



Project Administration Department

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Memorandum

Date: July 10, 2020

To: Mayor, and Board of Commissioners

Through: Mark LeCouris, City Manager

From: Bob Robertson, Project Administration Department Director *BRB*

Subject: Anclote River Dredge – Extended Turning Basin Permitting Options (Updated for 7/14/2020 BOC Regular Session)

Purpose

The purpose of this BOC Agenda Item is to request direction from the Mayor and Board of Commissioners on the final approach to permitting with the Florida Department of the Environmental Protection (FDEP) on an Environmental Resource Permit (ERP) for the Extended Turning Basin of the Anclote River.

Overview

City staff has been working closely with the FDEP in an attempt to secure an Environmental Resource Permit for the dredge of the Extended Turning Basin (XTB). The XTB is an area in the Anclote River turning basin just west of the US Hwy Alt-19 bridge that occupies some of the area between the bridge and the Federal Turning Basin.

The Federal Turning Basin is on track to be dredged sometime starting later this year by the United States Army Corps of Engineers (USACE) as a Federal maintenance dredge. Its permits are nearly secured, most likely to be issued by mid-August.

The USACE was not able or willing to include dredging of the XTB in the Federal Dredge project. As such, the City had to approach this work on our own.

The City intends to dredge the XTB concurrently with the Federal Turning Basin and intends to negotiate contract terms with USACE's contractor separately to complete the work. That USACE's contractor has not yet been selected.

By approaching the dredge of the XTB in this manner, the approximate costs associated with dredging the XTB are significantly lower by taking advantage of a construction situation where a spoils treatment site will be constructed and a contractor will be already mobilized. The cost to the

City of approaching the project in this manner is estimated to be \$812,100. The cost of approaching the project as a separate, standalone project is estimated to exceed \$2M. The State of Florida has included a budget line item of \$812,100 for the City of Tarpon Springs to complete this work. That budget has not yet been ratified by the Governor.

Please note that these numbers were based on the City's original concept of dredging as much as 3.82 acres of the XTB. As described below, the FDEP is requested a much smaller dredge area. As such, these costs will be much lower. Staff and our Consultant are currently working on revisions to the cost estimates.

Permitting

As City Staff and our engineering consultants have worked through the process of permitting with the FDEP, we feel that the FDEP is willing to support a dredge project in the XTB. However, the physical size of the area of the dredge has been tightly scrutinized. This is because the area proposed does not qualify as maintenance dredging and is located within the Pinellas County Aquatic Preserve, a program overseen by the FDEP whose stated mission is "conserving and restoring Florida's coastal and aquatic resources for the benefit of people and the environment." Furthermore, to offset the potential and perceived impacts of dredge work in the Aquatic Preserve, the FDEP has requested a monetary donation to the Aquatic Preserve fund. An offer of \$20,000 has been presented and discussed with and by FDEP but not yet approved. Donated funds would be used for preservation or public access projects. The FDEP states their program is designed to use donated funds for projects throughout the Pinellas County Aquatic Preserve that may directly or indirectly benefit the City. Based on the recent conference call, direct benefits to the City are likely but cannot be guaranteed.

Preliminary design efforts presented during the pre-application meeting between City staff and our engineering consultant and the FDEP focused on a 3.82 acre dredge area in the XTB. Concerns for mitigation requirements from natural resource impacts and resulting permitting delays as well as feedback from the FDEP resulted in an reduction of the proposed XTB dredge area to 3.19 acres. The proposed 3.19-acre XTB was formally submitted to FDEP as part of the ERP application.

The FDEP rejected the 3.19-acre area due to concerns for dredging outside of the immediate shallow-shoal area (2-feet below surface and shallower) and potential impacts to adjacent natural resources (oyster beds, etc). As a result, the proposed dredge area was reduced to 2.75 acres which was based on boater needs and driven by vessel sizes, but further reduction was still requested by the FDEP. In response, staff and our consultant provided additional documentation to support a dredge width based on the maximum size of vessels recently accessing the XTB area approximately within the last 10-15 years. Documentation and pictorial analysis of large-vessel turning movements was also provided.

The most recent feedback from the FDEP at a conference call in the afternoon of 6/22/2020 indicated that the FDEP is looking for further reduction of the proposed 2.75 acre dredge area. In that conversation an attempt was made to determine what, exactly, would be permissible by the FDEP. Options are presented below for review and discussion.

