



Regional Sediment Management Program Jacksonville District (SAJ): Tampa Bay RSM Ecosystem Restoration Strategies



Description

The Tampa Bay region is home to three Deep Draft Harbors (Tampa Harbor, Manatee Harbor, and St. Petersburg Harbor) and three Shallow Draft Channels and Inlets (Johns Pass, Longboat Pass, and the Gulf Intracoastal Waterway). As the largest open-water estuary in Florida, Tampa Bay is a mosaic of habitats that contribute to an extremely biologically productive ecosystem, including seagrasses, mangroves, salt marshes, mud flats, oyster bars, and sandy shorelines. This Regional Sediment Management (RSM) initiative will implement collaboration with the multiple stakeholders and resource agencies in the region already conducting research on the Bay habitats to identify suitable beneficial use opportunities for dredged material. The initiative will result in strategies that could be used as a Conservation Plan to facilitate coordination with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under Section 7(a)1 of the Endangered Species Act and the Magnuson-Stevens Fisheries Conservation and Management Act for these six Federal projects. Strategies would maximize beneficial use of dredged material for US Army Corps of Engineers (USACE) mission areas and identify cost sharing partners for strategies costing more than the least cost disposal option.

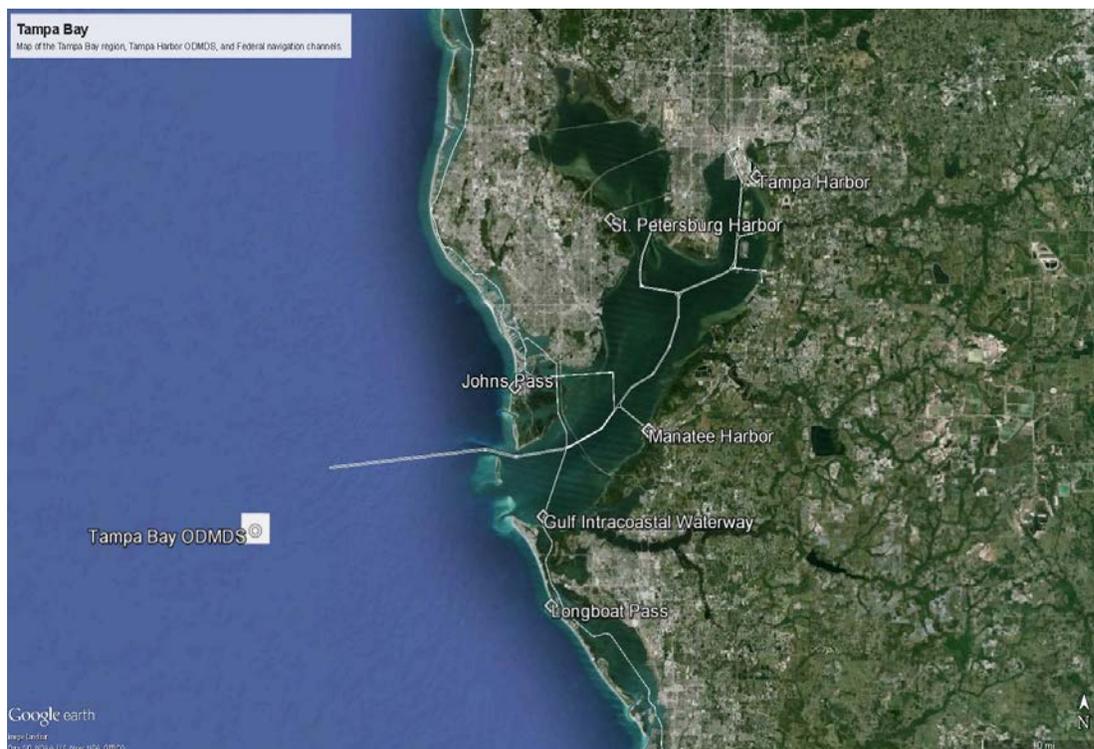


Figure 1. Location of Federal navigation channels in the Tampa Bay region.

