



Town of Duck, North Carolina Municipal Service District Report Town of Duck Beach Nourishment Project

Background:

In May of 2013, consultants engaged by the Town of Duck, Coastal Planning and Engineering of North Carolina (CP&E), completed an “Erosion and Shoreline Management Feasibility Study” for the Town. The study recommended that in the “hot spot” areas of the Town, which hot spots are located north of the Army Corps of Engineers Field Research Facility (ACOE FRF) property, a long term erosion mitigation (beach nourishment) project utilizing a dredge and an offshore sand borrow source was the most effective way to mitigate against the erosion occurring in this area, both in terms of cost and efficacy. In the area immediately north of the ACOE FRF property referred to as Segment 7 in the study (from north of the Army Corps property to Dianne Street) erosion has been a long term trend with over 150 feet of shoreline having been lost since 1980. This trend is expected to continue without a beach nourishment project. The structures in this area are becoming increasingly vulnerable to storm damage due to their proximity to the shoreline, the width of the beach, and the lack of protection provided by the dune structures that remain in this area. In addition, the area referred to as Segment 8 (from Dianne Street north to Martin Lane) was also identified in the study as experiencing significant erosion in the years after 1980. While the Erosion and Shoreline Management Feasibility Study indicated that all of Segment 8 should be a part of any project, additional engineering analysis refined the project area to only include the southern portion of Segment 8 (from Dianne Street to slightly north of Oyster Catcher Lane). Although recently the erosion in this area has been limited, models indicate that this portion of Segment 8 is vulnerable to future erosion and storm damage, which can also only be mitigated through the construction of a beach nourishment project. On November 5, 2014, the Town Council approved this 1.7 mile area, specifically, from the northern boundary of the ACOE FRF property north to 140 Skimmer Way with 500 foot tapers on each end, as the beach nourishment project area. Approximately 1,061,200 cubic yards of beach compatible sand will be placed from an offshore borrow source in the project area by use of dredge in accordance with engineered plans developed by CP&E.

Funding for this project, which is estimated to cost approximately \$14,589,000, will be through revenue derived from the Dare County Beach Nourishment Fund (\$7,700,000), with the remaining

\$6,889,000 to be funded through a combination of General Fund appropriation and the creation of Municipal Service Districts (MSDs). That is, the Town's portion of the cost of the project will be funded by a contribution from all of the taxpayers in Duck (no tax increase is expected for this portion of the funding) with additional funding being provided by property owners in the project area, both oceanfront and non-oceanfront MSDs. The Town will be issuing Special Obligation Bonds to pay its portion of the project cost with debt service for the bonds to be paid back over a five year term. This debt service is estimated to be \$1,221,390 per year for the five year term. At its November 5, 2014, Regular Meeting, the Council approved for public hearing on March 4, 2015, a plan which would apportion the payment of this debt as follows: 20% to be paid through the Town's General Fund (no additional tax will be levied by the Council), 40% to be paid by oceanfront property owners and 40% to be paid by non-oceanfront property owners. The additional tax per year for oceanfront property owners in the MSDs would be \$0.463 and for non-oceanfront property owners in the MSDs the additional tax would be \$0.148.

Statutory Authority:

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; the beach nourishment project is designed to provide beach erosion control and flood and hurricane protection works in the MSDs. Section 160A-537(a) of the North Carolina General Statutes allows the Town to establish, by resolution, service districts upon a finding that the proposed districts are in a demonstrably greater need than other areas of the Town for services authorized by §160A-536. In order to establish an MSD or MSDs, the Town Council must hold a public hearing on the proposed district(s). Prior to this public hearing, a report must be prepared that includes: 1. a map of the proposed district(s), showing its proposed boundaries; 2. a statement showing the proposed district(s) meet or meets the standards set out in §160A-537(a); and, 3. a plan for providing in the district(s) one or more of the services listed in §160A-536. This report is intended to provide the foregoing three requirements.

The Town Council will hold a public hearing on the proposed Municipal Service Districts related to the Town's Beach Nourishment Project on Wednesday, March 4, 2015, at 7:00 p.m. in the Town of Duck Meeting Hall.

