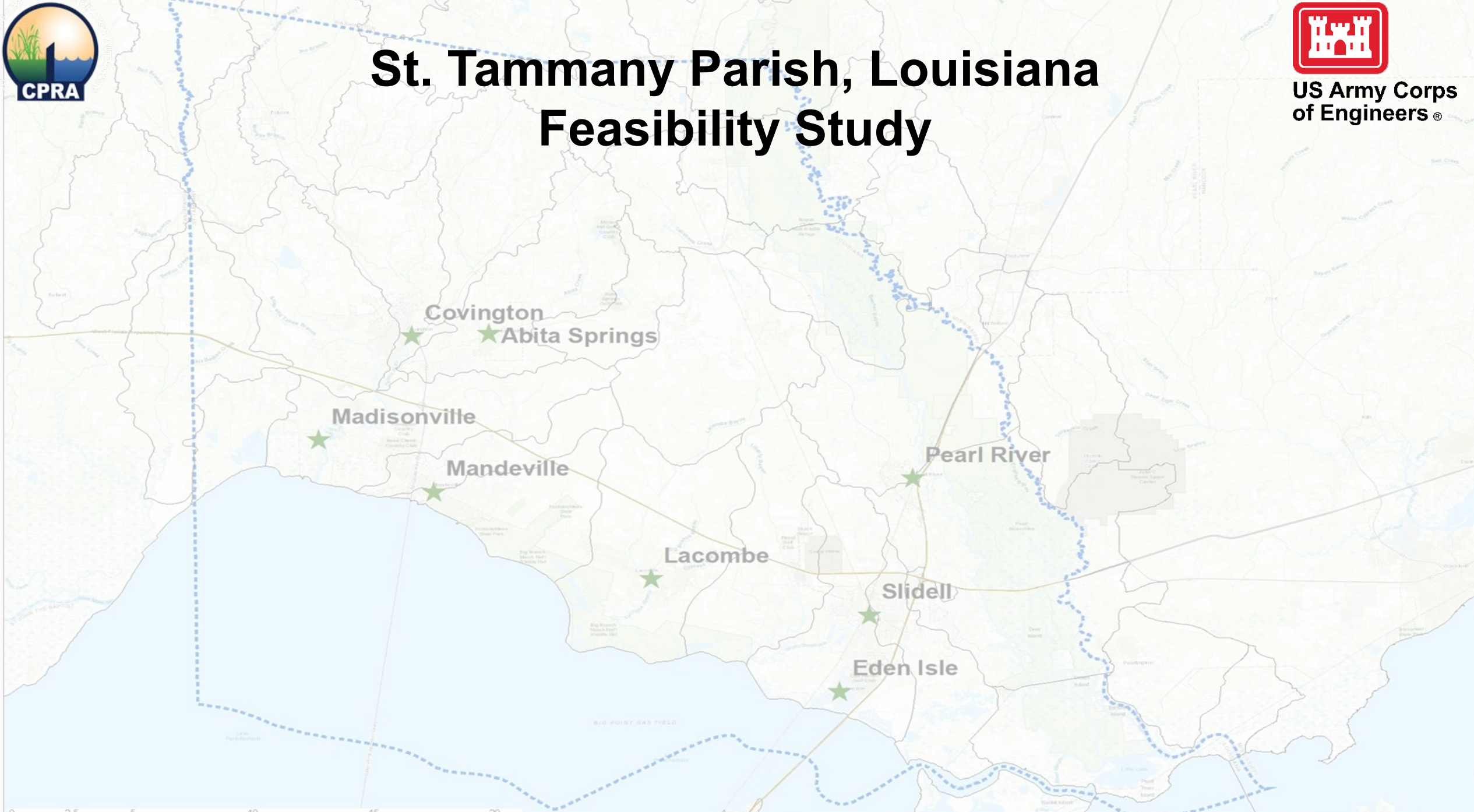




# St. Tammany Parish, Louisiana Feasibility Study



US Army Corps  
of Engineers®



0 2.5 5 10 15 20 Miles

Sources: Esri, HERE, Garmin, Intermap, Inramag, Inform P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBasis, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, OpenStreetMap contributors



# AGENDA

## Welcome & Introductions

## Meeting Purpose

## Study Overviews

- Authority
- Coordination
- Schedule
- Planning Process

Preliminary Planning Document



# MEETING PURPOSE

## **Inform the Public and Stakeholders**

- Provide background on USACE Study**
- Ongoing collaboration efforts**

## **Solicit Input**

- Issues and Concerns**
- Inform development of alternatives**

**The USACE encourages full public participation to promote open communication on the issues surrounding the studies.**

# STUDY AUTHORITY

The St. Tammany Parish study was authorized by the Water Infrastructure Improvements Act for the Nation Act (WINN Act) of 2016.

