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Mid-Barataria Sediment Diversion Project and Draft Restoration Plan Overview

LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY (CPRA)

LOUISIANA TRUSTEE IMPLEMENTATION GROUP (LA TIG)



Coastal Protection and Restoration Authority

Single state entity with authority to articulate a clear statement of priorities to achieve comprehensive coastal protection for Louisiana.

Mandate is to develop, implement, and enforce a comprehensive coastal protection and restoration master plan.



Louisiana's Land Loss Crisis

SEA LEVEL RISE, SUBSIDENCE, & CLIMATE CHANGE

LEVEEING THE RIVER

OTHER MANMADE CONTRIBUTIONS

DWH OIL SPILL & RESPONSE ACTIVITIES

Mississippi River Levee System

GREAT FLOOD OF 1927, SUBSEQUENT LEVEEING



Sediment Diversion Planning Process

CORNERSTONES OF THE COASTAL MASTER PLAN

1980s

Sediment Diversions have been studied since the 1980's, including 16 proposed locations studied in a 1998 report titled *Coast 2050: Toward a Sustainable Louisiana* published by DNR (later became CPRA)

2008-2011

River data collected from several sites along the Mississippi River

2011

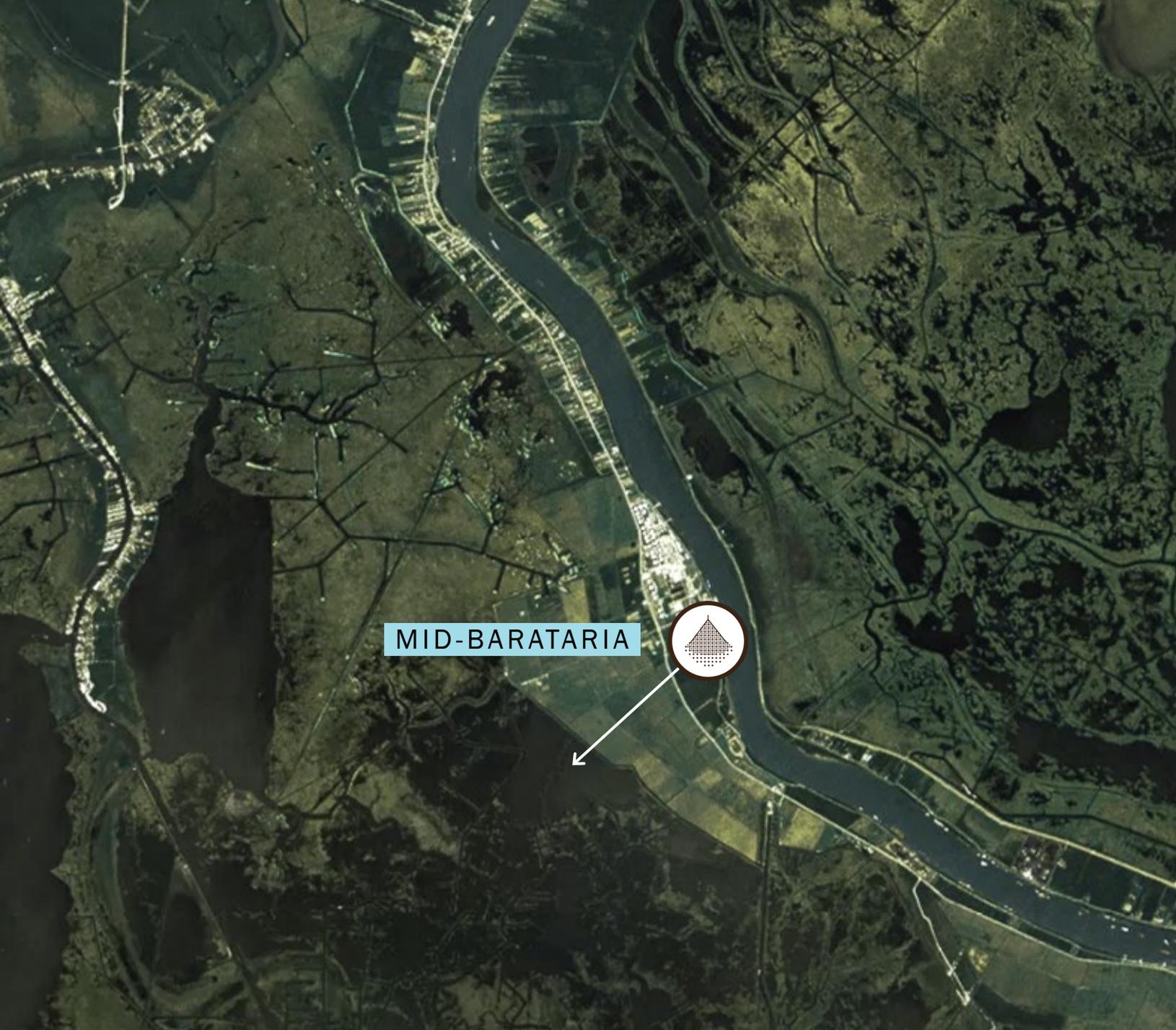
currently proposed Mid-Barataria project location selected to optimize capture and delivery of river sediment into the basin