Map of Proposed Municipal Service Districts:

As a part of this report there are three maps illustrating the proposed Municipal Service Districts. These maps are included in Appendices A, B and C. Appendix A includes a map showing the entire Municipal Service District Limits. This area includes all property (real, personal and motor vehicle) between the Atlantic Ocean and the Currituck Sound from the northern boundary of the Army Corps of Engineers (FRF) north to 140 Skimmer Way and 1456 Duck Road and including 133 and 135 Skimmer Way and 100 to 112 Oyster Catcher Lane. Appendix B includes a map illustrating Municipal Service District A (MSD-A). MSD-A includes all property as is shown in the Municipal Service District Limits map included in Appendix A. The additional tax to be levied in MSD-A is \$0.148 (14.8 cents) per one-hundred dollars of a property's assessed value. Appendix C includes a map illustrating Municipal Service District B (MSD-B), which area overlaps with MSD-A. MSD-B includes all property adjacent to the Atlantic Ocean from the northern boundary of the Army Corps of Engineers (FRF) north to 140 Skimmer Way. The additional tax to be levied

in MSD-B is \$0.315 (31.5 cents) per one-hundred dollars of a property's assessed value, which amount is in addition the additional tax to be levied on the MSD-B properties that are also located within MSD-A. Thus, the total additional tax to be levied on oceanfront property owners including both MSD-A and MSD-B is \$.463 (46.3 cents) per one-hundred dollars of a property's assessed value. The additional tax to be levied on non-oceanfront property owners from MSD-A is \$0.148 (14.8 cents) per one-hundred dollars of a property's assessed value.

Statement Showing Proposed Districts Meet the Standards Set Out in §160A-537(a):

As originally identified in the "Erosion and Shoreline Management Feasibility Study" and approved by the Town Council in May 2013, areas within the Town now identified as MSD-A and MSD-B are subject to significant and chronic erosion and storm damage to a demonstrably greater extent than that experienced in other areas of the Town of Duck. Therefore, MSD-A and MSD-B are in a demonstrably greater need of a beach nourishment project than other areas of the Town to provide erosion control and storm protection works, thus providing protection of access to and the enhancement of a recreational beach, and maintaining the values of properties in the MSD limits.

Specifically, MSD-A (the entire MSD limits) benefits from a beach nourishment project by the protection of access to and the enhancement of the recreational beach, and the maintenance of property values in the MSD limits. The Town of Duck has no public beach accesses, rather, property owners who wish to access the beach must do so from private property access points or from private, homeowners' association maintained access points. Individuals in the MSD limits without the ability to access the recreational beach from an oceanfront property, are reliant on the private, homeowners' association maintained access points within the MSD limits. If any access point, either from private property or one provided by a homeowners' association, is damaged from erosion and storm damage, access to the beach becomes limited or nonexistent. In addition, erosion and storm damage can render the recreational beach unusable due to lost beach area, altered water levels, increased debris or other impediments, all of which again impact access. Since the value of property in the Town of Duck is tied to the ability to access and use the recreational beach, any impact on the ability of individuals to access and use the recreational beach will be felt on property values. The beach nourishment project is designed to limit and control damage from erosion and storms, thus protecting access to and use of the recreational beach and, in turn, property values.

MSD-B (oceanfront properties only) benefits from a beach nourishment project by the protection of access to and the enhancement of the recreational beach, and the maintenance of property values in the MSD limits as detailed in the paragraph above, and thus resulting in inclusion of the MSD-B properties in MSD-A as well. Properties in MSD-B also benefit from a beach nourishment project by the direct protection of these properties from damage to structures (primary and accessory) that result from erosion and storm damage. The beach nourishment project is designed to limit damage from erosion and storms, thus protecting structures from this damage.

Plan for Providing in the Municipal Service Districts One or More of the Services Listed in §160A-536:

As currently designed, the Town of Duck Beach Nourishment Project will utilize an offshore borrow area and dredge to place approximately 1,061,200 cubic yards of beach quality sand along the ocean shoreline of the Town north of the Army Corps of Engineers Field Research Facility

(ACOE FRF) to provide five years of erosion control and mitigation and also storm damage protection and reduction. The main fill area will stretch 7,980 linear feet from 137 Spindrift Lane north to 140 Skimmer Way. A 500 foot taper will be constructed on each end of the main fill area (see Figure 1). Within the main fill area the typical design of the project will include a 20 foot dune crest width at +20 ft. NAVD88 and a 65 to 75 foot design berm width at +6 foot NAVD88 (see Figure 2). Additional fill material will be placed east of the design berm to allow for profile equilibration and expected erosion losses throughout the 5 year maintenance cycle.

