

FINDING OF NO SIGNIFICANT IMPACT

Issuance of a Negotiated Agreement for Use of Outer Continental Shelf Sand from Borrow Area A in the Towns of Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills, NC, Multi-town Shore Protection Project

Pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), and Department of the Interior (DOI) regulations implementing NEPA (43 CFR 46), Dare County, North Carolina prepared an Environmental Assessment (EA) that considers the use of Outer Continental Shelf (OCS) sand for a nourishment event along the shoreline within the Towns of Duck, Southern Shores, Kitty Hawk, and Kill Devil Hills (hereafter referred to as the Project) severely impacted by Hurricane Dorian and naturally occurring erosion. This EA incorporates by reference and updates information in three EAs completed in 2015 analyzing the impacts of the initial nourishment project in the Towns of Duck, Kitty Hawk, and Kill Devil Hills. The Bureau of Ocean Energy Management (BOEM) contributed to the preparation of this EA, then conducted its own independent review before adopting the document.

Proposed Action

The purpose of the Project is to renourish the oceanfront shoreline and provide storm protection to the human (e.g., public infrastructure, homes) and natural (e.g., shorebird and sea turtle nesting habitat) environments vulnerable to storm damage and erosion in Dare County. The Project follows the 2017 initial nourishment event, which placed more than 3.9 million cubic yards (Mcy) in the four towns. Project proponents propose to place 4.4 Mcy (up to 6.6 Mcy of dredged material) of OCS sand along approximately 11.65 miles of the Dare County shoreline. The entirety of the Towns of Kitty Hawk and Southern Shores and portions of the Towns of Duck and Kill Devil Hills' shoreline would be within the placement event's scope. Table 1 includes a breakdown of shoreline length, beach fill design, and material volume to be used for each town.

Table 1. Description of the Project's design in each town within Dare County.

Town	Shoreline Length (ft)	Beach Fill Design	Proposed Fill Volume (cy)
Duck	8,415	<i>Dune:</i> 20 ft width, +20.0 ft NAVD88 elevation, 1V:5H seaward slope <i>Berm:</i> variable width, +6.0 ft NAVD88 elevation	806,500
Southern Shores	21,625	<i>Dune:</i> 24 ft crest width, max +15 ft NAVD88 elevation <i>Berm:</i> 25-100 ft width, +6.0 ft NAVD88 elevation	1,216,208
Kitty Hawk	20,970	<i>Dune:</i> 25 ft crest width, +18 ft NAVD88 elevation <i>Berm:</i> 60 ft width, +6.0 ft NAVD88 elevation	1,521,645
Kill Devil Hills	14,464	<i>Dune:</i> 20 ft width, +15 ft NAVD88 elevation <i>Berm:</i> 40 ft. width, +6.0 ft NAVD88 elevation	848,735
TOTAL	65,474	N/A	4,393,088¹

Note: Proposed fill extent and volumes include taper sections; if each of component of the project is constructed in tandem, some tapers will not be needed so length and fill could decrease. ¹ Dredged volumes may reach 6,589,633 cy depending on losses from dredging and/or additional volume requirements due to prior storm event

BOEM's action is to enter a two-party Non-competitive Negotiated Agreement (NNA) with Dare County to authorize the use of up to 6.6 Mcy of OCS sand from Borrow Area A for construction of the Project. The 1,171-acre Borrow Area A is located between 5.0 and 6.5 miles offshore the town of Kill Devil Hills, NC ([Attachment 1](#)). The beach construction template includes both a dune and beach berm feature, described in Table 1. The Project differs from the construction completed in 2017 given expansion of the beach fill area along the Southern Shores shoreline from 2,500 feet to 21,625 feet. The U.S. Army Corps of Engineers (USACE) Wilmington District also plans to issue Department of the Army Permits for the Project pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).

Alternatives to the Proposed Action

Dare County and BOEM evaluated two alternatives: 1) beach nourishment from an offshore borrow area with Federal waters (preferred alternative) and 2) no new action. The no new action alternative represents a continuation of the historical actions the Towns have taken to protect their shorelines, but it does not include maintenance of the 2017 nourishment project.