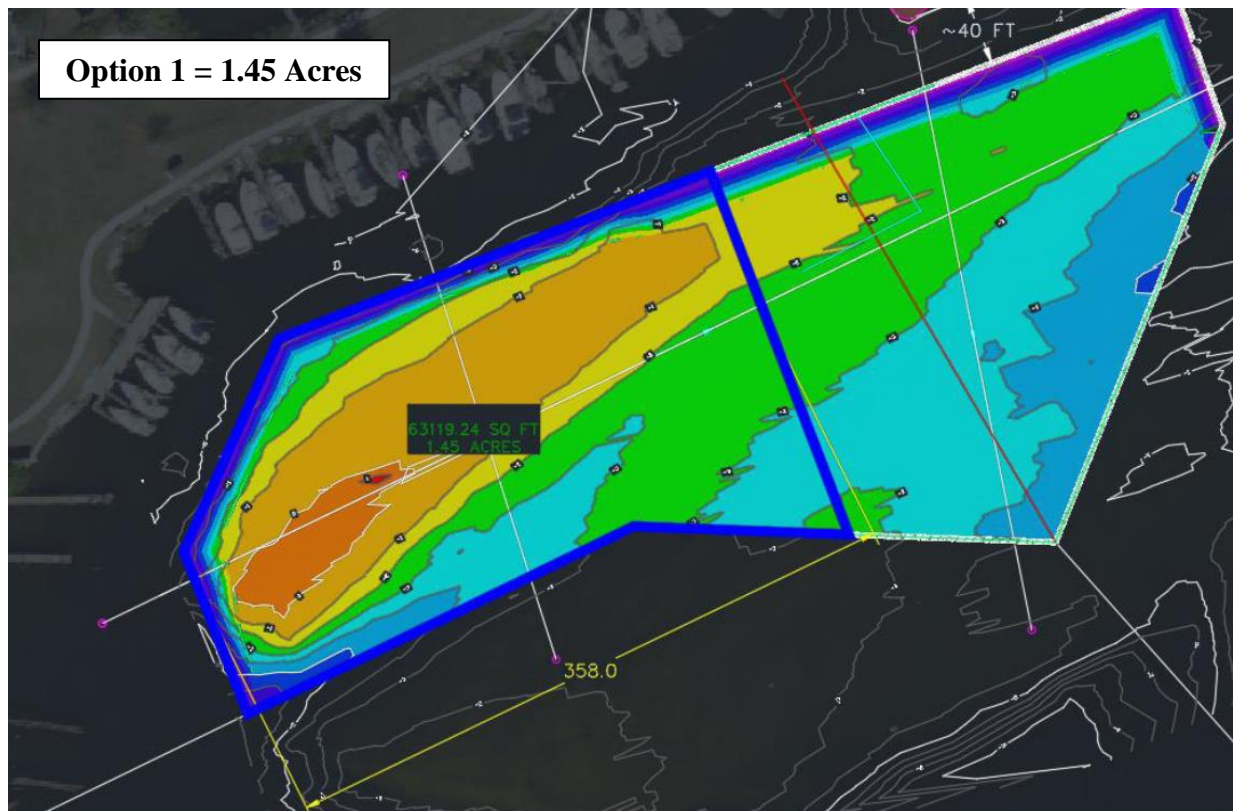
It is important to note that the process for permit approval is limited to two Requests for Additional Information (RAIs). If the issues raised by FDEP in these RAIs cannot be resolved after two RAIs, the permit would be denied and we would have to re-apply for the permit, essentially starting the clock all over again. In an effort to avoid that, FDEP has been working closely with us to review

draft RAI responses before they are officially submitted in an attempt to resolve these questions and issues to allow for permit issuance.

