



# Town of Southern Shores

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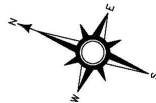
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## Beach Nourishment Project Report Establishment of Two Municipal Service Districts For Beach Erosion Control and Flood and Hurricane Protection Works In Accordance with GS 160A-535 – 160A-544

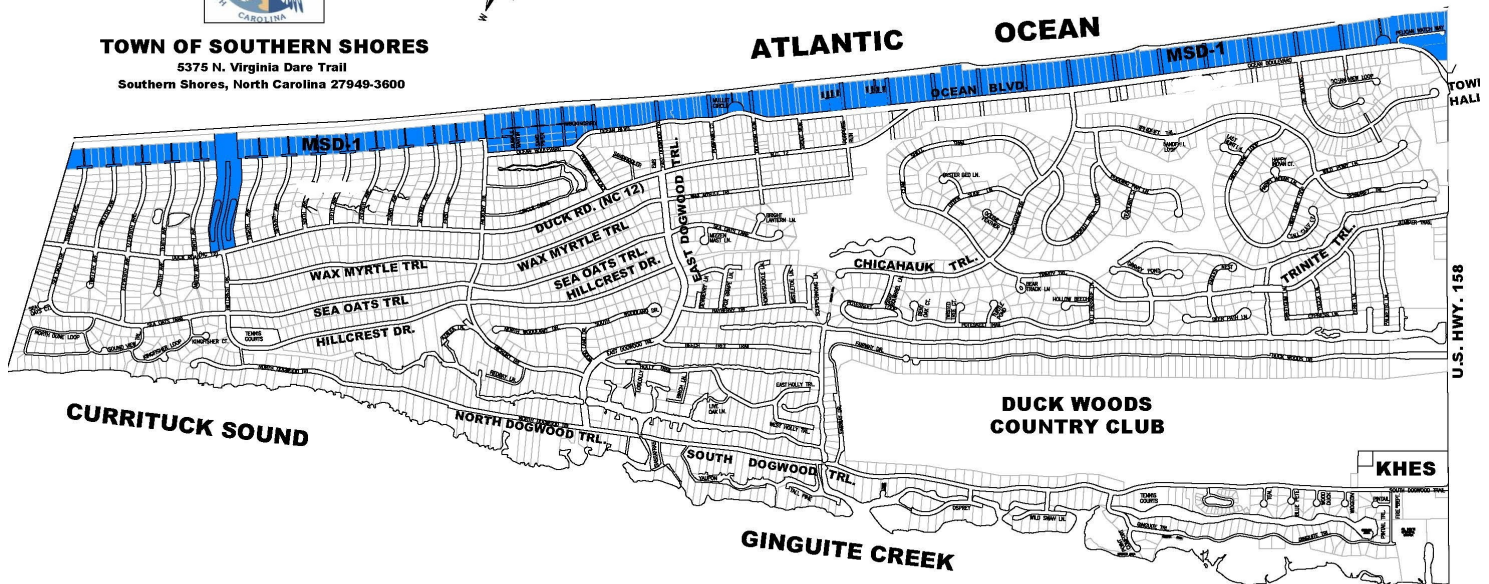
### 1) Map of proposed Municipal Service District(s)

- District 1-**
- i. All properties east of Ocean Blvd/NC 12 beginning at the southern town limit extending to Ocean Blvd. and,
  - ii. All properties east of Ocean Blvd. from the split at Ocean Blvd/NC 12 extending to Hickory Trail, and,
  - iii. All properties north of Hickory Trail that abut the Atlantic Ocean extending to the northern town limit.



