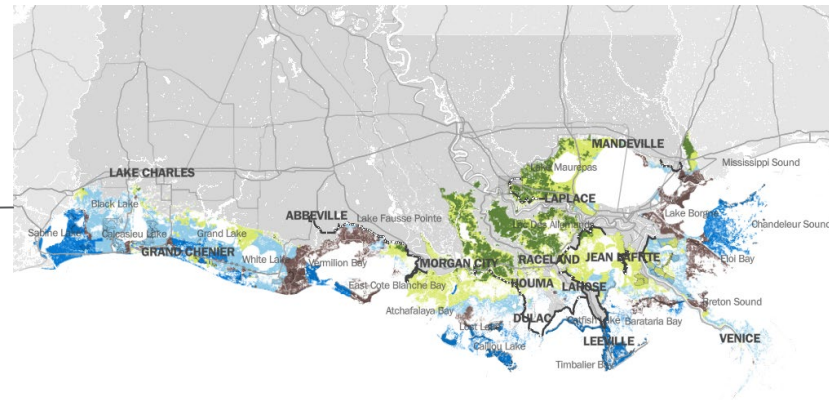
Identify Current & Future Coastal Challenges



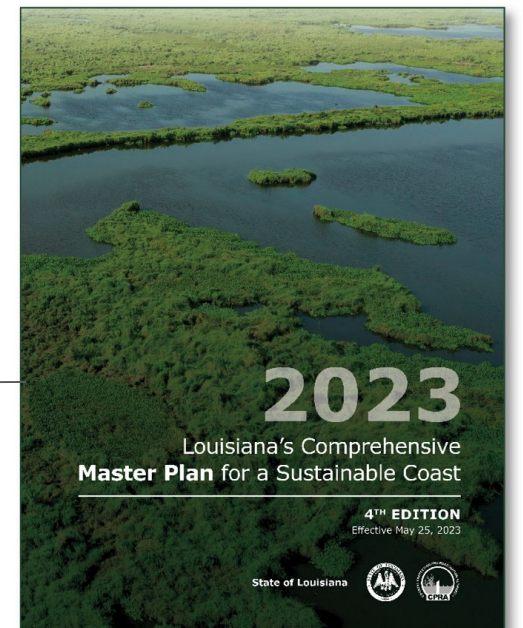
Develop Projects



Model, Refine & Select Projects



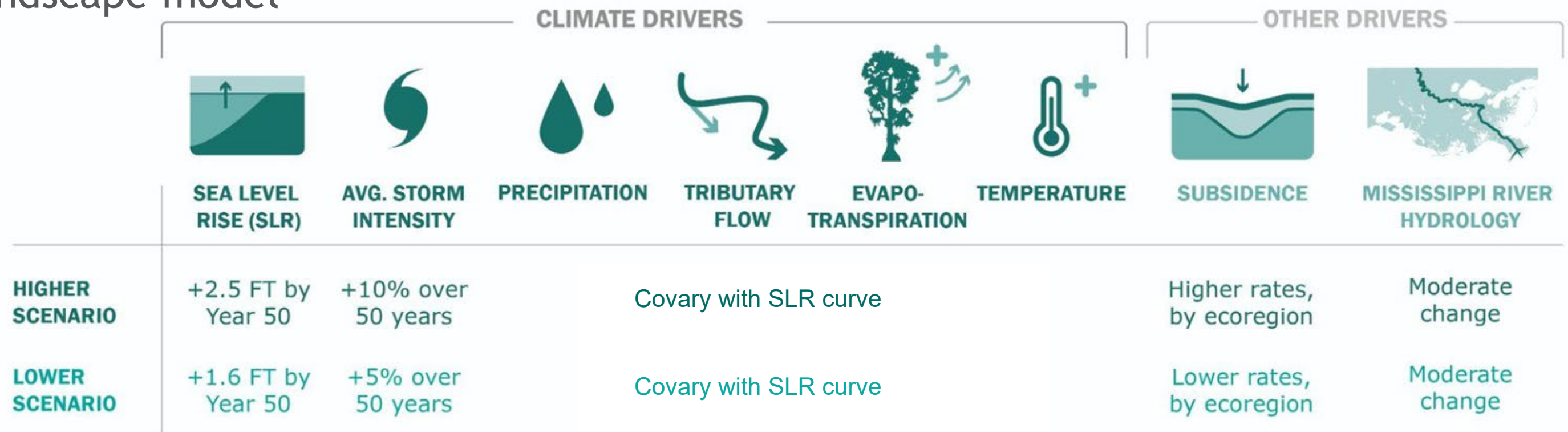
Draft Coastal Master Plan



**FUTURE PROJECTIONS
OF A
CHANGING COAST**

ENVIRONMENTAL SCENARIOS + FLOODING

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



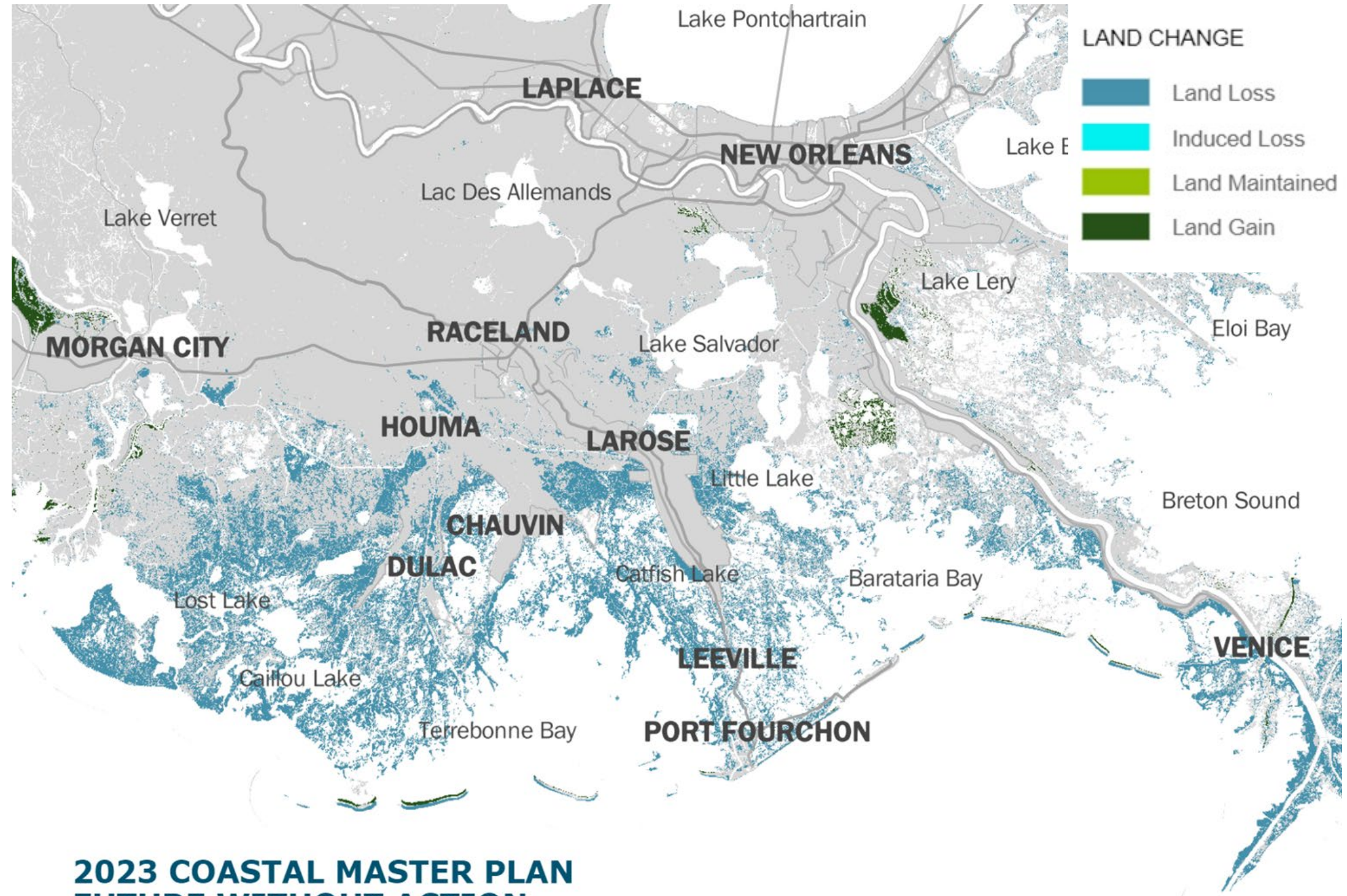
- Master Plan is tasked to respond to coastal land loss and threats from **storm surge-based** flooding - flooding generated by a hurricane or tropical storm