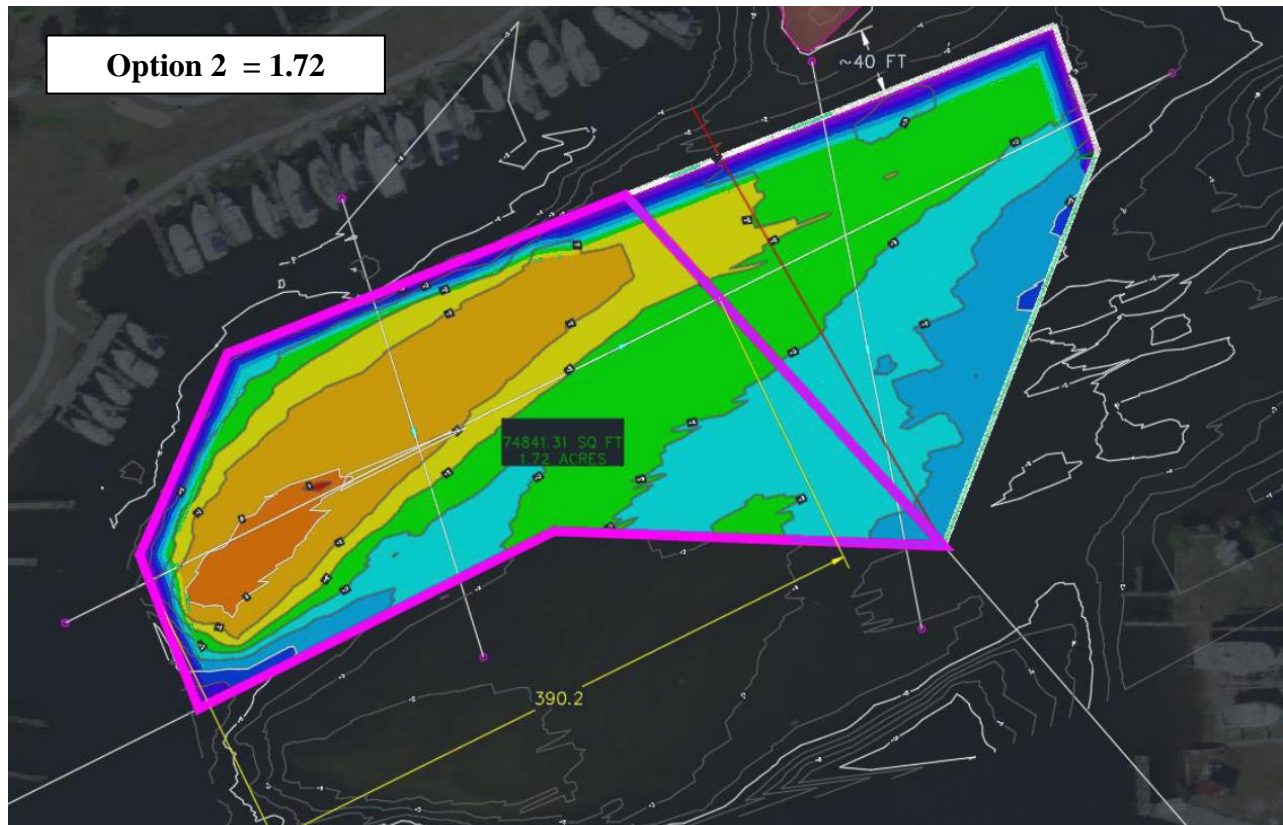
Options

Based on our past coordination with FDEP and on feedback received from this most recent conference call, we believe we have the following options for which we are seeking BOC guidance. As we have done with prior submittals, we will submit our proposed option based on the BOC's approval as a draft to the FDEP to request analysis and feedback on the sizing.

Option 1: XTB Dredge Area of 1.45 acres: The FDEP has stated that they would be most comfortable basing the east-west width of the dredge area on 130-ft vessel lengths which is the maximum size recognized by the FDEP of vessels that would use the XTB. Based on that number and using the USACE's design guidelines, that translates in to a XTB width of 358 feet, equating to an XTB area of 1.45 acres shown in the blue outline on the figure below.



Option 2: XTB Dredge Area of 1.72 acres: This option takes the 1.45 acre option and extends the southern boundary line to the east by about 42 feet, thus increasing the proposed dredge area to 1.72 acres as shown in the purple outline on the figure below. This approach is based on FDEP's recognized maximum vessel size of 130 feet and can be justified using a logical "constructability" approach since the eastern boundary line now would line up smoothly with the eastern boundary line of the upcoming Federal Turning Basin dredge area since the work will be completed concurrently.