Full Federal funding was provided through the BBA of 2018 (Public Law 115-123), Division B, Subdivision 1, Title IV.

The study will be accomplished within 3 years and 3 million dollars, in accordance with the Smart Measureable Attainable Risk Informed Timely (SMART) Planning principles described in the 8 February 2012 Memorandum signed by the DCG-CEO.

## **Bipartisan Budget Act (BBA) 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**



# COORDINATION

Non-Federal Sponsor

- **Coastal Protection and Restoration Authority Board**

Governmental Stakeholders (such as)

- Tribes
- Natural Resource Agencies
- State of Louisiana and State Agencies
- St. Tammany Parish and St. Tammany Levee, Drainage and Conservation District
- City Officials

Working closely with previous and ongoing studies



# SCHEDULE

Milestone	Baseline	Status
Execute Feasibility Cost Share Agreement (FCSA)	January 2020	Complete
Alternatives Milestone	April 2020	-
Tentatively Selected Plan (TSP) Milestone	January 2021	-
Release of Draft Feasibility Report for Public Review	March 2021	-
Agency Decision Milestone	July 2021	-
District Submit Final Feasibility Report to Mississippi Valley Division (MVD)	June 2022	-
Division Engineer's Transmittal Letter	July 2022	-
Chief's Report Milestone	January 2023	-



We are here



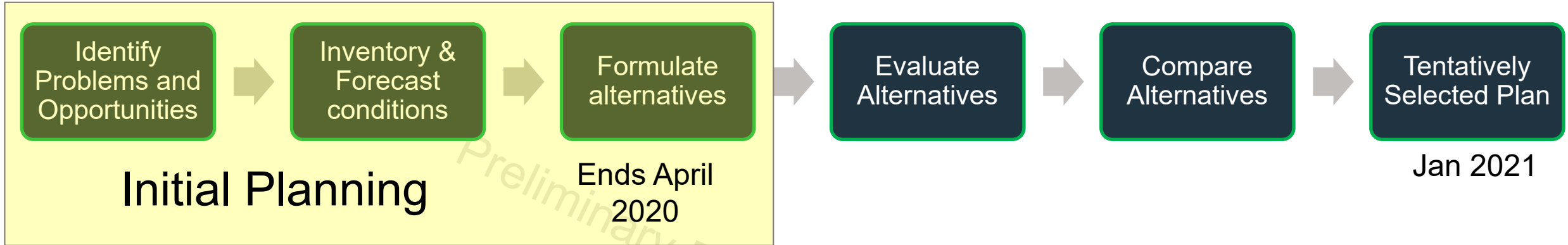
Public Input



Public Input

Preliminary Planning Document

# PLANNING PROCESS - INITIAL ITERATION



- ✓ Define the problem to be addressed,
- ✓ Preliminary inventory and forecast of future conditions with available data and information,
- ✓ Identification of key areas of uncertainty that will impact the study and the project formulation,
- ✓ Initial identification of the decision criteria that will be used to formulate, compare and select alternatives.
- ✓ Initial formulation of alternative plans based on critical thinking and professional expertise.
- ✓ Initiate National Environmental Policy Act (NEPA) analysis and coordination

# INPUT WE NEED FROM YOU



1. Do the problems identified capture what is being experienced in the communities?
2. Are there additional problems related to flooding in the project area that are not captured?
3. With what storm or rainfall event did your community see the most damages? How often are you seeing flooding?
4. Are there measures or alternative strategies that would address the problems more effectively?
5. Are there additional constraints the planning team should consider?
6. What data, modeling, or reports should be considered as part of the study?



# STUDY AREA OVERVIEW

## St. Tammany Parish, Louisiana Feasibility Study

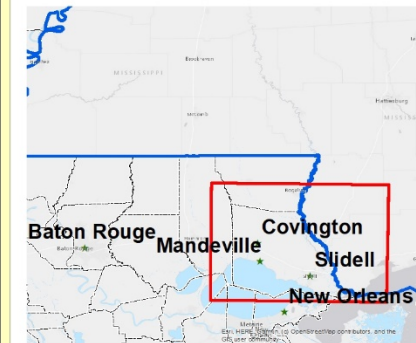


U.S. Army Corps of Engineers  
New Orleans District  
Engineering Office

### Legend

- ★ Major Cities
- WBDHU12
- Study Area

### LOCATION MAP



Date: 1/6/2019

EDIS-19-035-000

# PROBLEMS



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Study area prone to flood damages from storm surge, waves, rainfall and riverine bank overtopping.

