PUBLIC MEETING

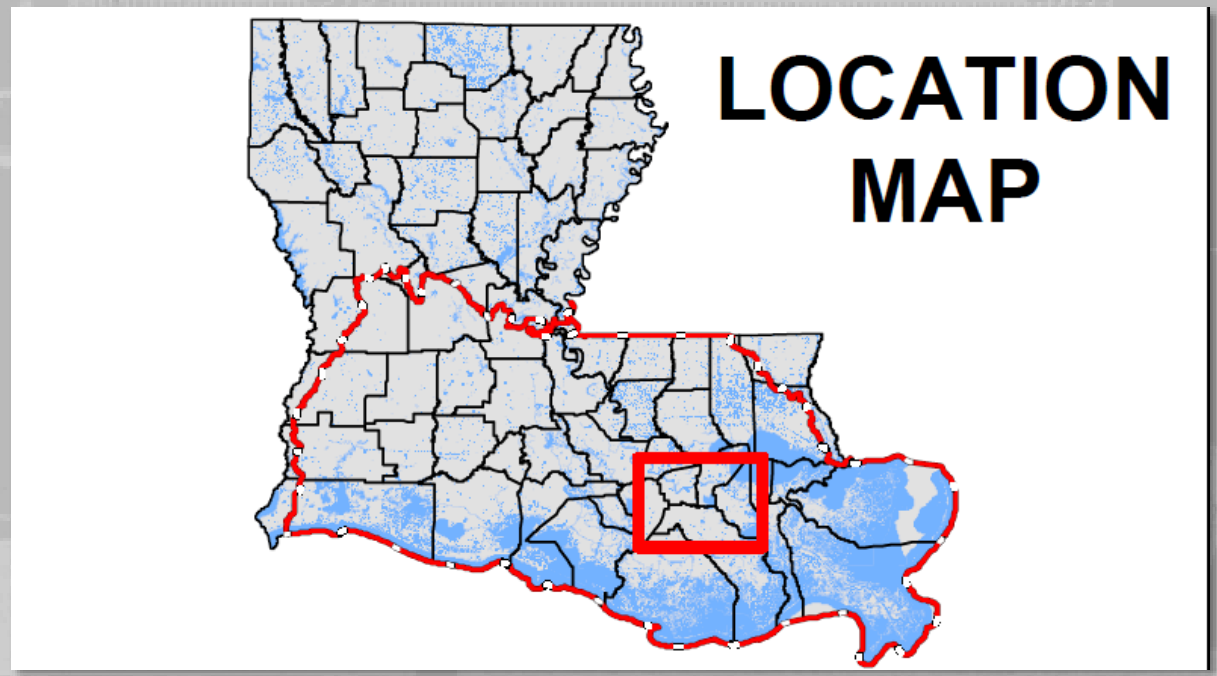
DRAFT INTEGRATED FEASIBILITY STUDY WITH ENVIRONMENTAL IMPACT STATEMENT

Upper Barataria Basin Louisiana Feasibility Study

Mississippi Valley Division/New Orleans District/Regional Planning and Environmental Division South

Non Federal Sponsor – Coastal Protection and Authority Board (CPRAB) of Louisiana

January 12, 2021 10am CTZ
January 13, 2021 2pm CTZ



US Army Corps of Engineers®

COASTAL PROTECTION AND RESTORATION AUTHORITY
CPRA

MEETING AGENDA

- Purpose of this meeting
- Study Authority & Funding
- Ongoing Coordination
- Study Process & Milestones

- Review of First Draft TSP
- Feasibility Level Design Updates
- Changes to the Second Draft TSP

MEETING PURPOSE

Inform the Public and Stakeholders
- Provide background on USACE Study
- Changes and updates to second draft TSP

Solicit Input from the public
- Issues and Concerns
- Asking for comments and questions on our NED Plan

