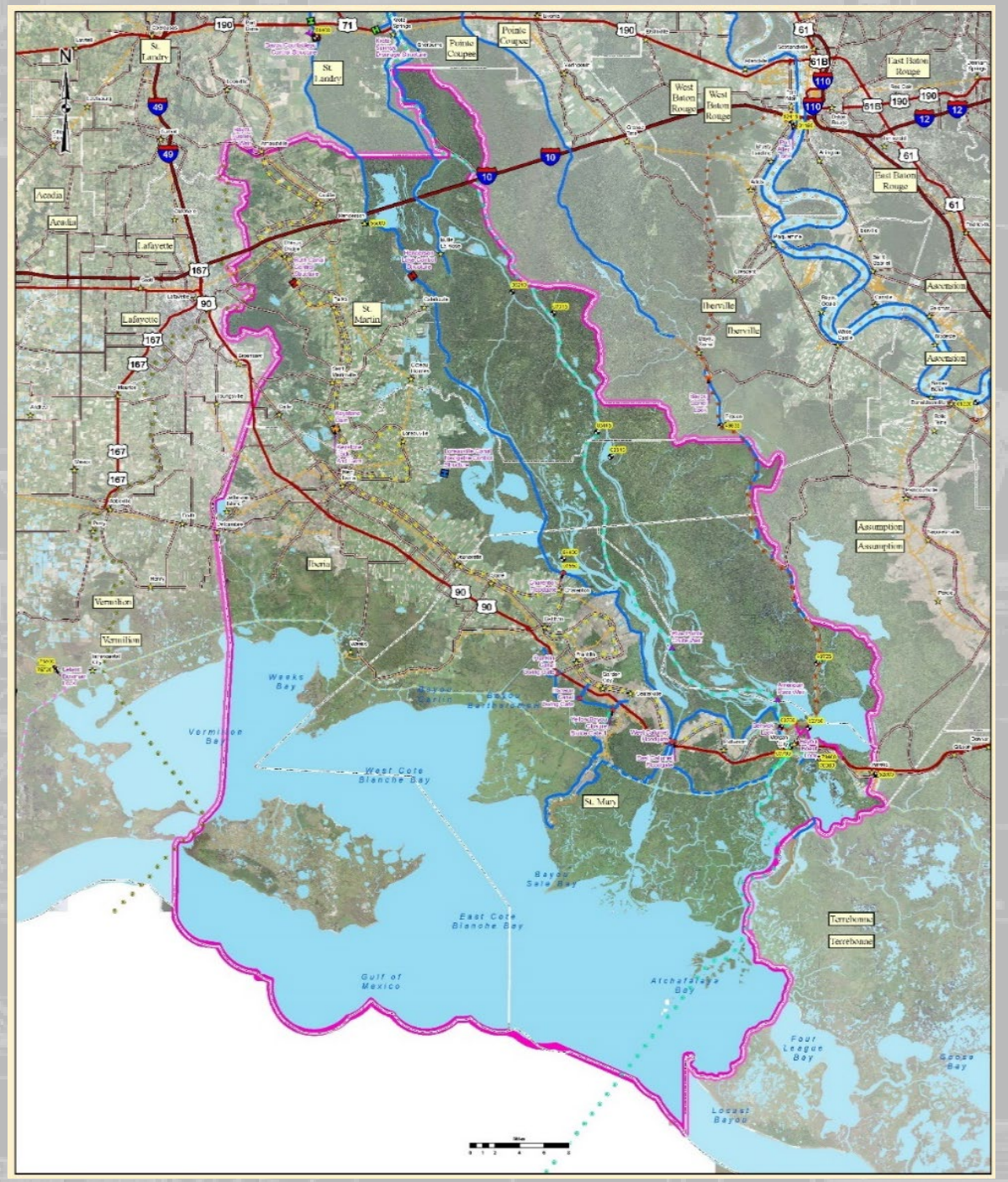
SOUTH CENTRAL COAST LOUISIANA FEASIBILITY STUDY

Public Meeting 14 – May -- 2019



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U.S.ARMY

US Army Corps of Engineers®

OVERVIEW

I. Welcome

II. Project Overview

- Authority
- Study Area
- Coordination
- Schedule
- Planning Process

III. Planning Steps

IV. Comments

NEPA SCOPING PROCESS

Due to the potential impacts to significant resources in the region, a Environmental Impact Statement (EIS) is being developed for this study

Scoping is an important step in the completion of the EIS

Provides an early opportunity for the public and other interested parties to express concerns and suggest alternatives to be considered in the EIS

The Notice of Intent was published in the Federal Register on April 2, 2019

The comment period was officially open for 45 days ending on May 17. However we welcome comments throughout the study process.

AUTHORITY

H.R. Docket 2767 (20 September 2006)

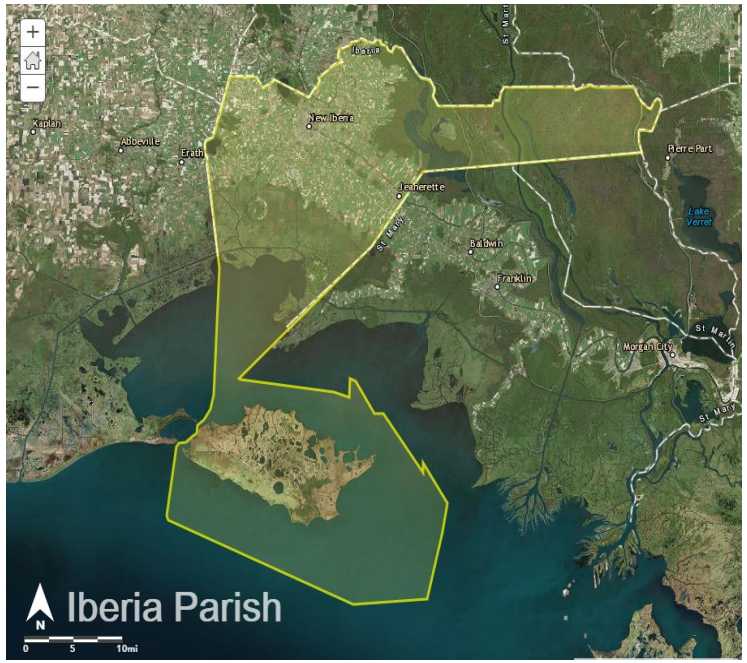
- Southeast Coastal Louisiana, LA, Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, that, in accordance with section 110 of the River and Harbor Act of 1962

