CPRA Mississippi River Mid-Basin Sediment Diversion Program
Market Sounding

Introduction

The Louisiana Comprehensive Master Plan for a Sustainable Coast identifies sediment diversions as essential to sustaining coastal Louisiana. The primary purpose of the sediment diversion projects included in the plan is to reintroduce freshwater and sediment from the Mississippi and Atchafalaya Rivers into the adjacent basins to reestablish deltaic processes in order to build, sustain, and maintain land.

In October 2015, upon the conclusion of several in-depth studies and modeling efforts, the CPRA made a recommendation to advance two Mississippi River sediment diversion projects, Mid Barataria (75,000 cfs) and Mid Breton (35,000 cfs), to engineering and design. To assist with timely efforts for procurement and management of design, environmental requirements and construction of the Mid-Barataria and Mid-Breton Sediment Diversion Projects, the CPRA created the Mississippi River Mid-Basin Sediment Diversion Program.

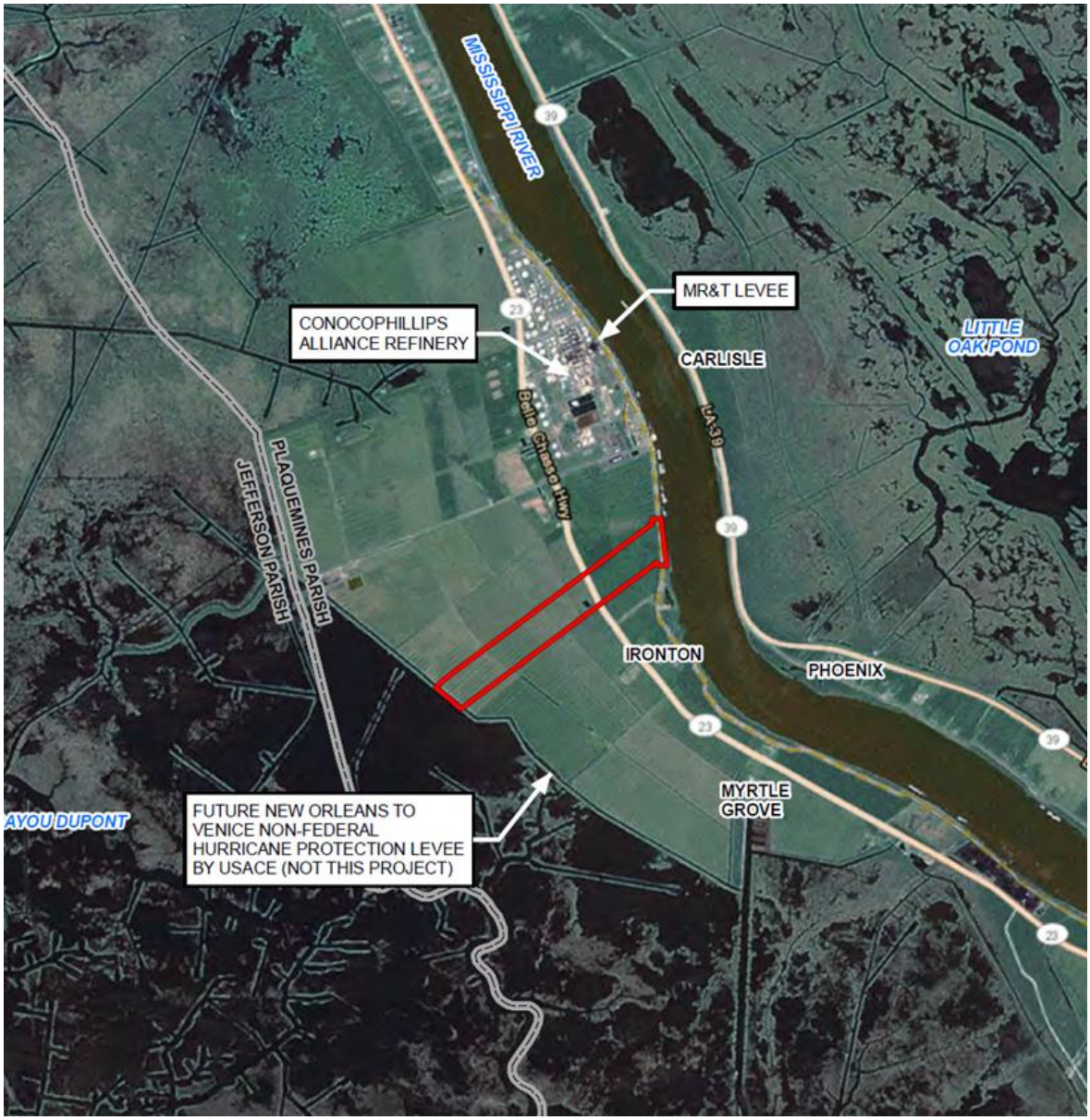
It is anticipated that recovery funds associated with the *Deepwater Horizon* Oil Spill will be the primary source of funding for the planning, permitting, engineering and design, and construction for the projects.