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

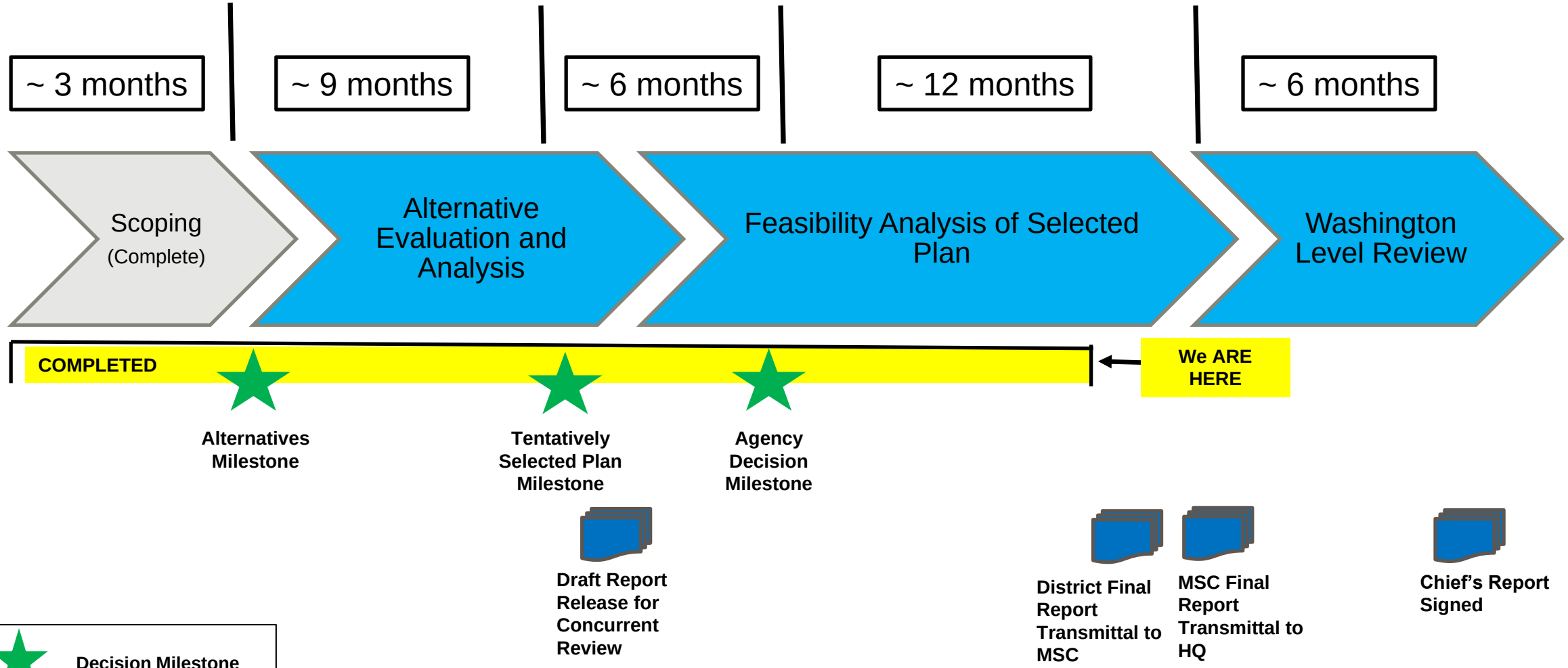
STUDY AUTHORITY & FUNDING

- Authority: House of Representatives Resolution Docket 2554, 105th Congress (6 May 1998)

- Funding: BBA of 2018 (Public Law 115-123), Division B, Subdivision 1, Title IV
  - Limits scope to the flood risk management
- Non Federal Sponsor: Coastal Protection and Authority Board (CPRAB) of Louisiana
  - Support for engineering and stakeholder management
  - Provided the Upper Barataria Basin Study Numerical Models

