



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

New Business - Development and Environmental Services Group

J2

9/17/2019

Subject:

Emergency Maintenance of Engineered Dune in South Beaches, and status of Federal Shore Protection Project, After Damage from Dorian.

Fiscal Impact:

Total South Beaches Dune Maintenance Project cost including sand, vegetation, required environmental monitoring and permitting/oversight is expected to be \$4.46M. Cost share (typically at least 50% and up to 100%) is being sought via FEMA and/or FDEP but this is yet to be confirmed.

Dept/Office:

Natural Resources Management

Requested Action:

It is requested that the Board authorize:

- 1) use of an existing contract with Southern Disaster Recovery to repair the South Beaches engineered dune project;
- 2) a negotiated change to price in the existing contract to reflect CPI;
- 3) the Chair to execute the change order for the new work at the negotiated price;
- 4) the County Manager or designee to execute work in excess of \$100,000, for associated tasks required to complete the project;
- 5) staff to seek FEMA and state funding for up to 87.5% reimbursement; and
- 6) necessary budget changes.

Summary Explanation and Background:

In 2004/2005, in response to Hurricane Jeanne, Brevard County constructed an engineered dune project along approximately 12 miles of developed shoreline in the South Beaches. To date, the South Beaches Project (SBP) has succeeded in maintaining public beach and coastal dune habitat seaward of major upland structures. This project has been maintained as required by FEMA, most recently in 2017/18 after Hurricane Irma. Hurricane Dorian caused significant erosion in the South Beaches, as shown in these post Dorian photos.

While the South Beaches Project successfully protected upland structures and infrastructure during Dorian, the coastline is now eroded and vulnerable. Full maintenance of the engineered dune is needed swiftly. Brevard County may be eligible for FEMA category G assistance for repair of engineered beaches damaged during Dorian. Maintenance of the project is necessary to remain eligible for any future FEMA assistance. Repair of the South Beaches Project has not yet been formally approved by FEMA, however both FEMA and the Florida Department of Environmental Protection have previously approved funding for similar repairs. In the past decade Brevard has received from 50% to as much as 100% funding for emergency repairs from FEMA and/or FDEM/FDEP.

Timely pursuit of contracting is necessary for multiple reasons:

- Winter storms will increase vulnerability along the eroded shoreline; Work is estimated to require 45 months;
- Work cannot be conducted during the main marine turtle nesting season that begins May 1; and
- Shoreline that is not restored prior to May 1st will remain highly vulnerable through the next hurricane season.

Southern Disaster Recovery (SDR) remains under contract from a 2017 low bid for the South Beaches Project maintenance that was completed in 2018. The existing contract cost of \$31.98 per cubic yard (CY) was for sand available from existing mines. Since that time local sand sources have become more limited and to meet tight sand specifications (per the intent of Florida 577

Administrative Code 62B33.002 that sand be "similar to the native beach") the contractor must use sand mines located significantly further from Brevard. A cost of \$33.48 /CY has been negotiated for the Dorian response work. Staff believes this cost is fair and the 4.7% increase over two years does not exceed the CPI for this period (July 2017-July 2019). Executing a change order at this rate will allow the most expedient startup of work. Over the past 12 years, bids have varied from \$20 to \$49/CY for less similar sand.

Alternatively, bidding, selection and contracting would delay startup by at least 45 days. Shortening the work schedule by 45 days to allow for a new bid is likely to result in bid prices that exceed SDR's negotiated price.

The proposed SDR Change Order for sand placement is \$3,342,961. Total cost for the project is estimated at \$4.41 million including sand placement, installation of sea oats to stabilize the dune, permitting, construction oversight and 3 years of mandated environmental monitoring. Reimbursement of up to 87.5% will be sought through FEMA and/or FDEP. Project funding will be available within the Tourism Development Office Beach Improvement Budget. To meet FEMA and permit requirements, the County Manager will need to execute contracts, change orders and task orders for associated work.

Other Brevard County shorelines managed in partnership with the US Army Corps, including the North Reach, Mid Reach and South Reach, also suffered erosion during the storm. County and Corps staff completed an initial inspection of these shorelines on September 5th. The Corps is preparing Project Information Reports (PIR) to detail the damage. Any eligible repairs will be completed by the Corps as authorized in the Project Partnership Agreements. Beach renourishment in the Mid Reach and South Reach is expected between December 2019 and April 2020, work planned prior to Hurricane Dorian.



Clerk to the Board Instructions:



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September 18, 2019

M E M O R A N D U M

TO: Virginia Barker, Natural Resources Management Director

RE: Item J.2., Emergency Maintenance of Engineered Dune in South Beaches, and Status of Federal Shore Protection Project, After Damage from Dorian

The Board of County Commissioners, in regular session on September 17, 2019, authorized use of an existing Contract with Southern Disaster Recovery to repair the South Beaches Engineered Dune Project; authorized a negotiated change to price in the existing Contract to reflect CPI; authorized the Chair to execute the change order for the new work at the negotiated price; authorized the County Manager or his designee to execute work in excess of \$100,000 for associated tasks required to complete the Project; authorized staff to seek Federal Emergency Management Agency (FEMA) and State funding for up to 87.5 percent reimbursement; and authorized necessary budget changes.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK

Tammy Rowe, Deputy Clerk

cc: County Manager
Finance
Budget