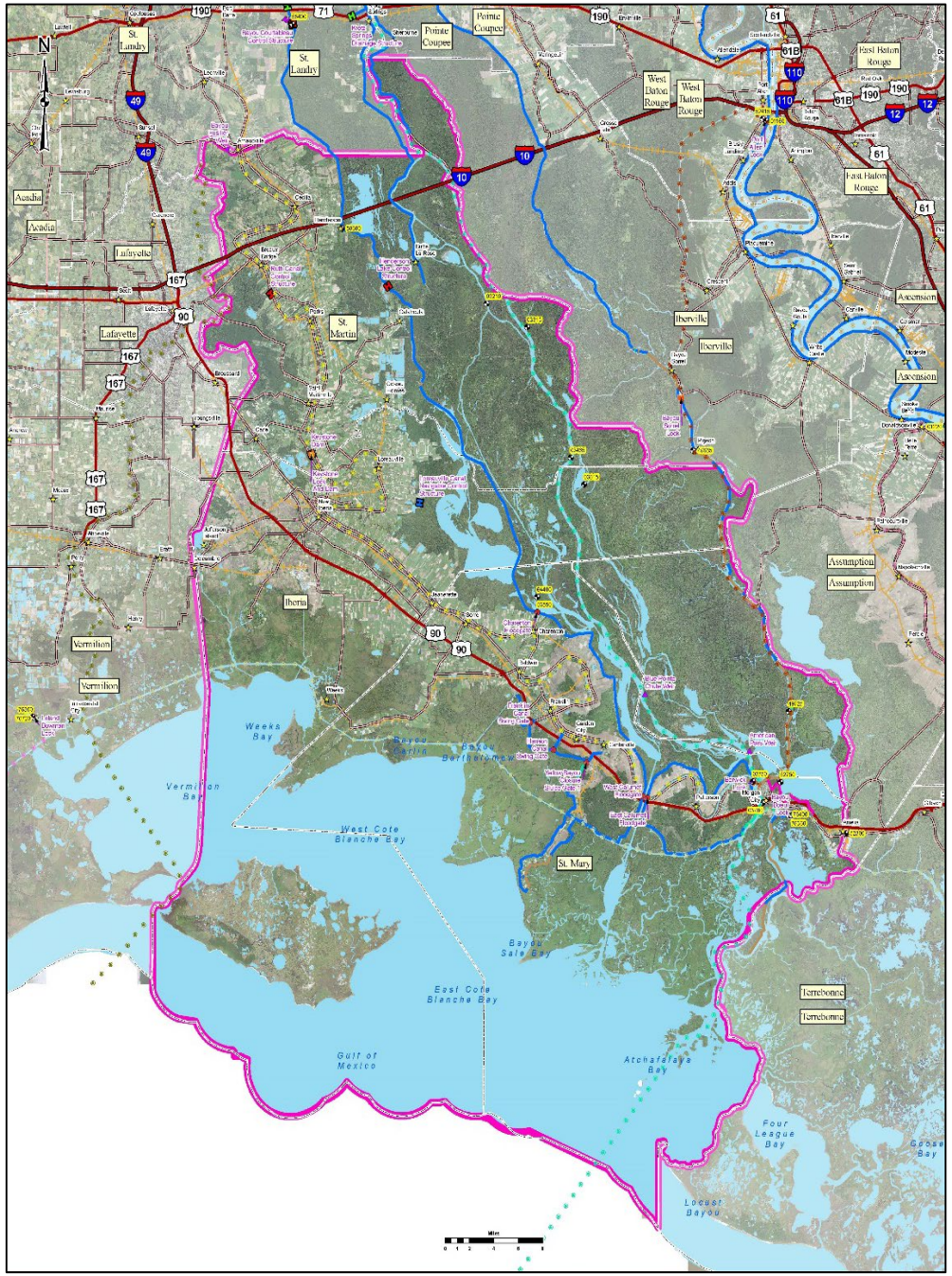
"Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, that, in accordance with section 110 of the River and Harbor Act of 1962, the **Secretary of the Army** is requested to survey the **coast of Louisiana in Iberia, St. Martin, and St. Mary parishes** with a view to determine the **feasibility of providing hurricane protection and storm damage reduction and related purposes**." Southeast Coastal Louisiana, LA was effectively renamed South Central Coast Louisiana, LA to avoid confusion with the Southeast Louisiana urban flood control project covering Jefferson, Orleans, and St. Tammany Parishes."

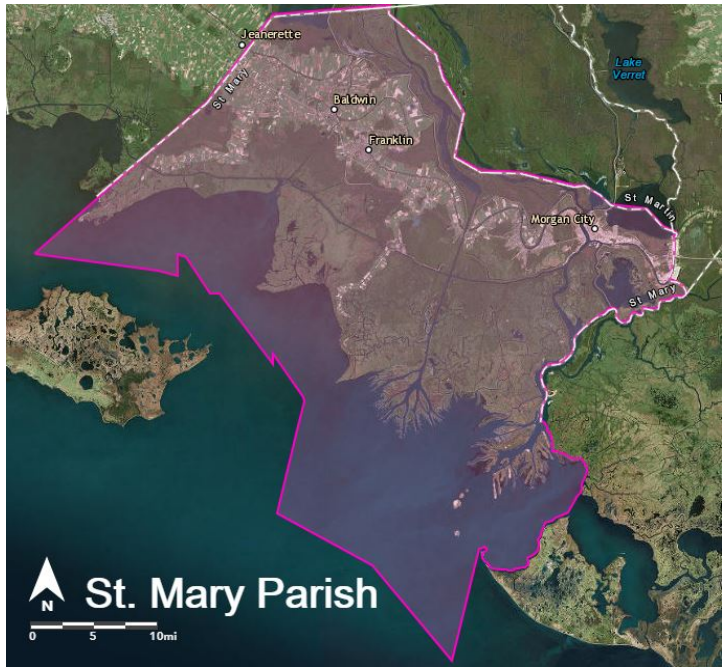
Bipartisan Budget Act of 2018

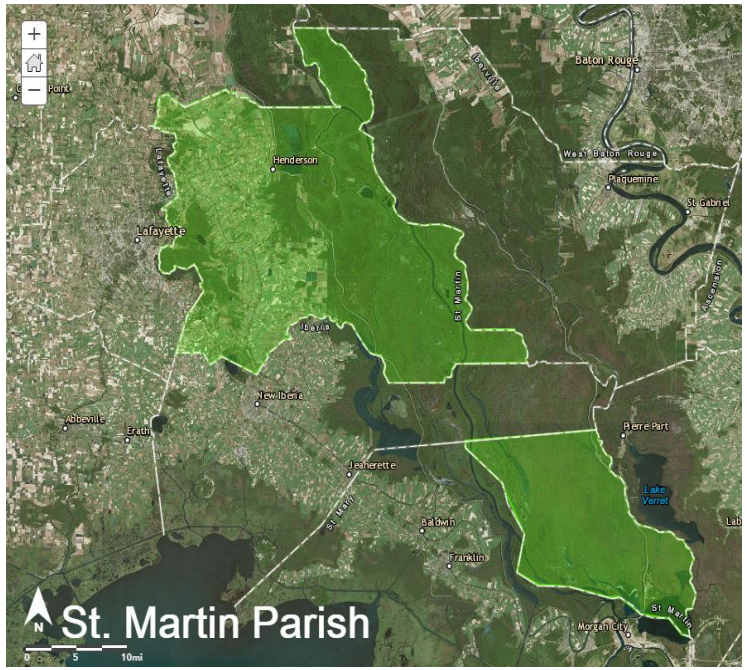
- (Public Law 115-123), Division B, Subdivision 1, H. R. 1892—13, TITLE IV, CORPS OF ENGINEERS—CIVIL, DEPARTMENT OF THE ARMY, INVESTIGATIONS
- Limits scope to the flood risk management

SOUTH CENTRAL COAST LA STUDY AREA









GOALS & OBJECTIVES

Goal 1: Increase sustainability and resiliency of communities to flood events.

Objective 1a. Reduce risk to life safety from hurricanes and storm surge

Objective 1b. Reduce economic loss/damages to structures (i.e. residential, commercial, agricultural, and industrial from hurricanes, storm surge, and interior flooding within the Project area.

Objective 1c. Reduce risk to primary evacuation route for project area residence and City of New Orleans (Hwy 90).

Goal 2: Maintain and sustain the resiliency of natural ecosystem to reduce flood damages.

Objective 2a. Minimize degradation to vulnerable coastal habitat and wetland areas.

Objective 2b. Increase sustainability of existing natural flood barriers such as wetlands.

Above all, the goal is reducing the risk to the people, the culture and a way of life that is uniquely Louisiana

AGENCY PARTNERSHIP AND COORDINATION

Non-Federal Sponsor

- Louisiana Coastal Protection and Restoration Authority(CPRA)

Permitting Agencies include:

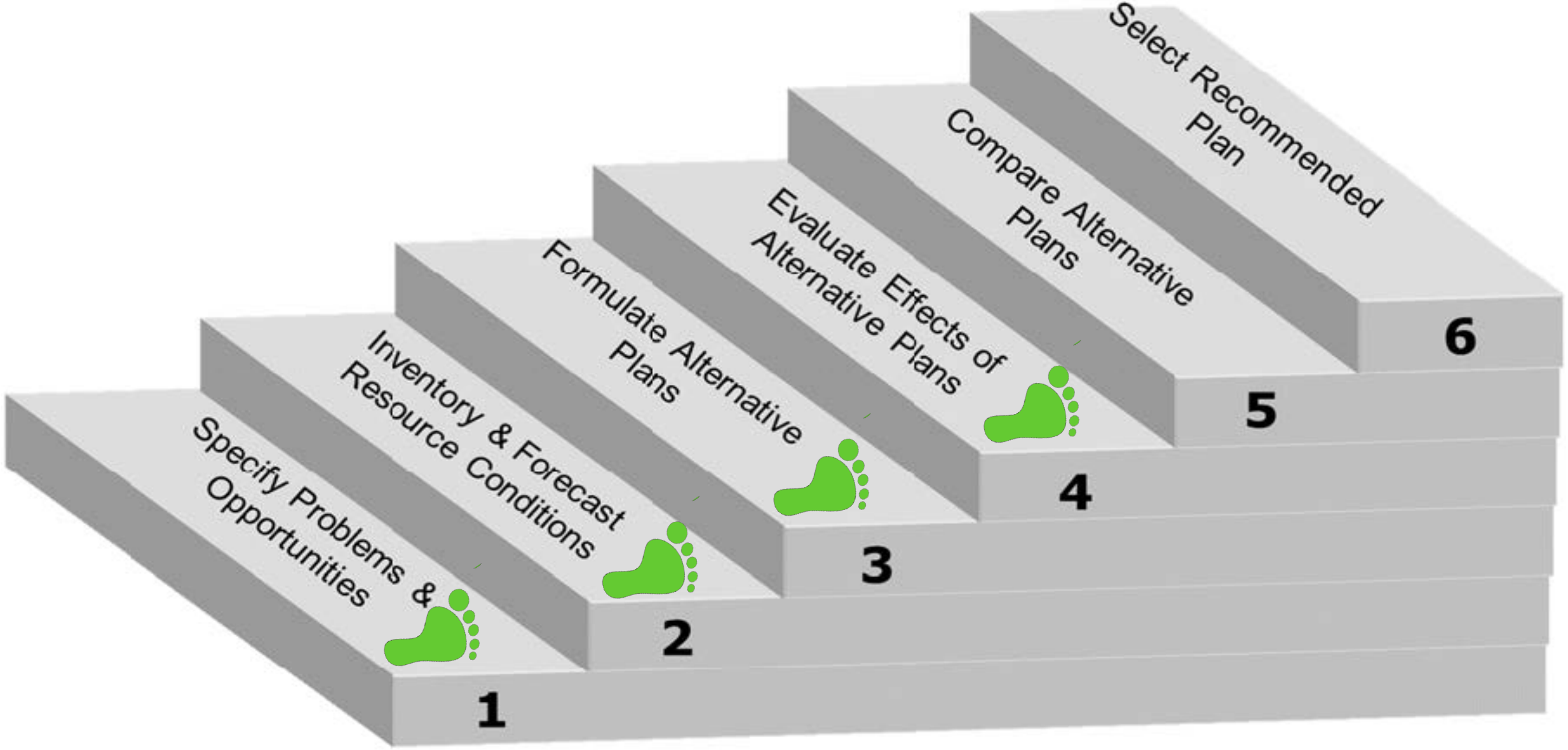
- U.S. Fish and Wildlife Service
- LA Department of Wildlife and Fisheries
- LA Department of Natural Resources
- National Marine Fisheries Service

Planned Tribal Coordination

- Reservation for the Chitimacha Tribe of Louisiana


Project Schedule
Nov. 2018
• Project Initiation
• Public and Agency Meetings
Dec. 2018 to Oct. 2019
• Alternative Development
• Alternative Evaluation
We are here
Dec. 2019
• Draft Tentatively Selected Plan & Public Scoping
Future Opportunity for Public Input
Sept. 2020
• Plan Selection and Transmital to HQ
Sept. 2021
• Approval of Final Report Chief's Report

SIX-STEP PLANNING PROCESS



PLANNING PROCESS
STEP 1. PROBLEMS & OPPORTUNITIES

Flood Risk

- Likelihood of storm surge and riverine flooding in the area

Lack of Risk Reduction

- Several existing levees in the study area do not meet the 1% hurricane and storm damage risk reduction criteria

Environmental Challenges

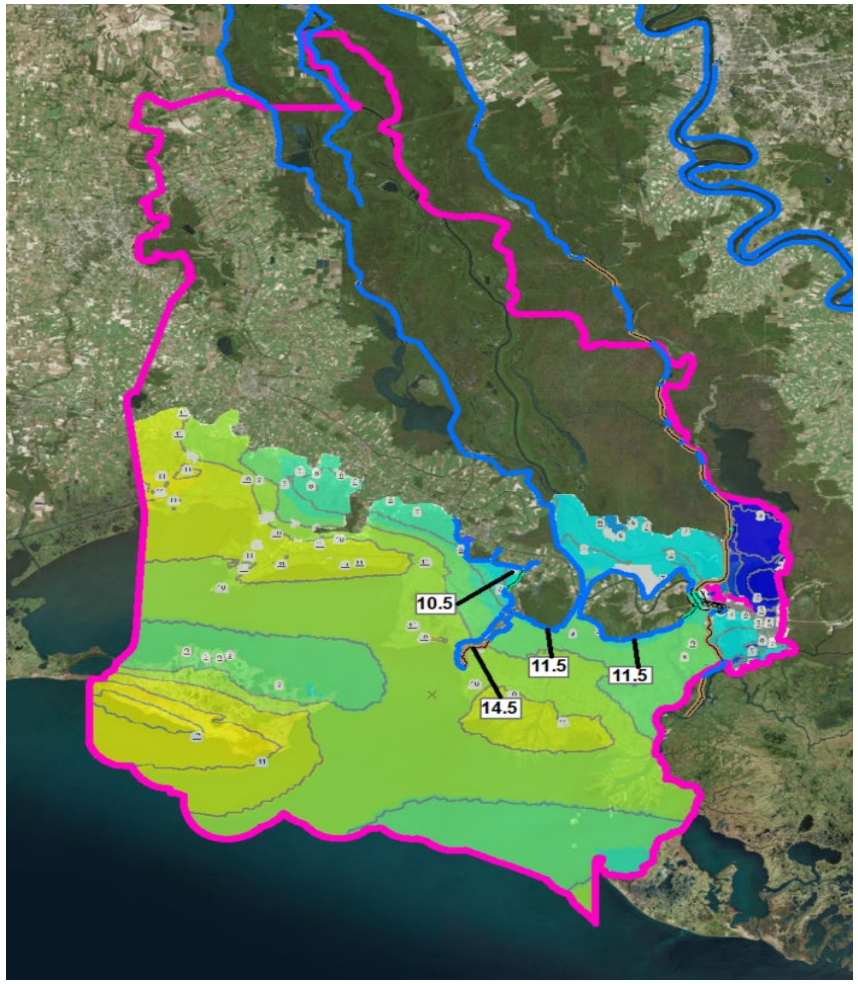
- Previous hurricanes had adverse economic impacts to key infrastructure and the Atchafalaya floodway
- Land loss and coastal area changes
- Sea Level Rise

