## **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 7, 2019 Luling January 9, 2019 Thibodaux



reliminar





CLASSIFICATION: UNCLASSIFIED



### **MEETING AGENDA**

- 1. Bottom Line Up Front (TSP)
- 2. Project Background
- 3. Alternatives Considered
- 4. Tentatively Selected Plan
- 5. Project Schedule
- 6. Public Comment Period
- 7. Frequently Asked Questions



#### TENTATIVELY SELECTED PLAN –2% AEP (50 YEAR) LEVEE ALIGNMENT –POTENTIAL NONSTRUCTURAL COMPONENT



- Structural with the possibility of Nonstructural Plans will be optimized during Feasibility Level Design
- Total Project Cost is \$514 Million Not including armoring for levee resiliency
- Benefit Cost Ratio is 1.5





## **STUDY AUTHORITY**



House of Representatives Resolution Docket 2554, 105th Congress (6 May 1998): - In the interest of flood control, navigation, wetlands conservation and restoration, wildlife habitat, commercial and recreational fishing, salt water intrusion and fresh water and sediment diversion, and other purposes in the area

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

#### 3X3X3 Study

#### 100% Federally Funded



## COORDINATION



# 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

#### **Governmental Stakeholders**

- Tribes
- Natural Resource Agencies
- State of Louisiana
- Parish Officials
- Local Levee Districts
- City Officials



## STAKEHOLDER AND PUBLIC ENGAGEMENT



#### **Kickoff Meetings**

- Stakeholder Workshop Meeting was held in Hahnville on October 18, 2018
- General Public Meeting held at New Orleans District on January 10, 2019

#### **2 NEPA Scoping Meetings**

- Thibodaux on May 1, 2019
- Hahnville on May 2, 2019
- Federal Register Notice of Intent published on April 2, 2019

#### Progress Review Meetings

- Alternatives Analysis meeting held on August 22, 2019 with stakeholders
- Tentatively Selected Plan meeting with stakeholders held on October 15, 2019
- Monthly stakeholder conference calls



#### THE FEASIBILITY STUDY PROCESS: KEY DECISION AND PRODUCT MILESTONES





#### **STUDY AREA**

The study area covers around 800 square miles and contains around 28,000 structures







## HYDRAULICS AND HYDROLOGY



#### ADCIRC Coastal Storm Modeling (CPRA 2017)

- 50, 100, 200, 500-Year Frequency events were modeled for a 50 year period of analysis (2023-2073)
- An intermediate sea level rise scenario was used in the modeling

#### HEC-RAS Rainfall Modeling

- 2, 5, 10, 25, 50, 100, 200, 500-Year Frequency events were modeled

Recurrence	Annual Exceedance
interval, years	Probability (AEP)
2	50%
5	20%
10	10%
25	4%
50	2%
100	1%
200	0.50%
500	0.20%



## **ALTERNATIVE DEVELOPMENT**



Assembled management measures and launched from previous efforts in the basin:

- Structural
  - » Levees
  - » Floodwalls
  - » Flood Gates
  - » Pumping Stations
  - » Ring Levees
- Non-structural
  - » House Raisings
  - » Dry-Proofing

<u>11 Alternatives Developed (Including No Action Option)</u>

- 8 alternatives were presented at the Public Scoping Meetings, May of 2019
- 3 more alternatives were added from Federal resource agency feedback and another planning iteration
- 1 of the 11 alternatives is a nonstructural alternative



### **ARRAY OF ALTERNATIVES**









Alternative 3 **Des Allemands-Paradis Levee** 



Alternative 4

**Raceland Levee** 



Alternative 5 **Basin Edge Levees** 



Alternative 6



# Upper Barataria Study Alternative Alignments

N







## FINAL ARRAY BENEFIT-COST ANALYSIS



12

Screening:

- Alternatives 3, 4, 5, 6, 8, and 9 were screened out based on the benefit to costs ratios being less that 1.0 or opposing guidance and regulations.
- Alternatives 1, 2, 10, 7, and the no action were included in the final array

