



SHORELINES – July 2019

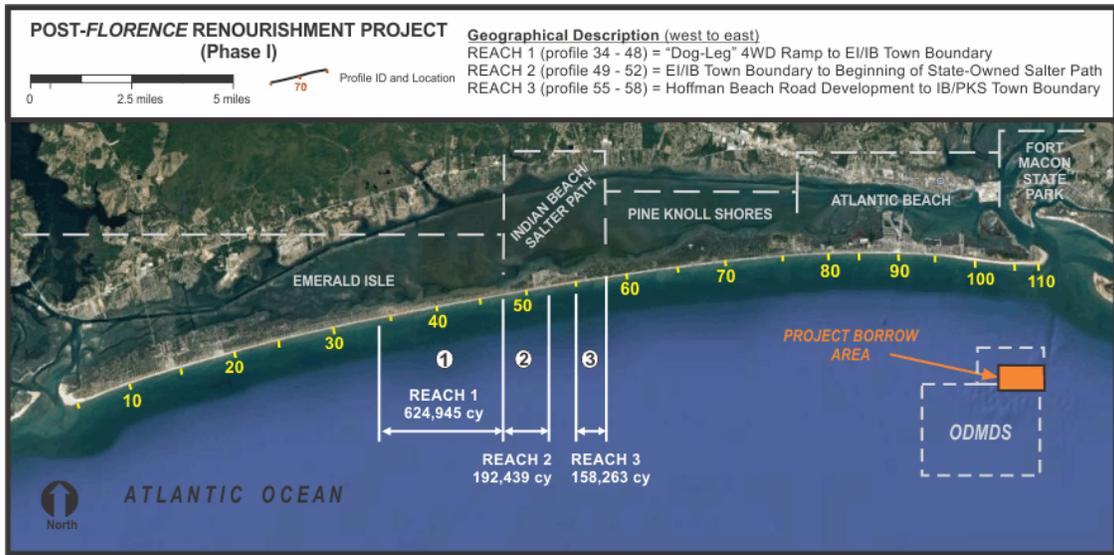
As presented to the *Island Review* magazine

Beach Nourishment Update – Post-Florence Phase I Project Complete; Phase II on the Board for Winter 2019-20.

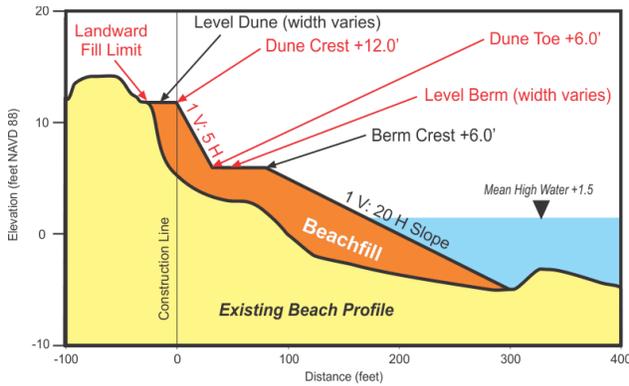
We're pleased to report dredging and pumping activities associated with Phase I of our Post-Florence Beach Nourishment Project was completed in late April, and the dune planting stage should be finished by the time you are reading this article. We were fortunate to have the permitting and funding in place to execute a project almost immediately after *Florence* passed and the fact that 5.2 miles of beach between the Indian Beach/Pine Knoll Shores Town boundary and the "dog-leg" 4-Wheel Access Ramp in Emerald Isle received 975,647 cubic yards (cy) of sand in time for the summer and the next hurricane season is a nice accomplishment. 975,647 cy is quite a lot of sand – roughly the equivalent of ~81,300 dump trucks worth that were delivered by two dredges between March 8 and April 25, 2019.

In the big picture, the project basically replaced the dunes *Florence* removed and provided some additional recreational (flat) beach – see accompanying figures. The dunes of course are an important feature in the oceanfront landscape for protective, ecosystem, and aesthetic reasons, and in order to enhance these functions; a dune planting effort was wrapped into the larger dredging/nourishment contract that included 400,000 plants – almost all sea oats and some bitter panicum (both native plants to this area). The total project cost was about \$21 million – that's a big investment, and the dune plantings are fragile at first (imagine going from a nice climate-controlled greenhouse to the hot, humid, and windy beach), so please help us help the plants and dunes by keeping foot traffic off the new plantings.

Phase II is envisioned to restore the remaindering portion of Bogue Banks with ~2.9 million cy of sand between the Circle in Atlantic Beach westward to the Point in Emerald Isle (i.e., remaining portion = West Atlantic Beach, Pine Knoll Shores, the State oceanfront area of Salter Path, and Central/West Emerald Isle). This equates to 15.6 miles for the Phase II effort in addition to the 5.2 miles of beach associated with Phase I (20.8 miles total). Issues such as our procurement strategy and bidding climate, FEMA reimbursement (both if and when), and a spate of other variables paint a complicated picture of which areas of the Phase II reach will be constructed first, whether or not the project can be completed in one or over the course of two winters, and what the cost will ultimately be. Regardless, we have enough of the "knowns" captured to plan for a nourishment project in at least half of the Phase II reach in winter 2019-20. We intend to issue the bid solicitation by the end of July.



<http://www.carteretcountync.gov/DocumentCenter/View/5948/base-map-for-Post-Florence-2019-FINAL-cy>



<http://www.carteretcountync.gov/DocumentCenter/View/5683/Typical-Cross-Section-EXAMPLE>



<http://www.carteretcountync.gov/DocumentCenter/View/5764/perspective>



<http://www.cartercountync.gov/DocumentCenter/View/5862/Pumping-at-25th-Street>