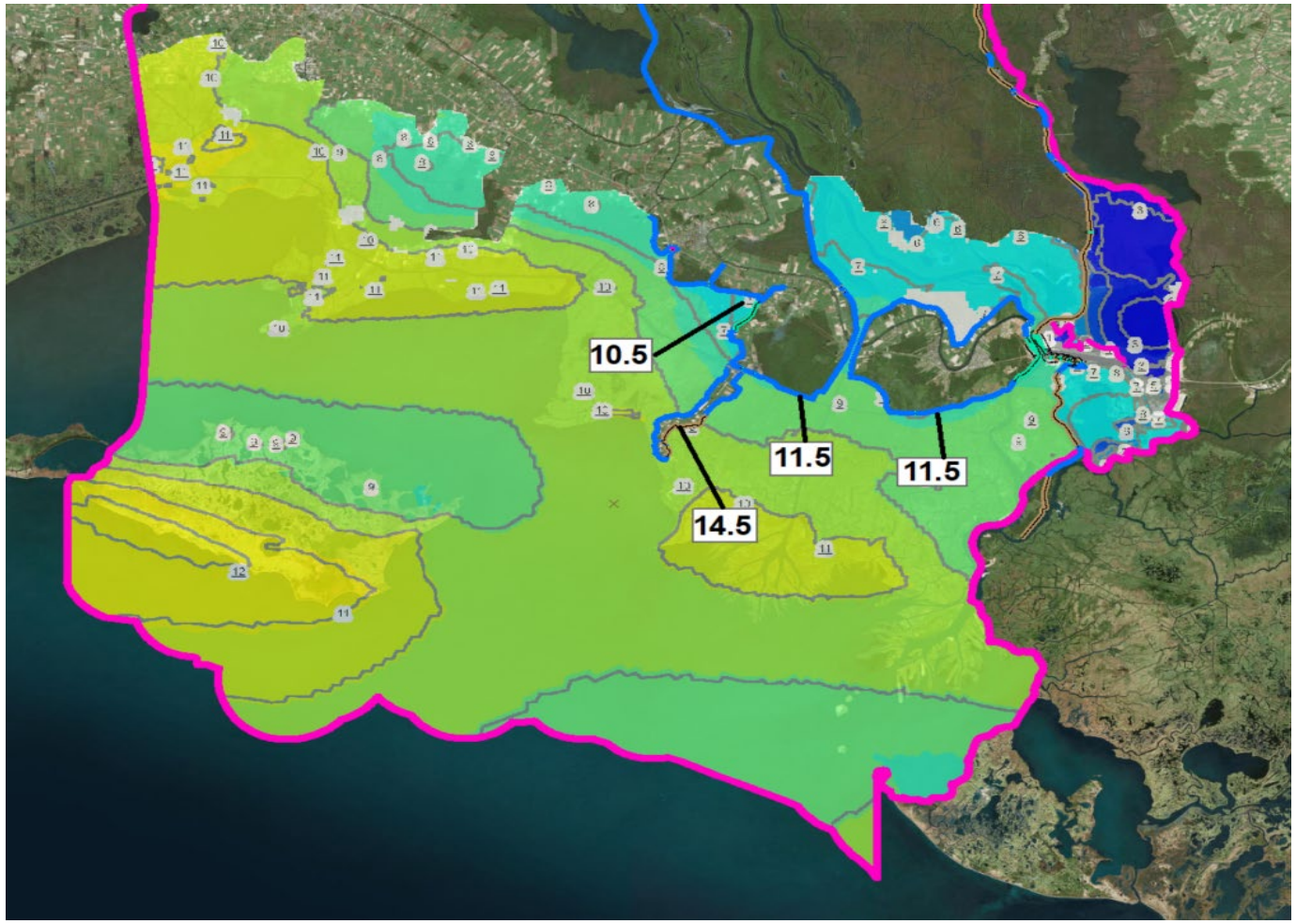
PLANNING PROCESS
STEP 1. PROBLEMS & OPPORTUNITIES

- The safety of the public is the Corps' top priority
- Reduce flood damage risks to land, property by providing non-structural solutions
- Leverage local, state and federal efforts to manage flood risk
- Reduce flood risk to commodities and critical infrastructure
- Reduce risk to key evacuation route Hwy 90 (future I-49 Corridor)
- Stem coastal land and wetland loss

PLANNING PROCESS
STEP 2. INVENTORY AND FORECASTING

1% STORM SURGE WATER ELEVATION WITH LEVEE DESIGN ELEVATIONS



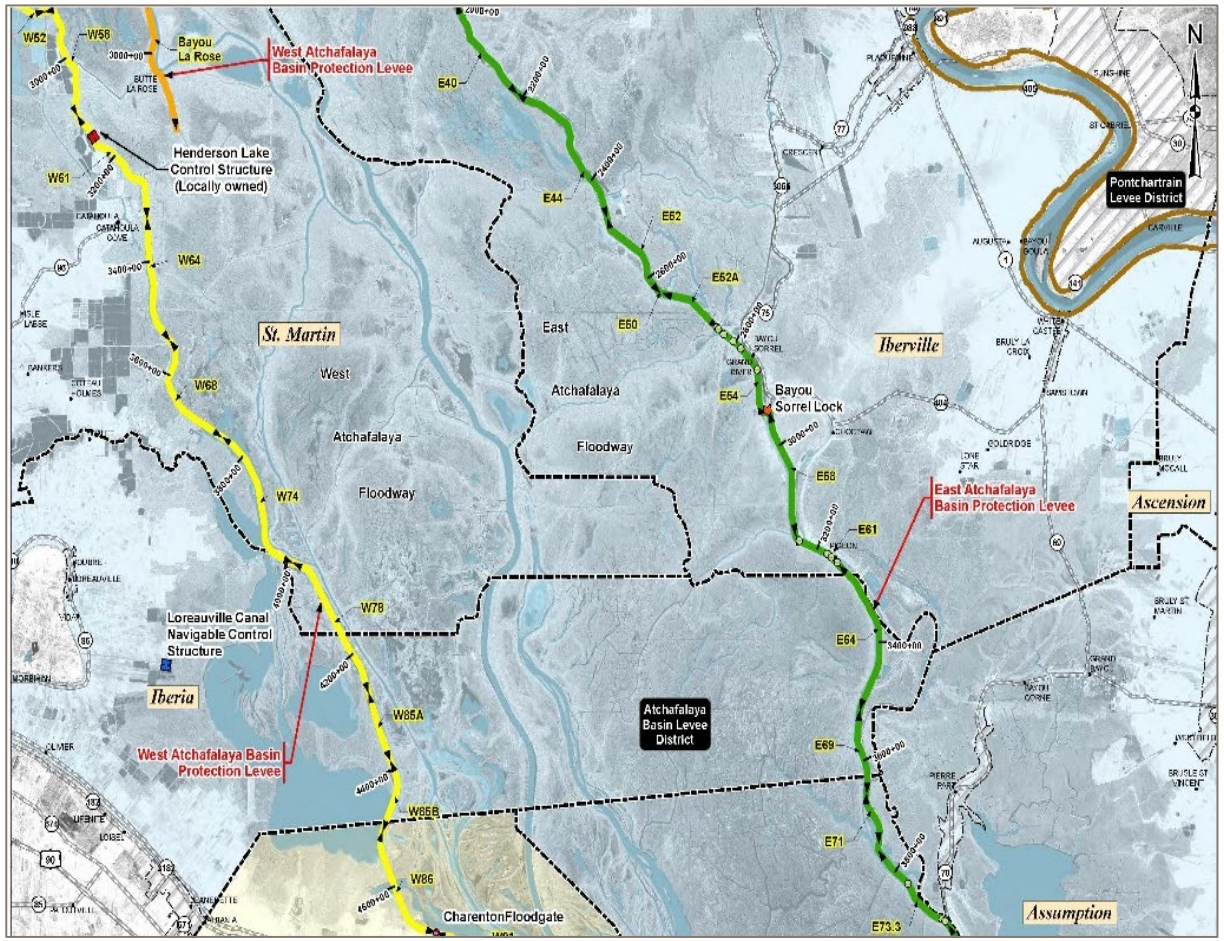


*Including design levee elevations for Wax Lake Area West, Wax Lake Area East, and Bayou Sale