While this EA only evaluated these two alternatives, the 2015 EAs analyzed the effectiveness of various alternatives and provided a rationale for why beach nourishment was preferred for Dare County. The preferred alternative proposed in the 2021 EA would maintain the beach habitat and shoreline protection initially created by the 2017 event. The proposal also includes 5 years of advanced fill, and integration of the additional stretch of shoreline into the town of Southern Shores.

Environmental Effects

In June 2021, Dare County prepared a Final EA evaluating the potential environmental effects associated with dredging and transporting sand from Borrow Area A with placement along the four Towns' oceanfront shoreline. The USACE plans to issue a separate Statement of Findings/FONSI and related environmental evaluation in lieu of adopting this EA.

Dare County, BOEM, and USACE identified a suite of environmental commitments necessary to avoid, minimize, and/or reduce and track any foreseeable adverse effects that may result from the Project. Dare County is responsible for implementing all environmental requirements prior to, during, and after construction, as described in the 2021 EA. BOEM and parties engendering mitigation measures are responsible for enforcing those requirements.

Significance Review

Pursuant to 40 CFR 1501.3(b), BOEM analyzed the significance of potential effects of the proposed action considering both the potentially affected environment and the

degree of effects. Connected actions (defined per 40 CFR 1501.9(e)(1)), including on-and-off site mobilization and beach placement activities, were also considered.

BOEM considered the affected area and resources potentially present in both spatial and temporal contexts. The proposed action is considered site-specific. The total disturbed beach fill area (including below and above mean high water) is approximately 565 acres (Duck: 104; Southern Shores: 156, Kitty Hawk: 189, and Kill Devil Hills: 116 acres). Borrow Area A features approximately 1,173 acres of sandy submerged habitat. Effects would be limited to the placement site and the immediate dredging area, both of which are dominated by storms and physical processes of waves and currents. Effects of the Project would generally be limited to the 3.5-month to 9-month construction window and the time interval associated with equilibration of the placement material, recovery of the disturbed borrow area, and any habitat change along the beach. BOEM considered the following when evaluating the degree of effects:

(i) Short- and long-term effects

Potential effects associated with the Project would be localized, short-lived, and generally reversible as described below. The only potential long-term effect within Borrow Area A would be related to physical changes to the shoals due to the removal of OCS sand and limited infilling or reshaping expected. Borrow Area A was previously dredged for the initial 2017 project. Negligible impacts to current patterns or tidal flow are anticipated, and most effects are expected to be limited to the immediate dredging area. Dredging in the borrow area is likely to permanently reduce its sand resources. However, the removal of sand from Borrow Area A has been designed to minimize long-term impacts to sand ridges and associated habitat.

Dredging of Borrow Area A would temporarily impact benthic epifaunal and infaunal organisms and result in the loss of some epifaunal and infaunal species. However, recruitment and recolonization would occur in the short-term after dredging given similar benthic community composition in the surrounding habitat. Further, benthic impacts would be minimized by focusing dredging in naturally accreting areas in the shoal and maintaining consistent pre- and post-dredge sediment characteristics. Recovery of the benthic population is expected within 1 to 2 years after dredging; therefore, the potential for significant or chronic impact would be avoided. Impacts are anticipated to the nearshore and intertidal soft bottom communities of the beach placement site; however, they are expected to recover within a similar timeframe through recruitment from surrounding communities.

Current sea turtle nesting opportunities along the Project's area are diminished because of long-term chronic beach erosion and severe storm damage, resulting in lower-quality habitat. Despite this, leatherback, Kemp's ridley, green, and loggerhead sea turtles have been documented nesting along the northern Outer Banks within the Project's area. Hawksbill sea turtles occur in coastal waters off Dare County, but do not currently nest within the Project's area. Borrow Area A sand composition meets the State of North Carolina's sediment criteria for native beach compatibility. Construction activities and staging of equipment may affect existing dune vegetation; however, the Project

includes revegetation of dune areas that would be disturbed. Nesting habitat may be affected over the short-term, until the beach and dune system equilibrate post-construction and provide improved habitat. The waters off the southernmost portion of Kill Devil Hills, as well as the Borrow Area A, are within National Marine Fisheries Service's (NMFS) critical habitat for the loggerhead sea turtle (LOGG-N-1). These critical habitats are not likely to be adversely affected as even minor changes from dredging would not change the critical habitat's defined depth range. BOEM and USACE will avoid and/or minimize effects to protected species and designated critical habitat in accordance with requirements outlined in the NMFS South Atlantic Regional Biological Opinion (SARBO, 2020) and the 2021 U.S. Fish and Wildlife Service Batched Biological Opinion for Shoreline Protection Projects, Dare County, North Carolina.