2012

Coastal Master Plan recommends Mid-Barataria Sediment Diversion as a priority project

2017

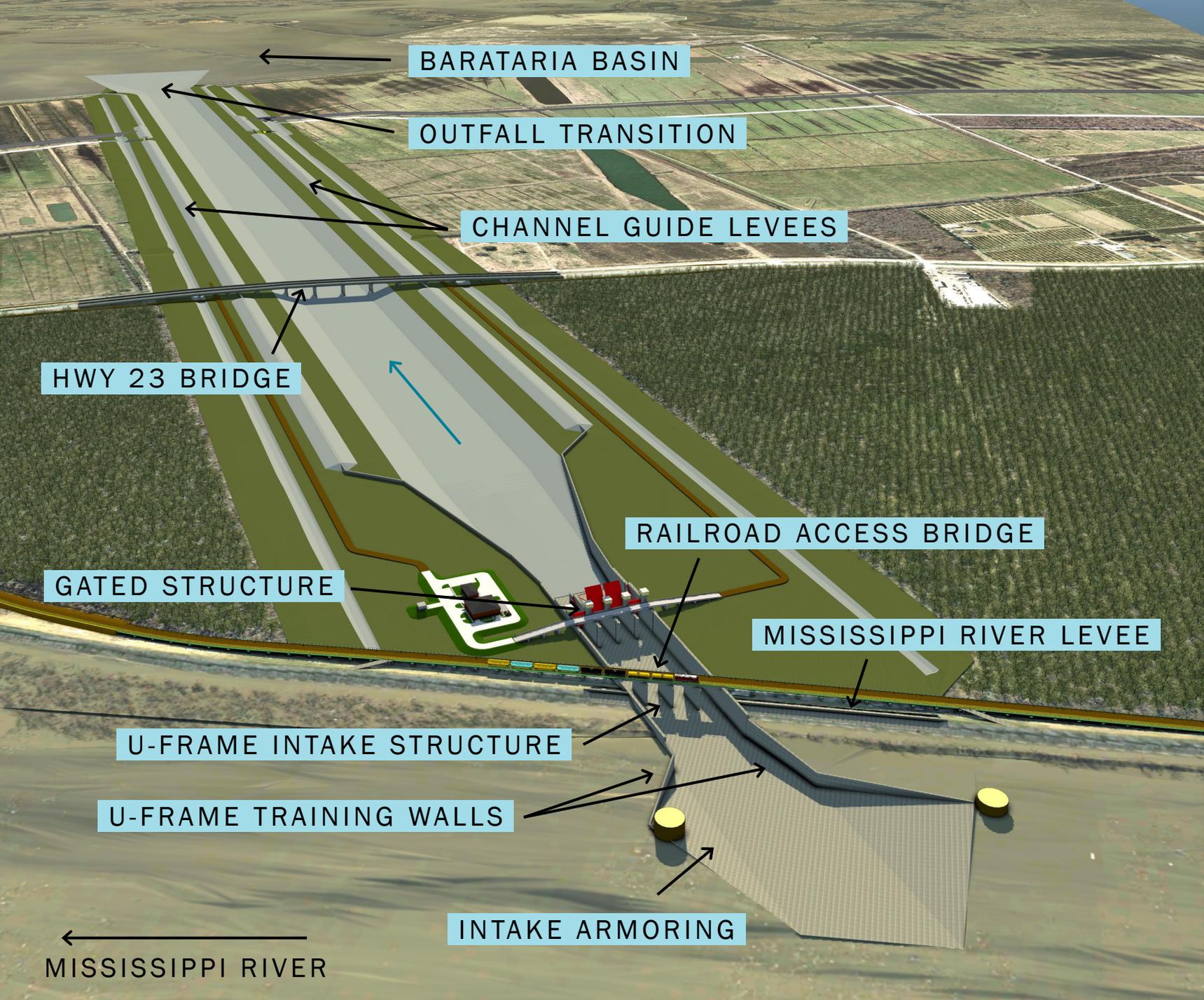
Coastal Master Plan continues to support and recommend the Mid-Barataria Sediment Diversion, among others, as “cornerstone projects” that are Louisiana’s best tool to build and sustain land