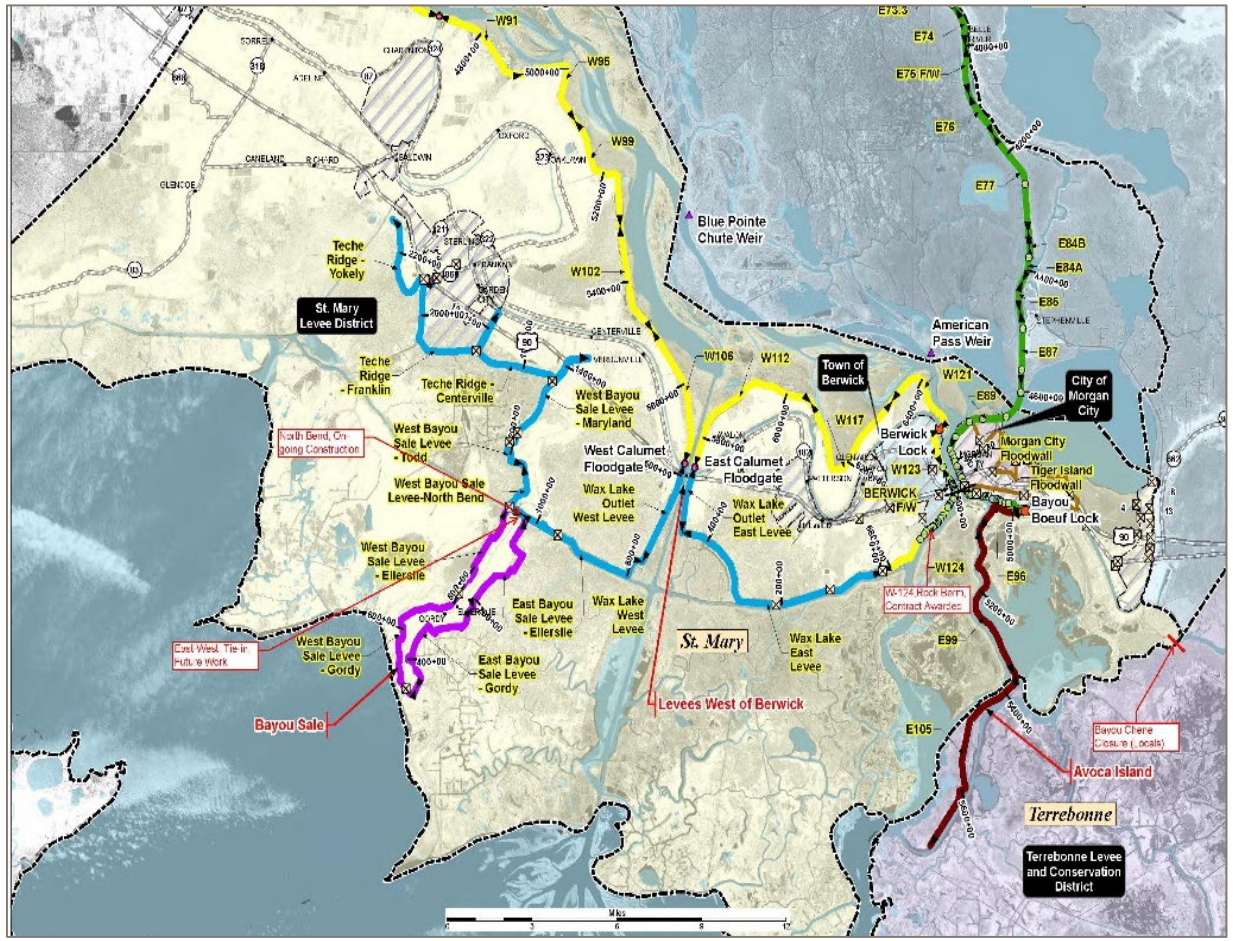
PLANNING PROCESS
STEP 2. INVENTORY AND FORECASTING

ATCHAFALAYA BASIN REACH OVERVIEW

Upper Basin

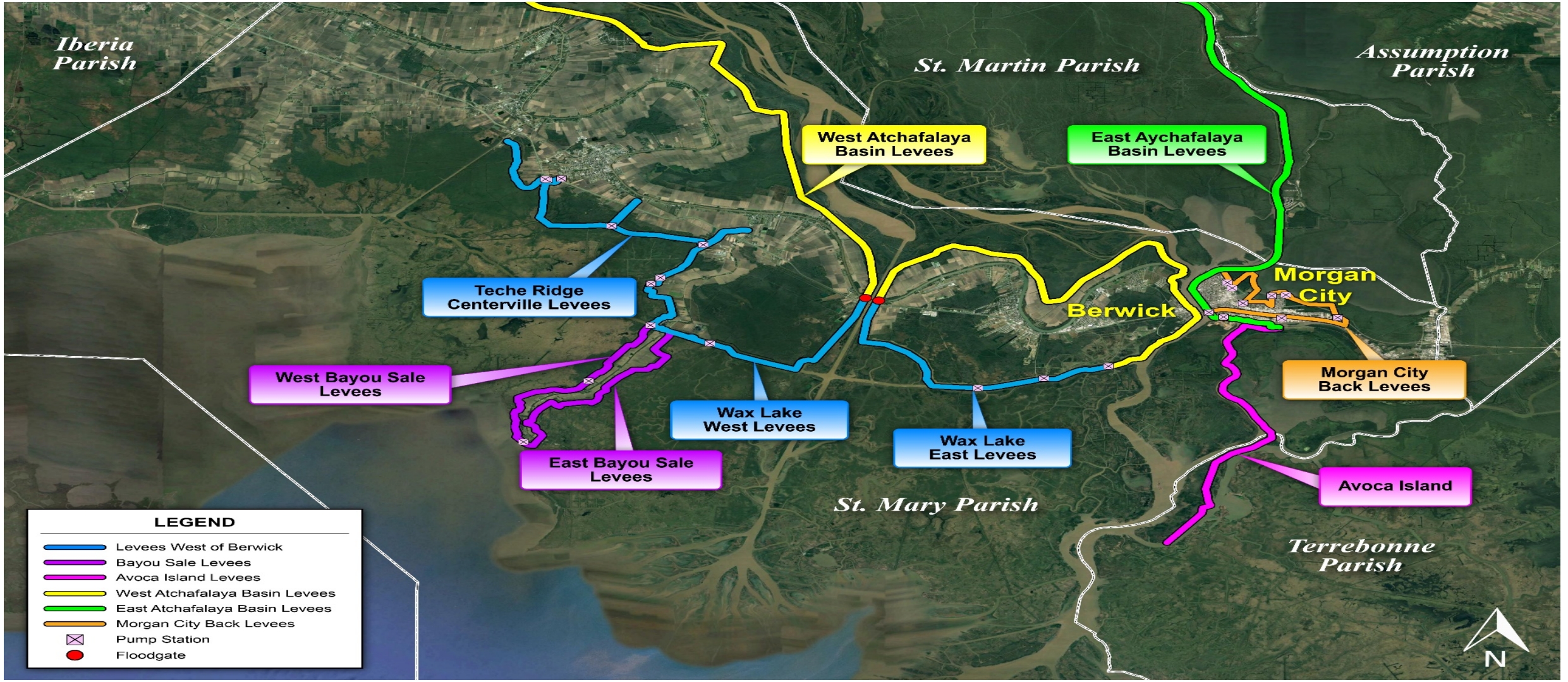


Lower Basin



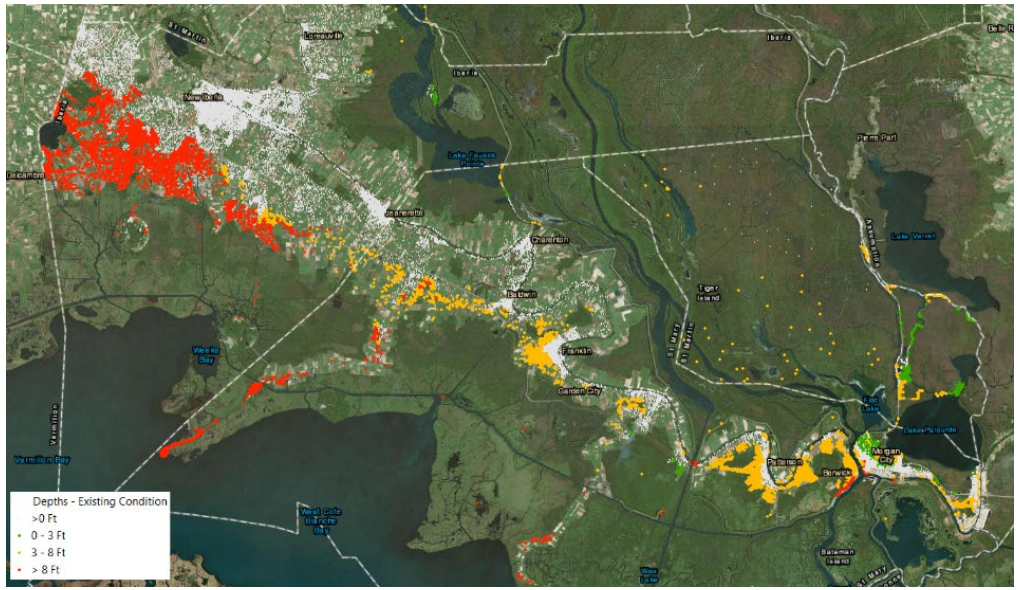
PLANNING PROCESS
STEP 2. INVENTORY AND FORECASTING

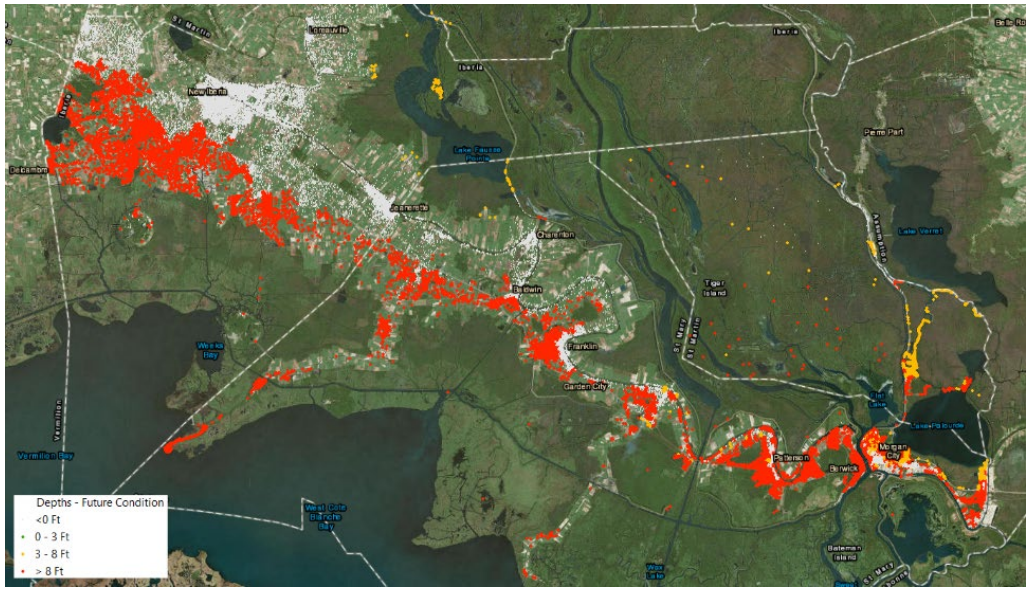
EXISTING FLOOD MANAGEMENT INFRASTRUCTURE



INVENTORY & FORECAST

Economics





1/100 ACE Coastal Surge Flood Depth Distribution (feet)					
	Less than 0	0 to 3	3 to 8	Greater than 8	Total
Existing Condition	36,696	1,536	8,250	3,725	50,207
Future Condition	29,414	-	2,405	18,388	50,207

CONSTRAINTS

- Compliance with environmental laws
- Mitigation cost and bank availability
- Appropriation Authority- Not formulating for ecosystem restoration
- Seek to minimize the transfer of flood risk
- Minimize impacts to cultural and historic properties
- Seek to minimize coastal marsh loss
