

RESOLUTION NUMBER 20-33

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF FORT MYERS BEACH, AUTHORIZING TOWN STAFF TO SUBMIT A FUNDING REQUEST TO FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR THE ESTERO ISLAND SHORE PROTECTION PROJECT; AND AUTHORIZING LOCAL MATCHING FUNDS FOR FUNDING RECEIVED FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, Florida Statutes provide that municipalities shall have the governmental, corporate, and proprietary powers to enable them to conduct municipal government, perform municipal functions, and render municipal service, and exercise any power for municipal purposes, except when expressly prohibited by law; and

WHEREAS, Article X of the Town Charter of the Town of Fort Myers Beach (“Town”) empowers the Town to adopt, amend, or repeal such ordinances and resolutions as may be required for the proper governing of the Town; and

WHEREAS, Estero Island’s coastal beach, which is among the Town of Fort Myers Beach (“Town”) most important ecological, economic, and recreational assets, is subject to erosion that results in detrimental impacts to nesting and wintering areas for wildlife species such as sea turtles and shorebirds; loss of outdoor recreational opportunities for the Town’s residents and visitors; and damage to and loss of public and private property; and

WHEREAS, beach erosion control and restoration projects are an effective tool for preventing and offsetting some of the negative impacts of beach erosion, including loss of habitat, loss of recreational opportunities, and endangerment of public and private property; and

WHEREAS, the Town Council finds that beach erosion control and restoration projects are in the public interest and in the best interest of the health, safety, and welfare of the residents, property owners and visitors of the Town of Fort Myers Beach.

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE TOWN OF FORT MYERS BEACH AS FOLLOWS:

Section 1. The above recitals are true and correct and are hereby incorporated by reference as though fully set forth herein.

Section 2. The Town Council expresses its support for the Estero Island Shore Protection Project (the “Project”), depicted in Exhibit “A”, a copy of which is attached hereto and made a part of this Resolution.

Section 3. To conserve sand resources and/or reduce Project costs the Town supports regionalization of the Project and work with Lee County to coordinate bidding and construction of

the Project where possible.

Section 4. The Town authorizes Town staff to take all necessary actions to request and obtain funds from the Florida Department of Environmental Protection for the Project and will provide matching funds/local cost share for the Project and serve as local sponsor for the Project. The Town's matching funds/local cost share is \$13,200 from Town Beach Restoration Reserves and \$300,000 from the Lee County Tourist Development Council.

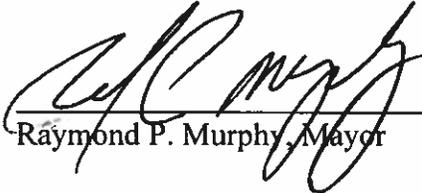
Section 5. This Resolution shall become effective immediately upon its adoption.

The foregoing Resolution was adopted by the Town Council upon a motion by Vice Mayor Hosafros and seconded by Council Member Allers and upon being put to a vote, the result was as follows:

Raymond P. Murphy, Mayor	aye
Rexann Hosafros, Vice Mayor	aye
Dan Allers, Council Member	aye
Jim Atterholt, Council Member	aye
Bill Veach, Council Member	aye

ADOPTED this 21st day of September 2020 by the Town Council of the Town of Fort Myers Beach, Florida.

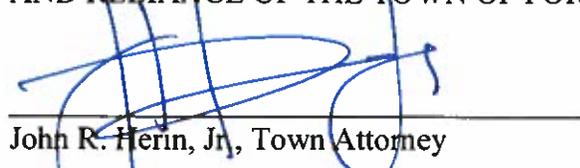
TOWN OF FORT MYERS BEACH


Raymond P. Murphy, Mayor

ATTEST:


Michelle D. Mayher, Town Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY FOR THE USE AND RELIANCE OF THE TOWN OF FORT MYERS BEACH SOLELY:


John R. Herin, Jr., Town Attorney

This Resolution was filed in the Office of the Town Clerk on this 6th day of October ~~September~~ 2020.