Mid-Barataria Sediment Diversion

Mid-Barataria Sediment Diversion Overview

In 2000, the United States Army Corps of Engineers (USACE) and State of Louisiana initiated the LCA Ecosystem Restoration Study to address Louisiana's severe coastal land loss problem. Culminating in 2004 with a programmatic level main report and environmental impact statement, the LCA Study recommended the Medium Diversion at Myrtle Grove project as one of 15 restoration projects identified as 'near-term critical restoration features.' The Mid-Barataria Sediment diversion located at Myrtle Grove is recommended for implementation in Louisiana's Coastal Master Plan that was approved by the Louisiana State Legislature in May 2012. The Mid-Barataria Sediment Diversion is expected to restore significant habitat in the Barataria Basin, including fresh, intermediate, and brackish marshes by re-introducing the sediment and nutrients which historically built and maintained the affected area.

The CPRA has received set of construction plans along with a Basis of Design Report along with other supporting documentation for a 30% level design of the site/civil features, road, bridges, intake and back structures as well as the utilities infrastructure for the Mid-Barataria Sediment Diversion. In addition value engineering studies of 6 additional studies were submitted for considerations to lower the project costs.



Mid-Barataria Sediment Diversion Project Elements

The Mid-Barataria Sediment Diversion would be located on the west bank of the Mississippi River at Rivermile 61 above Head of Passes. The proposed project elements include:

- A controlled gravity flow reintroduction structure, installed through the Mississippi River and Tributaries levee, that would convey approximately 75,000 cfs of sediment laden water to the currently degrading wetland complex in Mid-Barataria Basin.
- A new conveyance channel would be constructed across fastlands and wetlands, to reconnect the Mississippi River to its historical floodplain in this area.
- Replacement of Highway 23 with a new fixed span bridge over the conveyance channel
- Coordination and modification to rail lines and associated bridge.
- Forced drainage for the northwestern portion of the fastland area that will be isolated by the new conveyance channel.
- A gated structure, through the New Orleans to Venice (NOV) levee, on the downstream end of the conveyance channel.
- Erosion protection for the levees.

- Utility relocations and pipeline protection.

The CPRA has received a Basis of Design Report along with other supporting documentation for a 30% level design for the project elements listed above. The project is subject to an Environmental Impact Statement (EIS) as well as a Section 408 Permit, which is necessary when impacting a federal structure which for this project includes the Federal (MR&T) and NOV levee. Additionally, Section 10 and Section 404 Permits will need to be obtained prior to construction. These regulatory processes are critical to the delivery and schedule of the project.

