

WEST BAY SEDIMENT DIVERSION Project Background, Status and Work Plan FEBRUARY 27, 2009



Cherie Price
CEMVN-PM-OR

Cherie.price@usace.army.mil
504-862-2737



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Project Background

- **Louisiana Coastal Area, Louisiana, Land Loss and Marsh Creation Feasibility Study, 1990**
- **Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) first Priority Project List, 1992**
- **Cost Share Agreement executed Oct. 2000**
- **Initial construction completed Nov. 2003**



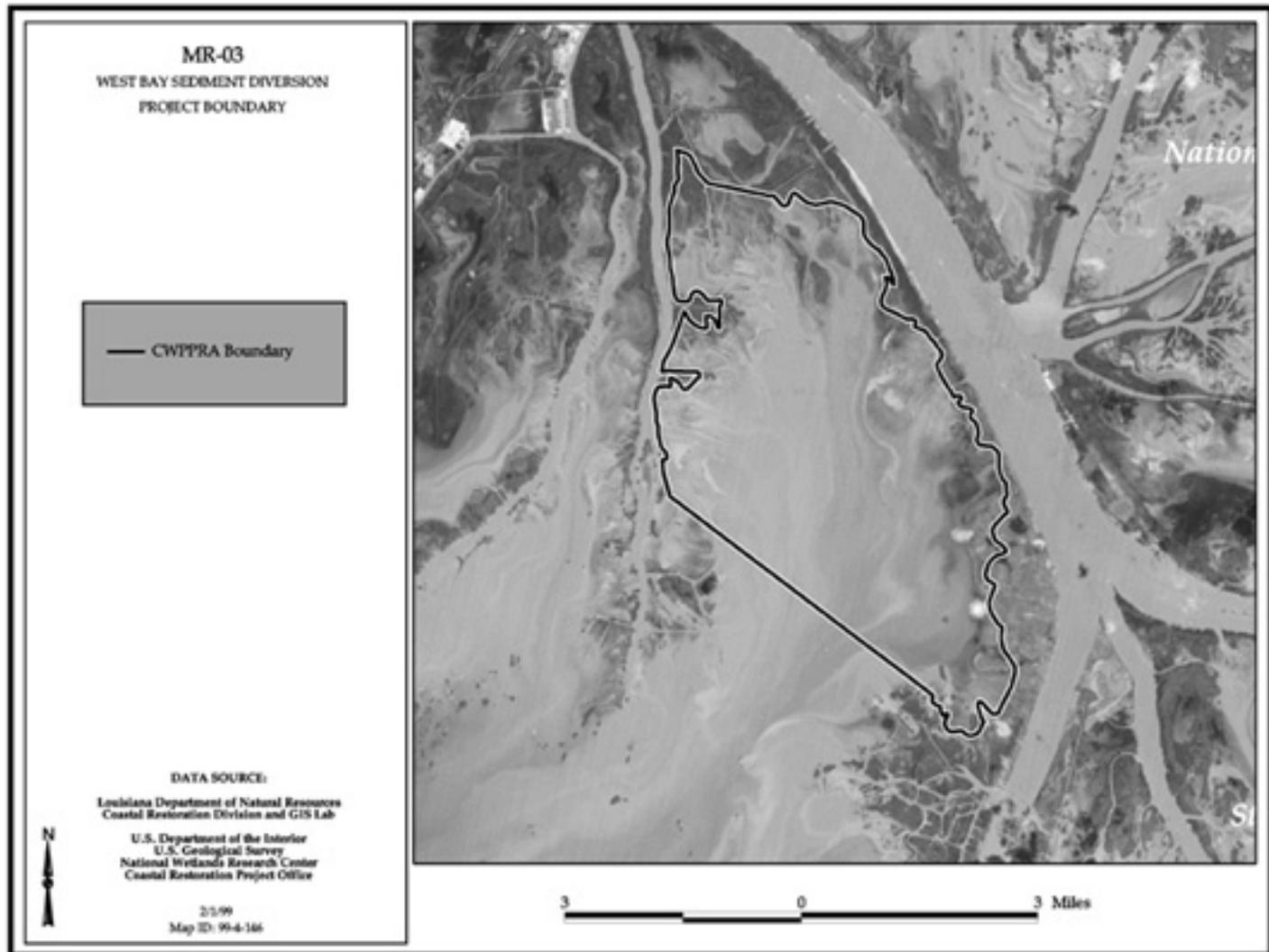
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West Bay Sediment Diversion (MR-03)



