DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

January 31, 2023

Planning and Environmental Branch

Mr. Daniel Govoni
North Carolina Department of Environment and Natural Resources
Division of Coastal Management 400 Commerce Ave
Morehead City, NC

Dear Mr. Govoni:

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina, has prepared the Draft Environmental Assessment (Draft EA) for the Wrightsville Beach, NC, Coastal Storm Risk Management (CSRM) Emergency Repair – Evaluation of Borrow Area Alternatives Project, New Hanover County, North Carolina, January 2023. The Bureau of Ocean Energy Management (BOEM) is a cooperating agency under the National Environmental Policy Act (NEPA) for this project due to the potential use of Outer Continental Shelf (OCS) sand resources. BOEM is authorized under Public Law 103-426 [43 United States Code (U.S.C.) 1337 (k) (2)] to negotiate on a non-competitive basis the rights to OCS sand resources for shore protection projects. BOEM may undertake a connected action (i.e., authorize use of the OCS borrow areas) that is related to, but unique from, the USACE's proposed action.

An electronic version of this Draft EA is available on the USACE, Wilmington District website at:

https://www.saw.usace.army.mil/Missions/Coastal-Storm-Risk-Management/Wrightsville-Beach/

Based on the information in the Draft EA, we expect the proposed Federal action will not significantly affect the quality of the human environment; therefore, an Environmental Impact Statement will not be required. If this opinion is upheld following circulation of this report, a Final EA and Finding of No Significant Impact will be completed and circulated. We would appreciate receiving any comments regarding our determination no later than 30 days from the date of this letter.

This letter also serves as a formal consistency determination in which we request your concurrence.

In accordance with Section 307 (c)(1) of the Federal Coastal Zone Management Act of 1972, as amended, the USACE has determined that all dredging activities are consistent, to the maximum extent practicable, with North Carolina's coastal management program. The proposed activities comply with the enforceable policies of North Carolina's approved coastal management program and will be conducted to the maximum extent practicable in a manner consistent with the program and any received authorizations. This determination is based on the review of the proposed project against enforceable policies of the State's Coastal Management Program, which are principally found in Chapter 7 of Title 15A of the NC Administrative Code.

Thank you for your immediate attention to this matter. Should you have any questions or require additional information, please contact Mr. Eric Gasch by telephone at (910) 251-4553 or by email at Eric.K.Gasch@usace.army.mil.

Sincerely,

Jenny Owens Digitally signed by Jenny Owens
Date: 2023.01.31 08:54:34 -05'00'

Jenny Owens
Acting Chief, Planning and Environmental Branch

Enclosure

Project Name: Draft Environmental Assessment for the Wrightsville Beach Coastal Storm Risk Management Emergency Repair – Evaluation of Borrow Area Alternatives, New Hanover County, North Carolina, January 2023.

CZMA Consistency Determination

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina, is seeking authorization to place beach quality sand (≥ 90% sand) on Wrightsville Beach as described in the Draft Environmental Assessment for the Wrightsville Beach Coastal Storm Risk Management Emergency Repair – Evaluation of Borrow Area Alternatives, New Hanover County, North Carolina, January 2023. Sand material will be dredged from an offshore borrow area (Figure 1).