Figure 1

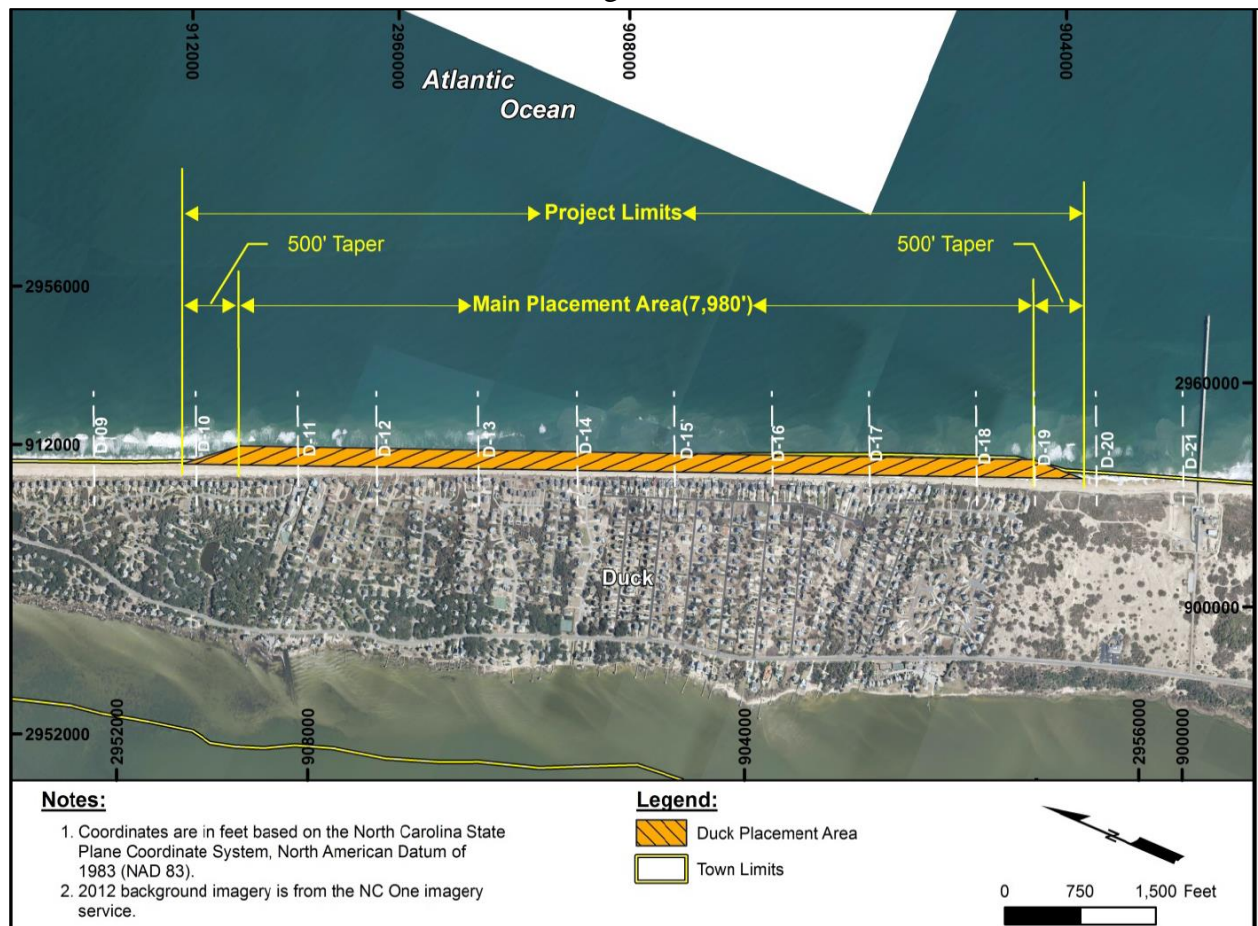
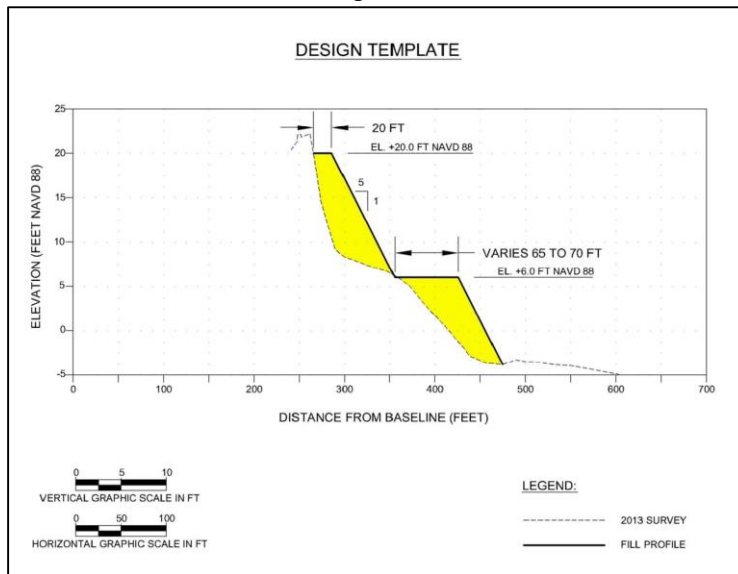


