

Midnight Pass Reopening Project Update July 9, 2004

This is a bi-monthly update on the Midnight Pass Reopening Project. In this update we will summarize what activities have taken place since the last update. We will also describe in-depth one of the activities. Finally, we'll always include background and a project description at the end.

Summary Update of Work-to-Date: What kinds of activities are taking place right now?

1. Prepared Executive Summary for Board of County Commissioners' Meeting on July 27, 2004, including tables and figures.
2. Reviewed final draft conceptual funding plan for county commission meeting on July 27, 2004.
3. Completed analysis concerning how the project will mitigate for any impact it has on biological resources.
4. Prepared a draft of an existing water quality overview for Little Sarasota Bay.
5. Revised an analysis of water movement and flushing activity for a proposed alternative design for the boat channel and sediment basin.
6. Prepared a draft of the Project Design Report covering project purpose, existing or baseline conditions, and alternative plans.
7. Completed the revised figures and text for the geotechnical appendix to the design report).
8. Revised the draft hydrodynamic model (water movement) appendix to the design report).

What was the purpose of the fisheries studies?

One of the most important resources in marine environments is its "fishery," comprising both nongame fish species and fishes and certain macroinvertebrates (shrimp, crabs, etc.) of recreational/commercial importance. The composition of

the fish community varies according to environmental conditions, such as water temperature, clarity, and salinity; tidal flushing speeds (velocities); and availability of spawning and foraging habitats. It is important to understand that water characteristics of the water can change with time (days, months, seasons, or years), and that habitats may also change over time. Ecosystem health can in part be determined by the make-up of the fish community, and by the condition and health of individual fishes and other organisms.

The week of May 3, 2004, fishery biologists and marine scientists from Dial Cordy and Associates (contracted by Erickson Consulting Engineers) surveyed the fish community in the vicinity of Midnight Pass and nearby reference areas outside the proposed project area (8 sites in all). Both passive methods (anchored nets) and active methods (throw traps and haul seines) were employed so that all size-classes of fishes could be collected. In addition, several different habitats, including seagrass habitats, habitats dominated by algae, and sand-, silt-, and shell/rock-bottom areas were sampled.

In the vicinity of Midnight Pass and surrounding areas, biologists found most species expected to be found in a protected marine bay in southwest Florida. Individuals seemed healthy (no signs of deformities, lesions, etc.) and in good physical condition (i.e, adults not undernourished). Species captured included shrimp, crabs, catfish, rays, rainwater killifish, goldspotted killifish, silver jenny, anchovies, spot, needlefish, pipefish, pinfish, snook, spotted seatrout, crevalle jack, permit, and a juvenile bonefish. Details regarding methods and results can be found in Appendix D of the Midnight Pass Reopening Project Design Report (on-line at <http://www.midnightpass-reopening.org/reports/>).

Future fishery investigations will involve a more detailed analysis of data from the field survey and from other data collected in Little Sarasota Bay by the Sarasota Bay National Estuary Program and the Florida Fish and Wildlife Research Institute. To better predict if and how the fish assemblage may change in

response to the proposed re-opening of Midnight Pass (which will likely have at least a localized effect on environmental conditions in the Bay), additional data from near existing passes will be collected and examined.

Background: Over the past 20 years, there has been considerable debate whether to reopen Midnight Pass or leave it closed. In January 2004, the Sarasota County Board of County Commissioners (the Board) agreed it was time to accumulate necessary scientific data to determine whether the project should go forward and whether permits could be obtained. To provide appropriate information to make this determination, the Board retained Erickson Consulting Engineers, Inc., whose principal engineer is Karyn Erickson, P.E. Ms. Erickson's most recent experience with inlets was in relocating an unstable coastal inlet in New Hanover County, NC.

While the research and design for both the Midnight Pass and the South Siesta Key Beach Restoration Project will occur at the same time, the Midnight Pass permitting process is expected to be more time-consuming. As a result, the two projects are not being paired.

Project Description: Although project specifications will evolve as more data becomes available and as the state and federal permitting agencies examine the project, the conceptual plans consist of removing 135,000 cubic yards of sand from the pass channel, removing 130,000 cubic yards to create a sand trap, and removing another 125,000 from the tidal channel that will connect the Gulf to the Intracoastal Waterway. The restored Midnight Pass channel through the barrier island would be 500 feet wide, 400 feet long, and 12 feet deep with a 200-foot channel extending 2,400 feet from the inlet into the Intracoastal Waterway. It would be maintained on a three- to five-year interval, and the sand would be placed on adjacent beaches.