



US Army Corps  
Of Engineers  
Wilmington District

# PUBLIC NOTICE

Issue Date: March 1, 2018  
Comment Deadline: April 2, 2018  
Corps Action ID Number: SAW-2009-00293

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) is releasing the Final Environmental Impact Statement (FEIS) for the project, known as Bogue Banks Master Beach Nourishment Project (BBMBNP), and has received an application from Carteret County requesting Department of the Army authorization to implement a long-term management plan to provide shoreline protection along the approximately 25-mile Bogue Banks barrier island, Carteret County, North Carolina. Management components include the use of an offshore borrow area for periodic nourishment along approximately 18 miles of Pine Knoll Shores, Salter Path, Indian Beach, and Emerald Isle, with potential supplemental nourishment along approximately 5 miles of Atlantic Beach if needed. The plan also consists of the maintenance of Bogue Inlet ebb tide channel within a “safe box” zone to protect the inlet shoreline of Emerald Isle. Specific details and location information are described below and shown on the attached plan. The Final EIS can be found on our webpage at <http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/MajorProjects>, click on “Bogue Banks Master Beach Nourishment Project: Corps ID# SAW-2009-00293. This same Public Notice is also available on the Wilmington District Web Site at [http://www.saw.usace.army.mil/Wetlands/Notices/Current\\_notices.html](http://www.saw.usace.army.mil/Wetlands/Notices/Current_notices.html).

**Applicant:** Carteret County  
Attn: Mr. Greg Rudolph, Carteret County Shore Protection office  
Post Office Box 4297  
Emerald Isle, North Carolina 28594

**Engineer Consultant:** Moffatt & Nichol  
Attn: Mr. Johnny Martin  
4700 Falls of Neuse Road, Suite 300  
Raleigh, North Carolina 27609

## Authority

The Corps evaluates this application and decides whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of the following Statutory Authorities:

Section 404 of the Clean Water Act (33 U.S.C. 1344)

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

### **Location**

The project site comprises all of the municipalities on Bogue Banks, along with the Bogue Inlet Complex, and encompasses approximately 23 miles of the island, including the potential supplemental nourishment area of Atlantic Beach, in Carteret County, North Carolina.

Nearest Towns: Pine Knoll Shores, Indian Beach, Salter Path, Emerald Isle, and Atlantic Beach

Nearest Waterway: Atlantic Ocean, Bogue Inlet, and the Intracoastal Waterway

Latitude and Longitude: 34.68854 N, -76.86854 W

### **Existing Site Conditions**

The barrier island of Bogue Banks is located entirely within the boundary of Carteret County and is a south-facing island flanked by the undeveloped Bear Island (Hammocks Beach State Park) to the west, separated by Bogue Inlet, and the undeveloped Shackleford Banks Island (part of Cape Lookout National Seashore) to the east, separated by Beaufort Inlet. This approximately 25-mile island contains the four incorporated municipalities of Atlantic Beach, Pine Knoll Shores, Indian Beach, and Emerald Isle; the unincorporated town of Salter Path under County jurisdiction; and the approximately 2.0 mile stretch of North Carolina lands of Fort Macon. It is bordered to the west by Bogue Inlet, which is the mouth of the White Oak River; to the east by Beaufort Inlet, which is the mouth of the Newport River; to the north by Bogue Sound, which includes the Intracoastal Waterway; and to the south by the Atlantic Ocean. Both Bogue and Beaufort Inlets are federally authorized navigational channels and are periodically maintained with all beach compatible material being placed along the oceanfront shoreline and all incompatible material placed on designated disposal island(s). The island is a typical barrier island that has undergone a variety of natural and anthropogenic changes. The majority of the residential and commercial land has been developed, with the exception of Fort Macon State Part to the east and the Roosevelt Preserve in Pine Knoll Shores. The island has undergone several decades of receiving beach fill along the oceanfront by both federal and non-federal projects.

### **Applicant's Stated Purpose**

Basic Purpose: The stated purpose for this proposal is to establish and implement a comprehensive, long-term, non-federal beach and inlet management program that would preserve Bogue Banks' tax base, protect its infrastructure, and maintain its tourism-based economy. The proposed action is to address the ongoing trend of declining federal shore

protection funding by establishing a non-federal management program under the autonomous control of the County and the island municipalities.