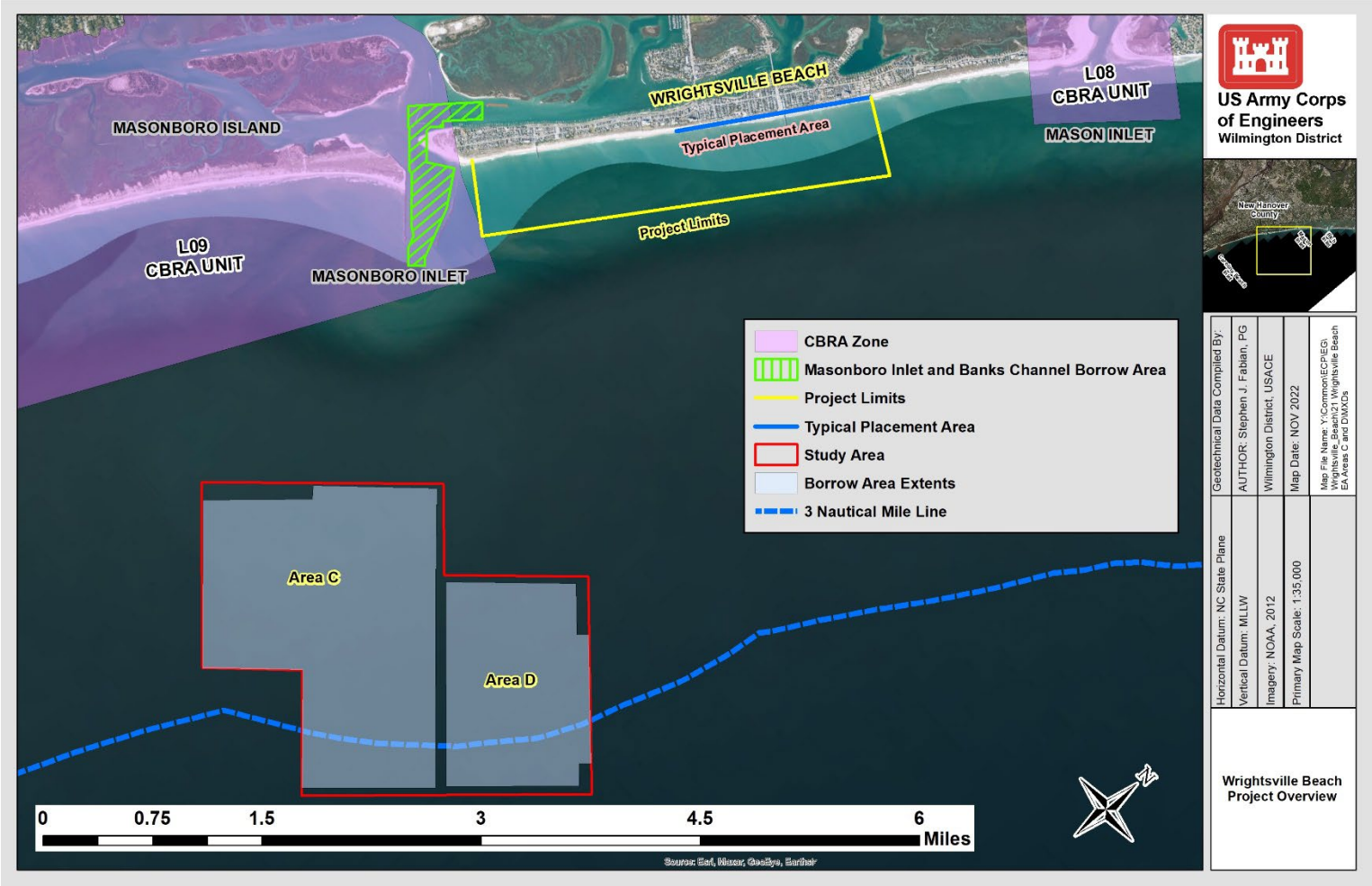

Figure 1. Project Area

Project Purpose

The purpose of the USACE's federal action is to conduct one-time emergency repairs utilizing a viable borrow source that contains the required volume of beach quality sand to repair the authorized Wrightsville Beach CSRM project. In 2019, the USACE completed the Integrated Validation Study Report and Environmental Assessment for the Wrightsville Beach, NC, Coastal Storm Risk Management Project, New Hanover County, North Carolina. (Final Wrightsville Beach, NC, Validation Study, November 2019). The project was authorized pursuant to the Validation Study in 2020, and included the continuation of Federal participation in periodic renourishments through 2036 utilizing Masonboro Inlet and a portion of Banks Channel as the approved borrow source.