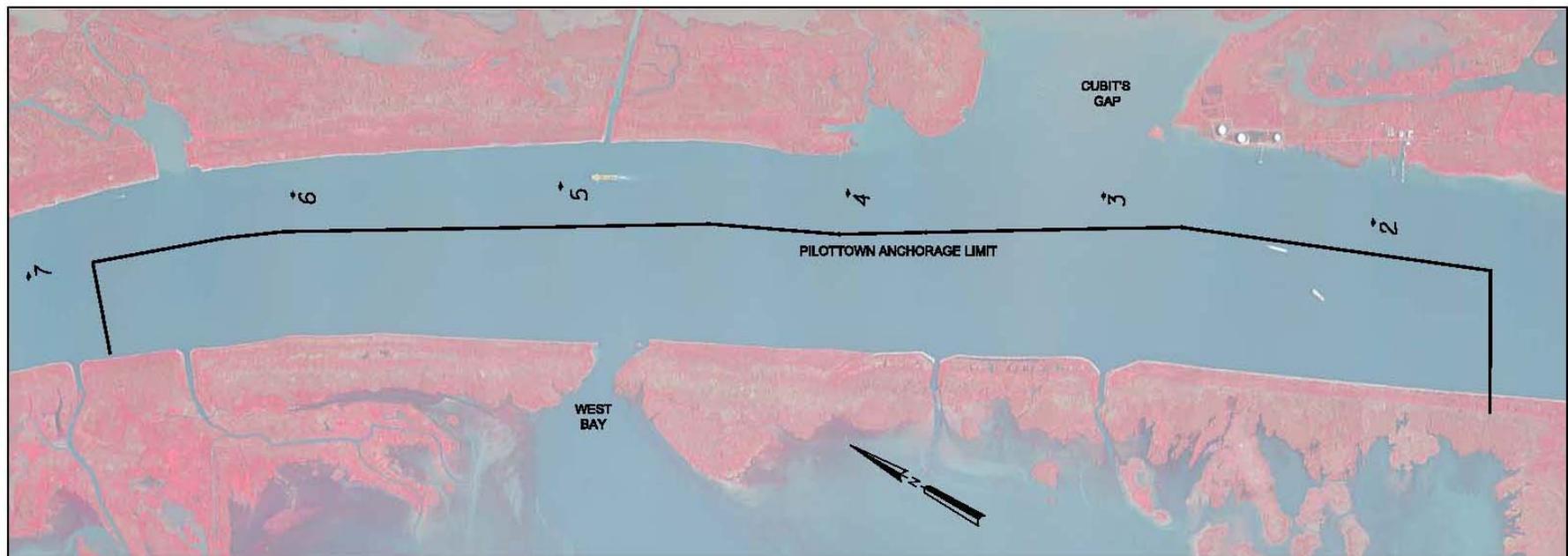
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CWPPRA Project Influence Area



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Pilottown Anchorage Limits River Mile 1.5 to 6.7



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Pilottown Anchorage Area

- **USCG designated safe harbor outside of Federal maintained navigation channel located along right descending bank of river from mile 1.5 to mile 6.7 Above Head of Passes**
- **Pre-construction agreement with river users called for maintaining certain depths to allow ship access and anchoring**
- **Project cost share agreement, approved budget and O&M Plan provide details on anchorage area maintenance requirements**



Cost Sharing Agreement

“Included as a Project feature is the maintenance of the outermost (eastern) 250-foot wide strip of the Pilottown Anchorage area and the entire width of the adjoining access area between this strip of the Pilottown Anchorage area and the Mississippi River navigation channel. Advanced maintenance of the Pilottown Anchorage area shall be undertaken to account for the anticipated shoaling induced by the Project. “Below the conveyance channel, the anchorage and access areas shall be maintained at the depths existing at the time the Phase One interim conveyance channel is constructed. Above the cut, three 45-foot deep by 1,500 feet long anchorage berths shall be constructed and/or maintained”. Since there are no direct navigational conflicts associated with dredging in the Anchorage Basin or access area, material from this area will be hydraulically dredged and beneficially place in the West Bay outfall area.”