Overall Purpose: The island wide regional strategy was developed to do the following: 1) Establish a regional approach by consolidating local community resources, both financially and logistically, to manage Bogue Inlet and the beaches on Bogue Banks in an effective manner, 2) Provide long-term shoreline protection stabilization and an equivalent level of protection along Bogue Banks' 25-mile oceanfront/inlet shorelines addressing long-term erosion, 3) Provide long-term protection to Bogue Banks' tourism industry, 4) Provide short and long-term protection to residential and commercial structures and island infrastructure, 5) Provide long-term protection to the local tax base by the protection of existing and future tax bases and public access/use, 6) Maintain and improve natural resources along Bogue Banks' oceanfront and inlet shoreline by using compatible beach material in compliance with the North Carolina State Sediment Criteria for shore protection, 7) Maintain and improve recreational uses of Bogue Banks' oceanfront/inlet shorelines, 8) Maintain navigation conditions within Bogue Inlet, and 9) Balance the needs of the human environment with the protection of existing natural resources.

## **Project Description**

Within the County's preferred alternative, known as Alternative 4 (or the BBMBNP), the County, through an interlocal agreement, would manage all of the approximately 18 miles of beaches along Pine Knoll Shores, Indian Beach/Salter Path, and Emerald Isle, along with the eastern shoreline of Bogue Inlet, through the implementation of the comprehensive 50-year beach nourishment plan. Atlantic Beach is also a party to the agreement; however, it is the on-going recipient of regular Corps placements of navigation dredged material from the Morehead City Harbor (MCH) channels and has been for nearly two decades. The County is not anticipating any maintenance sand placement on Atlantic Beach under its management plan, but the plan would provide interim maintenance nourishment events along Atlantic Beach should the federal MCH placement cease or if storm-related needs arise.

The 50-year management plan would employ a regular and recurring cycle of nourishment events, in combination with periodic realignments of the Bogue Inlet ebb tide channel, to continuously maintain beach profile sand volumes at a 25-year Level of Protection (LOP). This LOP equates to protection for upland structures against a 25-year storm event, and nourishment events would be implemented according to 25-year LOP beach profile volumetric triggers. Volumetric triggers were developed by analyzing and adjusting design beach profiles in a series of iterative SBEACH numerical modeling runs. The final modeling results indicated appropriate volumetric triggers ranging from 211-266 cubic yards/foot along Bogue Banks, averaging 238 cubic yards/foot. Based on variability in the volumetric triggers, the project shoreline was divided into management reaches ranging in length from 2.4 to 4.5 miles. Reaches include Pine Knoll Shores, Indian Beach/Salter Path, Emerald Isle (EI) East, EI Central, EI West, and Bogue Inlet.

Based on the SBEACH modeling results and observed background erosional loss rates, EI Central, EI West, and Bogue Inlet management reaches are expected to require recurring nourishment of approximately 0.06 to 0.23 million cubic yards of material at intervals of six or nine years to offset background erosion. For Pine Knoll Shores, Indian Beach/Salter Path, and EI East, recurring maintenance events would place approximately 0.2 to 0.5 million cubic yards of material at intervals of three or six years to offset background erosion. Actual maintenance nourishment intervals would be expected to vary in response to background erosion rate variability over the course of the 50-year project.

For Bogue Inlet management, the proposal has designated a “safe box” within the inlet throat where the ebb channel would be allowed to migrate freely so long as it remains within the boundaries of the safe box. If the channel migrates beyond the eastern boundary of the safe box (or toward Emerald Isle), this would trigger a preemptive event to realign the ebb channel mid-center within the established boundary. The limits of the safe box were developed and evaluated through empirical analysis of historical inlet changes and supplemental numerical modeling. Historical ebb channel alignments and corresponding inlet shoreline positions were analyzed through GIS analysis of historical aerial photography, National Ocean Service (NOS) T-sheet maps, and LIDAR topographic maps. Past migration rates and corresponding shoreline changes indicate that once eastward migration accelerates toward Emerald Isle, the migrating channel has the potential to threaten structures along the shoreline within two to three years. Based on the historical patterns, a safe box was established with boundaries corresponding to the location where acceleration of the ebb channel towards the west end of Emerald Isle has occurred in the past. The validity of the boundaries were then evaluated by modeling a series of six idealized inlet configurations encompassing the range of most relevant historical ebb channel alignments. Modeling results did not show any additional geomorphological indicators of an impending shift to accelerated migration that warranted modifications to the initial safe box. Once the boundary threshold is triggered, the relocation event would entail the construction of a channel approximately 6,000-feet long with variable bottom widths ranging from 150 to 500 feet. The dimensions of the channel would be similar to the footprint of the ebb tide channel realignment construction completed in 2005. Maintenance events of Bogue Inlet are expected approximately every ten to fifteen years, with corresponding placement of dredged material on the beaches of Emerald Isle.