Increasing risk to people from catastrophic flooding events.

Increasing risk of damage to residential and commercial property.

Critical infrastructure throughout the region including the I-10, I-12 and I-59 transportation system and evacuation routes, government facilities and schools becoming more at risk.

National and economic losses from flooding to industrial and commercial infrastructure/assets.

Increased risk to historically significant structures in the study area including Mandeville, Madisonville, Slidell, Abita, Covington and Lacombe.

Diverse ecologically and important habitat within the study area is being lost and degraded due to saltwater intrusion, waves, subsidence, storm surge and development.

Sea level rise and subsidence are expected to increase in the future causing more frequent flood events.

Increased development has led to increased flooding.

# OPPORTUNITIES

Decrease the risk to human life during flooding.

Reduce economic damages and improve economic resiliency of the local economy and communities.

Convey and redirect water to reduce the flood risks to public, commercial, and residential property, real estate and infrastructure.

Optimize water storage and conveyance needs within the study area.

Increase the reliability of the Nation's transportation corridor (I-10, I-12 and I-59) by providing alternatives that will potentially lessen damages from induced flooding.

Reduce loss of critical habitat.

Enhance public education and awareness to flood risk.

Develop robust alternatives that account for predicted sea level rise, subsidence and climate change.

# OBJECTIVES

- Reduce the risk to public health and safety by reducing flood impacts to structures, evacuation routes and critical infrastructure in St. Tammany Parish.
- Reduce flood damage to structures (i.e. businesses, residential, commercial and public structures) from flooding in St. Tammany Parish.
- Reduce interruption to the maximum extent practicable to the nation's transportation corridor e.g. the I-10 and I-12 and the I-10 interchange in St. Tammany Parish.
- Increase community resiliency before, during and after significant coastal and or rainfall events.
- Increase resiliency of coastal and riparian habitats as natural resources to reduce flood damages.

# CONSTRAINTS

- Proposed projects must meet minimum flow (800 cfs for a 10% chance flood) and drainage area (1.5 square miles) requirements (Engineering Regulation 1165-2-21).
- Minimize negative impacts to threatened, endangered and protected species.
- Minimize impacts to critical habitat.
- Avoid locating project features on lands known to have Hazardous, Toxic and Radioactive Waste (HTRW) concerns.
- Minimize impacts to established recreational areas.

# NO ACTION ALTERNATIVE

**The Future Without Project Condition** - Most likely condition of the resources and human environment if no additional actions are taken as a result of this study