Issue/Challenge To Address

The Tampa Harbor project generates between 600,000 and one million cubic yards (Mcy) of maintenance dredged materials annually, and the Manatee Harbor project generates approximately 500,000 cubic yards of dredged material annually. In addition, the Jacksonville District received funding to begin the Manatee Harbor Feasibility Study in early FY16, which would generate two Mcy of dredged material. In addition to the six Federal navigation projects in Tampa Bay, there are several other active and potentially upcoming projects that could benefit from RSM initiatives. There are two active Federal



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coastal storm the Seminole Tribe with a proposal to the RESTORE Council for funding to construct a shore protection project at Egmont Key, located at the mouth of Tampa Bay. An integrated approach to beneficially using Federally-dredged material will reduce costs across multiple USACE Business Lines.

Successes/ Lessons Learned

Past collaborative studies on the use of dredged material to restore dredged holes in Tampa Bay have shown the Tampa Bay region to have a supportive environmental community with existing forums for presenting RSM initiatives. Additional lessons learned during the duration of this study will be documented and included in the final report.

Expected Products

- Stakeholder meetings and notes
- Final technical report documenting available opportunities developed during the study
- Presentation of Findings at RSM annual meeting
- Newsletter article

Stakeholders/Users

The participation of the following stakeholders in the Tampa Bay region is anticipated: Tampa Bay Estuary Program; Tampa Bay Watch; Audubon Society; Port Tampa Bay; Port Manatee; Tampa Bay Regional Planning Council; Hillsborough County Environmental Protection Commission; Manatee County Parks and Natural Resources Department; Southwest Florida Water Management District; Florida Fish and Wildlife Conservation Commission; U.S. Fish and Wildlife Service; NOAA – Fisheries; and Florida Department of Environmental Protection.

Projected Benefits

- The Tampa Bay ODMDS is used by both the Tampa Harbor Federal Navigation Project and the Manatee Harbor Federal Navigation Project. Conserving capacity at the ODMDS will benefit both projects in the future.
- Since the ODMDS is approximately 30 miles from the project site (one-way), project costs would be greatly reduced with closer disposal options.
- A number of ecosystem restoration opportunities exist in Tampa Bay (e.g., building habitat for nesting shorebirds, constructing nearshore bars for coastal storm damage reduction, and seagrass mitigation for sea level rise, among others) where dredged materials may be able to be put to beneficial use at a cost savings to the restoration project.
- Habitat created through beneficial use may be able to be used as mitigation for future impacts resulting from Federal civil works projects.

Leveraging Opportunities

As mentioned above, numerous stakeholders in the Tampa Bay area conduct extensive research in the region, and the results of these studies will provide the necessary baseline environmental data for this study. Some examples of recent and ongoing research in this region include:

- TBEP recently obtained funding from both the Tampa Bay Environmental Restoration Fund and the Southwest Florida Water Management District (SWFWMD) to evaluate the current ecological habitat value of ten dredged holes in Tampa Bay to identify appropriate restoration and management options for them. USACE is a partner on this study, and the results will assist USACE in identifying holes that may provide beneficial use opportunities for dredged materials from Manatee Harbor.
- SWFWMD analyzes aerial photography on a biannual basis to create seagrass habitat maps, which are then groundtruthed by local government environmental resource departments. Resulting seagrass maps are made available in digital formats to the public.



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- The Audubon Society regularly monitors shorebird and seabird activity in the Tampa Bay area, and maintains information on degraded habitat that could be improved to better support bird utilization.
- TBEP prepared a report in support of a grant for the Environmental Protection Agency's Climate Ready Estuaries Program assessing the vulnerability of Tampa Bay's critical coastal habitat to sea level rise and climate change using the Sea Level Affecting Marshes Model (SLAMM), which may be useful in identifying locations suitable for marsh restoration using available sand or silty-sand material.

Points of Contact

Aubree Hershorin, CESAJ-PD-EC
Coastal Section, Environmental Branch
Jacksonville District
904-232-2136
Aubree.G.Hershorin@usace.army.mil

Participating Partners

Tampa Bay Estuary Program