



Lower Matagorda Ship Channel: Shoaling Reduction and Operational Tool Development

Description

Shoaling in the lower Matagorda Ship Channel (MSC) between the inlet and intersection of the Gulf Intracoastal Waterway (GIWW) and MSC has led to draft restrictions in recent years. Analysis of physical conditions and alternative dredging practices is needed to develop potential approaches that could be applied to increase channel availability.



Issue/Challenge To Address

Extensive shoaling in the lower reaches of the MSC has led to draft restrictions in recent years. Previous studies have been completed to investigate design deficiencies at the inlet, which has resulted in strong currents and erosion in the MSC entrance channel; however the studies have largely been confined to the inlet. An additional report, “Regional Sediment Management Studies of Matagorda Ship Channel and Matagorda Bay System, Texas” was submitted in May 2013 to address shoaling in the upper reaches of the MSC. The report includes the results of a Coastal Modeling System (CMS) numerical model which was applied to all of Matagorda Bay. A detailed examination of the source and rate of sedimentation in the lower reach of the MSC has not been undertaken. This project will finalize and integrate previous studies of physical processes in Matagorda Bay to provide a common picture of physical processes and historical data for Operations Managers and other users to help improve the decision making process.

Successes Lessons Learned

Previous RSM efforts in the region have identified methods to reduce dredging requirements. This project will apply those lessons to attempt the same for the lower MSC.

Expected Products

- Methods to reduce dredging requirements
- Enterprise database updates
- Sediment Budget Analysis System (SBAS) files
- Technical Note documenting the effort and results

Stakeholders/Users

Calhoun Port Authority, Port of Point Comfort, Port Lavaca, Port O’Conner, as well as users of Matagorda Ship Channel.

Projected Benefits

Develop approaches to decrease shoaling and increase channel availability



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Leveraging Opportunities

This project presents an opportunity to leverage work already completed by the Audubon Society to help reduce overall maintenance cost. It will also allow USACE to integrate previous studies to provide a common picture of physical processes in Matagorda Bay.

Points of Contact

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Participating Partners

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