MID-BARATARIA

Proposed Project Location

RIVER MILE 60
NEAR IRONTON, LA



Details & Operations

Controlled, gated structure

Maximum flow: 75,000 cfs

Width: 1,600-foot Corridor

Length: Approx. 2 miles

← MISSISSIPPI RIVER

CPRA

State agency and permit applicant for the Mid-Barataria Sediment Diversion

Responsible for engineering, design, and coordinating with USACE

LA TIG

Group of coordinating federal and state agencies responsible for overseeing the use of the Deepwater Horizon oil spill settlement dollars allocated to Louisiana

Responsible for the Restoration Plan, which is the document that details the recommendation of funding the project



Deepwater Horizon oil spill implications

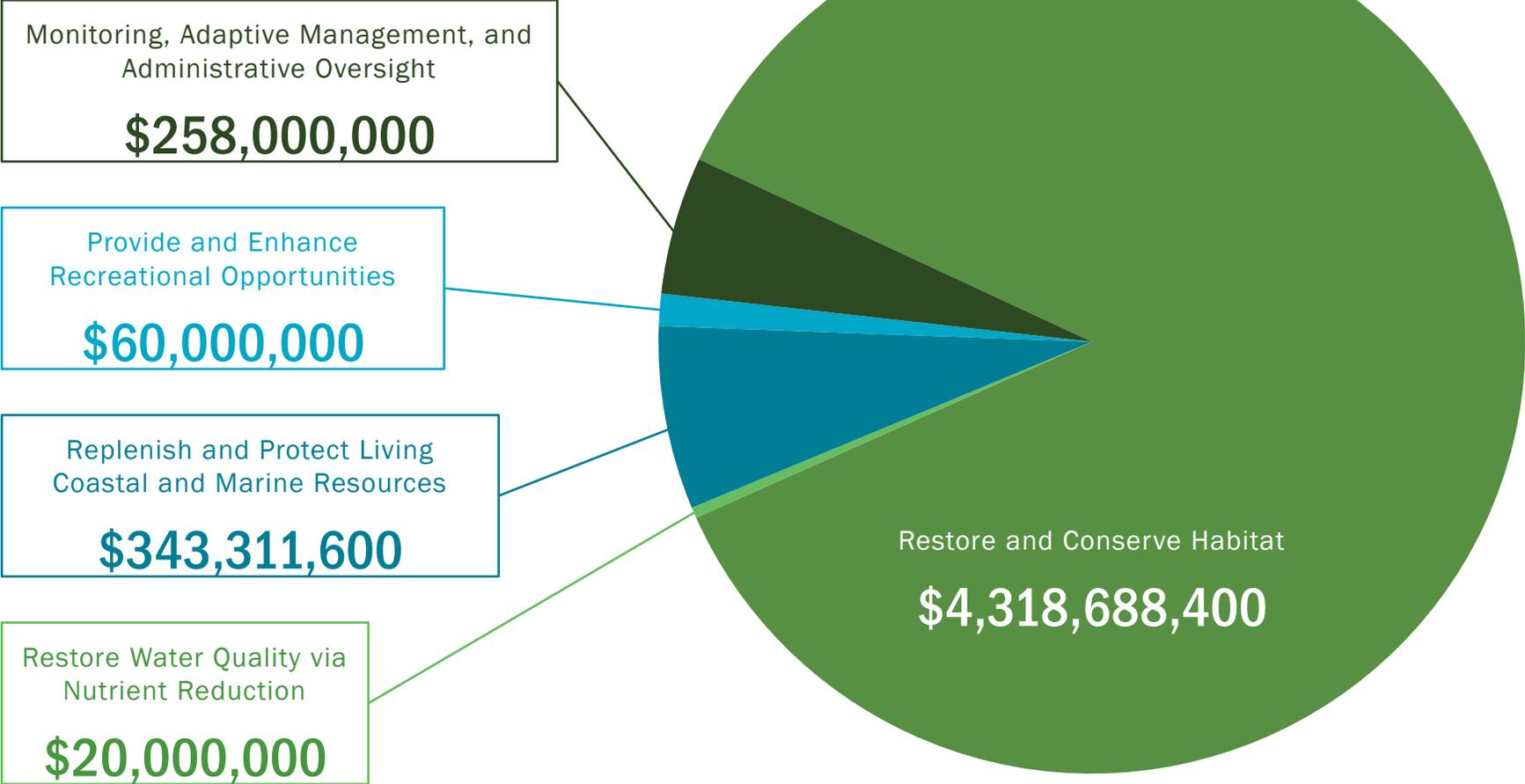
BARATARIA BASIN IS HOME TO
THE MOST HEAVILY OILED AREAS

IMMEDIATE AND LONG-TERM
IMPACTS OF OILING: UP TO 3X
ACCELERATION OF RATE OF
EROSION

RESPONSE ACTIVITIES FURTHER
ACCELERATED RATE OF WETLAND
LOSS

LA TIG Allocation

TOTAL ALLOCATION = \$5B



“

Considering the scale of impacts from the oil spill, the Trustees also understand the importance of increasing the resiliency and sustainability of this highly productive Gulf ecosystem through restoration.” To address these large-scale impacts, the Trustees agreed that “[d]iversions of Mississippi River water into adjacent wetlands have a high probability of providing these types of large-scale benefits for the long-term sustainability of deltaic wetlands.

”

Programmatic Damage Assessment and Restoration Plan (PDARP)

Barataria Basin Strategic Restoration Plan

THE TRUSTEES' TWO DECISIONS:

- ① A restoration strategy that utilizes a suite of restoration approaches/types, including large-scale sediment diversions to restore deltaic processes, marsh creation, and ridge restoration
- ② Selected 3 projects for further evaluation and planning:
 - Mid-Barataria Sediment Diversion
 - Large Scale Marsh Creation: Component E
 - Barataria Basin Ridge and Marsh Creation: Spanish Pass Increment

Draft Phase II Restoration Plan #3.2:

MID-BARATARIA SEDIMENT DIVERSION

MBSD Restoration Objectives

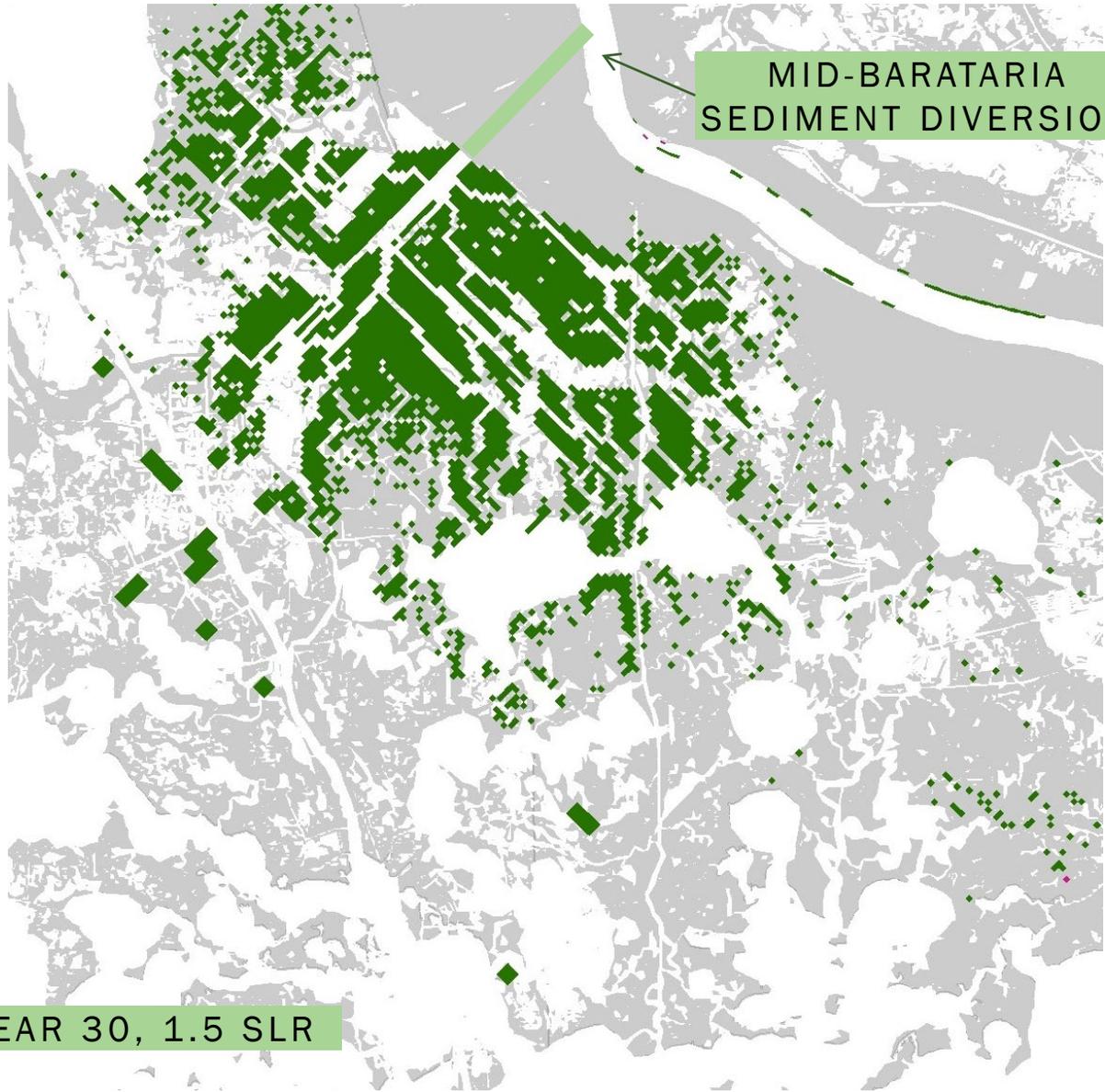
Restore injuries from the Deepwater Horizon oil spill

Deliver freshwater, sediment, and nutrients to the Barataria Basin through a large-scale sediment diversion

Reconnect and re-establish sustainable deltaic processes between the Mississippi River and Barataria Basin

Create, restore, and sustain wetlands and other deltaic habitats





Marsh Created and Sustained

Barataria:

+17,300 acres at 30 yrs
+13,400 acres at 50 yrs

After 50 years, marsh
created and sustained by
MBSD represents 20% of
the marsh in the Basin

Birdfoot Delta:

-2,000-3,000 acres

Summary of Project Benefits

- Comprehensive and sustainable regional ecosystem restoration
- Creates and protects coastal marshes that provide habitat and reduce storm surge during large storms
- Improves the effectiveness and longevity of other marsh restoration projects
- Aquatic and terrestrial species benefits: largemouth bass, red drum, gulf menhaden, bay anchovy, white shrimp, blue crab
- Recreational use benefits: duck hunting, bird watching, recreational fishing

- Project success depends on effective operation
- Opportunities to maximize benefits while managing collateral injuries
- Robust data collection throughout the basin builds on existing efforts

Monitoring and Adaptive Management (MAM)

Collateral Injuries & Stewardship Measures



Monitoring/Stewardship Strategies: Dolphins

MITIGATION = \$20M STEWARDSHIP, \$20M MONITORING

COLLATERAL INJURY

Decreased
survival rate

STEWARDSHIP

- Monitoring and Adaptive Management
- Enhance Statewide Stranding Network
- Fund efforts to reduce other stressors on dolphin population
- Establish contingency fund to address potential UME declaration in Barataria Basin



Shrimp and Oysters

TOTAL = \$33M

COLLATERAL INJURIES

- Collateral injuries under both no action alternative (future without project) and MBSD preferred alternative (future with project)
- MBSD project accelerates injuries
- Reduction in abundance, but resources not fully eliminated

Previous LA TIG-funded Oyster Restoration:

- Oyster Cultch Placement
- Brood Reef Program
- Hatchery Development & Ops

STEWARDSHIP MEASURES

Oysters

- Establish new public seed ground in lower basin
- Provide cultch material to enhance public and private growing areas
- Enhance oyster broodstock reefs
- Assistance in transition to off-bottom culture

Shrimp

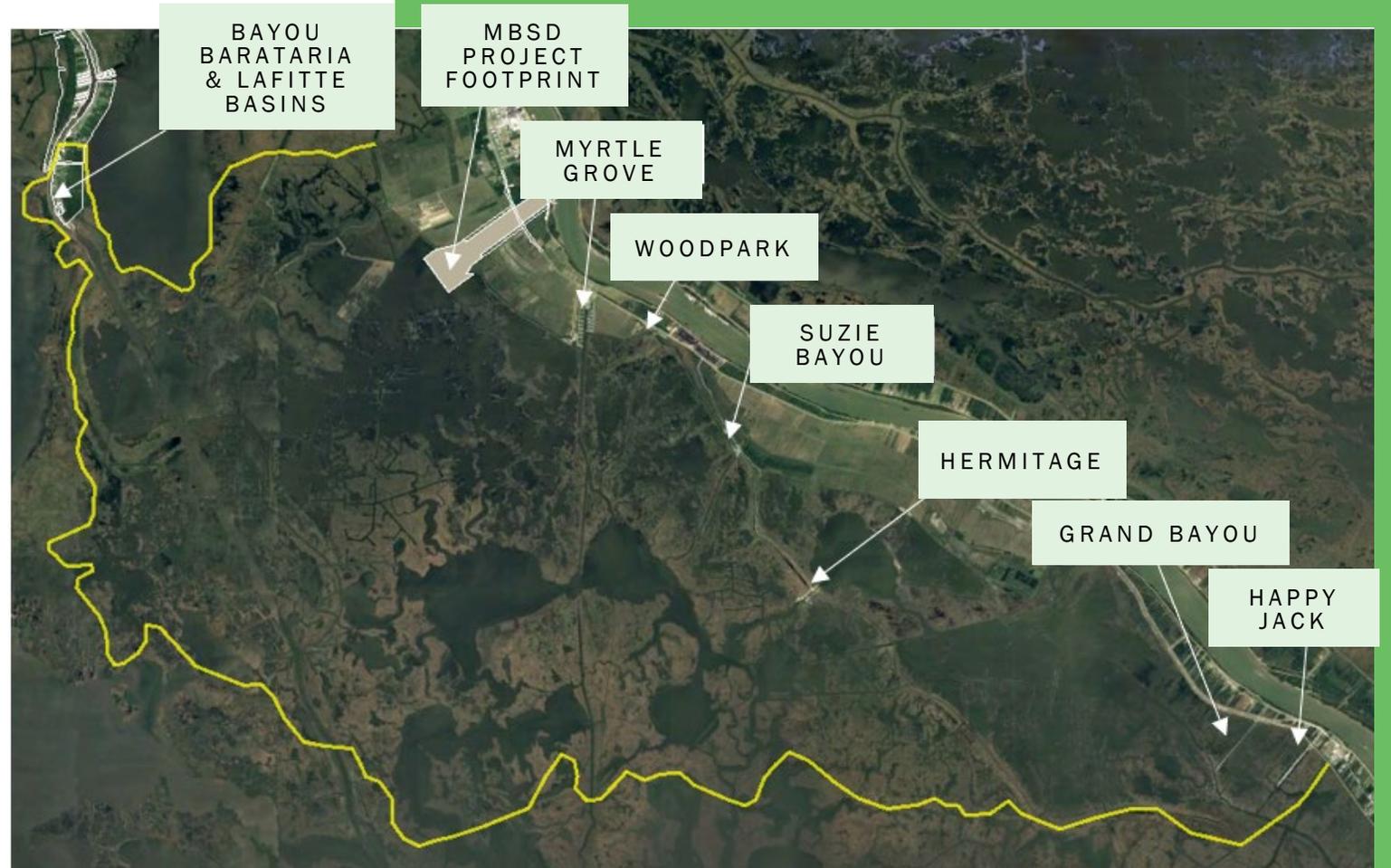
- Vessel Refrigeration
- Fund Gear improvements to increase efficiency