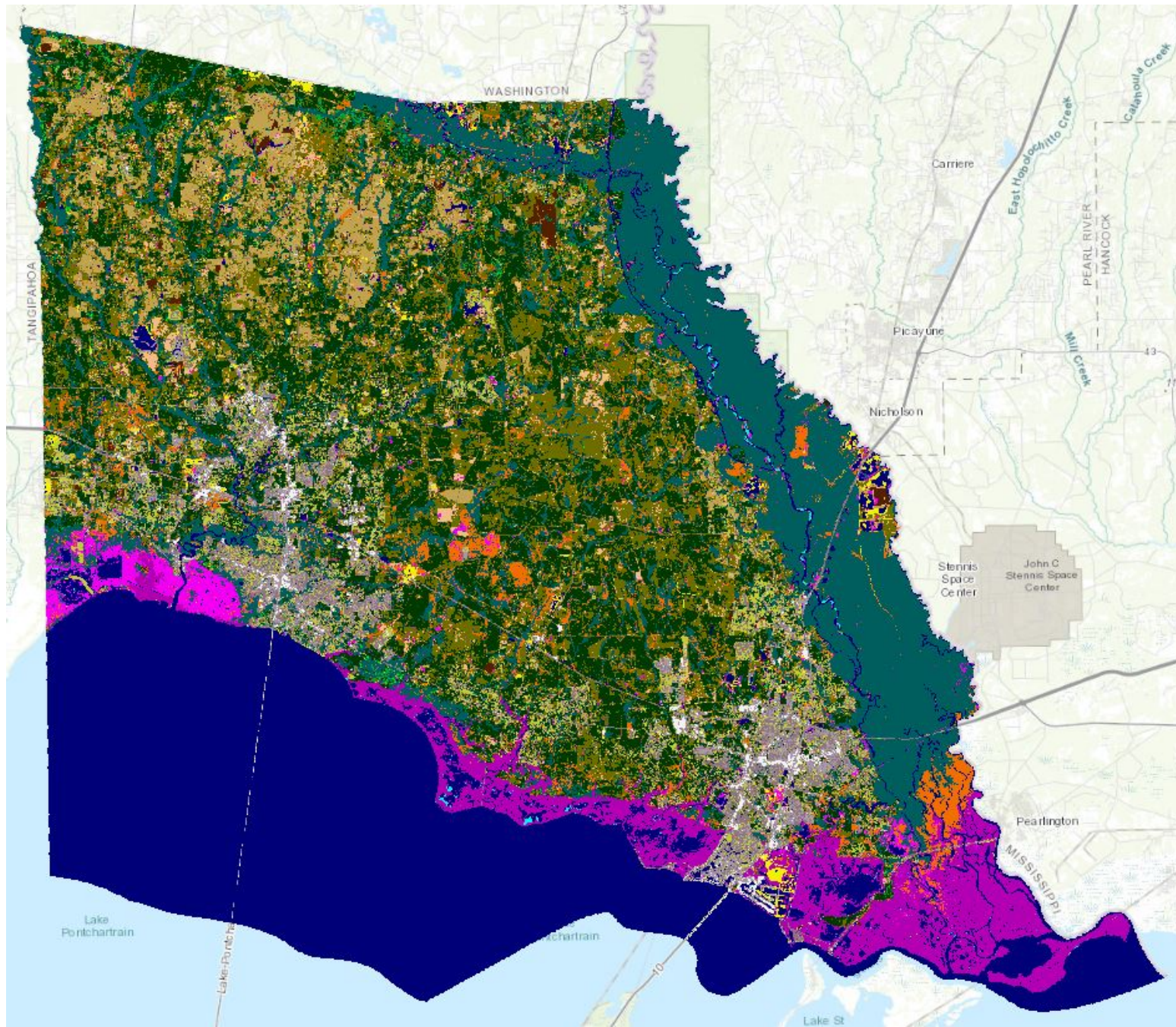
## Increased flood risk

- Continued sea level rise
- Continued subsidence
- Continued rainfall and riverine bank overtopping