The Project's area falls under NMFS and the South Atlantic Fisheries Management Council (SAFMC) jurisdiction. NMFS has designated Essential Fish Habitat (EFH) in and adjacent to the Project's area for various demersal, pelagic, and highly migratory species. The Project will have temporary effects to EFH from dredging and placement activities. Dare County will implement avoidance and minimization measures to minimize effects on those fish species and fish habitat including but not limited to: avoiding/minimizing construction overlap with peak recruitment windows for benthic infaunal assemblages and federally managed species, and avoidance of hard bottom. The effects would not be significant, as there is comparable, undisturbed habitat adjacent to Borrow Area A.

Other expected short-term effects from the Project include interruptions of shorebird foraging and resting at the placement site, noise and beach access closure effects on the local socio-economics and aesthetics, impediments to recreational usage at the placement site, restricted boating navigation at the dredge and placement sites, increases in turbidity at the construction sites, localized and minor noise level increases at the dredge site, temporary and localized air quality reduction from equipment emissions, and potential disturbance to undocumented cultural resources. These effects are likely limited to the 3.5-month to 9-month construction period.

(ii) Beneficial and adverse effects

BOEM considered potential effects to the physical environment, biological resources, cultural resources, and socioeconomic resources.

Dare County, in coordination with BOEM, developed a borrow area use plan strategy to optimize the use of sand and avoid and/or minimize environmental effects. Some coastal sand dependent species (e.g., native and migratory shorebirds, sea turtles) may experience temporary disruptions to foraging and nesting during and following construction. However, the birds and sea turtles that use the beach for foraging or nesting may benefit in the long-term from higher quality habitat. Dare County plans to implement sea turtle nesting monitoring protocols and may elect to do relocation trawling. Dune vegetation would help create higher quality habitat to improve ecosystem function.

Several federally listed species may occur in the Project's area, and impacts are described in detail in the 2017 EA. Effects on ESA-listed species that may be affected by the expanded placement area for the current Project are discussed here. Dredging activities within Borrow Area A overlap with the distribution of threatened loggerhead (Northwest Atlantic Distinct Populations Segment (DPS)), and endangered green (North Atlantic DPS), leatherback, hawksbill, and Kemp's Ridley sea turtles protected under the Endangered Species Act (ESA). Placement of sediment within the designated beach placement site may affect nesting sea turtles (leatherback, Kemp's ridley, green, and loggerhead) and piping plovers. Adherence to state and federal requirements, including sediment compatibility requirements, dredging operational constraints, endangered species observers, sea turtle nest monitoring, *etc.* would avoid and/or minimize effects. However, there is residual risk for injury and mortality of sea turtles in water. The Project would not occur in "optimal" piping plover habitat and is not likely to adversely affect the piping plover. Rufa red knots are expected to be affected similarly to the piping plovers, as increased recreational use of the beach could degrade stopover habitat through benthic infauna (i.e., prey) loss, but the amount of roosting and foraging habitat would be increased. No piping plovers or red knots have been observed in the Project's area within the last five years, so these impacts may not be realized. Seabeach amaranth may be buried during sand placement and the extent of impact depends on the plant's existing seed bank at the time of burial. The shoreline restoration may encourage colonization post-Project as has been seen in other nourishment projects.

Seafloor-disturbing activities (*e.g.*, dredging, anchoring, pipeline placement, *etc.*) would occur during proposed construction activities. Project proponents conducted cultural and hard bottom resource clearance surveys in Borrow Area A and beach placement areas. The remote sensing surveys identified three anomalies in Borrow Area A that may be culturally significant and will therefore be avoided. Final pipeline corridors have not been identified at this point, but those corridors would be identified before construction and surveyed when established. Any potentially culturally significant features would be avoided. No adverse effects to historic or pre-contact resources are expected with implementation of recommended avoidance measures.

There are no hard-bottom resources in Borrow Area A or the Project placement area, and pipeline corridors. Construction activities are required to meet all state Water Quality Certification conditions, including turbidity monitoring, in accordance with the Department of the Army permit and NC Department of Environmental Quality requirements.