Both

- Business training to enhance business revenue
- Workforce training to assist transition to new employment, industry, or market
- Fund marketing program

Collateral Injuries: Tidal Flooding

COMMUNITIES NEAR
PROJECT SITE OUTSIDE
FLOOD PROTECTION



Flooding

COLLATERAL INJURIES

Increased days per year of tidal flooding in communities outside federal flood protection near the diversion

SLR is the dominate factor, but MBSD project accelerates timing of collateral injury

Pushes storm surge injuries south of the diversion

STEWARDSHIP

Structural measures

- Community Features - raise roads and other infrastructure
- Property Specific - raising buildings, improving access, septic

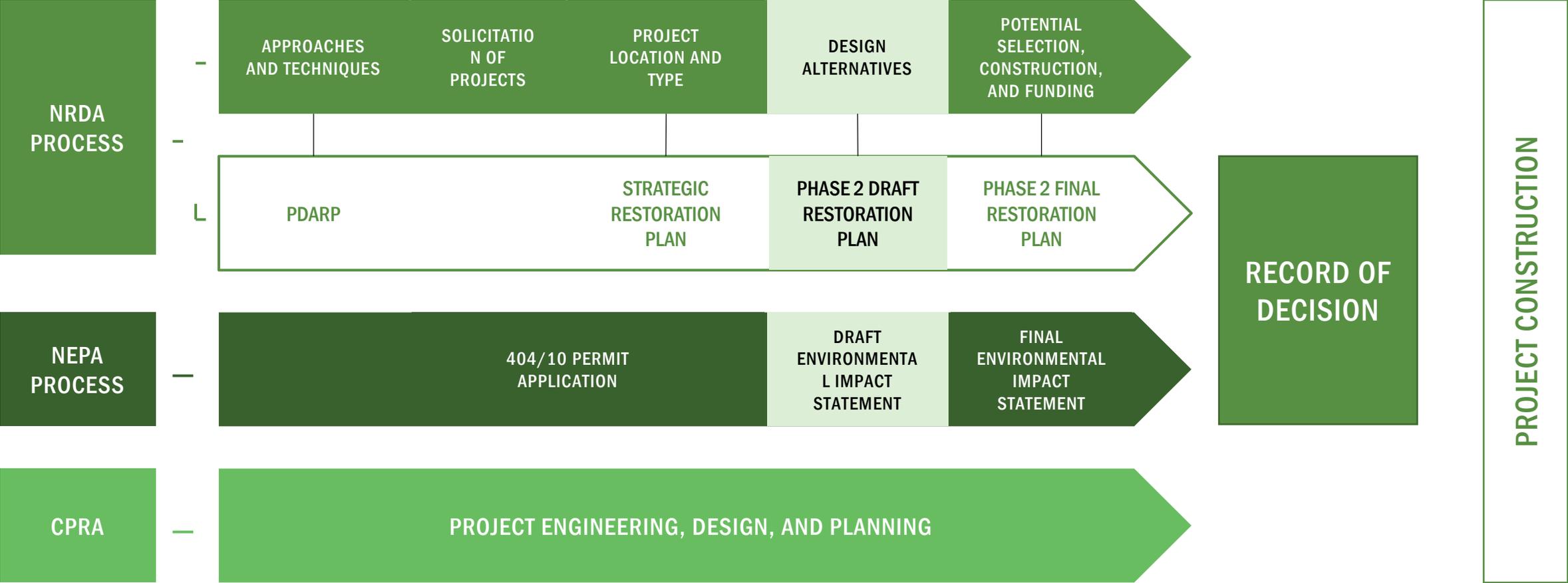
Acquisition of property interests

- Proposing voluntary easements in communities outside levee protection
- Open to fee acquisition where requested by property owner

Monitoring and Adaptive Management



NRDA + NEPA Processes



Submit comments **electronically**:

<https://parkplanning.nps.gov/MBSD>;

Submit **written comments**:

U.S. Army Corps of Engineers, New Orleans
District,

Attn: CEMVN-OD-SE, MVN-2012-2806-E00,

7400 Leake Avenue,

New Orleans, LA 70118

Mailed comments must be postmarked
on or before the comment deadline of April X,
2021

Submit **oral comments** via the toll-free number:

XXX-XXX-XXXX

Submit **oral comments** during the virtual public
meetings:

How to Comment