



### Description

Placement Areas (PAs) along the GIWW, including PAs 62 and 63 shown in Figure 1, are experiencing erosion on channel and bay sides due to currents, wind generated waves, and ship wakes. As these semi-confined placement areas erode and levees are breached, sand and silt from West Galveston Bay passes through the levees and is deposited in the GIWW. As the placement areas further erode and become submergent, areas become unavailable for material placement. Placement Areas 64 and 65, also shown in Figure 1, are eroding along the channel sides of the placement areas since the barrier islands that formerly existed on the east side of the GIWW have become submergent and no longer protect these PAs from the waves of West Galveston Bay.



**Figure 1. Regional View of Gulf Intracoastal Waterway Placement Areas 62, 63, 64, and 65**

### Issue/Challenges

By developing alternatives to protect the placement areas and minimize erosion could potentially benefit SWG's management of the GIWW by 1) sustaining current placement areas therefore providing cost-efficient dredging, 2) prevent material from depositing into the GIWW, thus reducing the amount of sediment which has to be removed from the channel and allowing funds to be used on other projects, and 3) protecting nearby marsh lands and habitat.

### Successes Lessons Learned

Lessons learned will be compiled during the duration of this study.

### Expected Products

- Quantitative analysis of measures to minimize sediment accumulation
- Recommendations for improved efficiency in maintenance dredging
- Documentation of study findings

### Potential Users

USACE Galveston District

### Projected Benefits

The District will be able to better plan for maintenance dredging and evaluate measures to reduce sedimentation in the channel and minimize future dredging needs.

**Leveraging Opportunities**

The proposed project is central to applying lessons learned in previous work while ensuring integration of future projects with SWG maintenance operations along the GIWW.

**Points of Contact**

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**Participating Partners**

The study is being developed with the support and participation Texas Department of Transportation, U.S. Fish and Wildlife Service, Texas Parks and Wildlife, National Marine Fisheries, Galveston Bay Foundation, Texas General Land Office, and other local partners.