Existing Conditions

In 2019, Hurricane Dorian caused significant sand loss to Wrightsville Beach, ultimately resulting in the need for emergency repair as authorized by PL 84-99. The emergency repair will restore the Wrightsville Beach CSRM project template, to the same extent as a periodic renourishment. Including the emergency repair planned for 2023, a total of four more renourishment events, once every four years, are planned in accordance with the 2019 Validation Report. Since this EA only addresses the emergency repair, a second EA will subsequently be completed to analyze the remaining three renourishment cycles of Wrightsville Beach to the end of its project life of 2036. In accordance with NEPA regulations (40 CFR § 1502.14), this EA considers and evaluates the environmental impacts of the proposed borrow area alternatives in the context of new information or changes not previously considered since publication of the 2019 EA/FONSI.

The historical borrow area associated with the project is located within Masonboro Inlet/Banks Channel, located 0.2 miles south of the authorized placement area. Renourishment cycles have been performed on a 4-year interval since 1992. The Masonboro Inlet borrow area is located within Coastal Barrier Resources System (CBRS) Unit L09 as defined in the Coastal Barrier Resources Act (CBRA) (16 U.S.C § 3501 et seq). The Corps previously concluded that use of the borrow area was consistent with the purpose of CBRA based on the US Department of Interior Office of the Solicitor interpretation of Section 6(a)(6)(G) of the CBRA permitting Federal funding for using sand removed from within the System to support shoreline stabilization projects located outside the System. On July 14, 2021, after publication of the 2019 validation report and EA/FONSI, the US Department of Interior Office of the Solicitor reversed their prior 2019 interpretation of the CBRA's statutory text and reinstituted their interpretation that the exemption in Section 6 (a)(6)(G) applies only to projects designed to stabilize shorelines located within the system; thus, removal of sand from within CBRS Unit L09 (Masonboro Inlet borrow area) could not be used to support construction of the authorized Wrightsville Beach project template located outside of

the CBRS. Based on this revised interpretation, the Corps concluded that continued use of the historic authorized borrow source located in Masonboro Inlet for placement in the authorized project area would not be consistent with the purpose of CBRA. Therefore, the search for new offshore borrow area alternatives delayed the planned periodic renourishment to FY 2023.

As a component of this design level data acquisition, the USACE contracted with Geodynamics to perform thorough hydrographic, sidescan and magnetometer/gradiometer surveys within borrow areas C & D to identify any potentially significant submerged cultural resources or hard bottoms. Analysis of the side scan sonar data identified thousands of tires (labeled “Side-Scan Contacts”) in the area surveyed. Based on historical research, approximately 650,000 un-ballasted tires and other materials were deployed by the North Carolina Division of Marine Fisheries in the 1970s and 1980s to create a system of artificial reefs in North Carolina’s ocean waters. The reef in closest proximity to the borrow source is known as AR-370 and is located to the northwest of the borrow site. In addition to tires, AR-370 also contains materials such as concrete pipe sections and sunken vessels / barges. It is speculated that over several decades the steel cable, nylon rope, and polypropylene rope that bound tires together have deteriorated and failed. Storms and natural currents have swept these tires and binding materials well outside of the AR-370 vicinity and have redistributed orphaned tires over much of the borrow site. In conjunction with the side scan sonar survey, a magnetometer/gradiometer survey was performed across the proposed borrow area. In addition to the tires, TAR also identified approximately 1,700 magnetic anomalies along with the tires strewn across the site. Virtually all magnetic anomalies were characterized by low-intensity short-duration signatures that do not appear to have an association with potentially significant submerged cultural resources. These magnetic anomalies are thought to be remnants of steel cable used in construction of AR-370. The TAR report concluded, "Based on both the acoustic targets and magnetic anomalies in the remote sensing data, those areas do not contain signatures that appear to represent potentially significant submerged cultural resources. As a consequence, no additional investigation or avoidance sites are recommended.”