Indirect effects are also likely to occur. The Project could increase the capacity for recreational activity (*e.g.*, beach access, surfing, shore fishing, wildlife viewing).

(iii) Effects on public health or safety

Significant effects to public health and safety are not expected. The Project would provide for increased recreational opportunity from the improved beach and dune habitat. Temporary disruption to recreation would occur in small alongshore stretches

as the construction progresses along the placement site. However, the Project would result in long-term recreational improvements. Construction of the dune and beach would provide protection of existing infrastructure. Emissions from construction equipment may temporarily affect air quality in the immediate vicinity of operations. Noise would temporarily increase at the placement locations during construction, and then would return to ambient levels after project completion. The construction equipment at the beach placement site could pose a minor public safety risk; public access would be restricted in areas of active construction. BOEM determined that there are no minority or low-income populations in the Project's area; therefore, the Project would not disproportionately affect populations outlined in Executive Order 12898.

(iv) Effects that would violate a Federal, State, Tribal, or local law protecting the environment

ESA and Magnuson-Stevens Fishery Conservation and Management Act consultations are completed. BOEM and USACE have determined that dredging activities associated with the Project are within scope and will operate under relevant biological opinions. Dare County will comply with all relevant reasonable and prudent measures (RPMs) and associated terms and conditions (T&Cs).

The project proponent will ensure compliance with the Marine Mammal Protection Act. Marine mammals are not likely to be adversely affected by the Project and incorporation of safeguards to protect threatened and endangered species during project construction (i.e., vessel speed requirements, protected species observers, etc.) would also protect non-listed marine mammals in the area.

Migratory birds may experience minor, short-term interruptions to foraging or resting activities linked to prey smothering or turbidity increases. No project-specific bird monitoring plan will be developed, but all State and local entities continuing existing monitoring will be trained to recognize piping plover and rufa red knot presence.

The USACE and BOEM coordinated with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officers (THPOs), as required by Section 106 of the National Historic Preservation Act. The SHPO concurred with the lead agency's determination that the Project would have no adverse effect to historic properties listed, eligible, or potentially eligible for listing in the National Register of Historical Places provided avoidance of potentially significant targets. The USACE and/or BOEM will require Dare County to immediately cease operations and notify SHPO if an unexpected discovery occurs. There are no tribes or tribal lands in the vicinity of the project location, so government-to-government consultations with tribes or with a Tribal Historic Preservation Officer (THPO) were not necessary.

Consultations and Public Involvement

The USACE distributed a Public Notice to Federal, state, and local agencies and other interested stakeholders on March 31, 2021 following receipt of Dare County's

application for a Department of the Army permit. The Public Notice recognized BOEM's authority over the use of OCS sand resources under the OCS Lands Act (OCSLA). The USACE and BOEM considered all comments and integrated responses, as appropriate. This Finding will be made available to the public on boem.gov.

Mitigation and Monitoring

Dare County is responsible for complying with all environmental mitigation measures and monitoring requirements engendered by Federal, State, Tribal, and local laws, including those identified in the 2021 EA and related consultations ([Attachment 2](#)). BOEM will require Dare County to prepare an environmental compliance matrix to document and track all environmental mitigation requirements and identify roles and responsibilities for implementation to ensure compliance prior to, during, and after construction. Additionally, the dredging contractor will be required to provide an environmental protection plan that verifies compliance with relevant environmental requirements. Implementation of mitigation measures and monitoring requirements will ensure effects are not significant.

Any mitigation or monitoring uniquely specified by BOEM in its negotiated agreement is done pursuant to the authority established by the OCSLA and 30 CFR 583. Other Project mitigation is engendered by various authorities, including the ESA, CWA, and CZMA. Other federal or state agencies shall be responsible for enforcement of other mitigation measures. BOEM may terminate its authorization, or refer Dare County to enforcing agencies, if the County does not comply with mitigation measures (30 CFR 583).

Conclusion

BOEM considered the consequences of entering into a negotiated agreement authorizing use of OCS sand from Borrow Area A for this project. BOEM contributed to the preparation of and then conducted its own independent review of the 2021 EA prepared by Dare County before its adoption ([Attachment 3](#)). BOEM finds that the EA complies with the relevant provisions of the CEQ regulations implementing NEPA, DOI regulations implementing NEPA, and other Bureau requirements.