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

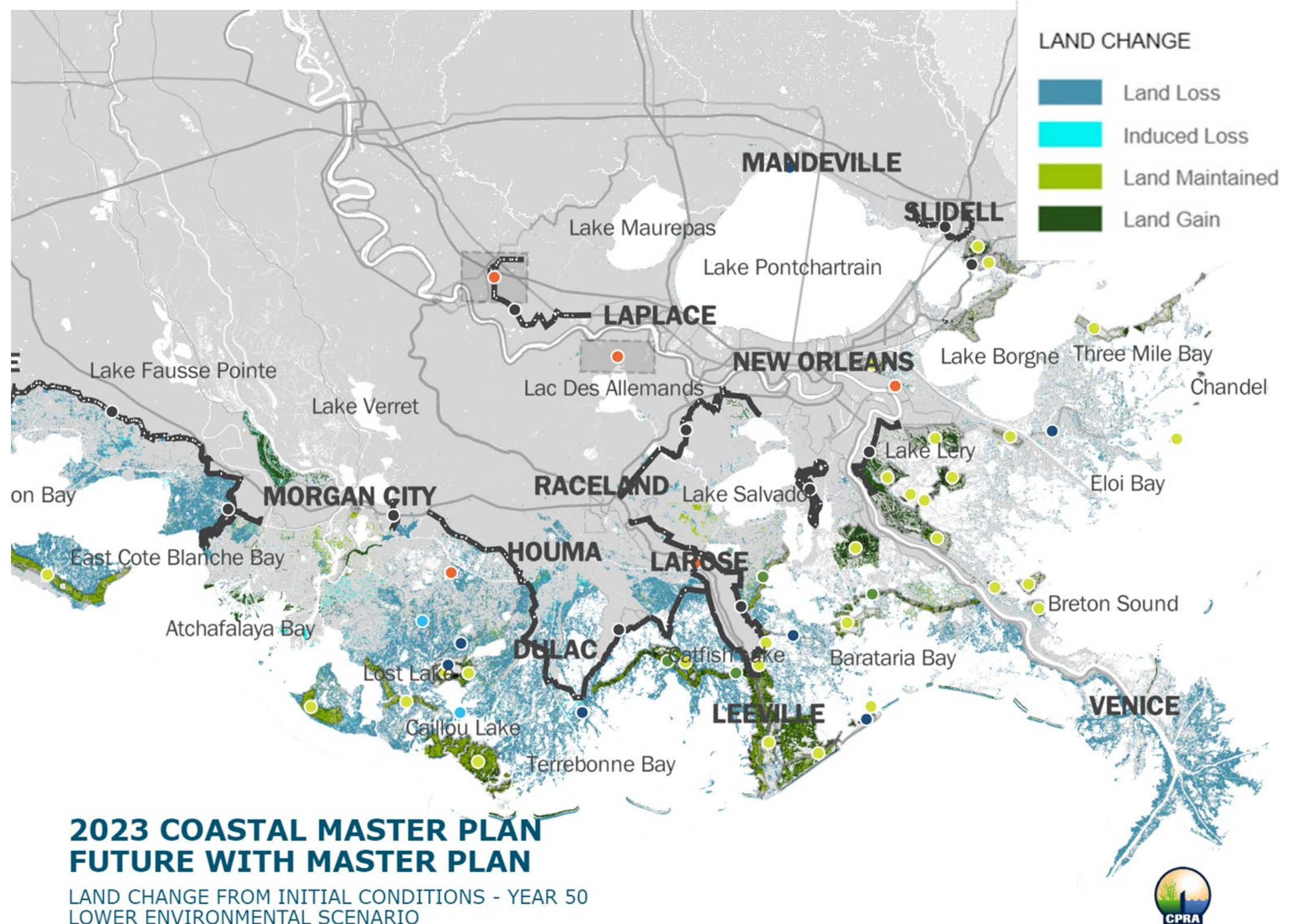
LAND CHANGE FROM INITIAL CONDITIONS - YEAR 50
LOWER ENVIRONMENTAL SCENARIO

BARATARIA REGION

PROJECTED FUTURE LAND CHANGE

Future With Action, Year 50 -

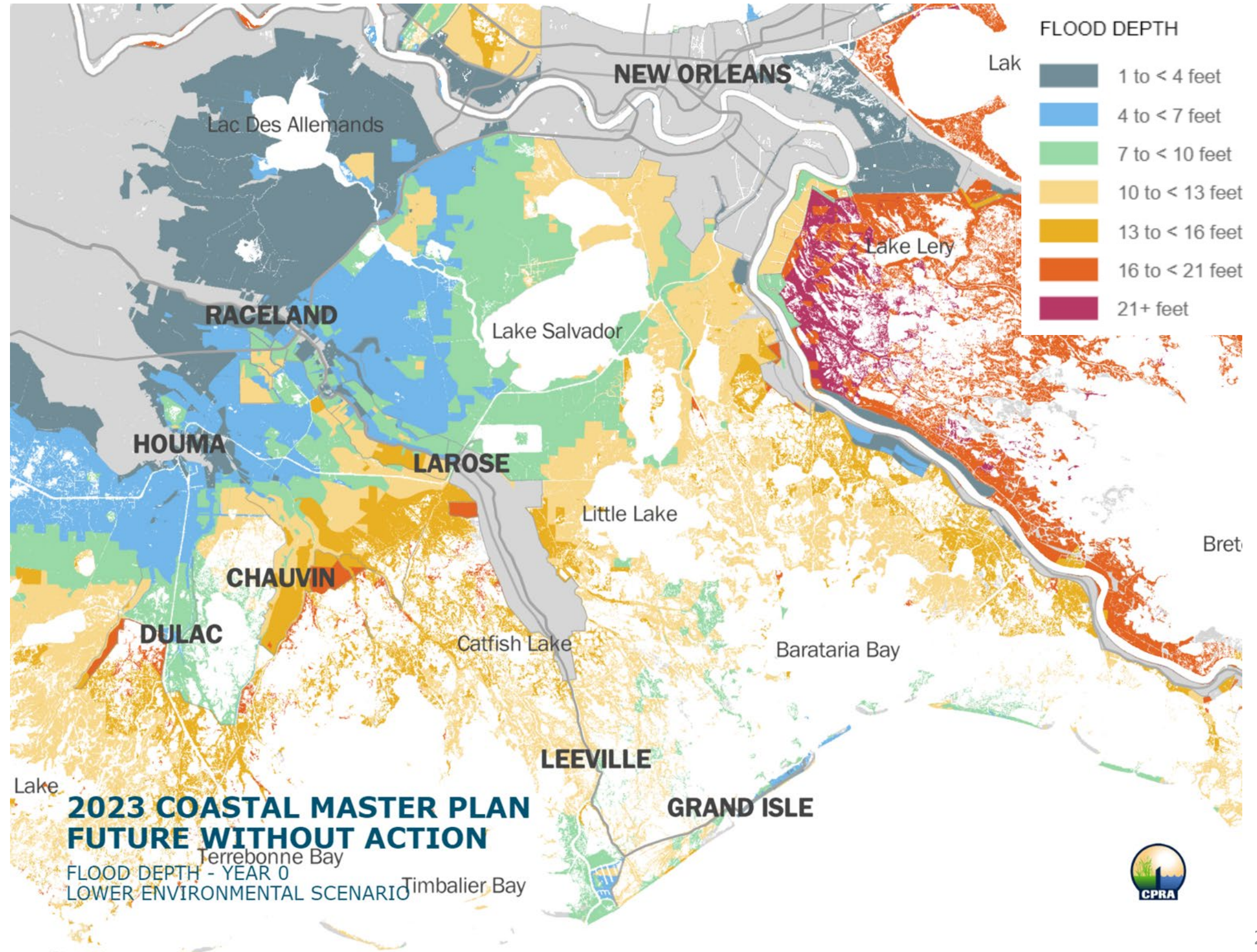