"EXHIBIT A"

ESTERO ISLAND SHORE PROTECTION PROJECT PROJECT DESCRIPTION CEC FILE NO. 19.504 SEPTEMBER 14, 2020

Project Definition

The Project provides erosion control and includes beach nourishment for approximately 1.3 miles of critically eroding gulf shoreline within Estero Island, Lee County. The Project boundary extends from Florida Department of Environmental Protection (FDEP) Reference Monument C-174A.5 to R-181.5. The total length of shoreline within the Project boundary is 7,420 feet. The total length of shoreline within the Project boundary that is designated critically eroding by FDEP is approximately 7,420 feet.

The Project is consistent with the State's Strategic Beach Management Plan (FDEP, 2020) including these components:

- Restore critically eroding beaches;
- Maximize the infusion of beach-quality sand into the coastal system;
- Implement projects that contribute most significantly to addressing the state's beach erosion problems;
- Extend the life of beach restoration projects and reduce the frequency of nourishment.

Project History

In December 2011, Lee County completed construction of the Estero Island Beach Restoration Project including sand placement along the north-central segment of the island and the addition of a terminal groin on the northern end of the beach fill.

The 2011 Project was constructed between April 2011 and December 2011. Approximately 403,000 cubic yards (CY) of sand were excavated and placed in the beach fill area between C-174A.5 and R-181.5. The beach was constructed to a berm height of 2.9 feet NAVD88 over a shoreline distance of approximately 6,700 feet (1.3 miles). The design berm extended seaward at the 2.9 feet NAVD88 elevation an average of 236 feet and then sloped to the -1.2 feet NAVD88 elevation at a 15H:1V slope. The design then adjusted to a 20H:1V slope seaward until it connected with existing grade. All dredging was conducted in the Primary Borrow Area. The terminal groin was constructed with approximately 3,630 tons of limestone rock for a length of 240 feet with a maximum crest width of approximately 12.7 feet. A single vinyl sheetpile row was installed along the centerline of the structure to make it sand tight. FDEP raised concerns that the groin would slow down sediment transport below a rate that will maintain the area north of project in a stable position(Lee County, 2003).

In 2016, the U.S. Army Corps of Engineers (USACE) dredged Matanzas Pass and placed dredge material (estimated quantity was 130,000 CY based on USACE Project Plans) in the nearshore area between R-182 and R-187.

In 2017, Lee County imported approximately 2,100 CY via truck haul to address erosion due to Hurricane Irma along the Crescent Beach shoreline in the vicinity of R-181.

In 2020 the Town of Fort Myers Beach took over the local sponsorship from the County.

Proposed Activity

Based on the seven years of monitoring results, the 2011 beach nourishment project has performed well. The background erosion rate was measured equal to approximately 20,000 CY/YR. The updrift and downdrift beach segments adjacent to the beach fill limits were generally accretional due to the spreading of the beach fill alongshore as well as the beneficial use of the maintenance dredging of Matanzas Pass. There were no documented adverse impacts from the terminal groin or from dredging the Borrow Area.

It is anticipated that re-building the 2011 project to its original design template will address the continuing beach erosion between R-175 and R-182 and will not result in impacts to the adjacent shorelines. Based on the 2019 survey, the volume to fill the 2011 fill template was computed equal to 189,000 CY. Applying 2.5 years of background erosion, the recommended design criteria for the next renourishment event is 250,000 CY.

The Borrow Area has over 1 MCY of available volume which is sufficient for the next renourishment event and future projects within a 15-year time frame assuming a renourishment cycle of ten years.

The Town is moving forward with the design and permitting of the next shore protection project on a 10-year renourishment cycle.