Figure 2



Municipal Service District Implementation and Beach Nourishment Project Timeline:

The Town Council will hold a public hearing on the proposed Municipal Service Districts related to the Town of Duck Beach Nourishment Project on Wednesday, March 4, 2015, at 7:00 p.m. in the Town of Duck Meeting Hall. At the conclusion of this public hearing, the Town Council may approve a resolution that establishes the MSDs and the tax rates to be levied within the MSDs or defer action on the item until a future meeting. Provided the resolution establishing the MSDs and the tax rates to be levied within the MSDs is approved, the additional tax levy will become effective on July 1, 2015.

It is anticipated that the environmental documentation associated with the Town of Duck Beach Nourishment Project will be completed in the early winter of 2015. All permits associated with the construction of the project are expected to be received by December of 2015. Bids related to both the construction and the financing of the project are expected to be received and reviewed by January 1, 2016, with approval to enter into contracts for the construction and financing of the project authorized by February 2016. Construction would then occur sometime between March 2016 and February 2017 based on a schedule approved by the contractor and the Town.

Additional Information:

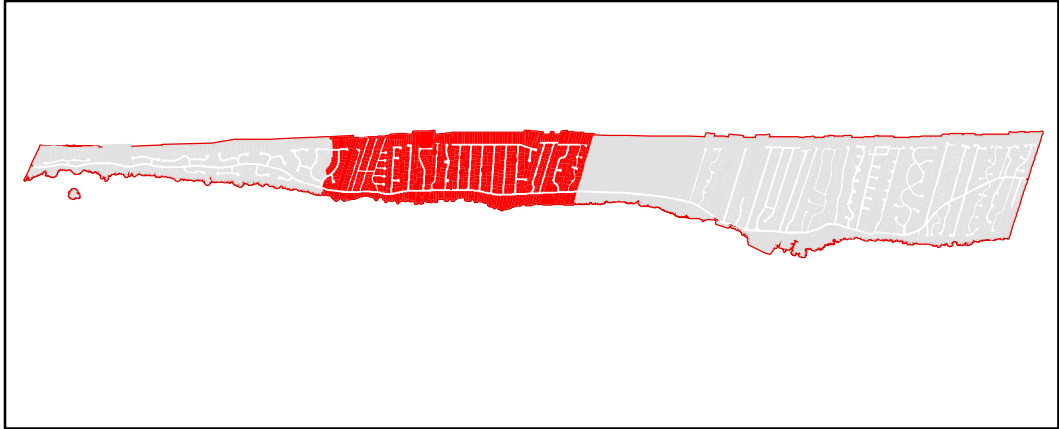
For additional information visit www.townofduck.com/beach-nourishment-project/ or contact Christopher Layton, Town Manager, at 252-255-1234 or at clayton@townofduck.com.