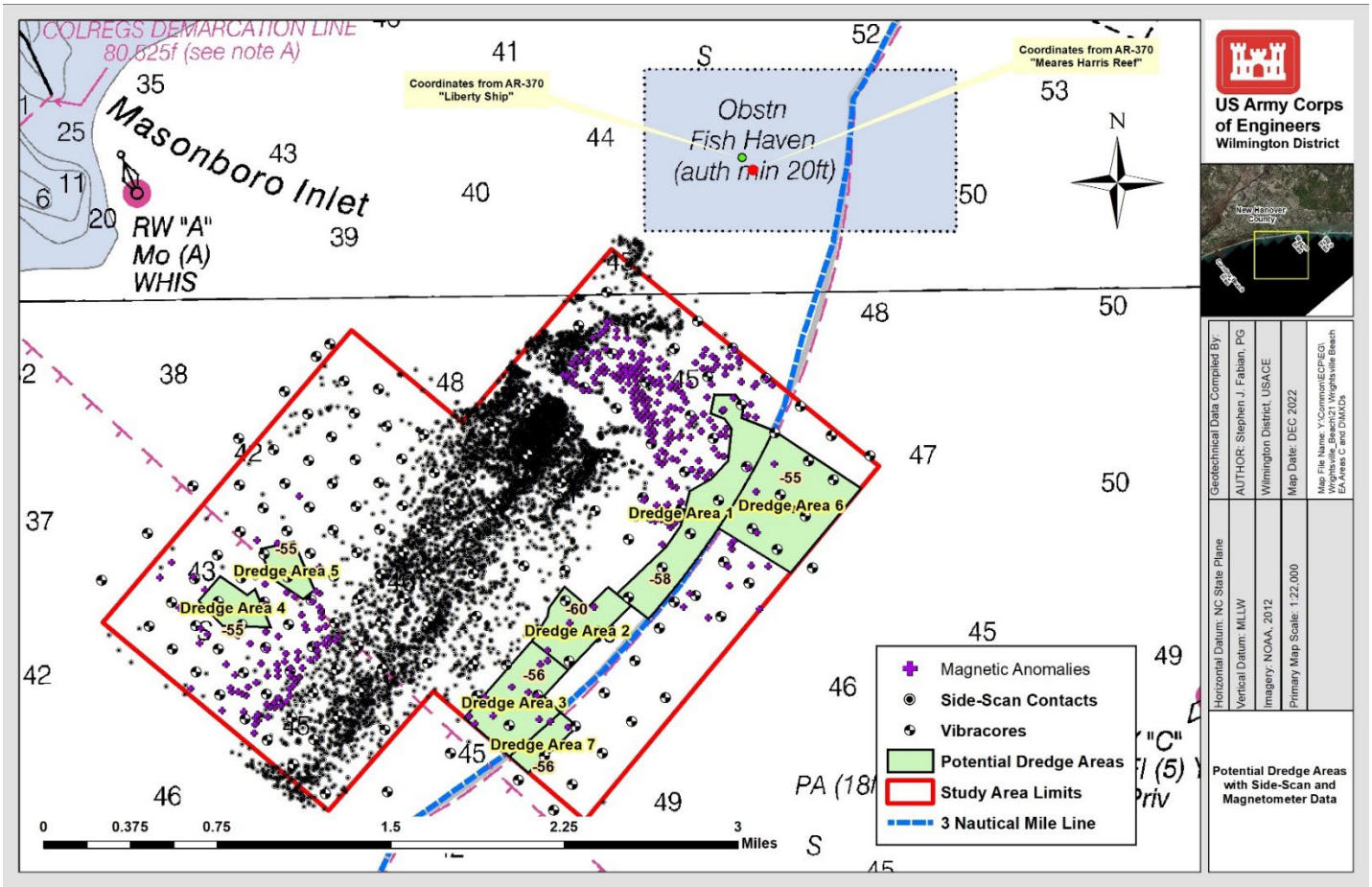

Figure 2. Side Scan and Magnetometer Data, Offshore Borrow Study Area

Proposed Action

The proposed action is to accomplish a one-time emergency repair of the Wrightsville Beach CSRM project by placing (approximately 1,200,000 CY dredged and approximately 1,000,000 CY placed) yards of beach quality sand on the beach from the portion of the offshore borrow area shown in Figure 2. If borrow material beyond 3 miles is needed, the Corps and the Town of Wrightsville Beach would request that BOEM issue a non-competitive negotiated agreement (NNA) authorizing use of the borrow area located in the OCS.