Projected land change with Coastal Master Plan projects on the landscape



BARATARIA REGION

PROJECTED STORM SURGE-BASED FLOOD DEPTHS

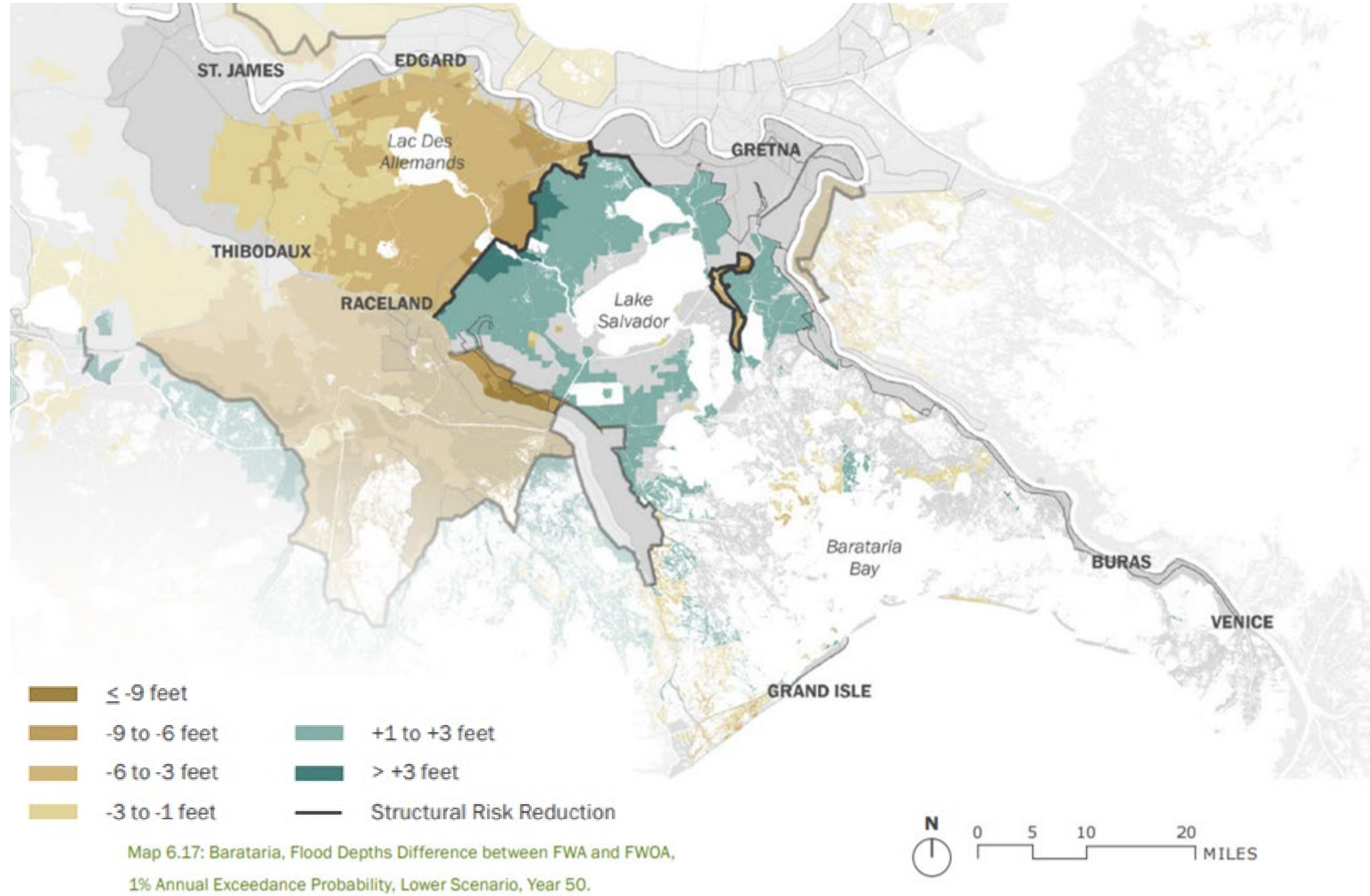
Flood depths projected with a 1% probability of occurrence (100-year flood) in Future Without Action