Beach fill for all the proposed nourishment activities on Bogue Banks would be acquired from a combination of sources including offshore borrow sites, Atlantic Intracoastal Waterway disposal areas, upland sand mines, and the management of the Bogue Inlet. The offshore borrow sites consist of the Old Offshore Dredge Material Disposal Site (ODMDS) and the current ODMDS, which are located approximately 3 nautical miles offshore from Beaufort Inlet, and Area Y, which is located over 1.0 mile offshore from EI West reach. It is expected that hopper dredge plants will be used to extract beach fill material from the offshore borrow sites. Material would be transported from the hopper dredges to offshore booster pumps and carried to the appropriate nourishment reaches via pipeline. A hydraulic cutterhead dredge will likely be used during the management of the

inlet bar channel event, which would transport the dredge material directly from the dredge plant onto the beach via pipelines.

### **Avoidance and Minimization**

The County's proposed BBMBNP encompasses several initial avoidance and minimization measures to help minimize potential impacts, and these measures are outlined in Chapter 6 of the FEIS. Some of these measures include the use of compatible beach sediment that meets the North Carolina Technical Standards for Beach Projects (15A NCAC 07H .0312) and limiting construction activity to the period from November 16 to April 31 when biological activity is at its lowest and sea turtle nesting season can be avoided.

### **Essential Fish Habitat**

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, the Corps initiated Essential Fish Habitat (EFH) consultation and has submitted an EFH Assessment to the National Marine Fisheries Service (NMFS) Habitat Conservation Division for their review. Consultation is on-going.

### **Cultural Resources**

Coordination with the State Historic Preservation Office (SHPO) has occurred during the development of the project for compliance with the National Historic Preservation Act and is on-going.

### **Endangered Species**

Pursuant to Section 7 of the Endangered Species Act of 1973, the Corps has requested the initiation of formal consultation with the U.S. Fish and Wildlife Service (USFWS) and the NMFS Protected Resources Division due to the presence of specific species listed as threatened or endangered and their critical habitat (CH) within the project area. A Biological Assessment, which included an effects determination to those specific species and CH, was provided to both agencies by letter dated September 12, 2017. Consultation with the resource agencies is on-going and no permit decision will be made until consultation under the ESA has been concluded. It has been confirmed that the USFWS August 28, 2017 State Programmatic Biological Opinion will cover beach placement activities within the BBMBNP.

### **Other Required Authorizations**

Bureau of Ocean Energy and Management (BOEM) is acting in the capacity of a cooperating agency in the evaluation of the County's proposal to ensure the process complies with the requirements of the Outer Continental Shelf Lands Act (OCSLA) and with the National Environmental Policy Act (NEPA). Their office has assisted in the development and review of the FEIS, BA, and EFH Assessment.

The Corps forwards this notice and all applicable application materials to the appropriate State agencies for review.

**North Carolina Division of Water Resources (NCDWR):** The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500). At this time, the applicant has not submitted an application to the NCDWR Central Office in Raleigh for a 401 Certification.

**North Carolina Division of Coastal Management (NCDCM):**

The application did not include a certification that the proposed work complies with and would be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2 (b)(2) the Corps cannot issue a Department of Army (DA) permit for the proposed work until the applicant submits such a certification to the Corps and the NCDCM, and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification. As the application did not include the consistency certification, the Corps will request, upon receipt, concurrence or objection from the NCDCM.

It should be noted that the Corps has coordinated closely with DCM in the development of the EIS to ensure the process complies with the State Environmental Policy Act (SEPA) requirements, as well as the NEPA requirements. The Final EIS has been designed to consolidate both NEPA and SEPA processes to eliminate duplications.

**State Clearinghouse:**

The Corps submitted the EIS document to the North Carolina Department of Administration, State Clearinghouse Office on February 26, 2018 for compliance with SEPA.

**Evaluation**

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property

ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

### **Commenting Information**

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidated State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments will be used in the preparation of the Record of Decision (ROD) pursuant to the NEPA. Comments are also used to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Please be aware that a public scoping meeting was held on September 15, 2010 at the Carteret County Community College in Morehead City and the Draft EIS was released and published in the Federal Register on April 14, 2017. Comments received during the Draft EIS commenting period were incorporated in the development of the FEIS.

Written comments pertinent to the proposed management plan and/or FEIS, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, April 2, 2018. Comments should be submitted to Mr. Mickey Sugg, 69 Darlington Avenue, Wilmington, North Carolina 28403 or sent by e-mail at [mickey.t.sugg@usace.army.mil](mailto:mickey.t.sugg@usace.army.mil). If you have questions, please contact Mr. Sugg at (910) 251-4811.