## Increased storm damages

- Frequency
- Intensity

## Current Construction Projects



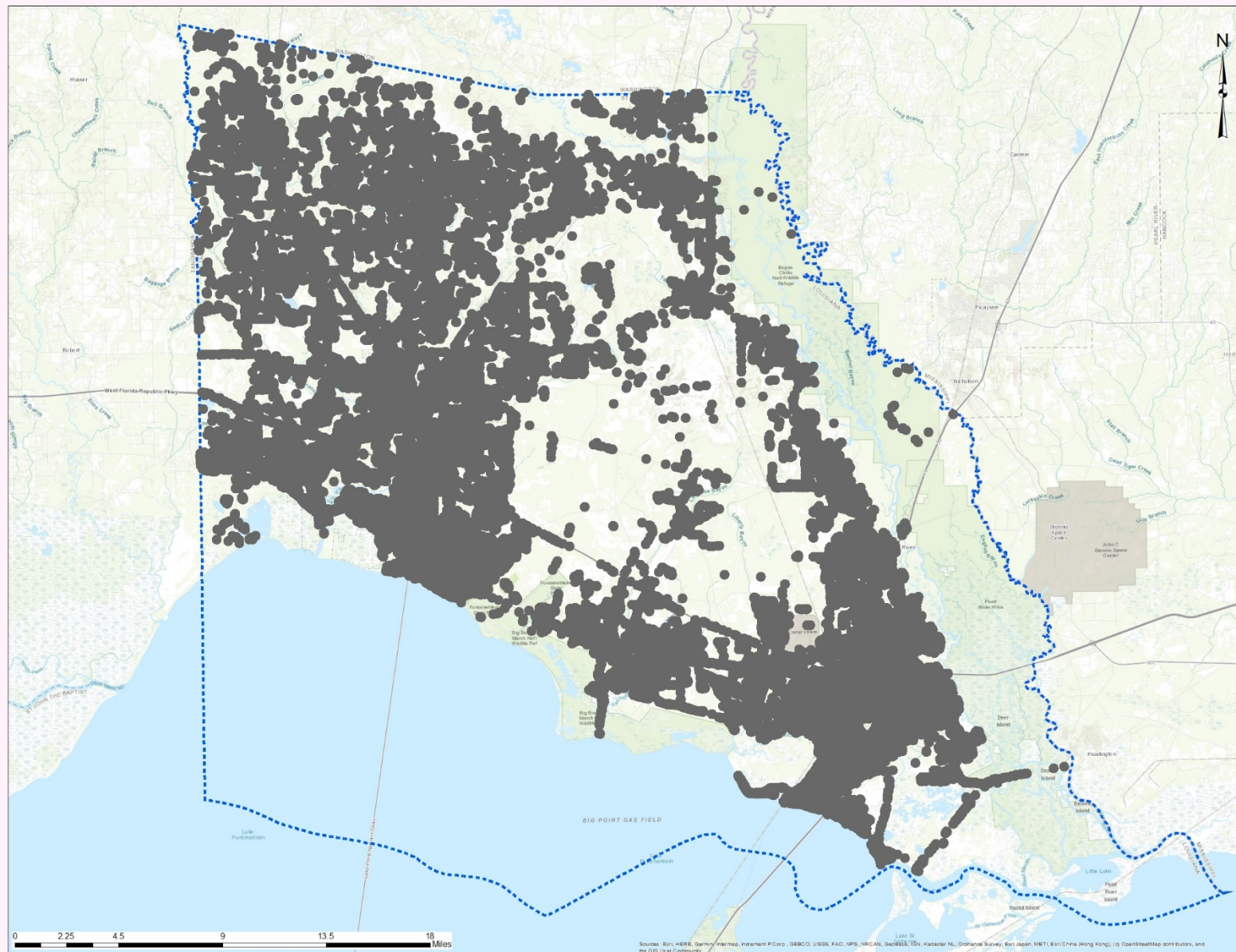
# LAND COVER



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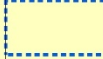



