

SHORELINES – November 2019

As presented to the *Island Review* magazine

Post-Florence Phase II Project Awarded – Construction to Begin in 2020.

We're pleased to report that local governments have executed all the appropriate contract documents with [Great Lakes Dredge & Dock](#) to construct PHASE II of the Post-Florence Beach Renourishment Project. The [Phase I](#) effort was completed in late April dredging/pumping wise, and the dune planting stage was finished in August. 975,141 cubic yards (cy) of sand was placed along 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 – roughly the equivalent of ~81,300 dump trucks worth.

[Phase II](#) will encompass 9.5 miles of shoreline as West Emerald Isle, Salter Path, Pine Knoll Shores, and West Atlantic Beach will receive 345,000 cy, 140,000 cy, 990,000 cy, and 520,000 cy, respectively (1,995,000 cy total) in four discrete reaches. That's roughly double the Phase I Project both in terms of cubic yardage (volume) and project length. The accompanying map (Fig. 1) depicts the geographic extents of both the Phase I and II projects. Phase II is scheduled to be constructed between January 1 to April 30, 2020 and therefore within the construction window established to limit impacts to biological resources. Great Lakes Dredge & Dock will employ the ocean-certified, self-contained hopper dredges [Liberty Island](#) and [Ellis Island](#) for the project and sand will be obtained from the Offshore Dredged Material Disposal Site ([ODMDS](#)) associated with Morehead City Federal Navigation Project (akin to Phase I). Phase III is scheduled to be constructed next winter (2020-21) in central and west Emerald Isle.

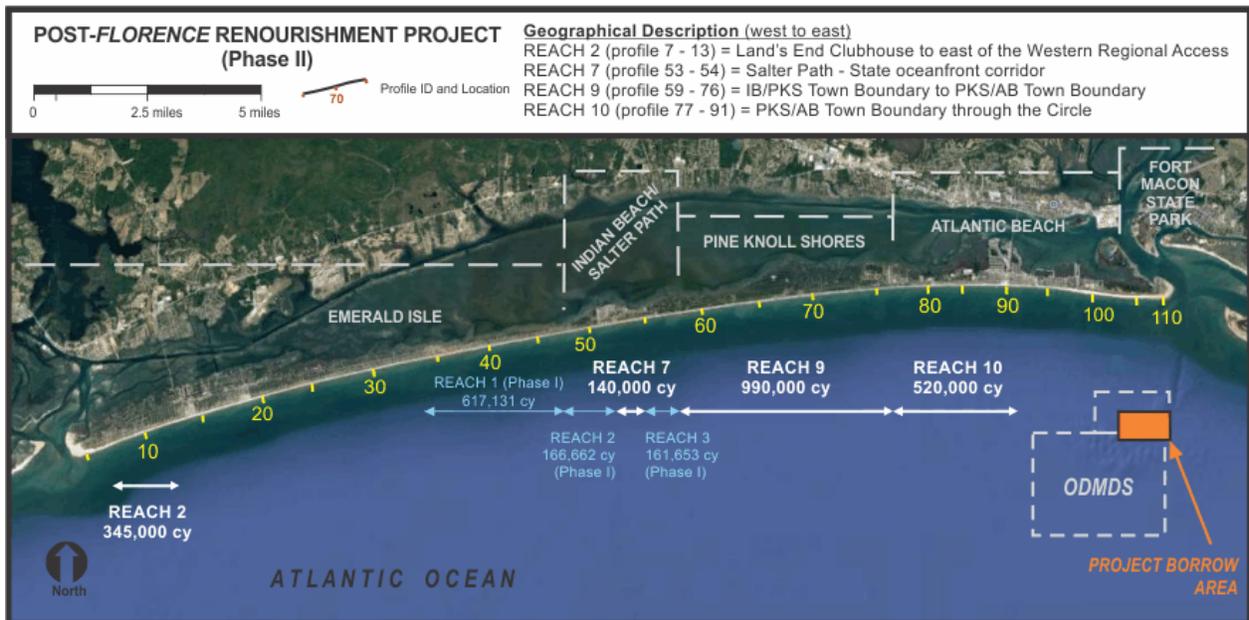


Figure 1 – Map depicting the geographic extents and cubic yardage (volume) involved with Phase II (upcoming) and Phase I (2019) of the Post-Florence Beach Renourishment Project.

In terms of cost, Phase II will be a ~\$30 million effort including all dredging, planting, and engineering services (Phase I was ~\$21 million). The financial constituents include FEMA fixed-cost resources, State monetary resources emanating out of the Coastal Storm Damage Mitigation Fund, and local dollars – mostly originating from the portion of the County’s occupancy tax designated for beach nourishment and Town funding derived from special property tax designations. The ratio (cost schedule) of federal, State, and local funds is ever-evolving as FEMA approval is a town-by-town process and some of the approvals are pending as this newsletter is being prepared. The cost ratios will be shifted appropriately as FEMA funding goes from the pending category to the approved category. Regardless, we have enough funding available currently to construct Phase II and should be poised for Phase III next winter as mentioned above.

And lastly it’s important to remember that in the big picture, the overall project is basically replacing the dunes *Florence* removed and provides additional recreational (flat) beach – see the accompanying figure (Fig. 2). 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; the dune planting component (sea oats) is included in the larger dredging/nourishment contracts – a more holistic approach if you will. Construction updates for the Phase II Project will be provided at <http://www.carteretcountync.gov/797>, while the archived Phase I website is at <http://www.carteretcountync.gov/788>.

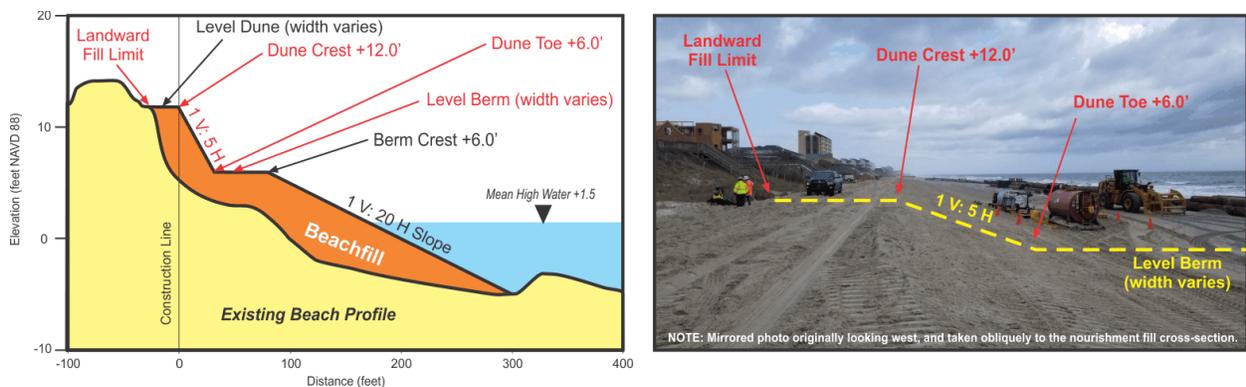


Figure 2 – Plan (left) and constructed (right) cross-sectional views of the Post-*Florence* Renourishment Project. The spatial position of the “dune toe” represents the location of the *Pre-Florence* vegetation line. The “new” dune is contoured upwards on a 1 to 5 slope from the dune toe until an elevation of +12 or +13 feet (NAVD 88) is achieved, then leveled into the existing dune and hence, creates variable dune crest widths across the project.