

M E M O R A N D U M

To: Howard Tipton, Town Manager
From: Charles Mopps, Assistant Director Public Works
Report date: October 25, 2023
Meeting date: November 6, 2023
Subject: Annual Beach Update

Recommended Action

None, informational only.

Background

As reported at the November 2022 meeting, the Town of Longboat Key conducted major segments of beach nourishment and the North End Structural Stabilization projects in 2021. Five groin structures were constructed on the North end of the island and approximately 1 million cubic yards of sand were placed across the island as outlined in the Beach Management Plan. The Year-1 post construction status was presented by Dr. Albert Browder, Ph.D., PE, of Olsen Associates, which also included any impacts by Hurricane Ian.

Dr. Browder will provide a summary of the results of the Year-2 survey, including observations made after Hurricane Idalia (which occurred after the Year-2 survey was completed). The segments from north to south will be discussed, highlighting impacts from the storm season, the changes experienced through natural processes, and projects associated with each. A summary of the second-year, post project analysis highlights that erosional rates across the island have been significantly reduced. The summary also highlights the movement of sand within the system and describes the areas of higher erosion. In addition, a post Idalia survey was conducted to quantify changes to the beach system and that data is currently under review. This information could be used to generate a claim through FEMA for losses to the beach and impacts to the dunes.

There are two additional projects that have been initiated or conducted since the last report: New Pass Groin tightening on the very south end of the island and the Greer Island Spit Management Plan on the very north end of the island.

All permits have been issued for the New Pass Groin Maintenance Project. The Project has gone through the procurement process to gain a Marine Contractor. Sea and Shoreline, LLC, was the selected contractor with a bid of \$489,415.00. A preconstruction conference has taken place and a Notice to Proceed has been issued. Mobilization and construction are scheduled from mid-November through mid-February.

The Greer Island Spit Management Plan is a management strategy to dredge and pull back beach sand that has migrated eastward around Greer Island and east of the Longboat Pass bridge over time. The intent is to dredge and place this sand back on the north end Gulf shoreline, as needed, and preferably during nourishment cycles.

The Spit Management Plan is proposed for a 15-year time period. Florida Department of Environmental Protection and U.S. Army Corps of Engineers permits for that period have been obtained. The permits allow for the Town to begin dredging at the location consistent with 2008 conditions. Also, a Florida Department of Transportation permit to work in proximity of the bridge has also been obtained, but will have to be renewed as each project is conducted.

The Project was awarded to Coastal Dredging, Inc., for \$1,100,000.00. The construction was initially projected to start in April, but was delayed due to Shorebird and Sea Turtle nesting activity. The contractor mobilized at the end of July and worked through August. They concluded with demobilization efforts after Hurricane Idalia.

Lastly, expected upcoming tasks including typical monitoring tasks required by State and Federal permits for the year-3 post-construction monitoring period. Additionally, the Town plans to conduct a geotechnical sand search in the near future to seek additional sand sources for the future of the beach management program, finalize the post storm assessment, and embark on studies for a structural solution to the erosion pattern at the Gulfside Road segment of the beach.

Staff Recommendation

None, informational only.

Attachments

PowerPoint Presentation (Available in Town Clerk's Office)

End of Agenda Item