



MEMORANDUM

Date: As of 2 May 2016
To: Marine Advisory Committee
From: Matthew Logan, Project Manager
Subject: **April 2016 MSBU Project Update**

Ackerman Waterway: Refer to Manchester Waterway.

Alligator Creek: The project includes the removal of approximately 20,400 cubic yards of sediment and rock to the permitted depth of -6ft MLW. Coastal Engineering Consultants (CEC) is assisting the County with project implementation having been selected through the Professional Services Library, RLI 2015000421. The Construction Documents are complete. The project is currently being advertised for competitive bid. The anticipated construction duration is 180 days.

The Pre-Bid meeting was held on April 13, 2016. Bid are due on May 4, 2016

Buena Vista Area Waterways: Johnson Engineering was selected to provide services for project and is currently reviewing the pre-existing permits and documents. They have completed the Survey after having to resurvey some areas and preliminary design is complete. A pre-application meeting was held with the FDEP on July 8. FDEP was not able to issue on behalf of the ACOE. ACOE was supplied the requested information and has initiated consultation with the National Marine Fisheries Service (NMFS). NMFS is currently reviewing the project per their web site. The 80% Construction plans have been reviewed by staff and the comments for corrections have been received. The NMFS Letter of Compliance was issued to the ACOE on 29 October, 2015. The ACOE permit has been issued on November 6, 2015.

Marine Contracting Group was selected for this project. The contract was approved by the board. The contractor will mobilize to the site on May 10th.

Edgewater North: DMK was selected to perform the Survey and Provide estimates of quantities. To restore the system to -4 feet Mean Low Water, 41,000 cubic yards of material would need to be dredged. Estimated cost to complete the work would be \$1.4 Mil. To dredge to -5 feet MLW there would be an estimated 97,500 cubic yards to remove at a cost of about \$3.4 Mil. A mass mailing went out to all the

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citizens in that area to sequester their opinion on an increase to their tax to accomplish this project. Staff is awaiting guidance on how to proceed.

Gulf Cove Waterways: The waterway system consists of 44 man-made canals each of which accesses the Myakka River via a previously permitted system of channels. Maintenance dredging of the Gulf Cove channels was permitted by DEP and USACE in 1996. County-wide permits issued in 2002 by DEP and 2004 by USACE authorized maintenance dredging of all man-made canals in the County. A shoal has formed in the River that has reduced the navigable depth of the existing channel system to the point that ingress and egress for vessels using the man-made canals is limited. The initial design for this new permit was to maintenance dredge the approved 40-foot wide channel system plus extend these individual channels waterward (“straight shots”) to meet the historic dredge depth. This analysis revealed that not all the channels would daylight (i.e., achieve the desired depth); plus the dredge volume to achieve the channel extensions was well over 57,000 cubic yards. In order to reduce the amount of dredging required, the plan was revised to utilize existing and new connector channels. This reduced the amount of dredging required by 8,000 cubic yards or more. Further, the new design aligns the connector channels with the flow of the river providing greater longevity to the project. The County will install and maintain channel markers to mark the new connector channels and extensions. The County and CEC are currently processing a 10-year permit to initially dredge approximately 49,000 cubic yards and to maintenance dredge up to an additional 40,000 cubic yards of material during the life of the permit. The design depth for the Channel is -5.0 ft MLW. The FDEP permit was issued October 26, 2015. The USACE Public Notice was issued February 5, 2016. Upon receipt of the USACE permit the County will move forward with project implementation.

Harbour Heights: A Request through purchasing has been initiated to retain Engineering services to Permit, Survey and Provide Construction Related Services for minor shoaling within the Harbor Heights Waterway System. The Consultant is in the process of updating the Survey and Construction Plans/Drawings. The citizens would like to see some Mangrove trimming added to the contract to ease line of sight and navigation issues. This project was placed on hold while awaiting the Countywide Permit. The Letter of Consent has been issued. The ACOE issued the permit on January 11, 2016 for a period of 10 years. This project is currently being advertised for competitive bid.

The Pre-Bid meeting was held on April 13th, 2016. Bids were received on April 27,2016.

Hayward Canals: No active projects at this time, however, the citizens within the first canal system leading in have expressed interest in modifying the MSBU so a Committee can be formed and a maintenance dredge project can be developed. The MSBU staff of Public Works has decided to move forward with a bathymetric survey to provide support for a future project.

Manchester Waterway: No Active Project

Manasota Key North Beach Erosion Study: Public Works, Engineering is requesting a RLI be requested from the library of Engineering Firms to complete a regional Beach Erosion Study (BES) on the north end of Manasota key from R monument 1 to R monument 15 that was asked for by the citizens affected by critical beach erosion. This study once finished will Provide the following:

- a. Beach Profile Surveys.
- b. Erosion Analysis
- c. Sand Volume Analysis.
- d. Conceptual Restoration Plans
- e. Natural Resource Surveys.

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- f. Develop Funding Approaches and Strategies to mitigate total cost
- g. Participate in all stakeholder meetings.
- h. Provide potential cost estimates.
- i. Provide Permit Feasibility

Upon Completion this information could be used to develop funding strategies and further the project into Permitting.

Coastal Engineering Consultants completed the initial surveys and will continue to refine the data and conduct additional survey work as needed. A substantial Hard Bottom area is being surveyed to determine the extent of area and impact.