- Avoid and consider design constraints of local infrastructure and transportation (railroad, bridges, highways)
- Avoid impacts to critical infrastructure such as emergency responder corridors
- Avoid emergency responders and community support facilities
- Avoid impacts to navigation, ports and Gulf Intercostal Waterway (GIWW)
- Hazardous, Toxic, Radioactive Waste (HTRW) if found in project area

CURRENT REGIME – NO ACTION ALTERNATIVE

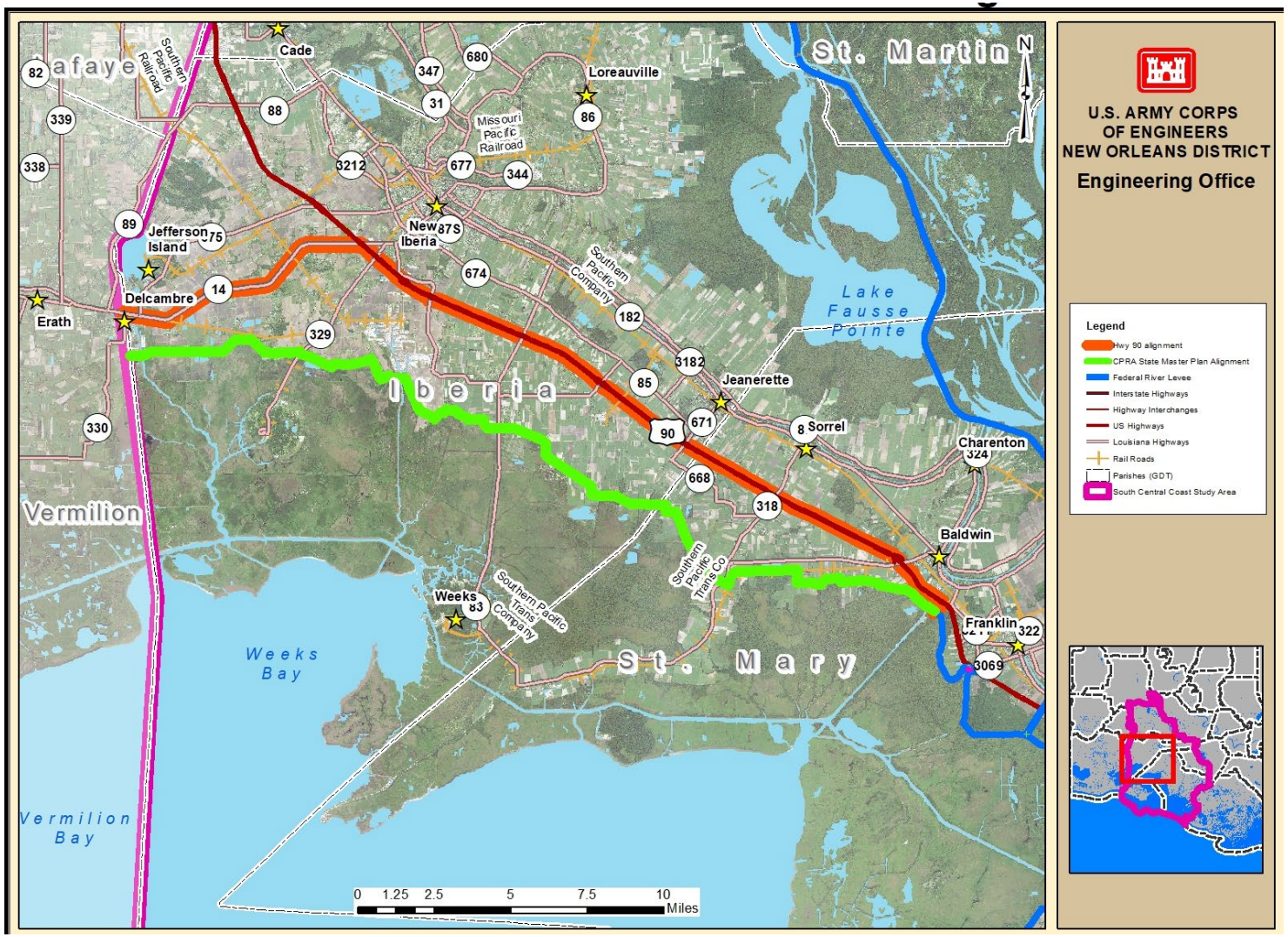
Future Without Project Condition- is a description of resources and human environment most likely condition if no additional actions are taken as a result of this study

- Increased flood risk
  - Sea level rise
  - Increased storm surges
- Increased storm damages
  - Frequency
  - Intensity
- Subsidence expected to continue at current rate
  - Coastal erosion will continue
  - Damages would likely increase
  - Salt water intrusion
- Delta forming at the Wax Lake outlet and Atchafalaya River