APPENDIX A



Beach Nourishment Area
Municipal Service District Limits

Updated November 10, 2014

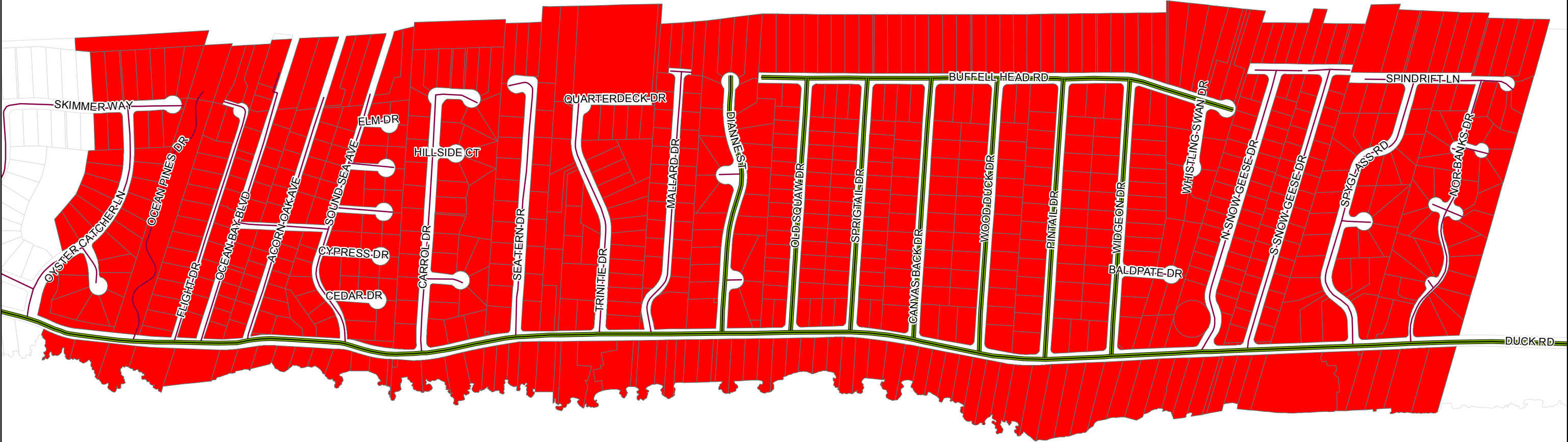
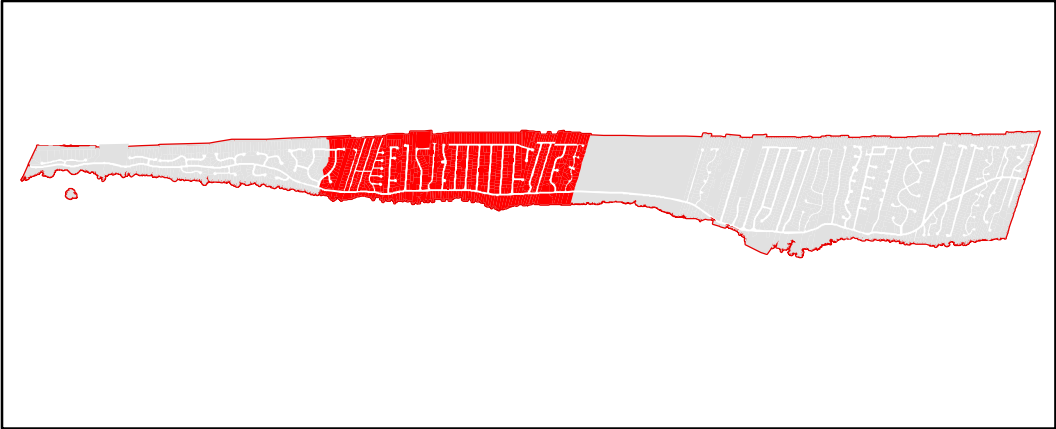


APPENDIX B



Beach Nourishment Area
Municipal Service District A

Updated November 10, 2014



APPENDIX C



Beach Nourishment Area
Municipal Service District B

Updated November 10, 2014