The Draft report and the presentation has been reviewed by staff and posted on the Web. It has been presented to the Beaches and Shores on 1 October and will be updated at the 5 November meeting. The BCC will review the proposed taxing district boundary at their regular meeting on Nov. 24. Additional Information will be available after all the presentations have been executed and Staff and the Consultant have been provided guidance on how to proceed. The Taxing district is in the process of being formed.

Northwest Port Charlotte: The County hired CEC to conduct a status survey of the Myakka River main channel and the entrance channels into the Cheshire, Venus and Apollo Waterways. The survey was completed in March 2016 and the deliverables were recently provided to the County for review.

Peace River Shores: No active projects at this time.

Pirate Harbor: This project provides for engineering, design and permitting to dredge a 2300 feet access channel that was not covered under previous permitting. The bathymetric and seagrass surveys are complete. The jet probe survey and geotechnical report are complete. The updated channel design is complete which proposes a 45-foot wide channel to -5 ft MLW located within the limits of the existing marked channel. Seagrasses exist within the limits of the existing marked channel which will need to be mitigated for due to the dredging impacts. The ERP Permit Application was submitted to initiate the state and federal permit processes. To date the DEP, Aquatic Preserve Staff, and FWC do not agree with the project as designed or with the multiple proposals for seagrass mitigation strategies. They County and CEC are working with the Waterways Committee to adjust the channel design and identify alternate mitigation strategies. A site visit will be conducted in April-early May 2016 with the agencies to review current conditions and assess alternate mitigation strategies. A public interest proposal will also be required as part of the authorization to dredge within an Aquatic Preserve.

Southbridge Waterway: No active projects at this time.

South Gulf Cove: No active projects at this time

South Gulf Cove Parallel Lock: The South Gulf Cove Waterway Benefit Unit Advisory Committee is concerned about the congestion of the existing lock and the fact when it is in the need of repair or maintenance boating through the lock is restricted. They recommend an additional lock be place parallel to the existing one.

This project was placed on hold.

Suncoast Waterway: No active projects at this time.

Stump Pass:

Stump Pass: The project is to restore the Manasota Key Beach Fill Berm (FDEP Monuments R-9 to R-18), the southern end of the Updrift Beach Fill (UBF) segment on Manasota Key (R-18 to R-21.2), the middle section of the Knight Island Beach Fill Berm (R-26 to R-27.5) and the southern end of the South Beach Fill (SBF) segment on Knight Island/Don Pedro Island (R-40 to R-40.5) with material from two (2) offshore borrow areas; to nourish the southern section of the Knight Island Beach Fill Berm (R-27.5 to R-31.5) and the SBF segment (R-31.5 to R-40) with material from the offshore borrow areas; maintenance dredge Stump Pass Channel and place the material on the NBF segment (R-23.3, extending northward for 1,500 feet along the Knight Island Shoreline), the northern segment of the Knight Island Beach Fill Berm (R-23.3 to R-26), and the UBF segment (R-14.5 to R-21.2); to construct a terminal groin on the south end of Manasota Key (approximately R21.2); to place material into the ebb shoal reformation area using the offshore borrow areas to supplement the annual growth rate of the shoal to the level that has been maintained between 2003 to 2011; and to conduct operation and maintenance activities including adjusting permeability of terminal groin on UBF, making minor repairs to the terminal groin if impacted by storms, placing supplemental beach fill in the event anthropogenic activities result in accelerated erosion within project area, maintaining water quality in Rum Cove lagoon in the event project activities preclude natural exchange with the lagoon, and transferring sand (within the approved project boundaries) from areas of accretion to other locations in need of sand for hot-spot maintenance.

The elevations of the design beach berms measured at the seaward crest point will range from +2.5 feet to +4.0 feet North American Vertical Datum (NAVD). The UBF and NBF will feature berms with variable widths, sloped at 1:200 (vertical:horizontal, V:H). The Manasota Key Beach Fill Berm, the Knight Island Beach Fill Berm and the SBF segment will feature berms with variable widths, sloped at 1:100 (V:H). All fill locations will feature a foreshore slope of 1:15 (V:H). A construction tolerance of 0.5 ft is provided for on the beach fill templates. The maximum dredged depths for the Stump Pass Channel Borrow Area will be between 11 feet and 13 feet NAVD (i.e., 9 feet and 11 feet NAVD, plus 2 feet of allowable overdredge). The terminal groin will be approximately 580 feet in length, and will feature a base width of 81.5 feet and a crest width of 16 feet.

The permitted activity includes a 15-year sovereign submerged lands public easement (Instrument No. 41764, BOT File No. 080238765) containing 134.06 acres or 5,861,862 square feet, more or less, for Borrow Area A; 48.4 acres or 2,111,398 square feet, more or less, for Borrow Area B; 42.9 acres or 1,866,585 square feet, more or less, for the Stump Pass Channel Borrow Area; and 2.08 acres or 90,560 square feet, more or less, for the terminal groin.

The County and CEC are processing the final state authorization, an upland easement from the Division of State Lands. The County shall put the project out to bid late April – early May. The anticipated start of construction is August and the anticipated duration is 8 months. The County is slated to receive up to \$3.6 million dollars in cost sharing via reimbursement from the State through the Beach Management Funding Assistance Program.

Dayboards: Topic and Options to be discussed separately.