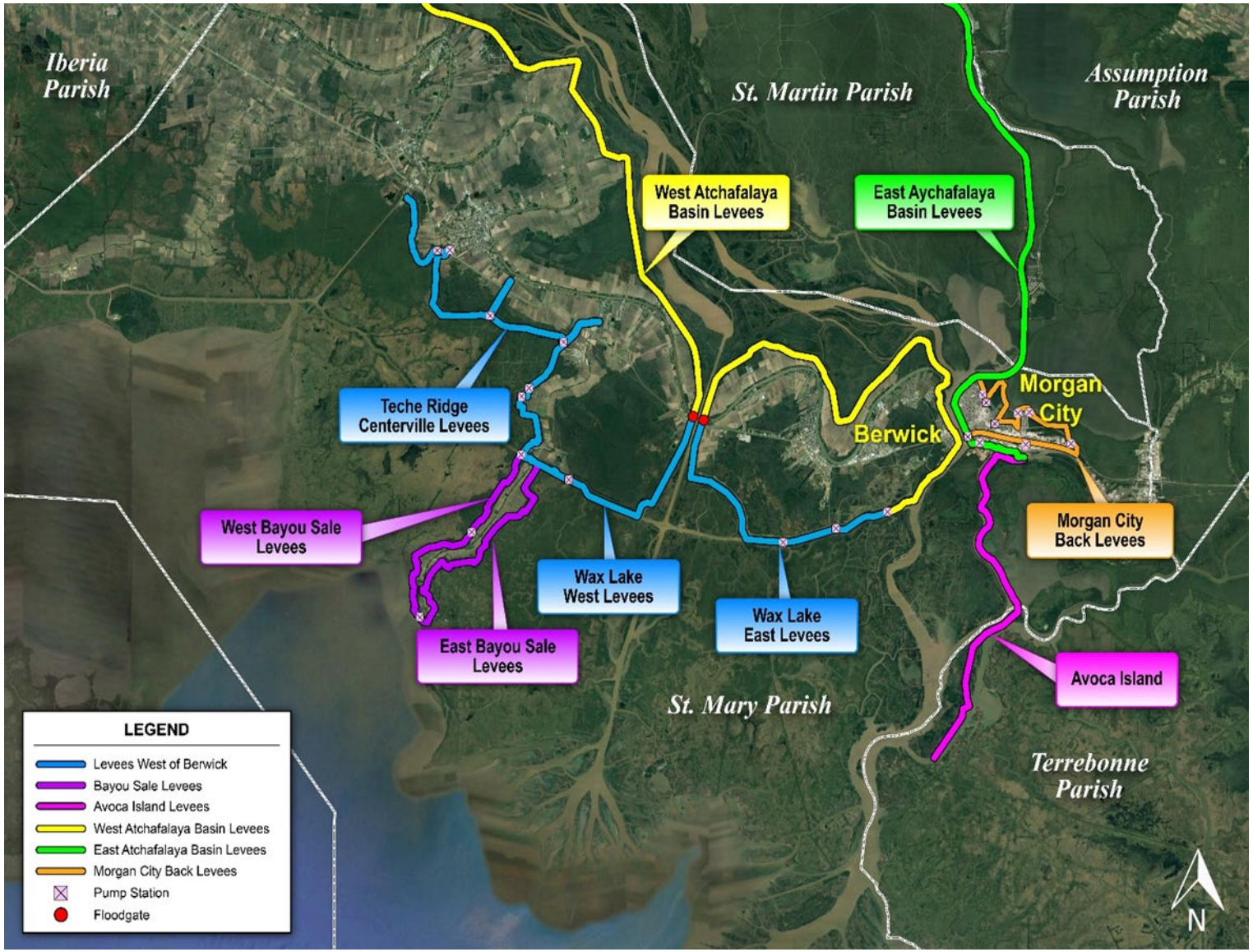
STRUCTURAL LEVEE SYSTEM ALTERNATIVE

Two comprehensive levee system conceptual alignments are currently under evaluation.

- New comprehensive levee system with interior drainage pumps. State proposed alignments A, B; & Hwy 90 Alignment, or berm/ridge feature
- Sluice gates at key bridges



STRUCTURAL LEVEE SYSTEM ALTERNATIVE CONT.



NON STRUCTURAL MEASURES

Non-Structural Alternative- does not modify or restrict the natural flood. The term refers to the impact of the alternative on the flood.

Benefits of Non-Structural Alternative

- Minimal or no Operation and Maintenance
- Long-term risk reduction
- Reduce reoccurring flood damages
- Reduces environmental impacts of structural and need for mitigation

Types for Non-Structural Alternatives

- Elevating residential structures
- Flood proofing non-residential structures
- Relocate at risk structures
- Localized storm surge risk reduction measures around warehouses
- Wet flood proofing/Dry flood proofing
- Mitigation reduction measures

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NON- STRUCTURAL ALTERNATIVE CONT.

- Create wave and storm surge barriers directly off coast to reduce water height and velocity
- Features would be constructed with methods similar to oyster reef restoration.
- Wave heights of 4-5 feet have been modeled for the 1% event
- Acts as a speed bump

Here's How Louisiana Is Using Oyster Shells to Preserve a Sacred Piece of Shoreline

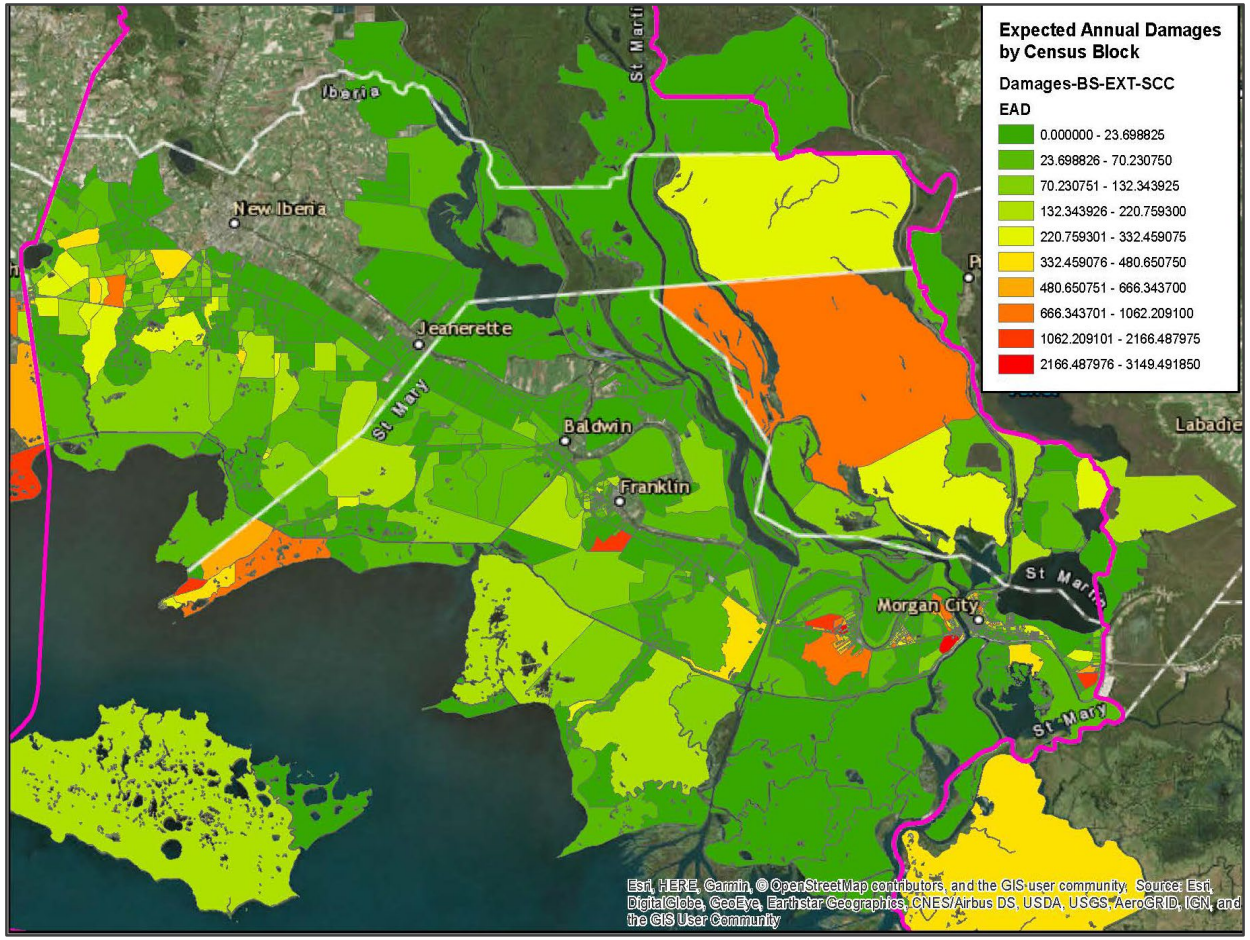
400,000 pounds of oyster shells have been gathered from New Orleans-area restaurants.