Based on the evaluation of potential effects and associated mitigation measures discussed in the 2021 EA, BOEM finds that entering into a negotiated agreement, with the implementation of the mitigating measures, does not constitute a major Federal action significantly affecting the quality of the human environment, in the sense of NEPA Section 102(2)(C), and would not require preparation of an EIS.

Jeffrey Reidenauer
Chief, Marine Minerals Division

Date

Attachments

Attachment 1 – [Project Maps](#)

Attachment 2 – [Environmental Commitments](#)

Attachment 3 – [Dare County, NC Beach Nourishment Project Environmental Assessment](#)

ATTACHMENT 1
Project Maps

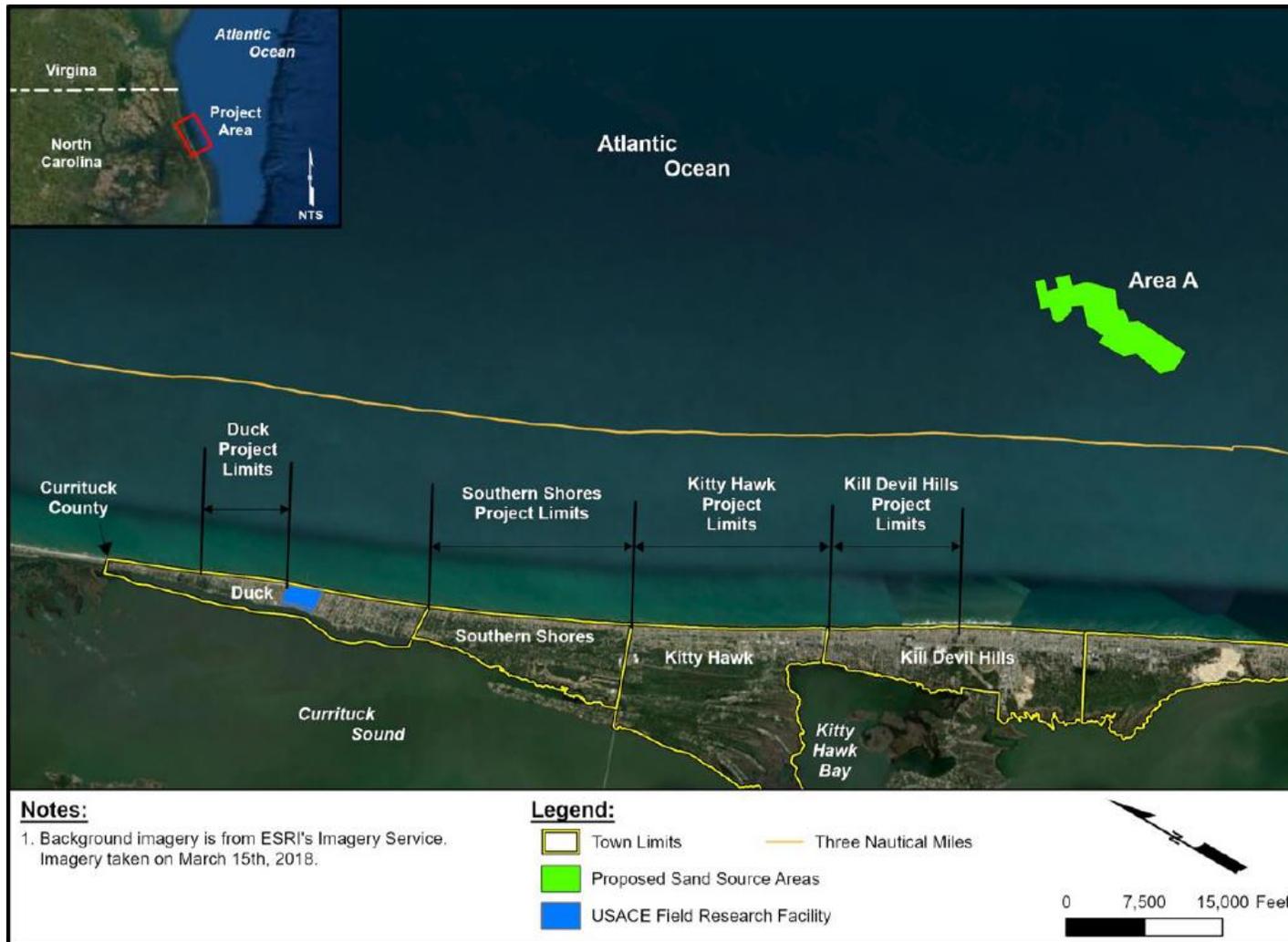


Figure 1. Location Map: Borrow Area A and Project Placement Area (Coastal Protection Engineering of North Carolina, Inc., 2021)