Plan	EAD Benefits	Construction Cost	Average Annual Cost	Net Benefits	B/C Ratio
Alternative 1, Hwy 90-Segment 1 Extension, 7.5ft	\$30,261,000	\$513,423,000	\$20,358,000	\$9,904,000	1.5
Alternative 2, Hwy 90-Full Alignment, 8.5ft	\$30,465,000	\$665,108,000	\$26,238,000	\$4,228,000	1.2
Alternative 10, 1% AEP Open Basin 12.0ft	\$30,875,000	\$908,484,000	\$32,574,000	(\$1,700,000)	0.95
Alternative 7, Nonstructural	\$17,559,000	\$1,568,912,000	\$58,312,000	(\$40,753,000)	0.3

## NATIONAL ECONOMIC DEVELOPMENT PLAN (NED)

(FY19 Price Level) Preliminary Planning Product



## **BENEFIT-COST ANALYSIS, TSP RESILIENCY**



#### Levee Resiliency

- To be resilient to overtopping the levee will be designed with either High Performance Turf Reinforcement Matting (HPTRM) armoring or concrete armoring
- Armoring will be placed as needed on the project levee (Alternative 1) and on the Existing St Charles Parish Levee for resiliency
- The table below displays the costs for the extreme case that the entire system would be armored

	Alt 1 With Armoring -	Alt 1 With Armoring	
	Matting	Concrete	
First Cost	\$557,719,000	\$650,719,000	
Annual Costs	\$22,568,000	\$26,147,000	
Annual Benefits	\$30,261,000	\$30,261,000	
Net Annual Benefits	\$8,009,000	\$4,430,000	
Benefit to Cost Ratio	1.4	1.2	

(FY19 Price Level)





#### 

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#### NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE SUMMARY



#### <u>Cultural</u>

- Initiated consultation under Section 106 National Historic Preservation Act of 1966 (NHPA) with State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officers (THPOs)
- Developing a Section 106 Programmatic Agreement in consultation with coordinating parties during the feasibility study to fulfill CEMVN's NHPA responsibilities during the Pre-Construction, Engineering and Design (PED) phase

#### **Environmental**

- Threatened, Endangered, and Protected Species
- -Borrow Source
- Mitigation Plan
- -Recreational Impacts



## **MILESTONE SCHEDULE**



Milestone	Baseline
Execute FCSA	Complete
Alternatives Milestone	Complete
TSP Milestone	Complete
Release of Draft Feasibility Report for Public Review	Complete
Agency Decision Milestone	Spring 2020
District Submit Final Feasibility Report to MVD	Spring 2021
Division Engineer's Transmittal Letter	Spring 2021
Chief's Report Milestone	Fall 2021





Q: Is this proposed levee a repeat of an earlier project the Corps proposed but was not economically justified? If so, is the Corps changing the formula it uses to justify the cost of this project?

A: There was a study released in 2012, Donaldsonville to the Gulf, that looked at a larger geographic area and with different criteria. The Upper Barataria Basin is reviewing coastal storm risk reduction measures and rainfall management measures within the upper portion of the basin and is looking at alternatives with a variety of design frequencies.





**Q: Will I have another chance to provide feedback?** 

A: The 45-day comment period is the time for public feedback on the draft report. However, if there are significant changes to the Tentatively Selected Plan in the future, additional opportunities for public comment would be considered.





Q: Am I part of the nonstructural plan?

A: Targeted nonstructural measures will be refined as we determine the residual risk of the alignment and overtopping rates. That plan will be voluntary and more information will be available as the study progresses.





**Q: When is this project going to start?** 

A: We are far from beginning any work as we are still in the study process. This study is anticipated to be completed in late 2021. Once the study is complete, separate appropriations (funding) from congress are needed to begin construction following a 3-5 year design period. Right now, we are looking to see if there is the potential for a project.





Q: Will this project impact access to canals for recreational use?

A: Initial assessment indicates there may be some limitations to access to the canals. However, more information will be available upon Feasibility level design. If you have a comment or concern about this please provide a comment for the record.



## **HOW TO COMMENT**



## Send your comments by January 13, 2020

UpperBaratariaFS@usace.army.mil or

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

Mississippi River Valley Division Regional Planning and Environmental Division South

Upper Barataria Basin, Louisiana Feasibility Study with Integrated Environmental Impact Statement



November 29, 2019

#### Upper Barataria Basin Louisiana Study Website:

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