By **Meghan Overdeep** | April 19, 2019

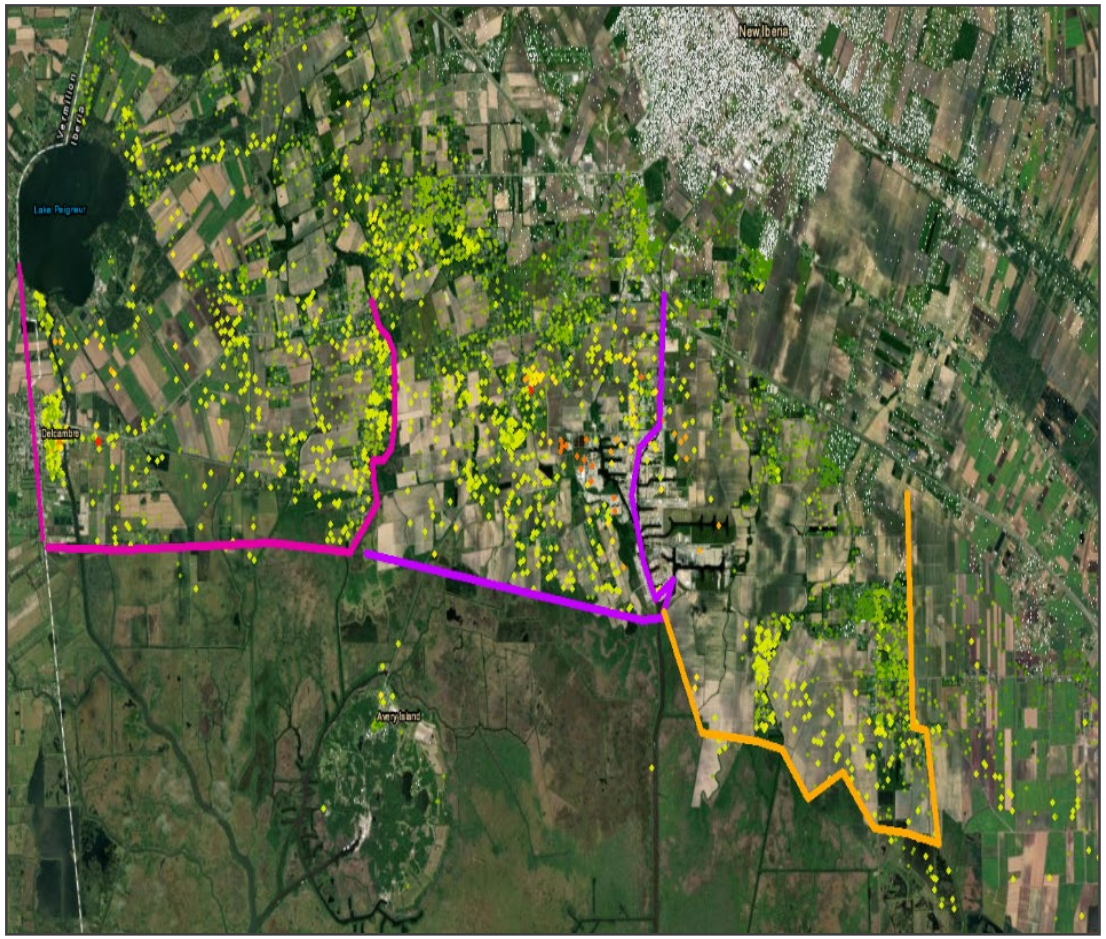
Southern Living

RING LEVEE & CRITICAL INFRASTRUCTURE ALTERNATIVE

Economic Damages Hot Spot Analysis



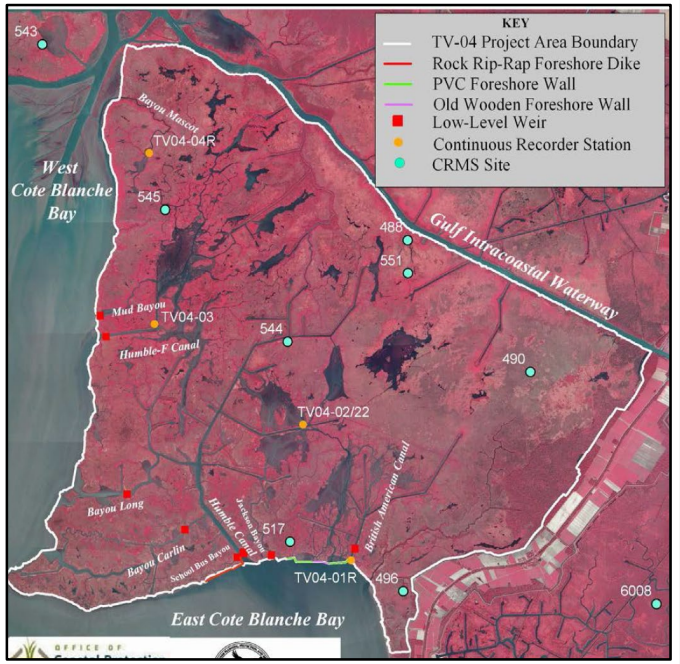
Conceptual Ring Levee Measure



FEATURES CONSIDERED BUT REJECTED

Marsh Island Closure and Wave Attenuation Structures

Rabbit & Duck Key Restoration



Cote Blanche Freshwater Sedimentation Introduction

INITIAL ARRAY OF ALTERNATIVES

Alternative	Description
Alternative #1	Structural- Comprehensive Levee System
Alternative #2	Non-Structural Only
Alternative #3	Critical Infrastructure & Existing Levee Raises
Alternative #4	Combination Alternative 1 & 2
Alternative #5	Combination of Alternative 2 & 3
Alternative #6	No Action

ALTERNATIVE EVALUATION & COMPARISON

Initial Alternative Comparison Criteria may include:

- Reduction in Average Annual Damages
- Reduction in risk to life loss
- Reduction of flood risk based on flood frequency
- Preliminary costs
- Preliminary benefits to National Economic Development Account
- Mitigation costs and bank availability

RESOURCES TO BE ADDRESSED IN THE EIS

Natural Environment

- Wetlands
- Coastal Zone
- Bottomland Hardwoods
- Cultural Resources
- Fisheries
- Wildlife
- Essential Fish Habitat (EFH)
- Hazardous and Toxic Waste
- Water Quality
- Air Quality
- Threatened and Endangered Species (T&E)

Human Environment

- Noise
- Recreation
- Hydrology and Storm-water Runoff
- Socio-Economics
- Recreation

SPECIFIC ENVIRONMENTAL CONCERNS IDENTIFIED

Avoid or minimize negative impacts to

- Threatened and endangered species and protected species
  - USACE has begun coordination with USFWS and LDWF on T&E species and has established best management practices to address avoidance of impacts to any species present
- Essential fish habitat (EFH)
- Commercial fisheries
- Cultural and historic resources
  - There are archaeological sites (prehistoric and historic) that potentially exist
  - USACE will work closely with the Tribes and with the State Historic Office to avoid and minimize impacts
- Recreational use in the basin
- Water quality
- Wetlands

WHAT WE NEED FROM YOU

1. Do the identified problems capture what is being experienced in the communities?
2. Are there additional problems related to storm damages and flooding in the project area that are not captured?
3. What flood event did your community see the most damages?
4. Are there alternative strategies that would address the problems more effectively?
5. Are there additional constraints the planning team should consider?
6. Is there any data/studies or other information that is available?
7. Are there environmental issues/ considerations the team needs to know about?

COMMENTS

South Central Coastal Study Website –
https://www.mvn.usace.army.mil/South-Central-Coast/

Comments or information can be provided to:
U.S. Army Corps of Engineers, New Orleans District
C/O Carrie Schott
CEMVN-PM-B
7400 Leake Avenue
New Orleans, LA 70118

Or by email to

Southcentralcoaststudy@usace.army.mil