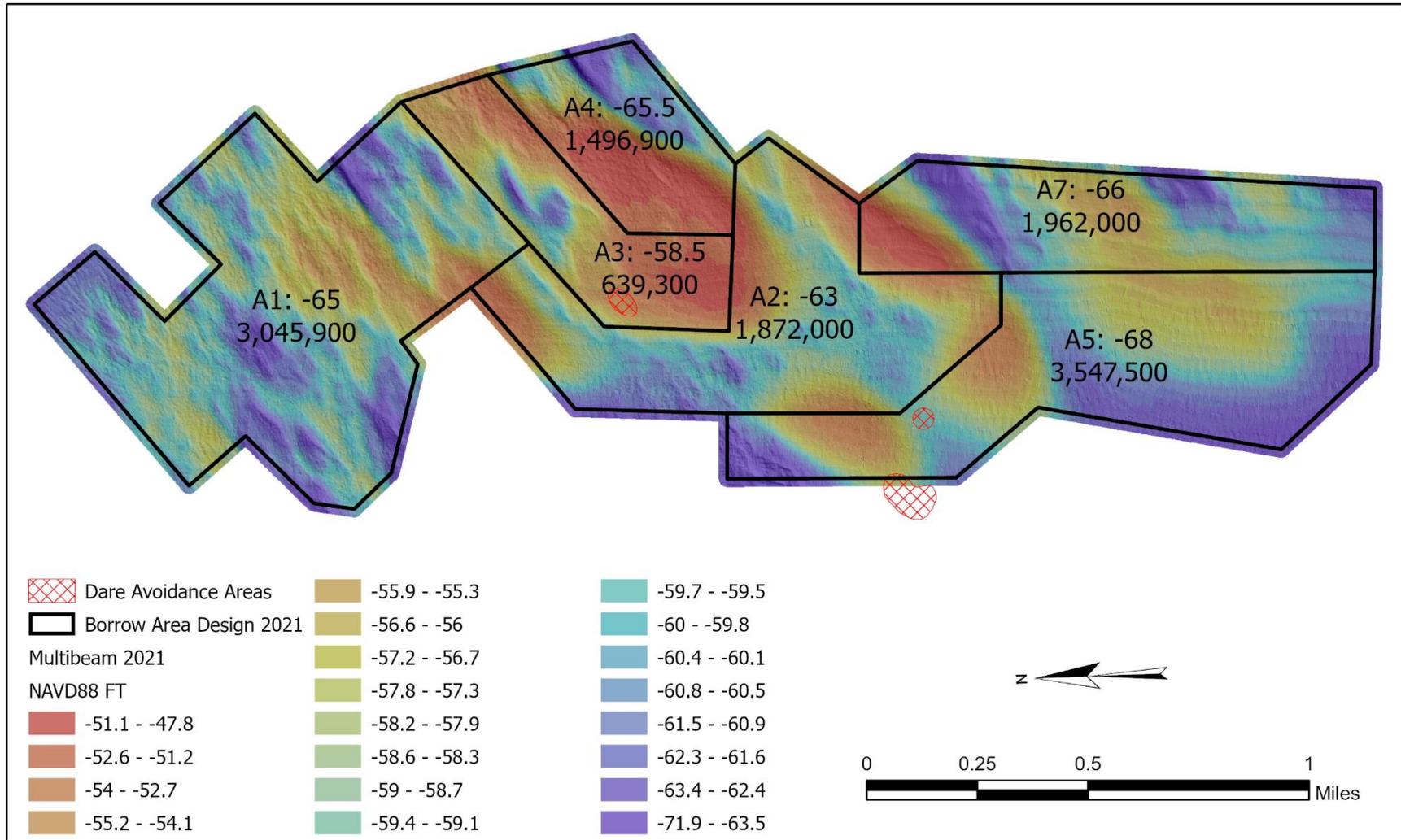


Figure 2. Detail of Borrow Area A (Coastal Protection Engineering of North Carolina, Inc., 2021)