# St. Tammany Parish, Louisiana Structure Inventory

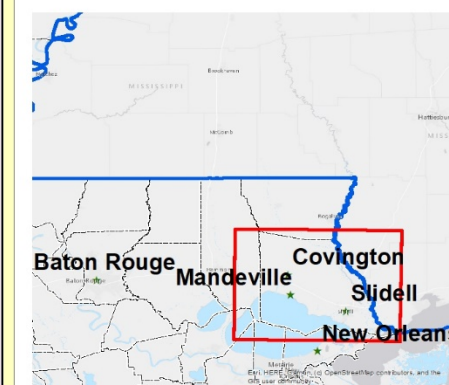


U.S. Army Corps of Engineers  
New Orleans District  
Engineering Office

## Legend

-  Study Area
-  Structure Inventory

### LOCATION MAP



Date: 2/6/2020

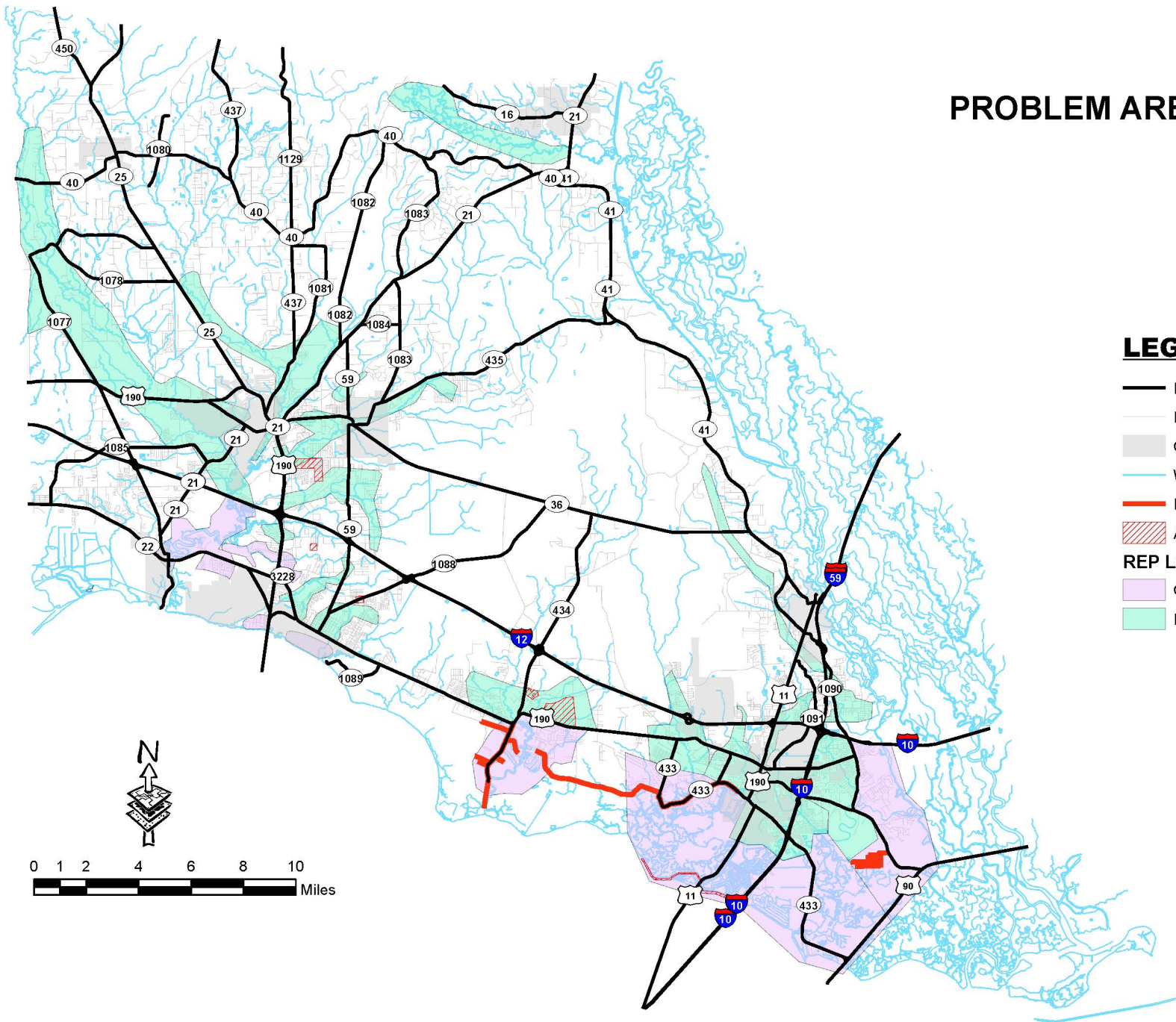
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Approximately **100,000** structures reside within the study area, 90% are residential and 10% are commercial.



# PROBLEM AREAS FOR DRAINAGE

Map by D. O'Dell  
January 28, 2020



## LEGEND

- MAJOR ROADS
- PARISH MAINTAINED ROADS
- CITIES
- WATERWAYS
- FREQUENTLY FLOODED ROADS
- ▨ AREAS OF SPECIAL CONCERN
- REP LOSS AREAS**
- COASTAL
- RIVERINE



# FEMA FLOOD CLAIM STATISTICS

PARISH NAME	COMMUNITY NAME	TOTAL LOSSES	CLOSED LOSSES	OPEN LOSSES	CLOSED WITHOUT PAYMENT LOSSES	TOTAL PAYMENTS
ST. TAMMANY PARISH	ABITA SPRINGS, TOWN OF	89	52		37	\$662,788.17
	COVINGTON, CITY OF	717	498		219	\$15,070,134.58
	FOLSOM, VILLAGE OF	15	9		6	\$270,232.20
	MADISONVILLE, TOWN OF	391	306	2	83	\$13,362,616.97
	MANDEVILLE, CITY OF	1,751	1,227	3	521	\$44,082,572.36
	PEARL RIVER, TOWN OF	46	26		20	\$439,053.73
	SLIDELL, CITY OF	9,454	7,974		1,480	\$456,248,588.53

LOSS STATISTICS FOR ST. TAMMANY PARISH, LOUISIANA FROM JANUARY 1, 1978 TO SEPTEMBER 30, 2018.

# POTENTIAL MEASURES

Measure*	Example
Structural	Levees, flood wall, detention basins, diversion canal, flood gate, bridge and channel improvements
Non Structural	Elevating homes, flood proofing commercial properties
Engineering with nature (for flood risk management)	Marsh creation, historic ridge creation, breakwaters
Combination of Structural and Non Structural and/or Engineering with nature	Levee AND/OR elevating homes AND/OR breakwaters

\* All examples listed here are NOT an exclusive list. These are just examples of the types of actions the team could explore.

# RECAP - INPUT WE NEED FROM YOU



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6. What data, modeling, or reports should be considered as part of the study?

# QUESTIONS?



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Website: <https://www.mvn.usace.army.mil/About/Projects/BBA-2018/studies>

Written comments:

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or

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Preliminary Planning Document