#### TOWN OF SOUTHERN SHORES

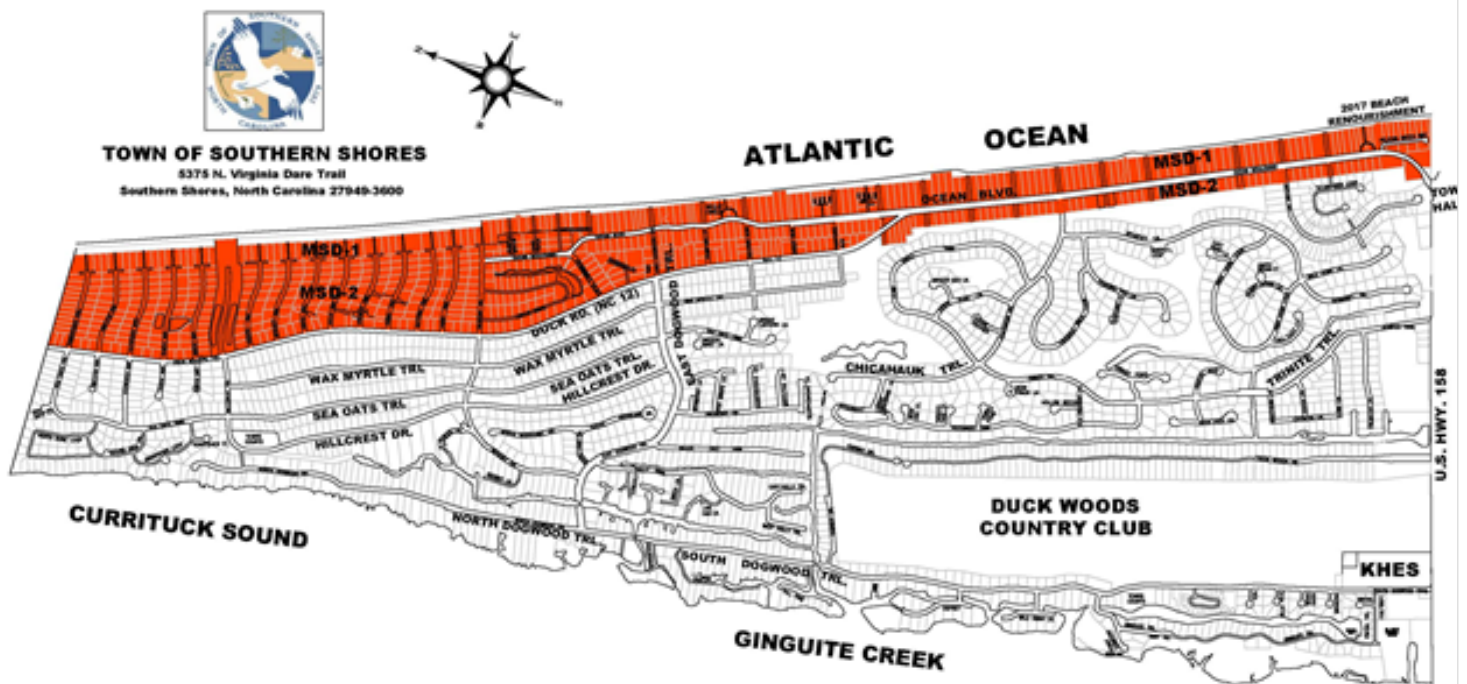
5375 N. Virginia Dare Trail  
Southern Shores, North Carolina 27949-3600



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## CONCEPTUAL MUNICIPAL SERVICE DISTRICTS

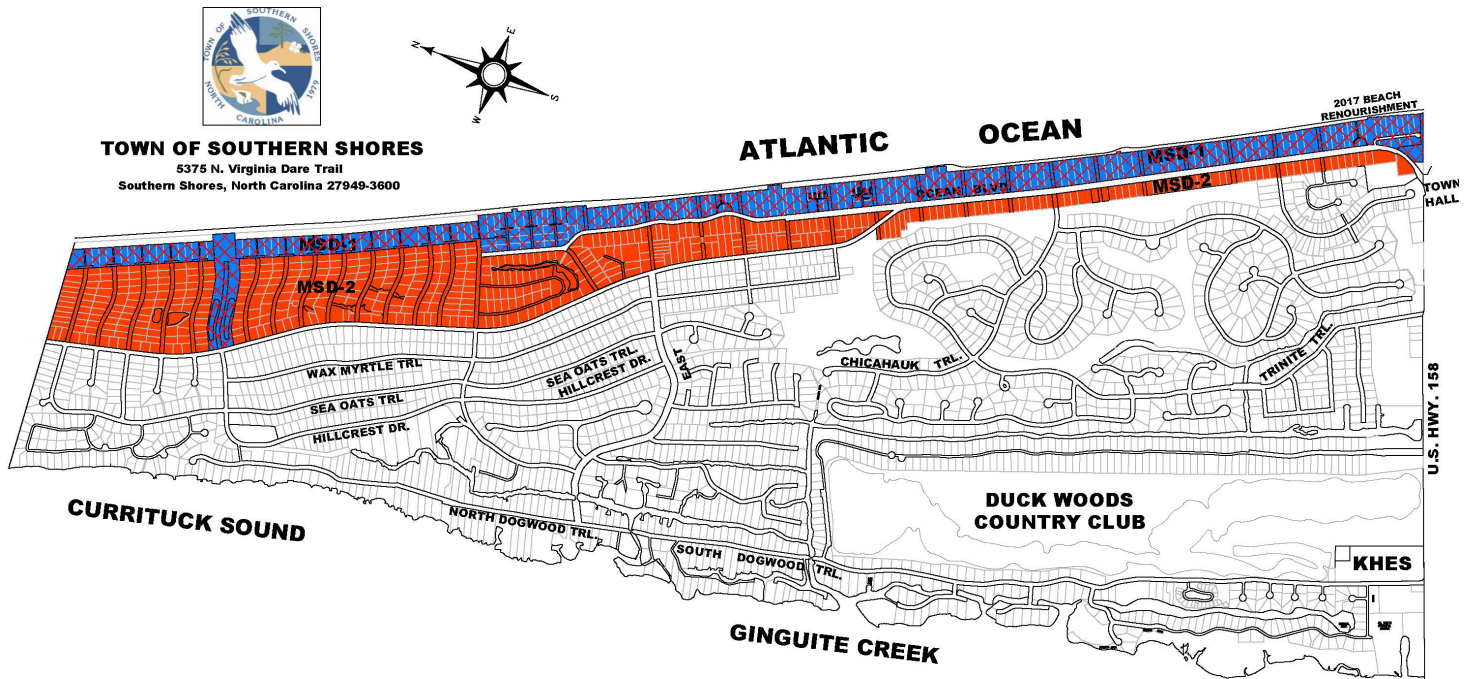
- District 2-**
- i. All properties in District 1, and,
  - ii. All properties located east of Ocean Blvd/NC 12 and Duck Road/NC12 beginning at the southern town limit extending north to the northern town line, and,
  - iii. All properties located west of and abutting Ocean Blvd/NC 12. beginning at the southern town limit extending north to 137 Ocean Blvd, and abutting Duck Road/NC 12 beginning at 139 Duck Road extending north to 149 Duck Road,



