



Topsail Beach Storm Damage Reduction Project Update – April 22, 2020

The past three months has seen excitement and frustration as the Town began working on the long-awaited Beach Nourishment and Channel Dredging Project. Permitting our project was more than a two-year process, as moving 2.2 million cubic yards of sand is a major undertaking for any Town. This Project is part of the Town's 30-Year Beach Management Plan, designed to provide Topsail Beach with long-term protection of the island from storm damage and natural erosion while keeping the waterways open for safe boating. The plan includes a new frontal dune, 25-foot-wide at the top, and a widened beach from the toe of the new dune oceanward approximately 75'-100'. The New Topsail Inlet and passages in Banks Channel are being dredged to provide deep water access for both commercial and recreational vessels. This comprehensive plan also includes planting for the new dune, and ongoing environmental and biological monitoring.

The Town received the permit for the Project in October 2019, with a work period designated between November 16, 2019 through April 30th, 2020. The contract for services was put out to bid, and Weeks Marine was awarded the contract.

Where do we stand?

To date Weeks Marine has constructed over 14,000 linear feet of beach and dug approximately 12,000 linear feet of channel. But at this time, it appears substantial completion of the project will not meet the April 30th deadline. It is estimated that the area of beach strand between approximately Monroe Avenue to the Jolly Roger Pier will not be completed by April 30th.

What happened?

The project had several initial delays related to weather and rough seas. Weeks Marine had planned to begin work with the 30-inch dredge, *JS Chatry*, around Christmas time. Due to weather and ocean-related issues in the Gulf of Mexico where the *JS Chatry* and the pipe laying equipment was located, the equipment was unable to tow around the tip of Florida until mid-January. They began laying pipeline for *JS Chatry* the end of January. This operation was expected to take 6 days, however sea conditions again prevented operations and the pipeline was not complete until mid-February. Inclement weather delayed the hook up of the dredge for another 7 days, with dredging operations beginning on February 26th. Early in the process, work began on the ebb shoal often referred to as the outer bar. This required the swing anchors for the dredge to be placed in shallow water (< 5' deep) outside the channel. This coincided with the timing of lunar low tides which prevented the tug and derrick barge from retrieving the swing anchors for 9 days. While the project timeline incorporated potential weather and mechanical delays, this was a significant setback.

In order to complete this project to the permitted depths and within the permitted time Weeks Marine implemented a second dredge, the *Borinquen*. This dredge was scheduled to begin work around February 15th but was delayed by an earlier project. The *Borinquen* began dredging in Banks Channel on March 13th. There were 3 days of unexpected downtime laying pipeline due to the shallow water in Banks Channel in the vicinity of Drum Street that hindered the movement of the tugs during low tide.

The Town and its contractors monitored production rates and were hopeful to still complete the project by April 30th. However, the Town was informed by Weeks Marine that mechanical issues on both dredges made it unlikely that the project could be finished by April 30. The pump liner on the larger dredge, *JS Chatry*, was severely worn and the *Borinquen* experienced issues with its hydraulic line. Both of these issues were reducing the production

rate of the dredges and the decision was made to shut down and repair the dredges to improve production and minimize the risk of a major breakdown.

What's Next?

Weeks Marine is still working and there is sand still being put on our beach. In concert with TI Coastal, aspects of the project were adjusted to maximize productivity. These adjustments can be seen in the slope on the landward side of the new dune which is not as sharp as originally planned. In some areas, extra sand has been added to ensure there will be no ponding of water between the dune structures given the dune height of that area.

The Town has requested an extension of our permit to May 30th in hopes of completing this portion of the project in the spring. We are also working with Weeks Marine on a plan for them to return in the fall to finish work remaining if an extension is not granted. Once a decision is made on the possible extension, we will let everyone know.

The Town is working with Coastal Transplants for the planting of sea oats on the new dune. The plan includes 900,000 plants that will help to establish and strengthen the dune over time. Coastal Transplant expect to begin in July and work until finish, but no later than October 15. If they can't complete by then the remaining plants will be planted in April 2021.

We continue to discuss option for beach crossovers with CAMA. CAMA made a decision to disallow our permit for crossovers after we started putting sand on the beach. We believe we will have a solution as we work with them to resolve their current concerns. We are hopeful to have an answer very soon and will send out the information as soon as a decision is made.

Moving Forward

While it has not gone entirely as planned, please know we are working to ensure all critical areas are protected. This includes how areas are finished for the current season and how we will approach actions in our next dredging opportunity. This is a major construction project with a large cast of equipment and operators overall who have met safety and project design objectives..... we just need some extra time to do all that we wanted to do. We have asked for a 30-day extension with the state agencies that control our project permits. We will inform you once a decision is reached.

For those who have not seen the beach; we believe you will be impressed with how our beach now looks and having 75 feet of dry beach to relax on is something only long-time residents can remember. The inlet and channel have had critical areas dredged from 7 to 18 feet. This should allow all vessels easy passage from docks to open waters.

We have had to adjust but we do have a plan on how to move forward for this year and next year. Our goal is to maintain our beach and water ways that is safe and provides a resource we all can use.

Regards Steve Smith, Mayor
Town of Topsail Beach

Be sure to visit our website at www.topsailbeach.org for more information, progress maps, videos, and photos.

PLEASE BE CAREFUL!!!! Heavy equipment and pipes will be on the move so please stay away from the construction areas.