The Wrightsville Beach Coastal Storm Risk Management project is authorized to cover 14,000 linear feet of ocean shoreline from Masonboro Inlet to a point adjacent to Sand Dollar Lane to the north. Additionally, a 2,200-linear foot tapered transition section is constructed at the north end for engineering performance purposes, resulting in a total project length of 16,200 linear feet. The design template of the authorized project consists of a 25-foot wide dune at elevation 12.5 feet above NAVD88, fronted by a 50-foot wide storm berm at elevation 9.5 feet above NAVD88. Construction of the authorized project utilizes an approximately 205-foot wide construction berm at

elevation 5 feet above NAVD88. The length and location of the placement area are determined by the quantity (cubic yards) of material to be dredged and the existing beach profile; the Corps' coastal engineers assess beach widths and calculate erosion rates and from there determine where sand is needed most. Cost is also an influencing factor since pumping farther distances requires additional pipe, and the Corps is limited by available funds.

Various dredge types may be used for the emergency repair and may include hopper dredges, hydraulic cutterhead dredges or mechanical dredges. Although the use of a mechanical dredge is not excluded for this project, it is highly unlikely that one would be used for the project due to the requirement for the vessel to be ocean certified, so it may safely handle rough sea conditions. Depending on regional incidental sea turtle take numbers at the time of operations and the risk of project specific take, relocation trawling may be required as a component of offshore borrow hopper dredging operations.

The beach quality material could be dredged by one hopper, which would be anticipated to take an estimated 110 days; if two hopper dredges are used concurrently, then it would take an estimated 55 days (total). When a hopper attains a full load, dredging would stop and the dredge would travel to a pump-out station (anchored approximately 2,500 to 3,000 feet offshore) where the dredged material would be pumped onto the beach through a submerged pipeline. Material would then be shaped on the beach by earth-moving equipment. During placement, material between the toe of the dune and the mean high water line may be tilled, if required, to minimize compaction.

Minimization Measures

The Wilmington District traditionally accomplishes all hopper dredging during the coldest water months to avoid and minimize impacts from December 1 to March 31 due to historically high sea turtle abundance and bird nesting concerns. If a hydraulic cutterhead dredge is used, material would be pumped through a pipe from the borrow area directly onto the beach. Use of a hydraulic cutterhead dredge would take approximately 50 days. Hydraulic cutterhead dredging would be conducted within the timeframe of November 16 through April 30 to reduce the risk to nesting sea turtles and birds. No matter what type of dredge accomplishes the repair work, the contractor will be required to maintain a minimum of one dredge diligently working until the repair is completed.

As described below, depending on the dredge plant employed, the USACE will implement several measures with the purpose to avoid and minimize the placement of tires or other borrow area debris on the beach.

Hopper Dredge: Any work done with a hopper dredge would incorporate screens, as described below, at three different locations to prevent the placement of tires or pieces of tires and borrow area debris on the beach. All hopper screening measures will be

coordinated with NMFS through the Supersede review process as outlined in Section 2.5.2.2 and 2.9.3.5.1 of the 2020 SARBO. The 2020 SARBO is available for reference on the NMFS website at: https://www.fisheries.noaa.gov/content/endangered-species-act-section-7-biological-opinions-southeast.

1) A 4”X4” screen attached to the underside of the draghead. A screen at this location will substantially reduce the number of tires/debris suctioned by the dredge.

2) A 4”X4” screen installed on the hopper inflow boxes. Screens on the inflow boxes will capture debris that surpassed the screen on the draghead, further reducing debris in the dredged material. Debris collected inside the inflow boxes will be collected and disposed of properly in an approved landfill or recycling center.

