

2-15-17
Agenda 4, B,

Town of Sunset Beach
Pre-Dredge Analysis
Response to ERC January 1, 2017 Questions

The following is provided in response to the Environmental Resource Committee's (ERC) questions and concerns related to the pre-dredge analysis sponsored by the Town of Sunset Beach. For each question or concern expressed by the ERC, a summary of the question/concern as understood by Moffatt & Nichol (M&N) is provided along with a following response.

1. **ERC Question Concern:** The ERC requested the current depths of finger canals A, B, C, & D.

(M&N) Response: The existing depth of the finger canals ranges from -2 to -4 MLW with an average depth of approximately -3 MLW. These elevations are based on cross-sections of the canals spaced on approximate 100 ft intervals during a February 2016 hydrographic survey.

2. **ERC Question Concern:** The ERC voiced a concern that Jinks Creek may be lined with oyster shells and urged careful consideration in planning a dredging project.

(M&N) Response: The project design will be reviewed by state and federal environmental resource managers. Moffatt & Nichol understands the importance of balancing the environmental concerns with development and strives to maintain an exceptional and professional relationship with the environmental agencies while also providing practical and creative solutions to complex issues. Care has been taken in attempts to minimize the dredging in environmentally sensitive areas and the design will be discussed with the resource agencies. No action will be taken or allowed without agency consent.

3. **ERC Question Concern:** The ERC raised concerns related to the modeling conducted to evaluate the tidal change expected as a result of the project. Three concerns were expressed as follows:
 - a. The model only evaluated a snapshot or fixed condition (i.e. ignored storm surge and future shoaling).
 - b. The model assumed a constant 7 ft dredge depth and did not account for the overdredge tolerance.
 - c. Pre and post project contour maps were not provided.

M&N Response: The results discussed at the November 12th public meeting provided an overall summary of the modeling task and did not venture into the intricate details of the analysis. The ERC's concerns will be incorporated into the final modeling report, which is expected in early February.

4. **ERC Question Concern:** The ERC suggested there is a conflict of interest in having the same engineering firm involved in the pre-dredge analysis and the dredging.

M&N Response: Moffatt & Nichol will not be conducting the dredging work. If the Town elects to move forward with construction, the Town will contract directly with a contractor to complete the work. Moffatt & Nichol is working as a consultant to assist the Town through the design, permitting and construction process but does not benefit from the size of the project. Both parties (Town & M&N) have agreed to move through the process in a step-wise fashion so the future cost and potential implications of the work can be evaluated prior to making a substantial decision.

5. **ERC Question Concern:** The ERC suggested a 40' maximum channel width along the entire length of Jinks Creek and the establishment of a "no-wake" zone throughout the channel.

M&N Response: The proposed dredge plan for Jinks Creek begins with a 40' wide channel at the AIWW confluence and gradually expands to 100' wide near the Feeder Canal and the Bay Area. The dimensions are arbitrary but are offered to help address future shoaling and extend the maintenance interval for Jinks Creek. A study has **not** been conducted to determine the estimated shoaling rate as the current dimensions are based on similar waterways along coastal North Carolina, specifically the following:

- Eastern Channel (Oak Island)
 - Mason Inlet / Mason Creek (New Hanover County).
6. **ERC Question Concern:** The ERC raised the question of how the Town can justify charging the property owners for the dredging when some may not want or need the project.

M&N Response: M&N is not responsible for deciding how the project will be funded. However, M&N has worked with the Town to identify grant opportunities where available and will continue to explore these options.