ATTACHMENT 2
Environmental Commitments

Dare County and/or its contractor(s) will implement the environmental compliance measures outlined in the EA, associated consultation documents, and any permits. These requirements will be reflected in the contract plans and specifications as appropriate. Dare County will comply with all environmental mitigation requirements prior to, during, and after construction. Before project construction, Dare County will also prepare an Environmental Compliance Matrix (ECM), in coordination with BOEM, documenting how the County and contractor will comply with all environmental compliance measures, including mitigation measures and monitoring requirements, and identifying associated lead Agency roles and responsibilities for implementation and enforcement. The following referenced documents contain all required mitigation measures and monitoring obligations for implementation by Dare County, as appropriate. Documents containing BOEM-specific mitigation enforceable through this lease and binding on the County and its contractor(s) are bolded below, including relevant sections and pages; however, Dare County and its contractor must implement all relevant mitigation and monitoring mandated by other federal and state agencies.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA):

- 2021. *Dare County Multi-Town Shore Protection Project. Final Environmental Assessment. Prepared by Dare County. June 2021.*
 - **Section 5.0**; pages 55-58.

ENDANGERED SPECIES ACT (ESA):

- 2020. *National Marine Fisheries Service. South Atlantic Regional Biological Opinion (SARBO) for dredging and material placement activities in the Southeastern United States. 27 March 2020.*
 - **Section 2.9.1 (USACE and/or BOEM Project-Specific Review for a Project to be Covered under SARBO)**; pages 68-69
 - **2.9.3 (SARBO Team Communication and Reporting)**; Section 2.9.3.3-2.9.3.5.2 (pages 72-78)
 - **Appendix A**; pages 519-520
 - **Appendix B**; Section 1.1 (DREDGE.2; page 522); Section 1.2 (PLACE.2; pages 523-524); Section 1.3 (page 525); Section 2 (pages 525-528); Section 3.1 (pages 529-531); Section 3.3 (page 532); Section 3.5 (pages 532-533)
 - **Appendix F**; pages 589-596
 - **Appendix H**; pages 599-628
 - **Appendix I**; pages 629-632
- 2021. *U.S. Fish and Wildlife Service Batched Biological Opinion for Shoreline Protection Projects, Dare County, North Carolina (30 September 2021).*

ESSENTIAL FISH HABITAT (EFH):

- 2021. *Dare County Multi-Town Shore Protection Project. Final Environmental Assessment. Prepared by Dare County. June 2021.*
 - **Appendix C; Section 4** (pages 33-34)

- *NMFS response letter to USACE (dated 16 August 2021)*

STATE HISTORIC PRESERVATION OFFICE (SHPO):

- *2021. USACE Public Notice for Corps Action ID Numbers: SAW-2021-00566 through 00569 (dated 31 March 2021). Consultation associated with Borrow Area A and associated pipeline corridors.*
- *2021. SHPO response letters to USACE for Kill Devil Hills, Kitty Hawk, and Southern Shores (dated 30 April 2021).*
- *2021. SHPO response letter to USACE for Duck (dated 24 September 2021).*

NORTH CAROLINA COASTAL AREA MANAGEMENT ACT (CAMA):

- *State of North Carolina Department of Environmental Quality and Coastal Resources Commission Permit No. 87-21. Issued to the Town of Kill Devil Hills on 14 July 2021, amended 20 October 2021.*
- *State of North Carolina Department of Environmental Quality and Coastal Resources Commission Permit No. 113-21. Issued to the Town of Duck on 01 September 2021, amended 20 October 2021.*
- *State of North Carolina Department of Environmental Quality and Coastal Resources Commission Permit No. 126-21. Issued to the Town of Southern Shores on 20 September 2021.*
- *State of North Carolina Department of Environmental Quality and Coastal Resources Commission Permit No. 137-21. Issued to the Town of Kitty Hawk on 05 October 2021.*

DEPARTMENT OF THE ARMY(DA) PERMITS:

- Pending

ATTACHMENT 3
Dare County, NC, Multi-Town Shore Protection Project
Environmental Assessment