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

THE FEASIBILITY STUDY PROCESS: KEY DECISION AND PRODUCT MILESTONES

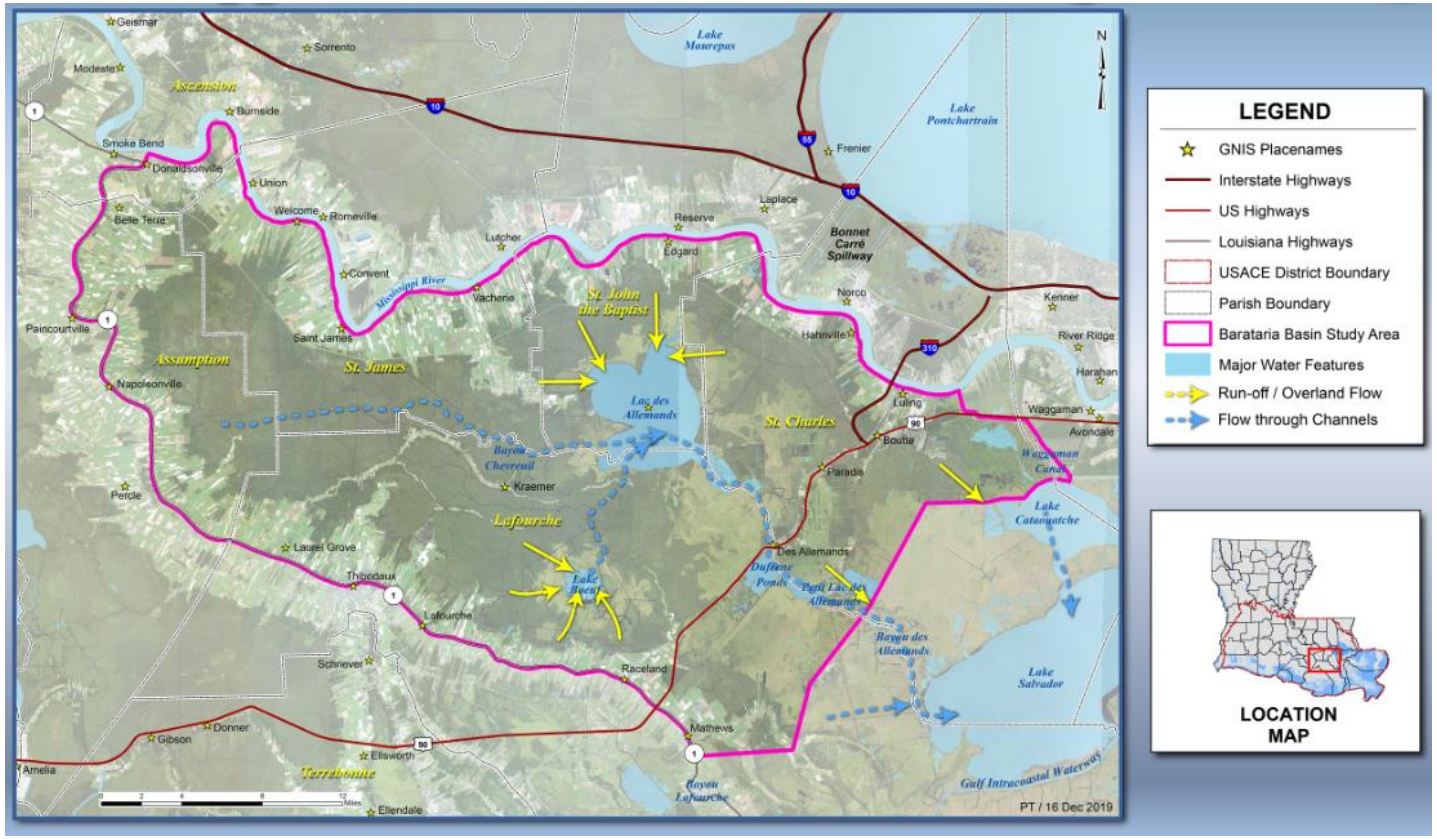


First Draft TSP

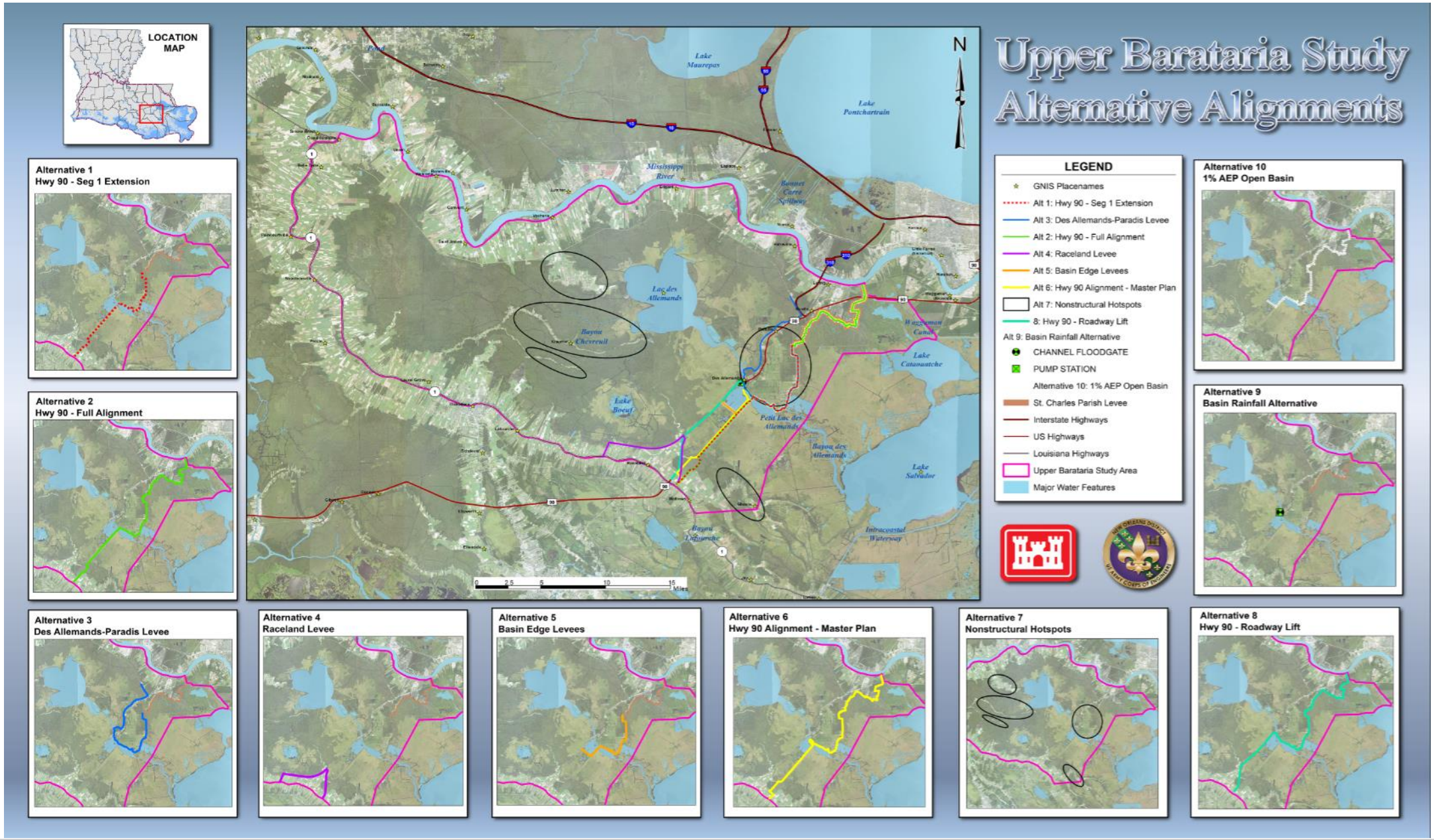
STUDY AREA OVERVIEW

- Defined by the Mississippi River Levee to the north, Bayou Lafourche to the south, and extends from Donaldsonville to just past US Highway 90.
- The study area covers approximately 800 square miles
- The area has a low ground surface elevation of around 1.5 feet across the basin

- The basin contains 25,000 structures and around 3,600 could be at risk of coastal storm damage
- US Highway 90 is a critical evacuation route for this area
- Most of the structures in the basin reside on deltaic ridges



ARRAY OF ALTERNATIVES



DRAFT 1: TENTATIVELY SELECTED PLAN
–7.5 FT. LEVEE WITH OVERTOPPING, DESIGNED TO REDUCE THE RISK TO PROVIDE 1% AEP (100-YR)

- Total project cost not including armoring, $514M and a BCR of 1.5.
- Managed overtopping from a ~2% AEP-year existing levee
- Optimization-
  - Storage behind each reach
  - Maximum overtopping rates for resiliency
- Public Comments, challenges and FEMA/flood insurance

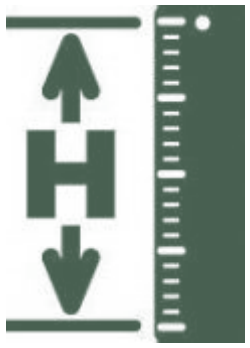
➢TENTATIVELY SELECTED PLAN (TSP), FIRST DRAFT

7.5 ft. levee built to the ~2% Existing AEP, but designed with overtopping to reduce the risk to 1% Future AEP (100-yr)

