

**INDIAN RIVER COUNTY, FLORIDA
MEMORANDUM**

TO: Jason E. Brown, County Administrator

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

THROUGH: James W. Ennis, P.E., PMP, Asst. Public Works Director

FROM: Quintin D. Bergman, M.S., Environmental Specialist

SUBJECT: Work Order No. 2018008-2 APTIM Environmental and Infrastructure, Inc.
Sector 4 - Critically Eroded Area Analysis

DATE: December 4, 2019

DESCRIPTION AND CONDITIONS

On April 17th, 2018, the Board entered into a Continuing Consulting Engineering Services Agreement for Professional Services contract with APTIM Environmental & Infrastructure, Inc. (APTIM) for professional coastal engineering and biological support. The Sector 4 project area is a 3.3-mile section of shoreline that extends just south of Old Winter Beach Blvd. to Surf Lane. The majority of the project area is located within the Town of Indian River Shores. Outlined in the 2015 Indian River County Beach Preservation Plan identifies Sector 4 as eroding by an approximated 1.8CY/ft/yr. This section of the beach has sustained damage from Hurricane’s Matthew (2016), Irma (2017), and Dorian (2019).

As defined in Rule 62B-36.002(4), Florida Administrative Code, “Critically Eroded Shoreline” is a segment of shoreline where natural processes or human activities have caused, or contributed to, erosion and recession of the beach and dune system to such a degree that upland development, recreational interests, wildlife habitat or important cultural resources are threatened or lost. Critically eroded shoreline may also include adjacent segments or gaps between identified critical erosion areas which, although they may be stable or slightly erosional now, their inclusion is necessary for continuity of management of the coastal system or for the design integrity of adjacent beach management projects.

Following the above definition, Sectors 1, 2, 3, 5, and 7 have been classified by Florida’s Department of Environmental Protection (FDEP) as Critically Eroded Areas (CEA). Sector 4 is currently not classified as a CEA. In the future, when the County is proposing large scale beach and dune nourishment projects, permitting agencies prefer the proposed project area to be designated as a CEA. Additionally, in order to qualify for State funding assistance for future projects the proposed project area has to be designated as a CEA.

On February 13, 2018 County Staff submitted a letter to FDEP requesting the Department’s assistance in evaluating our shoreline in Sector 4 for the purposes of a CEA designation. The submittal included beach profile survey data from 2013 through 2017 along with a summary of sea turtle nesting data prevalent to Sector 4. On March 9, 2018 the County received a response letter from FDEP stating that the beaches within Sector 4 do not meet the definition of a CEA. Therefore, Sector 4 remains without the CEA designation.

On September 3, 2019 Hurricane Dorian passed by Indian River County negatively impacting the County's managed beach Sectors 3, 5, and 7. Beaches within Sector 4 were also negatively impacted by Hurricane Dorian. Applying beach profile survey data from 2018 and 2019 paired with the damages associated from past and recent hurricanes, Staff believe Sector 4 should be re-evaluated for designation as a CEA.

Work Order No. 2018008-2 totals a lump sum amount of \$25,839.25. The Critically Eroded Area Analysis proposed by APTIM entails the following:

- Developing a request to FDEP for designation of Sector 4 as a Critically Eroded Area.
- Utilizing historic monitoring reports and data used in the 2019 Beach Preservation Plan.
- Conducting a search into any new information that meets the eligibility criteria.
- The analysis will be conducted based on preexisting data and does not require further collection.

FUNDING

Local funding of Beach Restoration includes a portion of Local Option Tourist Tax Revenue. The total cost of \$25,839.25 is budgeted and available in the Beach Restoration Fund/Other Professional Services, Account No.12814472-033190. At this time this task is not eligible for cost share. If this request is successful in re-classifying Sector 4 as a Critically Eroded Area, all work in this Sector would be eligible for future cost share.

RECOMMENDATION

The recommendation of staff is for the Board to approve Work Order No. 2018008-2 for a total of \$25,839.25 to the contract with APTIM Environmental and Infrastructure, Inc. and authorize the Chairman to sign on behalf of the County.

ATTACHMENTS

APTIM Inc., Work Order No. 2018008-2
FDEP Response Letter Dated March 9, 2018

AGENDA ITEM FOR DECEMBER 17, 2019