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PROJECTED FLOOD DEPTHS

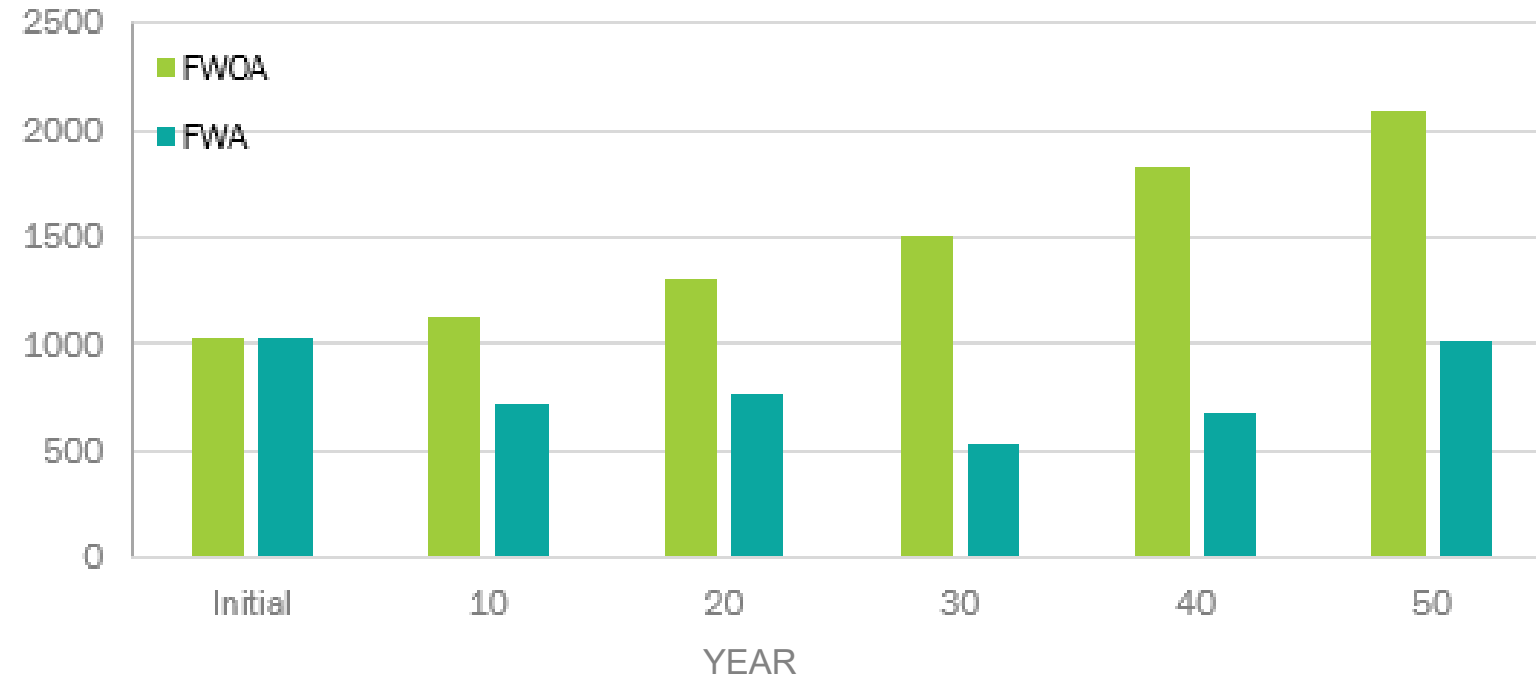
Projected flood depth difference between Future With Action and Future Without Action for a 1% probability of occurrence (100-year flood)



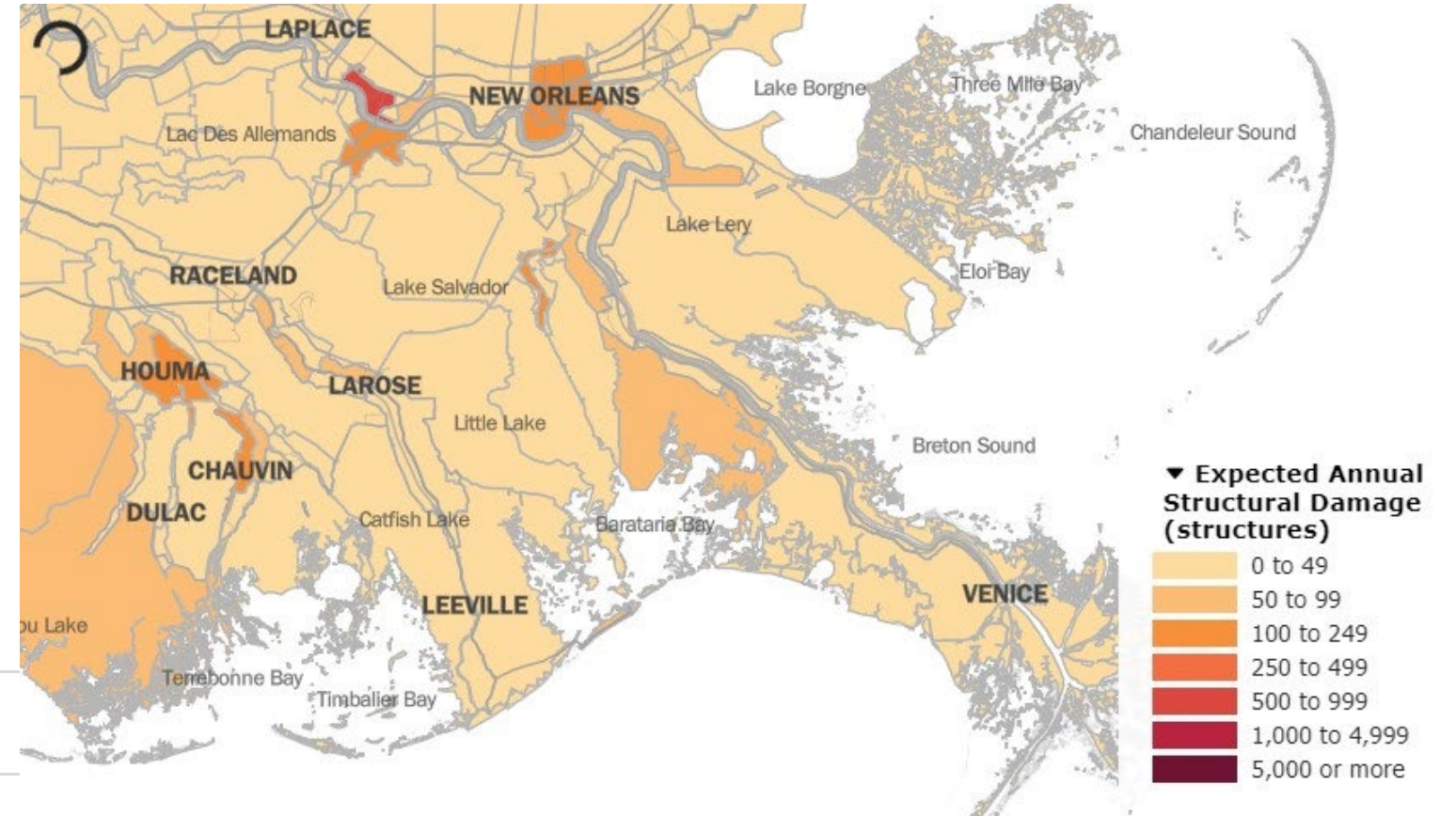
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PROJECTED FUTURE DAMAGES FROM TROPICAL EVENTS