18.3

Levee length (mi)

7.5'



Levee elevation (ft)

345

Levee footprint impacts (acres)

1% AEP

Level of risk reduction

Nonstructural Plan

ESTIMATED TOTAL COST **$514M**

BENEFIT COST RATIO **1.5**

AVERAGE ANNUAL NET BENEFITS **$30.3M**

Second Draft After The Feasibility Level Design Phase

FEASIBILITY LEVEL DESIGN EFFORTS

- Optimization (To Provide The 1% AEP)
  - **Addressed Deficiencies in the Existing St. Charles System**
  - Limitations to Armoring the Levees
- BCR Status During Optimization
  - In order to provide the 1% AEP the BCR dropped below 1.0
- Changes in H&H Modeling
  - With-Project Modeling - Showed significant stacking on the floodside of the levee, therefore levee design elevations would have to increase significantly to provide the 1% AEP
  - Economics and H&H found errors in the CPRAB 2017 model that was capturing a significant amount of the WOP damages by including the local Sunset Levee at a 7.5ft elevation
  - Solution – The local Sunset Levee was no longer assumed a resilient local levee and was replaced with a more realistic 5ft elevation levee (outside water surface elevation = inside water surface elevation upon overtopping)
- Changes in Economic Evaluations
  - Without-Project Damage Increase – Around a $2B project could potentially be supported

DRAFT 2: TENTATIVELY SELECTED PLAN

– 16 TO 18.5 FEET ELEVATION LEVEE ALIGNMENT WITH RISK REDUCTION AT 1% AEP, 100-YR DESIGN ELEVATIONS

- Total Project Cost is $1.9 Billion, BCR is 1.3
- **Raising the existing St. Charles and the extension 16.0’-18.5’**
- Designed to HSDRRS specifications with multiple levee lifts authorized over the initial 50 years
- No armoring needed

NONSTRUCTURAL MEASURES TO ADDRESS INDUCEMENTS

- Stacking of water on the flood side of the system results in induced damages
  - Increase in water surface elevations are 2-3’ in Bayou Gauche and 1-2’ in Mathews and Gheens

Several NS Strategies

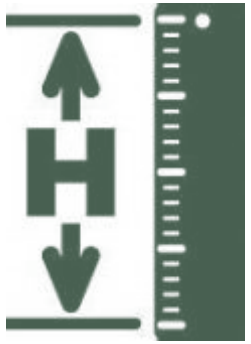
- Buyouts – $84M
- 270 residential and 5 commercial
- Moving forward with buyouts in Bayou Gauche due to the higher cost to reduce implementation risk
- Further investigations needed in PED for Mathews and Gheens

➢TENTATIVELY SELECTED PLAN, SECOND DRAFT

16-18.5’ levee including 12.3 mi of existing levee/floodwall improvements built to a 1% AEP (100-yr future level of risk reduction)

30.6
with improvements to 12.3 mi

Levee length (mi)

16-18.5’


Levee elevation (ft)

1,074

Levee footprint impacts (acres)

1% AEP
Level of risk reduction

275

Nonstructural Plan (structure acquisition)