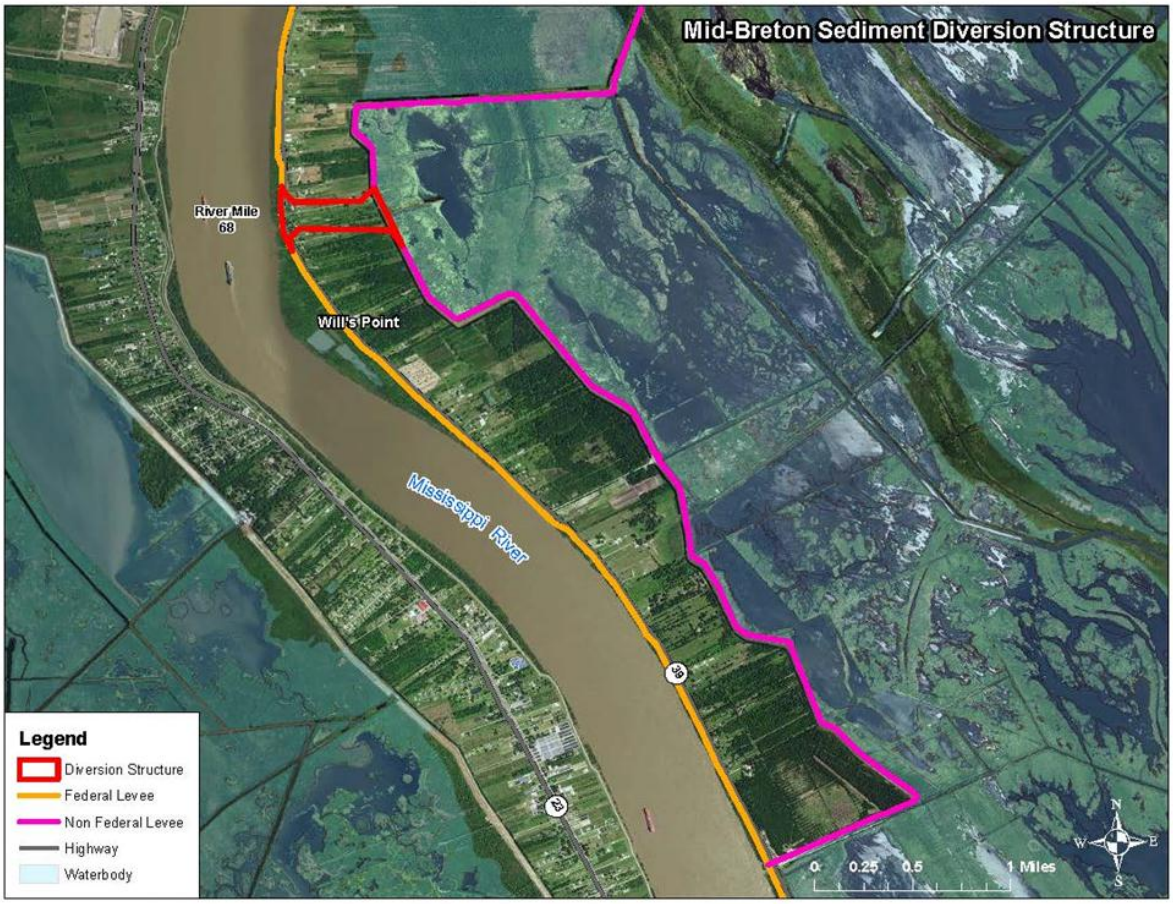
The preliminary estimated construction cost is $1.3 billion, which includes escalation through the time of construction.

Mid-Breton Sediment Diversion

Mid-Breton Sediment Diversion Overview

In 2000, the USACE and State of Louisiana initiated the LCA Ecosystem Restoration Study to address Louisiana's severe coastal land loss problem. Culminating in 2004 with a programmatic level report and EIS, the LCA Study recommended a sediment diversion at White Ditch (RM 59) as one of 15 restoration projects identified as 'near-term critical restoration features'. The 2004 LCA report resulted in a 2005 Report of the Chief of Engineers. The project was later authorized to be implemented, substantially in accordance with plans and subject to the conditions recommended in the final report of the of the Chief of Engineers if a favorable report of the Chief was completed by December 31, 2010. In compliance with the requirements of WRDA 2007, CPRA and the USACE completed a feasibility study with a Chief's Report signed in December 2010.

In December 2011, CPRA entered into a Preconstruction Engineering and Design agreement with the USACE. Due to concerns raised by CPRA over the location of the intake structure, initial efforts focused on siting and locational analysis. These included additional sediment sampling in the Mississippi River and hydrodynamic modeling. Via this effort, it was concluded that the optimal location for the diversion structure should be relocated to Will's Point (River Mile 68). However, due to the impacts to potential residences and the resulting land acquisition costs, the CPRA is investigating minor modifications to the alignment that could further reduce or eliminate impacts to residents.



Mid-Breton Sediment Diversion Project Elements

- The Mid-Breton Sediment Diversion would be located on the east bank of the Mississippi River at Rivermile 68 above Head of Passes. The proposed project elements include: A controlled gravity flow reintroduction structure, installed through the Mississippi River and Tributaries levee, which would convey approximately 35,000 cfs of sediment laden water to the currently degrading wetland complex in Mid-Breton Sound Basin.
- A new conveyance channel would be constructed across fastlands with levees to reconnect the Mississippi River to its historical floodplain in this area;
- Replacement of Highway 39 with a new fixed span bridge over the conveyance channel
- Forced drainage system for the northern area that will be isolated by the new conveyance channel;
- A gated structure on the downstream end of the conveyance channel;
- Erosion protection for adjacent levees;
- Utility relocations and pipeline protection

The only design information that exists for the Mid-Breton Sediment Diversion are reports summarizing the feasibility level efforts and modeling outputs. The project is also subject to an EIS and Section 408 Permit, as well as Section 10 and Section 404 permits. These regulatory processes are critical to the delivery and schedule of the project.

The preliminary estimated construction cost is $700 million, which includes escalation through the time of construction.