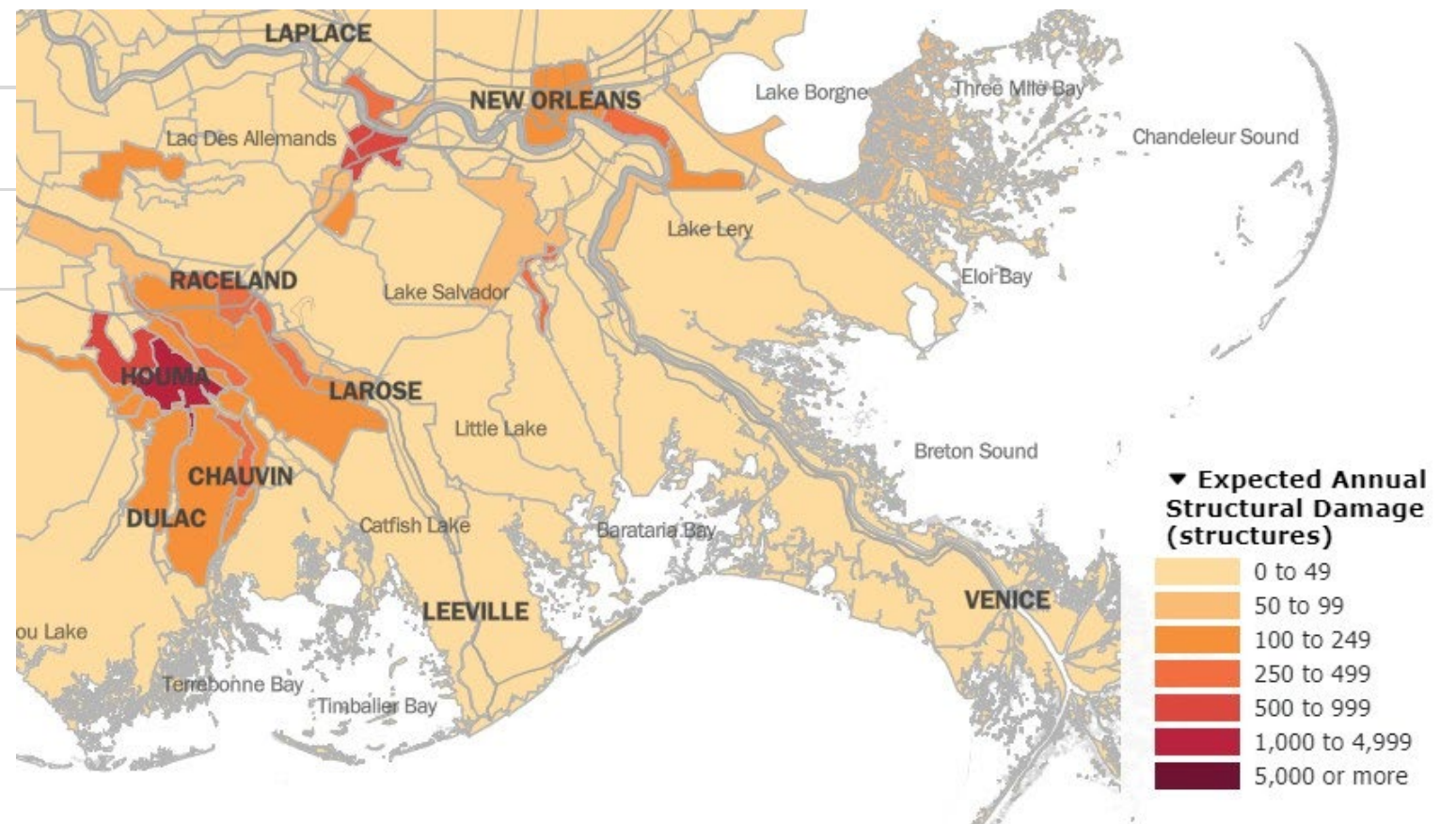
Expected Annual Damage, Structural Equivalents: Lower Scenario



*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

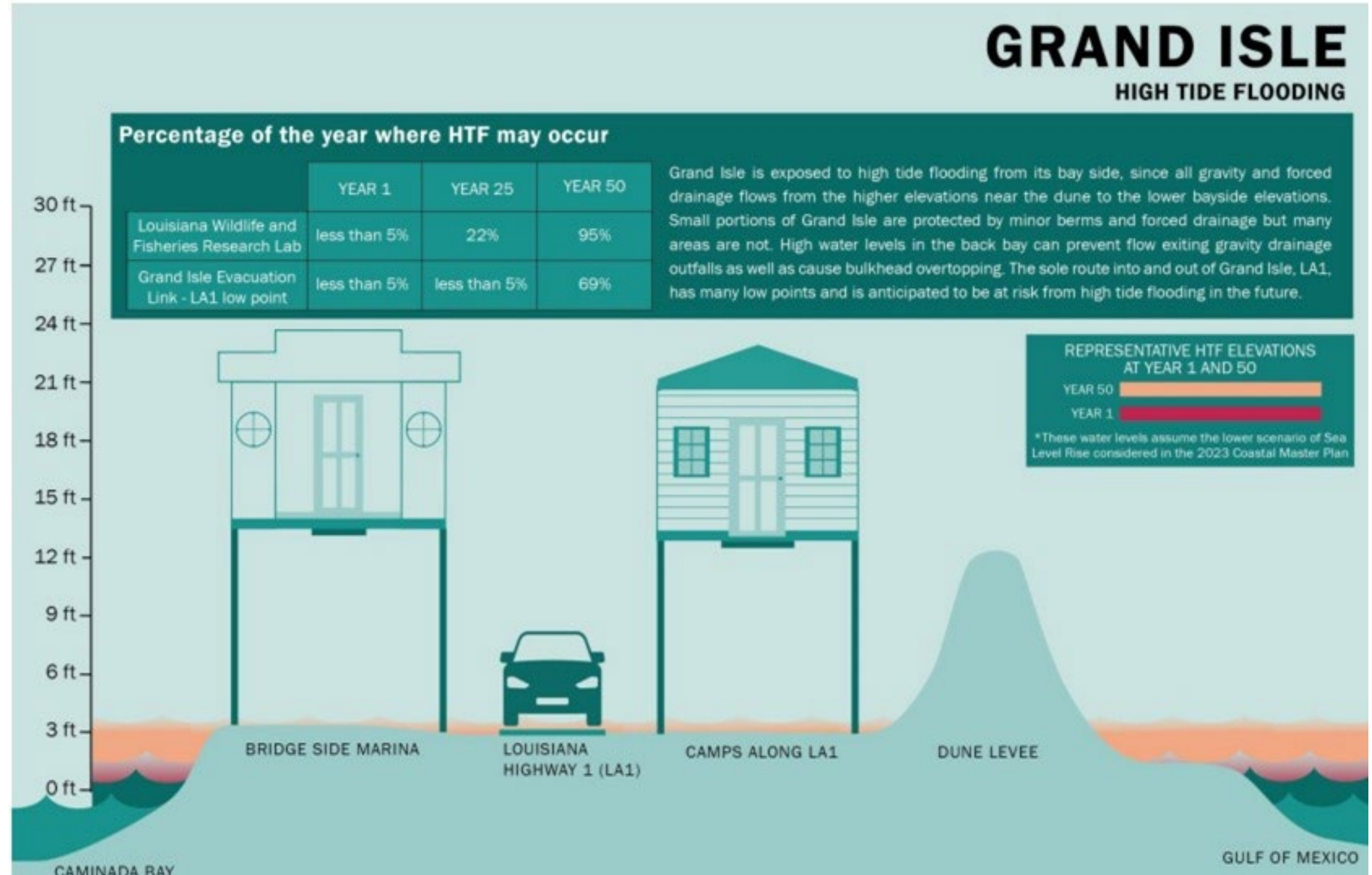
FUTURE WITHOUT ACTION, BARATARIA

Grand Isle Evacuation Link, LA-1 low point

- **Currently** floods < 5% of days

Without the master plan:

- In 25 years, projected to flood < 5% of days
- In 50 years, projected to flood ~69% of days



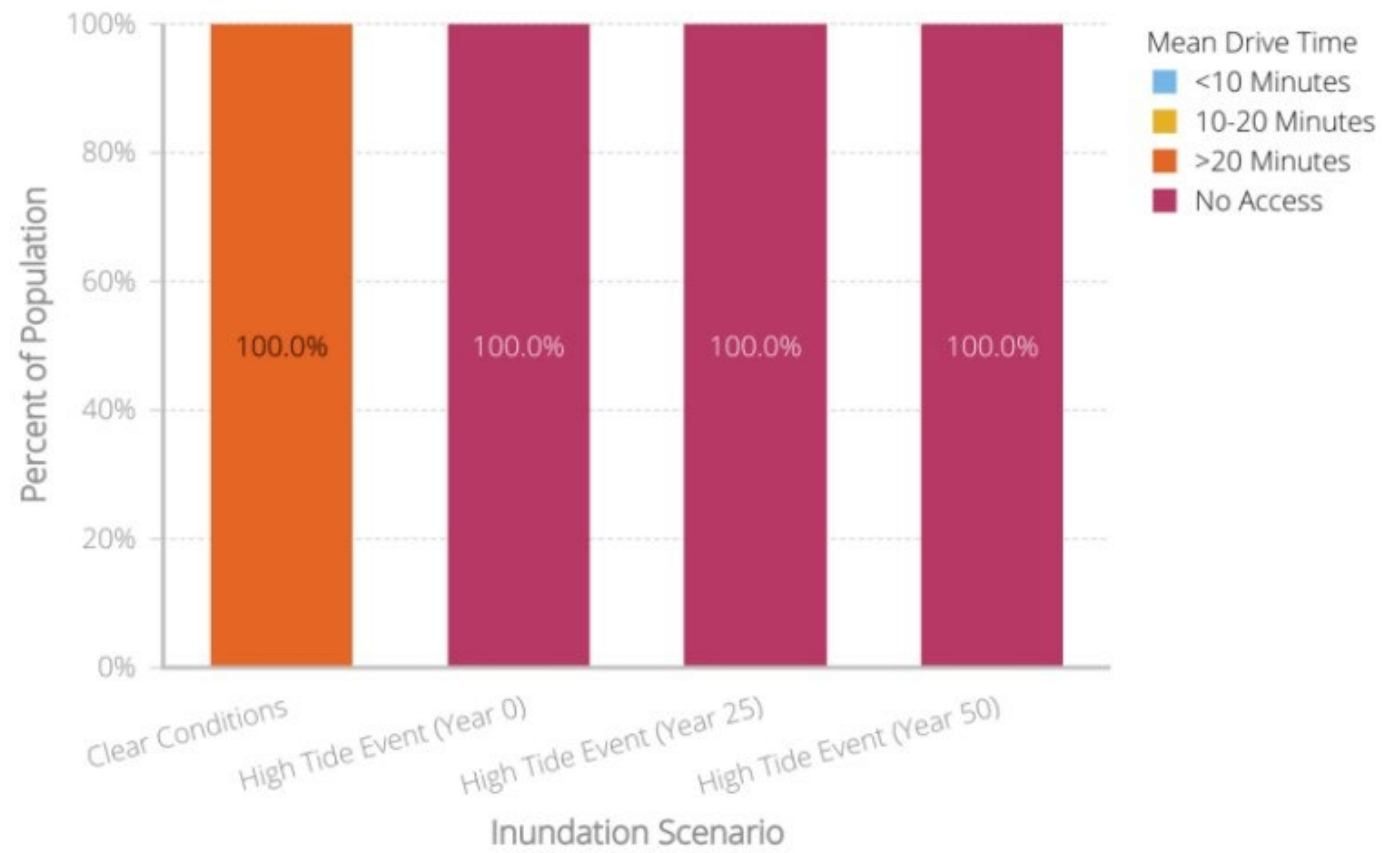
GRAND ISLE HIGH TIDE FLOODING

FUTURE WITHOUT ACTION, BARATARIA

Drive time access to nearest LERN Tier 1 hospital by population

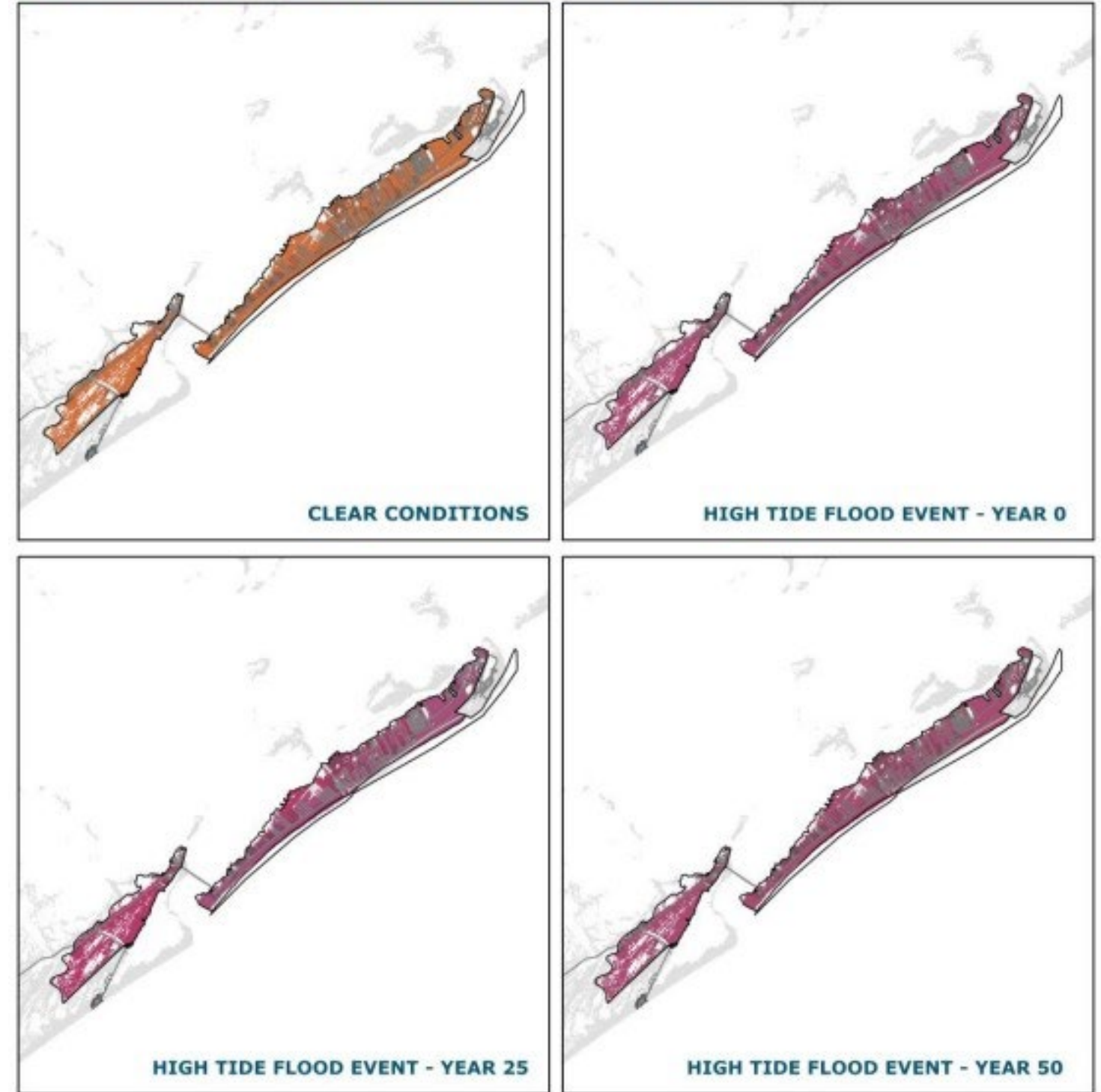
Access to Nearest LERN Tier 1 Hospital

Grand Isle, Louisiana

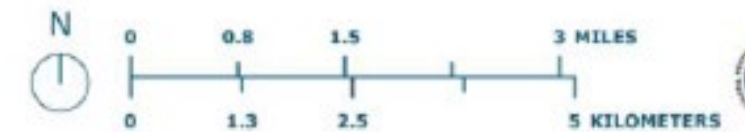
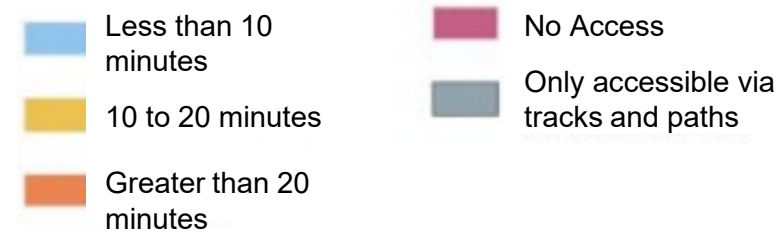


