



# FY20 RSM IPR Galveston District Optimization of CTV BUS 2 through Adaptive Management & Implementation of the Guadalupe River Mouth Marsh Restoration Initiative

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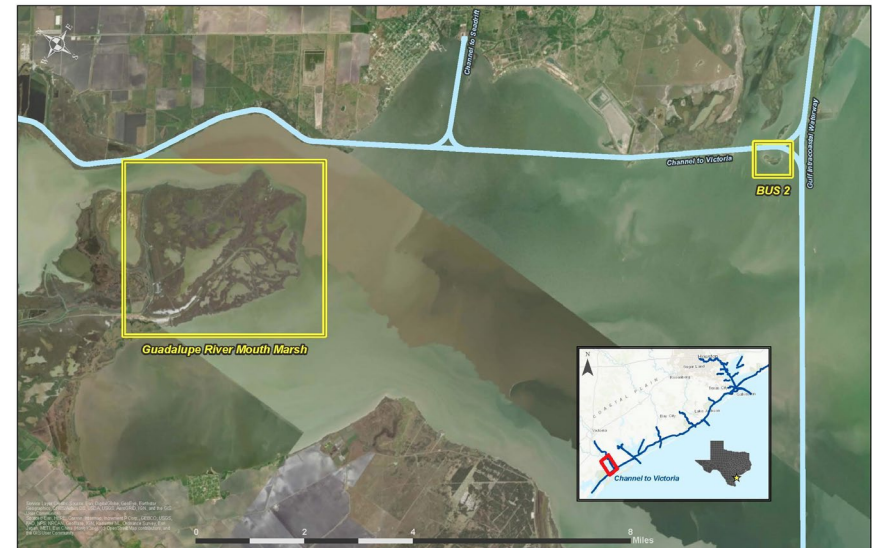
Provide a framework to implement the beneficial use of dredged material from the GIWW Channel to Victoria (CTV) Navigation project by leveraging the success of a previous RSM study, a collaboration with Ducks Unlimited (DU) and their partners, and the initial steps and funding DU received for planning and restoration efforts within the Guadalupe River Mouth Marsh

## Challenge/Objectives

- Determine available quantities
- Incremental Cost Analysis
- Determine approach

## Approach

Utilize historic dredging data and quantities to provide data for incremental cost analysis.



FY20 RSM IPR  
Galveston District

Optimization of CTV BUS 2 through Adaptive Management & Implementation of the Guadalupe River  
Mouth Marsh



## District/Other USACE PDT Members

Aron Edwards - OM	Andrew Smith – Resident Eng.
Paul Hamilton – H&H	Michael Gonzalez – Design Lead
Adam Tallman – Cost	Paulino Sandoval – Const. Mngr
Sarah DeSoto - Cost	Lihwa Lin – Research Civil Eng.
Ashley Neill – Env	Marcus Gruver - Cartographer

## Leveraging/Collaborative Opportunities

The project will leverage differing resources, ongoing and completed projects, Federal and non-Federal agencies, and non-USACE resources. The Guadalupe River Mouth Marsh Restoration component will leverage the planning, resources, funding, and partnerships established in the DU project "Dredged Material Planning for Wetland Restoration Plan" funded by the Deepwater Horizon NRDA Texas Trustee Implementation Group (TIG) for \$1.964m to develop engineering and designs, permit applications for eight restoration sites Gulf wide. The RSM project will provide a framework of information critical to implementation/construction of the Guadalupe River Mouth Marsh, one of the eight sites identified in DU's project. In turn, DU and its partners will be able to leverage the framework and partnerships developed from the FY20 RSM project to obtain funding for construction and incremental costs associated with restoration of the marsh complex from the TIG and other funding opportunities.

## Stakeholders/Partners

Pat Clements – U.S. Fish and Wildlife Service  
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## Accomplishments/Deliverables Lessons Learned

- **Available quantities to be placed in Guadalupe River Mouth Marsh during next USACE dredging event**
- **Potential designs for Guadalupe River Mouth Marsh restoration**
- **Continued work – Incremental Cost Analysis for multiple approaches of filling marsh cells**





**What challenges did you face to get your project to implementation and how did you move past them? If not yet implemented, what is your path forward to construction?**

**Many challenges due to COVID-19.**

**Meetings with Stakeholders and landowners were delayed. The site visit to see the Guadalupe River Mouth Marsh was also delayed which led to delays in the construction design by Ducks Unlimited.**

**Funding constraints limited use of the BU2 site. This site will not be used in the FY20 CTV Maintenance Dredging contract because we did not have the funds to include this reach.**



**How is this project benefiting the USACE and Nation?  
(efficiency, monetary, technical, relationship building, outreach, etc.)**

**The Guadalupe River Mouth Marsh restoration project will lead to the beneficial use of dredged material, which would otherwise be placed in upland confined PAs, to restore substantial areas of currently degraded marsh. This will provide more capacity and longer life-span for the existing upland PAs.**

**This restoration project will lead to cost savings for the Navigation business line due to decreased cost to maintain upland PAs and potential cost savings if placement of material in the marsh site is found to be less costly than current placement practices.**

**The project will restore approximately 1,100 acres of degraded marsh that will serve as habitat for many animals, including the Whooping Crane.**