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## CONCEPTUAL MUNICIPAL SERVICE DISTRICTS

## Map depicting both Municipal Service Districts



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## **CONCEPTUAL MUNICIPAL SERVICE DISTRICTS**

Establishment of Municipal Service Districts allows for an additional levy of property tax rates with a higher rate for those in Districts receiving beach nourishment protection services to a greater extent than the rest of the Town.

- 2) Statement indicating that services are needed in the districts to a demonstrably greater extent than the rest of the Town.

Section 160A-536 of the North Carolina General Statutes authorizes the Town to create one or more Municipal Service Districts (MSDs) to finance, provide, or maintain for the district(s) beach erosion control and flood and hurricane protection works which the Town's beach nourishment project is designed to provide to a demonstrably greater extent than the remainder of the Town.

The Town is committed to beach nourishment to maintain a wide recreation beach strand, to protect structures of historic significance, to maintain a tax and economic base, and to protect infrastructure including facilities for public recreational access. In addition to the consideration of a town wide tax for beach nourishment, the Town Council for the Town of Southern Shores

has determined that the creation of two (2) Municipal Service Districts are necessary as those districts receive a greater benefit from the beach nourishment project than the rest of the Town to meet the needs and goals set forth above.

The beach nourishment project is designed to limit damage from erosion and storms, thus protecting structures from this damage in District One and District Two. District One receives the greatest benefit as it is closest to the ocean, benefits to a greater degree by ocean influence and beach access and is at greater risk of storm damage than those in District Two and the rest of the Town. District Two receives those same benefits but to a lesser extent than District One as it is set back further from the improvements, but to a greater extent than the rest of the Town.

3) Plan for providing proposed services in the Municipal Service Districts.

Numerous studies have focused on evaluating storm vulnerability and useable beach along the Town's oceanfront shoreline to determine where beach nourishment should be considered. Coastal Protection Engineering of North Carolina, Inc. (CPE-NC) developed a series of project options for consideration by the Town of Southern Shores. In July of 2020, the Town authorized CPE-NC to design a beach nourishment project for the Town.

CPE-NC will provide engineering, environmental, and geotechnical services to the Town of Southern Shores in support of a beach nourishment project scheduled for 2022. The specific services include project management, environmental documentation and permitting, engineering design, borrow area investigations and design, and a baseline survey of the native beach.

The Town is attempting to implement a long-term shoreline management program aimed at: 1) Providing and maintaining a reasonable level of storm damage reduction to public and private development; 2) Mitigating long-term erosion that could threaten public and private development, recreational opportunities, and biological resources; and 3) Maintaining a healthy beach that provides sufficient useable beach and supports valuable shorebird and sea turtle nesting habitat. The Town has already adopted an annual beach monitoring plan and recently conducted its third annual beach profile monitoring event that spans the entire Town oceanfront.

A study conducted by the Town's coastal engineering consultant in 2018, and updated most recently in 2020, recommended the construction of a beach fill project to meet the Town's objectives. The Project entails the dredging and placement of sand along the entire ocean beach of 3.7 miles in Southern Shores. Sand is expected to be dredged from an offshore borrow area located in Federal waters that has already been designed and permitted. The proposed project design calls for 30 cubic yards per linear foot of beach compatible sand, or a total volume of 591,000 cy. This sand will be used to construct a variable width berm at elevation +6.0 ft. NAVD88. An additional 286,900 cy is proposed to account for diffusion losses, and advanced fill. The purpose of the advance fill is to maintain the integrity of the project design over a 5-year renourishment interval. The total volume to construct the project is estimated to be 878,300 cy. The project has an estimated cost of between \$14,000,000 - \$16,000,000.