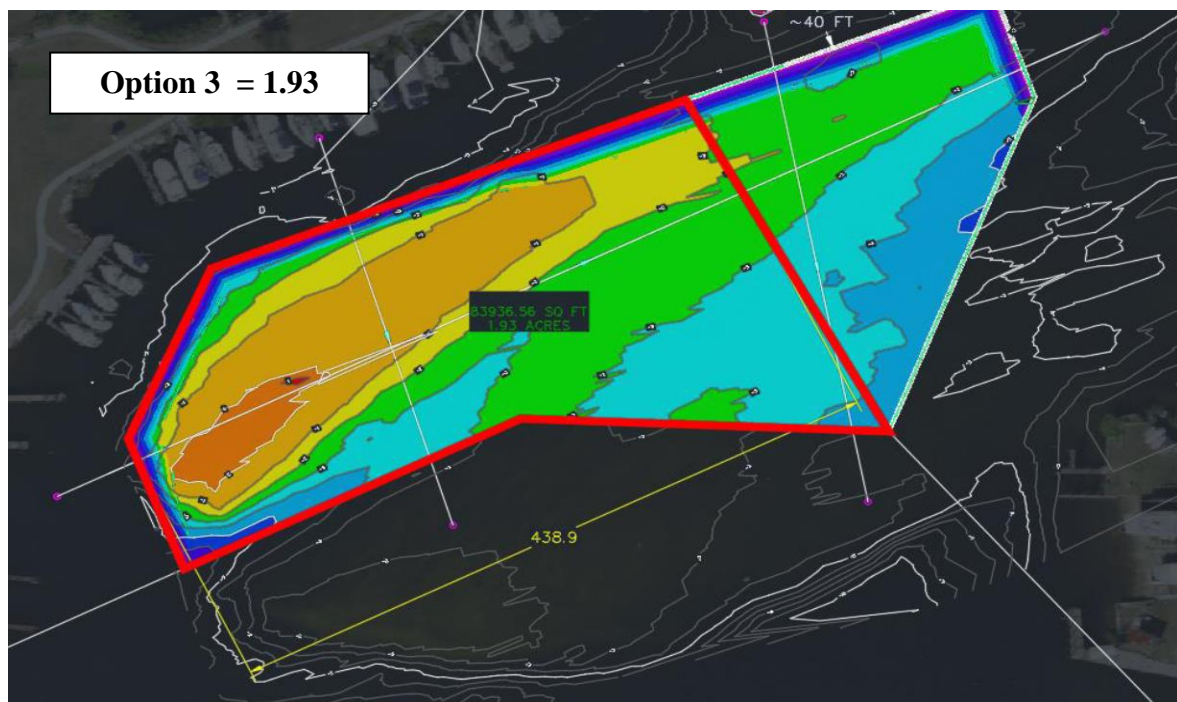


Option 3: XTB Dredge Area of 1.93 acres: This option takes the 1.72 acre option and extends the northern boundary line to the east by about 40 feet, increasing the proposed dredge area to 1.93 acres as shown in the red outline on the figure below. This approach can be justified using the same “constructability” approach since the eastern boundary line now would line up smoothly with the eastern boundary line of the upcoming Federal Turning Basin dredge area, plus it would also pick up the rest of the shoal area in the northeast corner that is currently shown at 2-feet below the surface (yellow-shaded contoured area). This option has been previously discussed with the FDEP, and although it appeared to be acceptable at the time, continued correspondence indicated that FDEP would require further justification for a 1.93 acre request.

Furthermore, a more recent and credible guidance document was prepared in 2013 by the World Association for Waterborne Transport Infrastructure (PIANC) (*Design and Operational Guidelines for Superyacht Facilities*, PIANC Report No. 134). Design guidelines for Basin and Channel Geometry states that “The diameter of the turning circle should be 1.3L if the vessel has thruster assistance and up to 3.5L without thruster assistance. Most superyachts have thruster assistance.” For reference, PIANC defines a superyacht as greater than 120 ft long.

Using the 3.5 multiplier for the maximum recorded vessel accessing the project area (130 ft), results in a maximum width of 455 ft. The 1.93-acre dredge scenario shown below corresponds relatively closely with PIANC’s design guidance.

PIANC is a worldwide non-political and non-profit technical and scientific organization established to promote both inland and maritime navigation by fostering progress in the planning, design, construction, improvement, maintenance and operation of inland and maritime waterways and ports and of coastal areas for general use. <https://pianc.us/about-us/> PIANC USA was organized in 1902 with the USACE serving as the Secretariat



Option 4: XTB Dredge Area of 2.75: This option would be to submit the final RAI response with the 2.75 acres as proposed in our draft versions to the FDEP. FDEP has indicated that they remain concerned with the eastern portion of this dredge area and would like to see a further reduction.