References

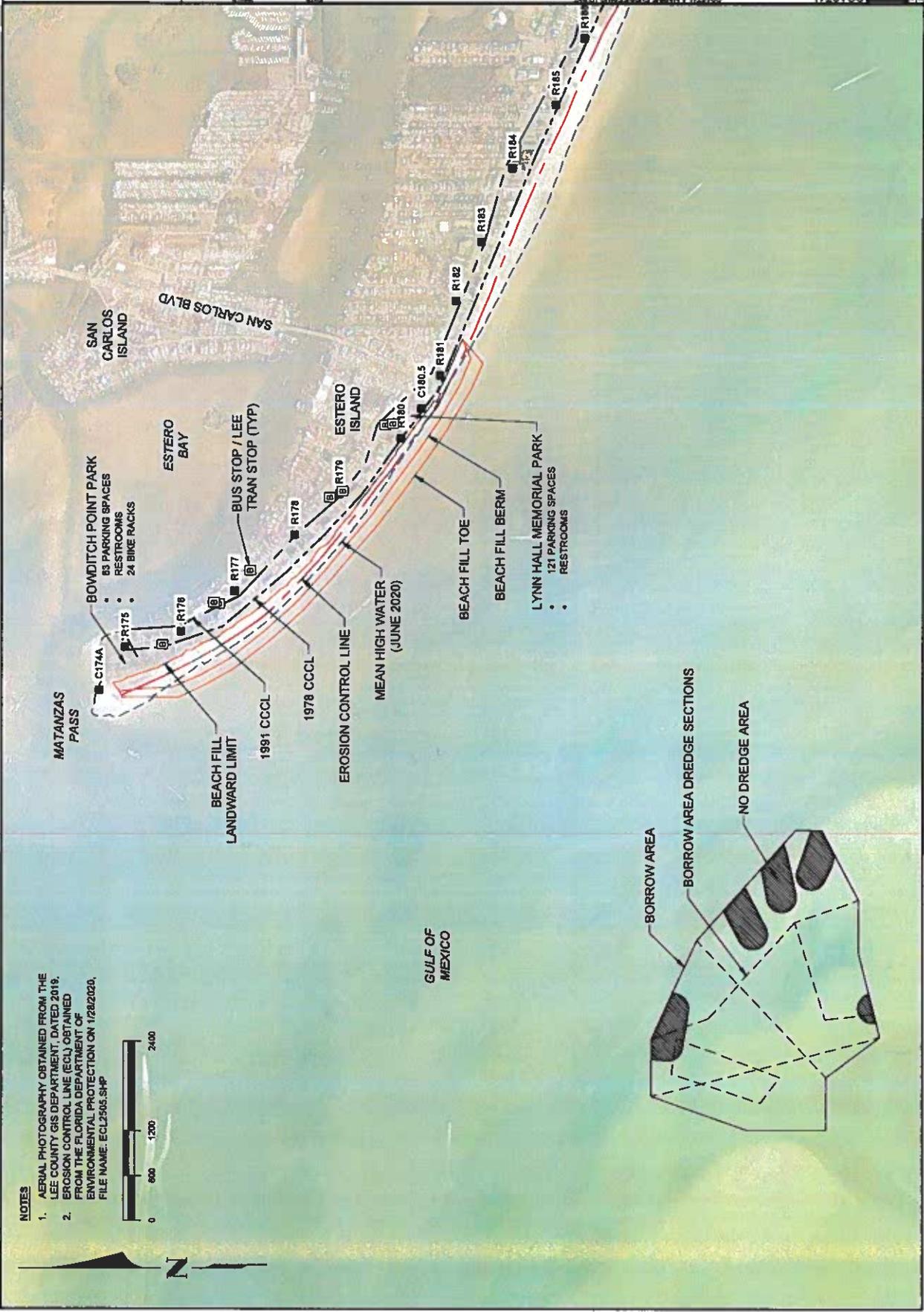
Florida Department of Environmental Protection (FDEP). (2020). Strategic Beach Management Plan: Introduction. April 2020.

Lee County. (2003). Estero Island, Lovers Key and Bonita Beach Restoration; Contingency Plan. DEP Permit 0173059-JC and 0200803-JC. Fort Myers.

NO.	DATE	BY	REVISION DESCRIPTION
18204			

9/24/2020 AS NOTED
 600
 RTR
 1904-2020 Location Map.dwg
 18204

COASTAL ENGINEERING CONSULTANTS
 28421 SANTA ROSARIO BLVD
 NORTH BAYSHORE, FLORIDA 33150
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 FAX: (305) 444-1877
 PROJECT: TOWN OF FORT MYERS BEACH
 SURVEY AND MAPPING
 ENVIRONMENTAL & GEOTECHNICAL SERVICES
 TOWN OF FORT MYERS BEACH
 LOCATION MAP



- NOTES**
1. AERIAL PHOTOGRAPHY OBTAINED FROM THE LEE COUNTY GIS DEPARTMENT, DATED 2019.
 2. EROSION CONTROL LINE (ECL) OBTAINED FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION ON 1/28/2020, FILE NAME: ECL2505.SHP