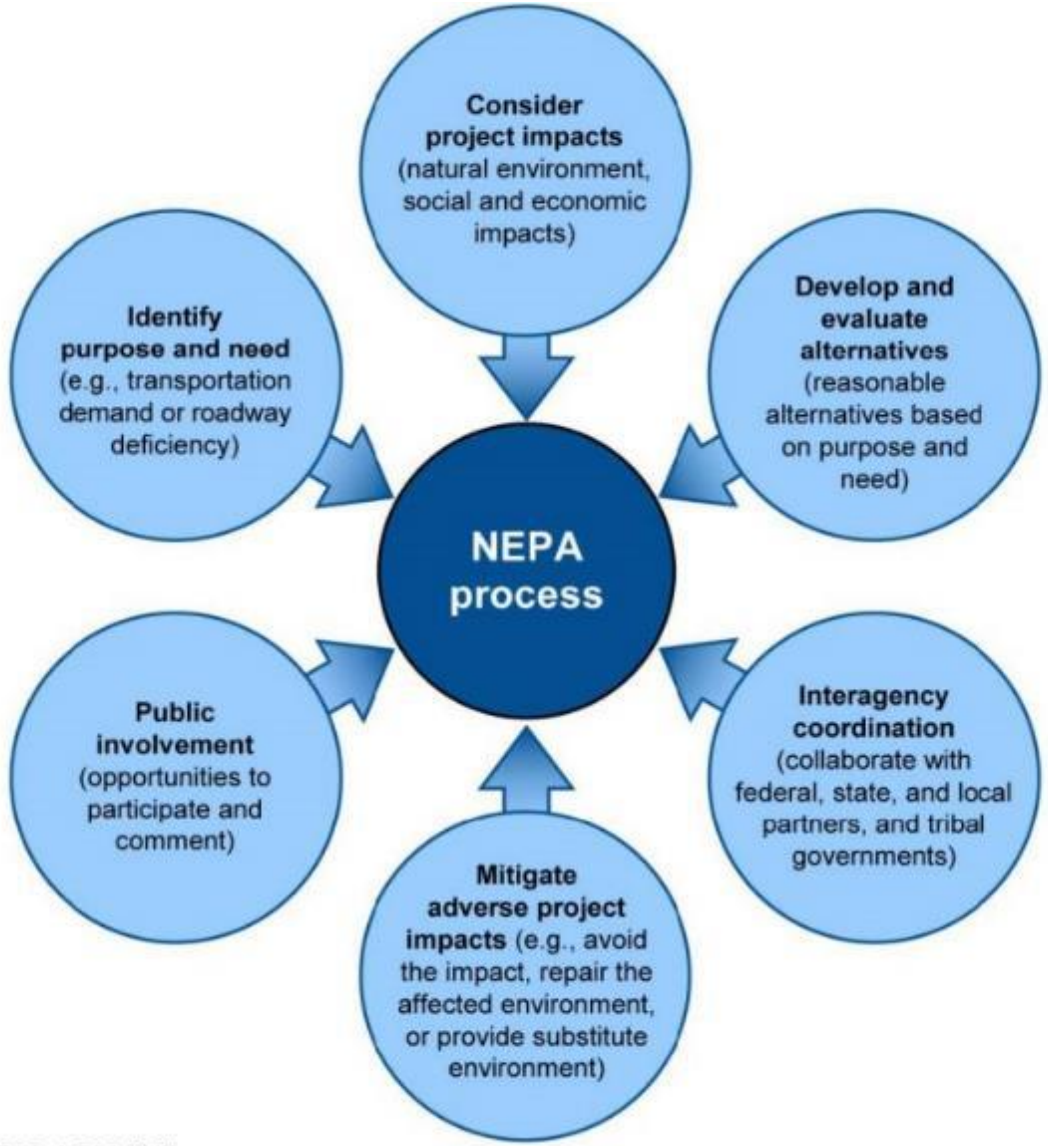
ESTIMATED TOTAL COST **$1.9B**

BENEFIT COST RATIO **1.3**

AVERAGE ANNUAL NET BENEFITS **$90M**

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) was signed into law by President Nixon on January 1, 1970. NEPA requires all federal agencies to consider the environmental impacts of any proposed action by developing a range of alternatives, provide opportunities for the public to provide input, and document the decision-making process so that interested and affected stakeholders can understand how the agency came to a decision. Implementation requires the publishing of a Notice of Intent in the Federal Register for Environmental Impact, and sometimes Environmental Assessments.



Source: GAO. | GAO-15-71

MILESTONE SCHEDULE

Milestone	Baseline
Execute FCSA	Complete
Alternatives Milestone	Complete
TSP Milestone	Complete
Release of Draft Feasibility Report for Public Review	Completed
Agency Decision Milestone	Completed
District Submit Final Feasibility Report to MVD	MAR 2021
Division Engineer’s Transmittal Letter	APR 2021
Chief’s Report Milestone	OCT 2021

HOW TO COMMENT

Send your comments by January 25, 2021

UpperBaratariaFS@usace.army.mil **or**

Mail to:
CEMVN-PMR
7400 Leake Avenue
Room 331
New Orleans, LA 70118

Upper Barataria Basin Louisiana Study Website:
https://www.mvn.usace.army.mil/About/Projects/BBA-2018/studies/Upper-Barataria-Louisiana/