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Pilottown Anchorage Area Dredging History

- **2003** **488,650 yd³ for 3' of Advance Maintenance**
- **2006** **1,400,000 yd³**
- **2009** **1,750,000 yd³**



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Mississippi River Navigation Channel Maintenance Dredging

- The New Orleans District Operations Division has absorbed the Mississippi River navigation channel shoaling increases in the vicinity of West Bay

- 2005 150,000 yd³
- 2006 540,000 yd³
- 2007 1,273,263 yd³
- 2008 2,215,079 yd³



Project Monitoring

- River depth surveys
- Diversion channel dimension surveys
- Discharge volume measurements (max recorded flow is 51,270 cfs)
- Monitoring of bathymetry, vegetation and aerial photography
- No wetlands accreted to date although beneficial use during construction and the 2006 dredge event has created 364 acres



Project Status

- **West Bay Draft Work Plan Complete**
- **Schedule and Cost Change Request to Increase Project Budget has modified and is being routed through MVN chain - will be sent to the State early next week**
- **Dredging of the PAA is Scheduled for June 2009**
- **Emergency Closure Plan – Plans and Specs Under Development**



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Project Timeline

5-Nov-08	Motion for West Bay project budget increase and work plan development approved
13-Nov-08	Corps sent a list of preliminary work plan items sent to the State
3-Dec-08	Corps met with BCG (State Contractor) to discuss West Bay efforts and to provide data
4-Dec-08	Corps sent SACCR to the State
5-Jan-09	Work plan meeting with State held in Baton Rouge
6-Jan-09	State requested that SACCR be amended to only include \$11 Mil for 2009 dredging
12-Jan-09	Meeting was scheduled to coordinate the CWWPRA West Bay Work Plan with BCG efforts – Meeting Cancelled
21-Jan-09	New West Bay Work Plan motion approved
20-Feb-09	Draft West Bay Work Plan complete
27-Feb-09	West Bay Technical Committee Working Meeting

Issue Statement

- **Dredging Cost Increases**
 - 1.65/cy in 2002 – Fully Funded 20 year Estimate –
 - \$ 22,312,761
 - 6.10/cy in 2009 – Fully Funded 20 year Estimate – \$140,764,667
- **Dredging Quantity Increases**
- **Reassessment of Project Induced Shoaling**
 - CWPPRA Task Force – Motion to Improve current state of knowledge through the development of a Work Plan



2009 West Bay Work Plan

- **Conveyance Channel Discharge Analysis and Development**
- **Lower Miss. River Hydraulic Modifications Chronological Study**
- **Data Collection**
- **Geomorphic River Bed Analysis and 1D Numerical Riverine Modeling**
- **Update on State Efforts**
- **Multidimensional Riverine Numerical Modeling**
- **West Bay Receiving Area Analysis**
- **Report Development**
- **Peer Review**
- **Cost Estimate and Duration**
- **Alternative Funding Sources**



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Existing Hydraulic and Sediment Transport Modeling Limitations

- Several modeling efforts (5 different models) several different shoaling predictions
- Each model was developed independently over a period of 10 years
- Sparse Data
- Model Boundary Conditions
- Each model has it's own inherent limitations and benefits
- To overcome limitations and take advantage of the benefits, we must a employ a comprehensive modeling approach using all of the modeling and analysis tools in an carefully designed way



Benefits of the Work Plan Study

- Providing foundation and Lessons Learned to be applied to other planned river diversions
- Improved Sediment Transport Modeling Technology
- Collaborative Process
- Comprehensive Systems Approach
- Adaptive Management
- Unprecedented Sediment Data Collection on the Lower Mississippi River