3) A 2”X2” screen at the end of the discharge pipe on the beach. The smallest screen sized opening will be attached to the end of the discharge pipe on the beach to capture tire pieces or debris that made it past the first two screens. Debris collected inside the inflow boxes will be collected and disposed of properly in an approved landfill or recycling center.

The proposed use of additional and finer screens to avoid tires and debris on the beach may reduce the ability of Protected Species Observers (PSO)s to accurately monitor potential take. However, this constraint was considered and analyzed in SARBO and reflected in the incidental take analysis. Visual observers would be stationed at the inflow box and on the beach to quickly identify and remove unacceptable material. All debris will be discarded in an on-site dumpster (on the dredge and on the beach) and disposed of at an approved off-site disposal facility. Additionally, the USACE will frequently inspect operations on the beach to monitor the quality of material being transported to the beach and take action as necessary to address any concerns with the quality of material being placed.

Hydraulic Cutterhead Dredge: Any work done with a hydraulic cutterhead dredge will incorporate screens at the following two locations.

1) A 4”X4” screen attached in front of the hydraulic cutterhead suction. This will substantially reduce the number of tires/debris sucked up by the dredge.

2) A 2”X2” screen at the end of the discharge pipe on the beach. The smallest screen sized opening will be attached to the end of the discharge pipe on the beach to capture tire pieces or debris that made it past the first screens. Debris collected inside the screen box will be collected and disposed of properly in an approved landfill or recycling center.

Contractor Observers will be stationed at the beachfill area and will discard all debris as described above. The USACE will also frequently inspect operations on the beach to

monitor the quality of material being transported to the beach and take action as necessary to address any concerns with the quality of material being placed.

Regardless of the dredge plant used for the project, if the dredge encounters a pocket of material that contains tires/debris, the contractor will stop dredging in that area and move the dredge to another location within the approved borrow area. Mechanical raking of the beachfill area during/after beachfill placement (i.e., Using a front-end loader, bobcat type, or similar mechanical equipment outfitted with a specialized bucket containing a rake and screen with screen opening size no larger than 2”X2”) will be a contractual option that will be exercised if needed.

Based on the temporary nature of the work and short-term duration of the project, environmental impacts would not be significant. It is believed that the proposed project may affect but will not likely adversely affect the following federally listed species: North Atlantic Right, Finback, Sei and Sperm Whales and the eastern Black Rail. The proposed project may affect and is likely to adversely affect the West Indian manatee, sea turtles (loggerhead, green, Kemp’s Ridley, leatherback, hawksbill), Atlantic sturgeon, giant manta ray, smalltooth sawfish, seabeach amaranth, piping plover, red knot, as well as loggerhead critical habitat and piping plover critical habitat. The proposed plan will not jeopardize the continued existence of federally listed species or adversely modify designated critical habitat.

Conclusions

The proposed project conforms to the management objectives of 15A NCAC 07H .0206 (Estuarine Waters), 15A NCAC 07H .0207 (Public Trust Areas), 15A NCAC 07H .0306 (Ocean Erodible) and 15A NCAC 07H .0310 (Inlet Hazard) since it consists of dredging of offshore borrow areas, while minimizing adverse impacts to Estuarine Waters, Public Trust Areas, Ocean Erodible and Inlet Hazard areas.

The proposed project will not affect any wildlife recognized by the State as species of concern, will not adversely impact water quality, and will result in minimal, temporary and short-lived impacts (increased turbidity and noise levels) to fisheries and the aquatic habitat. The proposed project will be undertaken to the maximum extent practicable during the period of minimal biological activity so that there will be minimal disruption of habitat function.

In accordance with Section 307 (c)(1) of the Federal Coastal Zone Management Act of 1972, as amended, the Corps has determined that the proposed project is consistent, to the maximum extent practicable, with North Carolina’s Coastal Management Program. This determination is based on the review of the proposed project against the enforceable policies of the State’s coastal management program, which are principally found in Chapter 7 of Title 15A of North Carolina’s Administrative Code. We

request that the North Carolina Division of Coastal Management concur with this Corps' consistency determination.