

**INDIAN RIVER COUNTY, FLORIDA  
BOARD MEMORANDUM**

**CONSENT**

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**TO:** Jason E. Brown  
County Administrator

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

**FROM:** Kendra Cope, M.S.  
Coastal Resources Coordinator

**SUBJECT:** **Work Order No. 11 - Morgan & Eklund, Inc.  
2019 Beach Profile Monitoring Surveys (SUMMER)**

**DATE:** May 15, 2019

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**DESCRIPTION AND CONDITIONS**

On October 4, 2016, the Board approved a contract with Morgan and Eklund, Inc. (M&E) for Professional Land Surveying and Mapping Services for a two-year term. The Board amended the Contract on October 18, 2016. The contract was renewed for an additional two-year term on October 4, 2018. M&E is the selected County Consultant for professional onshore/offshore hydrographic surveying services.

The County's Beach Preservation Plan recommends semi-annual beach profile surveys in order to monitor the seasonal, summer and winter, fluctuations of the beach. Proposed Work Order No. 11 provides summer-time countywide hydrographic surveying (beach profile) services for the Sector 3, Sector 5, Sector 7 Beach and Dune Restoration Project areas and additional surveying needed to finish a 2019 countywide (22.4 miles) monitoring effort. All onshore and offshore beach profile surveys are conducted along the Florida Department of Environmental Protection (FDEP) Range Monuments at approximately 1,000 foot intervals (alongshore) and extend from the vegetated dune seaward to a location approximately 40 feet offshore (cross-shore). For project tracking purposes, Work Order No. 11 is divided into four (4) separate tasks.

**Task 1: Summer 2019 Sector 3 Beach and Dune Restoration Project Monitoring (R-15-R-60)**

In 2012, the County completed construction of the Sector 3 Beach Restoration Project, which was subsequently repaired in 2015. The County has completed all Permit required post construction monitoring for the Sector 3 Project. However, hydrographic surveys of the project area must continue semi-annually to determine the long-term performance of the project and if infrastructure may be vulnerable to storm damage during years in between recommended beach projects identified in the Beach Preservation Plan. Task 1 includes all surveying (7.5 miles) required to provide baseline 2019 physical monitoring data for the upcoming Sector 3 Beach and Dune Project area. Task 1 totals a lump sum amount of \$25,300.

Task 2: Summer 2019 Sector 5 Beach and Dune Restoration Pre-Construction Monitoring (R-70-R-86)

In November 2019, the County will begin construction of the Sector 5 Beach and Dune Restoration project. Permit required pre-construction monitoring must be completed the summer prior to commencing construction. Information collected from this survey will be incorporated into the final project design and construction technical specifications. Task 2 includes all surveying (3 miles) required to provide baseline pre-construction 2019 physical monitoring data for the upcoming Sector 5 Beach and Dune Project area. Task 2 totals a lump sum amount of \$9,350.

Task 3: Summer 2019 Sector 7 Beach and Dune Restoration Project Monitoring (R-97-R-108)

In the spring of 2007, the County completed construction of the Sector 7 Beach Restoration Project and has completed all Permit required post construction monitoring for the Sector 7 Project. However, hydrographic surveys of the project area must continue semi-annually to determine the long-term performance of the project and if infrastructure may be vulnerable to storm damage during years in between recommended beach projects identified in the Beach Preservation Plan. Task 3 includes all surveying (2 miles) required to provide baseline 2019 physical monitoring data for the upcoming Sector 7 Beach and Dune Project area. Task 3 totals a lump sum amount of \$6,600.

Task 4: Summer 2019 Countywide Beach Profile Monitoring (R-61 – R-96, R-87 – R96 and R-109-R-119)

For the shoreline outside of the Sector 3, Sector 5, and Sector 7 beach project areas, countywide beach profile surveys are necessary to identify areas of chronic beach erosion and determine if infrastructure may be vulnerable to storm damage. The beach profile surveys will then be used to determine appropriate projects to mitigate erosion as identified in the County Beach Preservation Plan, including the upcoming Sector 5 Beach Restoration Project. Task 4 includes the remaining countywide beach profile surveys. Task 4 totals a lump sum amount of \$16,500.

Please note:

The Sebastian Inlet District (District), as part of their Inlet Management Plan, conducts semiannual beach profile surveys along the northern 5.6 miles of the County. The District continues to partner with the County and has agreed to provide their certified 2019 beach profile survey data (winter and summer) to the County, resulting in a complete 22.4 mile countywide (semiannual) beach profile survey and a combined annual savings of approximately \$30,000 to the County.

## **FUNDING**

Funding for Summer Beach Profile Surveys, in the amount of \$57,750.00 is budgeted and available. Funding for the individual tasks are as follows:

### **Task 1: Summer 2019 Sector 3 Semi-Annual Monitoring Survey (R-15-R-60)**

Funding for Task 1 is budgeted and available for physical monitoring of the Sector 3 Beach Restoration Project area in the Sector 3 Post Construction Monitoring fund, Account No. 12814472-033490-05054. Task 1 totals a lump sum amount of \$25,300

### **Task 2: Summer 2019 Sector 5 Semi-Annual Monitoring (R-70-R-86)**

Funding for Task 2 is budgeted and available for pre-construction physical monitoring of the Sector 5 Beach Restoration Project area in Beach Restoration Fund, Hurricane Matthew – Sector 5, Account No. 12814472-066510-17001. Task 2 totals a lump sum amount of \$9,350.

### **Task 3: Summer 2019 Sector 7 Semi-Annual Monitoring (R-97-R-108)**

Funding for Task 3 is budgeted and available for physical monitoring of the Sector 7 Beach Restoration Project area in the Sector 7 Beach Preservation Monitoring fund, Account No. 12814472-033490-05079. Task 3 totals a lump sum amount of \$6,600.

### **Task 4: Summer 2019 Countywide Beach Monitoring (R-61 – R-96, R-87 – R96 and R-109-R-119)**

Funding for Task 4 is budgeted and available for physical monitoring of non-project areas in the Beach Restoration Fund/Other Professional Services, Account No. 12814472-033190. Task 4 totals a lump sum amount of \$16,500.

## **RECOMMENDATION**

The recommendation of staff is for the Board to approve Work Order No. 11, to the Professional Land Surveying and Mapping Services contract with Morgan and Eklund, Inc. and authorize the Chairman to sign two (2) copies of the Work Order on behalf of the County.

## **ATTACHMENT**

Morgan and Eklund, Inc. Work Order No. 11  
Scope of Work Summer Semi-Annual Coastal Monitoring Survey

## **APPROVED AGENDA ITEM FOR: JUNE 4, 2019**

