

**INDIAN RIVER COUNTY, FLORIDA
MEMORANDUM**

TO: Jason E. Brown, County Administrator

THROUGH: Richard B. Szpyrka, P.E., Public Works Director

FROM: Eric Charest, Natural Resources Manager

SUBJECT: Shoreline Performance Modeling, APTIM Work Order No. 2018008-04

DATE: September 1, 2022

DESCRIPTION AND CONDITIONS

Indian River County staff have been participating on the Sebastian Inlet Technical Advisory Committee (TAC) since it was convened by the Florida Department of Environmental Protection (FDEP) in January 2022. This TAC was established to allow for key stakeholder groups and professionals to utilize the most recent scientific information available in order to provide technical expertise and feedback to the FDEP for decision making with regards to updates to Sebastian Inlet District's Inlet Management Implementation Plan (IMP). Approved in 2000, the current Sebastian Inlet IMP defined strategies to best manage sand bypassing activities for the placement of beach quality sand on the adjacent eroding beaches of inlet. The intent of the IMP strategies was to replicate the natural drift of sand that has been interrupted or altered by an inlet, so that all reasonable efforts to maximize inlet sand bypassing would be designed to balance the sediment budget of an inlet, consistent with Section 161.142 Florida Statutes.

As approved on November 9, 2021 by the Board of County Commissioners (BCC), Indian River County has been utilizing the expertise of APTIM Environmental and Infrastructure LLC (APTIM) to assist the County on this TAC. Work performed to date by APTIM under Work Order #2018008-3, and subsequent Amendment #1, has provided specific information regarding the dynamic nature of Indian River County beaches over a defined period of time. This data, as well as additional information brought before the TAC by stakeholders, is intended to provide the basis for the FDEP's recommendations for an updated Sebastian Inlet District IMP.

During the most recent TAC meeting on August 24, 2022, TAC Meeting # 3, questions were raised over an apparent deficit of sand in the Indian River County coastal system and the potential impacts that causes on the County beaches. In order to identify any impacts, advanced modeling of shoreline performance of the County's coastline is required. As this effort is beyond the current scope of Work Order #2018008-3 with APTIM, staff is seeking BCC approval of APTIM proposed Work Order #2018008-4 to provide the County and TAC with the results from such a modeling effort.

Under an April 17, 2018 BCC approved the Continuing Contract Agreement for Continuing Engineering Services, renewed on May 18, 2021 for a two (2) year extension, APTIM has been providing the County with various coastal engineering support services, such as their efforts on this TAC.

In response to the County's request for additional modeling support associated with the Sebastian Inlet TAC, APTIM has prepared Work Order No. 2018008-4 to provide a modeling analysis of the shoreline performance over specified timeframes. Work Order No. 2018008-4 includes APTIM's modeling effort and associated meeting and coordination efforts. Total lump sum cost provided by APTIM for the shoreline performance modeling effort related to the Sebastian Inlet District TAC support is not to exceed \$41,940.00.

FUNDING

Funding for coastal engineering support services is budgeted and available in the Beach Restoration Fund/Other Professional Services, Account No. 12814472-033190.

Account Name	Account No.	Amount
Beach Restoration Fund/Other Professional Services	12814472-033190	\$41,940.00

RECOMMENDATION

Staff recommends the Board of County Commissioners approve APTIM Work Order No. 2018008-4 in the amount of \$41,940.00 for shoreline performance modeling efforts associated with the support of the County's participation in the Sebastian Inlet District Technical Advisory Committee. In addition, staff recommends that the BCC authorize the Chairman to execute Work Order No. 2018008-4.

ATTACHMENT

1. APTIM Work Order No. 2018008-4
2. Work Order No. 2018008-4 execution form

APPROVED AGENDA ITEM FOR SEPTEMBER 13, 2022