The project information above should be considered preliminary. CPRA makes no representation that the project will conform to the information presented nor that any project will be procured.

Market Survey

In anticipation of a complex permitting and environmental approval process, CPRA is assessing various project procurement strategies. This market survey is intended for informational purposes only and to obtain your input for CPRA's consideration in developing and finalizing a project procurement and delivery approach. To this end, CPRA's objective is to accommodate several specific project needs into its decision process:

- Due to the level of design and data collection that has occurred, the Mid-Barataria Sediment Diversion project schedule is more progressed than that of the Mid-Breton Sediment Diversion project. Therefore, procurements packages for the Mid-Barataria Sediment Diversion and Mid-Breton Sediment Diversion will be advertised, reviewed, and selected during different timeframes.
- Construction commencement for the Mid-Breton Sediment Diversion project will likely occur at least two years after construction commencement of the Mid-Barataria Sediment Diversion project.
- The diversion projects will be technically and logistically complex, requiring continuous interplay between designers and builders from the early stages of the design process through construction in the field;
- The permitting process will require design iteration, frequent scope and schedule adjustments, and must conform to inter-dependent permit and performance compliance requirements;
- The total project budget will be limited and the project must be designed and constructed to within the available funds.
- The projects include known and unknown design and construction risks that must be collectively managed by CPRA, the engineer, and the contractor.
- Public and private stakeholders will have significant input to the project as it evolves.

To meet these needs, CPRA is considering a collaborative delivery process in lieu of traditional design-bid-build procurement. Two approaches that are being further assessed by CPRA are Construction Management at Risk (CMAR) and Progressive Design-Build (PDB). Among other aspects, both of these collaborative delivery methods involve continuous interaction among the owner, regulators, the engineer, and the contractor. They also require iterative construction cost estimating concurrent with the design process to ensure the project is designed to budget. However, CMAR and PDB would be procured and contracted in different ways:

- For CMAR, an engineer would be selected first using CPRA's professional services procurement process. A separate Construction Manager would be selected as soon thereafter as feasible. The Construction Manager would be selected based on a combination of experience, capabilities, and fees. The designer and Construction Manager would work for CPRA under separate contracts (for engineering and pre-construction services, respectively), but would be expected to collaborate with each other;
- For progressive design-build, CPRA would initiate a combined procurement process for engineering services and construction. This selection would likely be made based on a combination of experience, capabilities, and fees, including a lump sum amount for all services required during the preconstruction period. A single design-build contract would be issued by CPRA, likely to include a requirement for some level of performance by the design-builder.

Construction for both of the above approaches would not be authorized until all required permits and approvals are in place and, in turn, CPRA approves a final construction cost at some point later than the sixty-percent design milestone and most likely at near to the 90% design milestone. (However, pending regulatory approval, some early works packages may be initiated prior to full permitting approval.) The construction cost estimate would be developed on an open-book, transparent basis and the CMAR's or design-builder's fee (as originally proposed during the selection process) would be added to the cost to define a construction price. Should agreement on a mutually agreeable construction price not be achieved, CPRA will reserve the right to bid out the work in a manner of its choosing (and the CMAR or design-build entity could potentially be precluded from further participation in any bidding process). The agreed-upon construction price may be subsequently treated as a Guaranteed Maximum Price with a shared savings incentive; as a fixed, lump sum price; or as a target price with a shared savings incentive and some overrun responsibility shared jointly with CPRA.

This survey is not a solicitation or procurement. It is intended for informational purposes only. The approaches outlined above are being considered by CPRA, but no decisions have been made to date and the ultimate procurement approach

may differ from any of the assumptions stated here. CPRA makes no representations regarding the timing or certainty of a project or the method by which it will be advertised, solicited, procured, priced, or contracted, and no statement made in connection with this Market Survey, written or verbal, implied or explicit, shall be binding in any way on CPRA or on any responder to this survey.

The following questions are open for response by any interested party without obligation. Responses will not be evaluated in any comparative manner and all responses will be evaluated on a consolidated basis without regard to the individual sources or identity of respondents. Responses may be submitted anonymously, but, where a respondent chooses to identify itself, CPRA maintains the right to ask for follow-up information; request further clarification on any of the responses offered; use the responses as a basis for follow-up surveys; and use your contact information for future communication of project status or notification of solicitations.

CPRA requests your opinion on the following questions assuming a CMAR or PDB approach. If your response to a given question differs (or is not applicable) between CMAR and PDB, please so state and explain as necessary. Respondents are asked to respond only once per company. It is not required that a respondent answer all questions (some will not apply to all companies or project roles).

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