

**INDIAN RIVER COUNTY, FLORIDA
MEMORANDUM**

TO: Board of County Commissioners

THROUGH: John A. Titkanich, Jr., County Administrator

THROUGH: Eric Charest, Interim Natural Resources Director

FROM: Quintin Bergman, Coastal Resources Manager

SUBJECT: Work Order No. 6 - Morgan & Eklund, Inc., 2024 Beach Profile Monitoring Surveys (SUMMER)

DATE: February 2, 2024

DESCRIPTION AND CONDITIONS

On October 4, 2022, the Board of County Commissioners (BCC) approved a contract with Morgan and Eklund, Inc. (M&E) for Professional Land Surveying and Mapping Services for a two-year term. 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 to monitor the seasonal, summer and winter, fluctuations of the beach. Proposed Work Order No. 6 provides summer-time hydrographic surveying (beach profile) services for the Sectors 3 and 5 Beach Nourishment Projects, the proposed Sector 4 Dune Nourishment Project, and additional surveying for the 2024 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 3,000 feet offshore (cross-shore) to an estimated depth of -40 feet. For project tracking purposes, Work Order No. 6 is divided into four (4) separate tasks.

Task 1: Summer 2024 Sector 3 Physical Monitoring Survey (R-15 to R-60, 46 Onshore/Offshore Profile Lines)

The County is required by the FDEP Permit to monitor the physical changes associated with the Sector 3 nourishment project semi-annually to determine the long-term performance of the project and if infrastructure may be vulnerable to storm damage. The hydrographic survey data collected from this task is required for the immediate post-construction monitoring of the Sector 3 Hurricanes Ian & Nicole Dune Renourishment. Task 1 includes surveying (approx. 7.5 miles) to provide on-going 2024 physical monitoring data for the Sector 3 Beach and Dune Nourishment Project area. Task 1 totals a lump sum amount of \$27,597.50.

Task 2: Summer 2024 Sector 4 Physical Monitoring Survey (R-61 to R-64, plus R-60.5, 5 Onshore/Offshore Lines)

The Sector 4 Hurricanes Ian & Nicole Dune Nourishment Project is currently in the design and permitting phase and is anticipated to provide dune restoration to approximately 2.8 miles of coastline from FDEP Range Monument 55 to R-Monument 70. This stretch of coastline has not been previously nourished by the County and sustained significant erosional impacts from Hurricanes Ian and Nicole in 2022 leading to the upcoming dune nourishment project. The permit the County is to receive for the Sector 4 dune nourishment project is expected to contain requirements for the County to monitor the physical changes associated with a nourishment project on a semi-annual basis to determine the long-term performance of the project and if infrastructure may be vulnerable to storm damage. Task 2 includes surveying (approx. 3/4 mile) for the summer semi-annual monitoring of the Sector 4 Hurricanes Ian & Nicole Dune Nourishment Project area. Task 2 totals a lump sum amount of \$3,048.00.

Task 3: Summer 2024 Sector 5 Physical Monitoring Survey (R-65 to R-91, 27 Onshore/Offshore Lines)

Sector 5 Beach and Dune Nourishment Project was completed in February 2020. The County is required by the FDEP Permit to monitor the physical changes associated with the nourishment project semi-annually to determine the long-term performance of the project and if infrastructure may be vulnerable to storm damage. Task 3 includes surveying (approx. 4.5 miles) required for the summer semi-annual monitoring of the Sector 5 Beach and Dune Nourishment Project area. Task 3 totals a lump sum amount of \$16,381.00.

Task 4: Summer 2024 Countywide Beach Monitoring (R-92 to R-119, 28 Onshore/Offshore lines)

For the shoreline outside of Sectors 3, 4 and 5 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 Nourishment Projects. Task 4 includes the remaining countywide (approx. 5.3 miles) beach profile surveys. Task 4 totals a lump sum amount of \$16,565.50.

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 2024 beach profile survey data to the County, resulting in a complete 22.4 mile countywide beach profile survey and a combined annual savings of approximately \$30,000 to the County.

FUNDING

Funding for these tasks comes to a total lump sum fee of \$63,592.00. Funding for the individual tasks are as follows:

Task 1: Summer 2024 Sector 3 Physical Monitoring Survey (R-15 to R-60, 46 Onshore/Offshore Profile Lines)

Funding for Task 1 is budgeted and available for design of the Sector 3 Beach Nourishment Project area in the Coastal Engineering Fund/Hurricane Ian Emergency Dune Repair account, no. 12814472-033490-22601, in the amount of \$6,071.45, and the Coastal Engineering Fund/Hurricane Nicole Emergency Dune Repair account, no. 12814472-033490-23007, in the amount of \$21,526.05, for a Task 1 total of \$27,597.50.

Task 2: Summer 2024 Sector 4 Physical Monitoring Survey (R-61 to R-64 plus R-60.5, 5 Onshore/Offshore Lines)

Funding for Task 2 is budgeted and available for physical monitoring of the Sector 4 Dune Nourishment Project area in the Coastal Engineering Fund/Hurricane Ian – Sector 4 account, no. 12814472-066515-22601, in the amount of \$670.56, and in the Coastal Engineering Fund/Hurricane Nicole – Sector 4 account, no. 12814472-066515-23007, in the amount of \$2,377.44, for a Task 2 total of \$3,048.00.

Task 3: Summer 2024 Sector 5 Physical Monitoring Survey (R-65 to R-91, 27 Onshore/Offshore Lines)

Funding for Task 3 is budgeted and available for physical monitoring of the Sector 5 Beach Nourishment Project area in the Coastal Engineering Fund/Sector 5 Post-Construction Monitoring account, no. 12814472-033490-15021, in the amount of \$16,381.00.

Task 4: Summer 2024 Countywide Beach Monitoring (R-92 to R-119, 28 Onshore/Offshore lines)

Funding for Task 4 is budgeted and available for physical monitoring of non-project areas in the Coastal Engineering Fund/Other Professional Services account, no. 12814472-033190, in the amount of \$16,565.50.

Account Name	Account No.	Amount
Coastal Engineering Fund/Sector 3 Hurricane Ian	12814472-033490-22601	\$6,071.45
Coastal Engineering Fund/Hurr Nicole Emerg Dune Repair	12814472-033490-23007	\$21,526.05
Coastal Engineering Fund/Hurricane Ian – Sector 4	12814472-066515-22601	\$670.56
Coastal Engineering Fund/Hurricane Nicole – Sector 4	12814472-066515-23007	\$2,377.44
Coastal Engineering Fund/Sec 5 – Post Const Monitoring	12814472-033490-15021	\$16,381.00
Coastal Engineering Fund/Other Professional Services	12814472-033190	\$16,565.50
Total for Work Order No. 6		\$63,592.00

RECOMMENDATION

The recommendation of staff is for the BCC to approve Work Order No. 6 to the Professional Land Surveying and Mapping Services contract with Morgan and Eklund, Inc., in the amount of \$63,592.00 and authorize the Chairman to sign the Work Order on behalf of the County.

ATTACHMENTS

1. M&E IRC Summer 2024 WO No. 6
2. M&E Work Order 6 Agreement Execution

APPROVED AGENDA ITEM FOR: February 20, 2024