Data Source: Louisiana Department of Health

GRAND ISLE NEAREST HOSPITAL DRIVE TIME



Cumulative Drive Time by CLARA Centroid



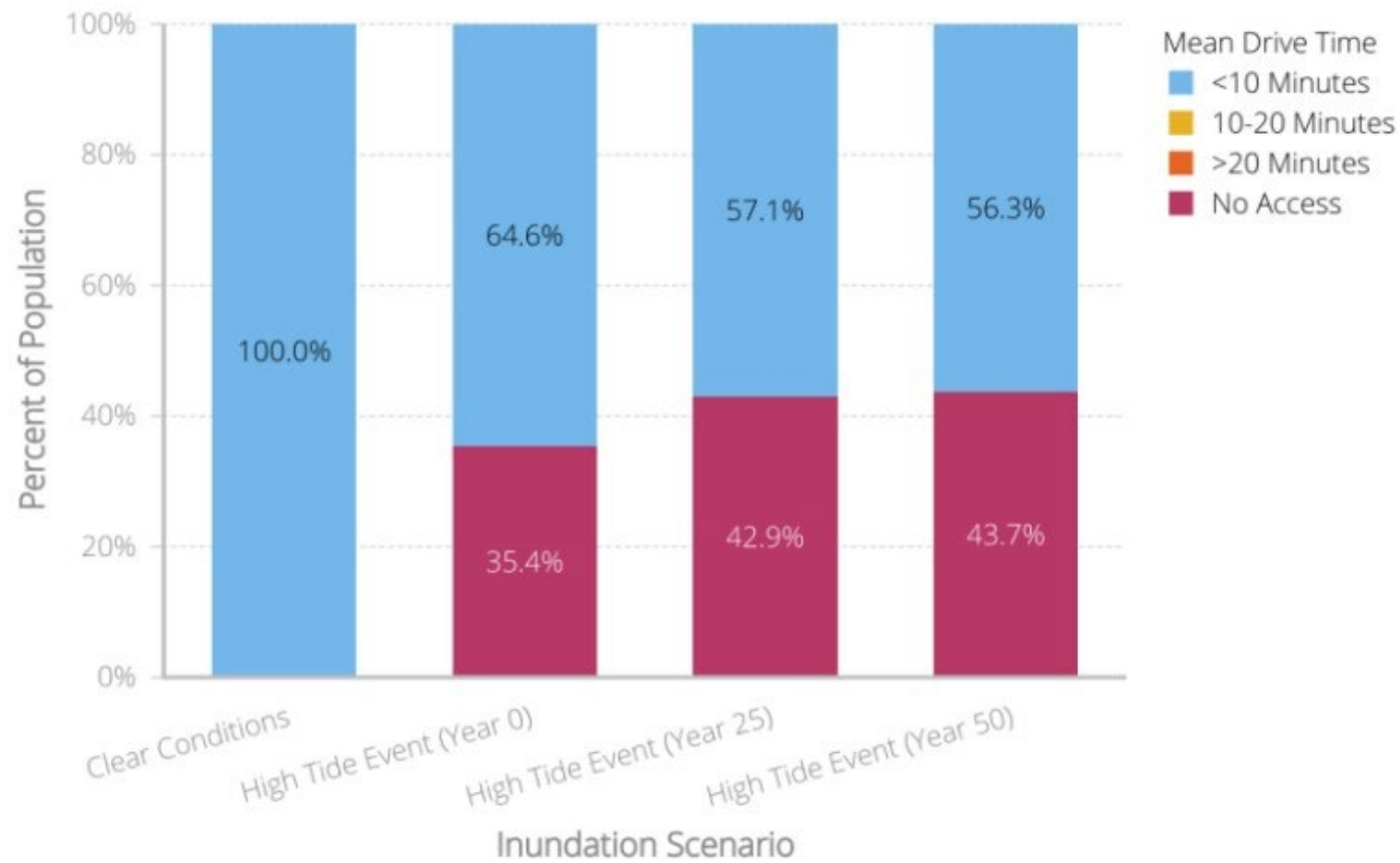
GRAND ISLE HIGH TIDE FLOODING

FUTURE WITHOUT ACTION, BARATARIA

Drive time access to nearest grocery store by population

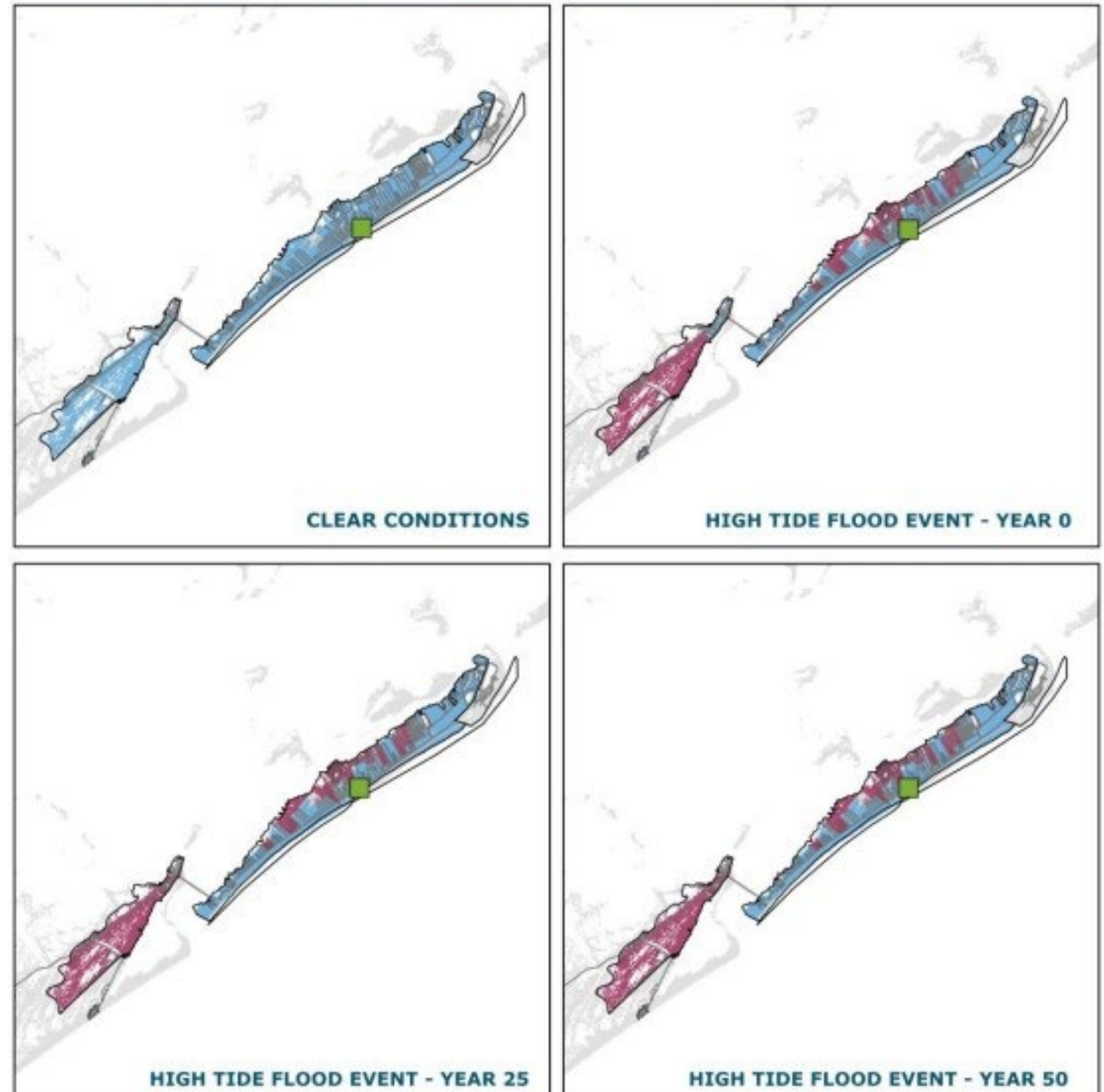
Access to Nearest Grocery Store

Grand Isle, Louisiana

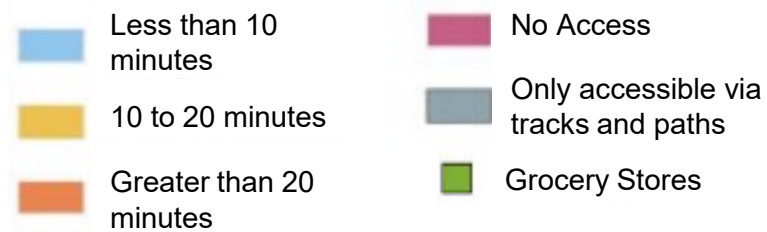


