
To: NTB Board of Aldermen

Subject: BISAC Monthly Meeting Report

From: Larry Strother, Chair

Date: Tuesday, September 17, 2024

Manager's Update. Manager Derian, *ex officio*, updated the committee on the status of the shoreline projects.

- * Beach Projects have been on pause for the season. They will pick back up after turtle season.
- * Tropical Storm Debby came through in August which resulted in some erosion. According to our engineers the beach held up relatively well. The engineers conducted a post storm survey and shared those results with the BOA. They approved an emergency push, so she has been working with regulatory agencies to get that implemented. Based on this last storm that came through she ordered another post storm survey and it appears from early assessments is that the beach took quite a hit. The push may be changed to a truck haul. There were a number of areas that required water pumps and street sweepers to remove sand and other debris.
- * Beach Matting- Manager Derian that it is still in progress in two locations at Jeffries Park. She reported that she was still working with regulatory agencies getting a permit to install it. A minor CAMA permit is required which involves notifying adjoining property owners so the process continues.

Member Benson asked Engineer Gibson to comment on the rope and post crossovers that Topsail Beach has been using in terms of clean up after storms instead of wooden stairs.

Manager Derian said that the BOA have gone back and forth on whether rope and posts are helpful or more harmful to the dunes. The post go into the dunes and the ropes encourage people to travel up over the dunes, so is it helping or hurting? Beach matting helps people with mobility issues and can be adjusted based on tides. They can be rolled up and even removed and redeployed post storm.

Engineer Gibson said there is a big difference in the health of the dunes in North Topsail Beach and Topsail Beach where they have reached a stage where post and rope is more applicable. The dunes were built with a gradual enough slope that people can walk over them without tearing them down. If you have an escarpment and you try to do post and rope, you are doing more damage because you're having to climb that escarpment which tears and wears down the dune. Whereas what was put in with a 5 on 1 slope with plantings around it is actually building up around the dune rather than wearing it down. The whole front row of dunes in

Topsail Beach is not allowed to have crossovers, it is strictly natural walkway. The post and rope are more for guidance. That is something down the road for North Topsail Beach.

5/30 Year Beach Plan-current status, progress, next steps and timing

Chris Gibson, TI Coastal Engineering

- The big thing we have been doing is working on borrow area DA143 making sure we have the right material there, how we access it with dredges, how we do it economically. Now that we have a good handle on that, the next step is to figure out where it goes on the beach.
- DA 143 is a 48-acre site at the crossroads of Cedar Bush Cut and the Intracoastal Waterway. We did a 15-core analysis. It was previously analyzed in 2012, but the information changed due to regulatory statute.
- We have anywhere between 25 and 50 feet of good sand in this site vertically.
- We drilled tubes, some of which were over 60 feet long, to an elevation minus 25 and sampled them visually because color, which is important and is related to temperature; grain size; texture; unsuitable material; heavy shells; and debris. All the material placed here was from maintenance dredging of the Intracoastal waterway on 1970-1980.
- Results are 700,000 more yards of sand are available than the last time it was analyzed.
- Advanced techniques and machinery allow us to do a more economical project with more volume.
- The dredge will come in at Cedar Bush Cut and dredge straight in at an elevation of 12 plus 2; a depth of 14 feet and there will be a 15-ft dike left.
- There will be 2 million yards of capacity for the Army Corps of Engineers and the locals to use in this site. This is how we will get funding because we are rehabilitating this site which falls under Shallow Draft beneficial use. Total project is \$35 to \$45 million dollars with state funding of \$25-\$30 million.
- We have not designed the beach yet because we wanted to get these hard numbers. Originally, we had not intention of putting any kind of dune feature in. We just toured the beach, and the dunes are going to have a front slope based on the condition they are in now due to the recent storm. Several places were breached. Access 43 was the worse where the dune was the highest with a 10 ft scarp. Crossovers in the area of Access 41 were lost. At the south end of the Reefs, the access gate is no longer there. There was no scarping on the dunes where we did the truck haul projects, so what we did is working.

Town of North Topsail Beach **Beach, Inlet, and Sound Advisory Committee**

- In August we met with the Navigation Branch of Corps of Engineers about funding with no luck. However, we did get a favorable reaction from regulatory permitting. We were told that our March deadline for permitting was doable.
- Next step is to schedule a One Stop meeting which takes about a month to schedule. We plan to have our design 90% complete for that meeting which is enough for permitting.
- We need to obtain the easement from the electric company.
- From the state side, the beach has been permitted as part of the Environmental Impact Study (EIS) and now it is about showing that this borrow source is viable. Everything that we have done says it is viable and we are good to go.

***Estimated Timeline**

October/November 2024- One Stop Meeting

March/April 2025-Issue contract to a contractor

May through September 2025- Clear and grub the borrow area and prep it for a dredge

October 2025-Start mobilizing to lay pipelines

November 15, 2025-Begin to work on the beach. 2.7 million yards of sand is a lot to pump in a season. We expect to put about 20,000 to 30,000 cubic yards of sand on the beach a day. We would begin where the power lines cross the island and work south to the park at Hwy 210 bridge. Then the pipeline will flip, and we would work our way up to the north end with the retention structure going in. (We have not yet talked to the regulators yet about the temporary retaining structure, but will do so at the One Stop meeting).

March/April 2026- Finish the project which is for Reaches 1, 2, and 3.

The Town has a project scheduled this winter for Reach 4.

**If all this can be accomplished in the proposed timelines, all our beaches will be considered engineered and have access to FEMA money

Next Meeting will be held Tuesday, October 15, 2024 at 10:30 am