Data Source: ESRI Community Analyst
2029 COASTAL MASTER PLAN

GRAND ISLE NEAREST GROCERY STORE DRIVE TIME



Cumulative Drive Time by CLARA Centroid

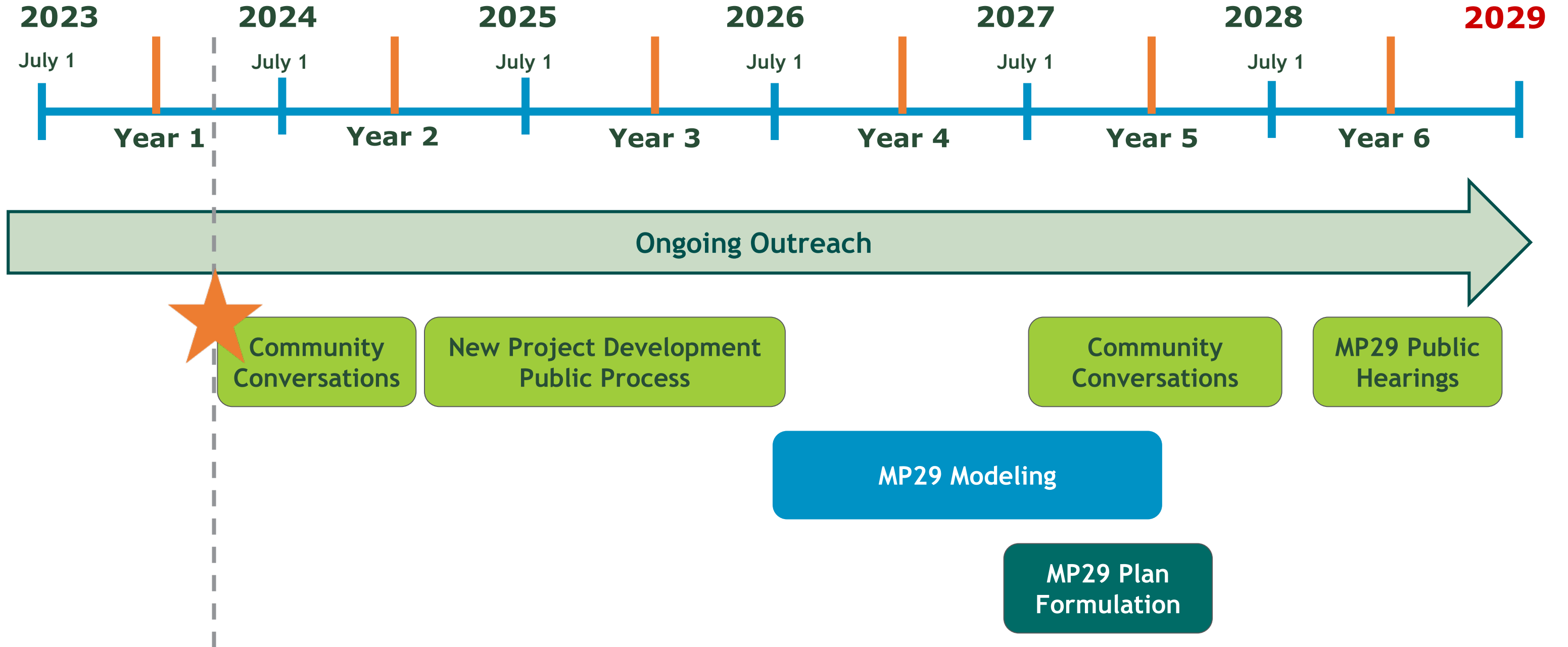


STAY INVOLVED

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

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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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