US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: 9/11/2017
Comment Deadline: 10/11/2017
Corps Action ID Number: SAW-2017-01879

The Wilmington District, Corps of Engineers (Corps) received an application from the National Oceanic and Atmospheric Administration (NOAA) National Centers for Coastal Ocean Science (NCCOS), Beaufort Lab seeking Department of the Army authorization to discharge 750 cubic yards fill material into two small open water areas within the marsh complex totaling 0.17 acre combined, associated with a research project testing the effectiveness of applying dredged material to marsh ponds for marsh enhancement in Onslow County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at
http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx

Applicant:
NOAA, NCCOS
Attn: Ms. Carolyn Currin
101 Pivers Island Road
Beaufort, NC 28516

AGENT (if applicable):
US Army Corps of Engineers – Environmental
Attn: Ms. Emily Hughes
69 Darlington Ave
Wilmington, NC 28403

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

Location Description:

Project Area (acres): +/- 0.30 Nearest Town: Camp Lejeune
Nearest Waterway: Intracoastal Waterway River Basin: Onslow Bay
Latitude and Longitude: 34.546322N, -77.325469W

Existing Site Conditions

Figure 1. Location Map, Mile Hammock Bay (proposed project area in red; DOD-funded study area in green)

Marsh ponds. The proposed project is located within the boundary of Marine Corps Base Camp Lejeune in the Mile Hammock Bay salt marsh adjacent to the Atlantic Intracoastal Waterway (AIWW). Existing conditions on the site are undisturbed coastal wetlands dominated by *Spartina alternifora*, with *S. patens, Salicornia spp.*, and *Juncus spp.* occurring at higher elevations. The proposed project will occur at intertidal elevations, within *S. alterniflora* habitat.

The two areas targeted for restoration are identified as Pond A and Pond B (see Figure 2). Pond A has an area of 0.09 acre and is 30 feet from the shoreline, and Pond B is approximately 0.08 acre and is 50 feet from the shoreline. Both ponds are approximately 300-350 feet from the center of the navigation channel, 200-250 feet from the edge of the setback, and within the USACE AIWW Right-of-Way (see Figure 3). The borrow areas for the project will be located directly waterward of the marsh ponds towards the navigation channel.

The ponds are located within an area of environmental concern (AEC) as defined by Section 113A-113 of the North Carolina Coastal Area Management Act (CAMA). Specifically, the proposed project will be occurring in the estuarine waters and public trust waters AECs.

The Division of Marine Fisheries (DMF) has classified the project area as Primary Nursery Area (PNA) (15A NCAC 07H .0208(a)(4)) and secondary nursery areas defined by rule 15 NCAC 3N .0102(c). This area is also Essential Fish Habitat (EFH) for Coastal Migratory Pelagics (king mackerel, Spanish mackerel, cobia) and is considered a Habitat Area of Particular Concern (HAPC).

Submerged Aquatic Vegetation. Areas of SAVs are known to exist within 500 feet of the project area northwest of Pond B (Figure 2). Submerged aquatic vegetation functions as habitat for many fish and aquatic animals.

Subtidal soft bottom habitat. Although soft bottom habitat is defined as "unvegetated" and lacks visible structural habitat, the surface sediments support an abundance of microscopic plants called benthic microalgae and numerous burrowing animals are hidden below the surface. Subtidal soft bottom habitat exists within the project area.

Oyster reef habitat. There is no oyster reef habitat present in either pond, as neither pond is connected via a tidal creek to estuarine water.

The project is located within a section of the AIWW that is part of the White Oak River Basin (Onslow Bay). The NC Division of Water Resources classifies the AIWW at the project site as SA; HQW. The classification definitions are:

SA: Tidal salt waters that are used for commercial shellfishing or marketing purposes and are also protected for all Class SC and Class SB uses. All SA waters are also HQW by supplemental classification.

HQW: Supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, primary nursery areas designated by the Marine Fisheries Commission, and other functional nursery areas designated by the Marine Fisheries Commission.

Borrow Areas. The material used to fill Ponds A and B will be dredged from the AIWW directly adjacent to each of the ponds (Figure 2). Water depth in the area to be dredged is expected to be between 6 – 12 feet, and material within the upper 12-18 inches is expected to be predominantly sand. Both dredge boxes are located in open water habitat approximately 100 feet from the shoreline and approximately 150 - 200 feet from the ponds. There are no SAVs, oyster reefs, or soft bottom habitat within the borrow areas.

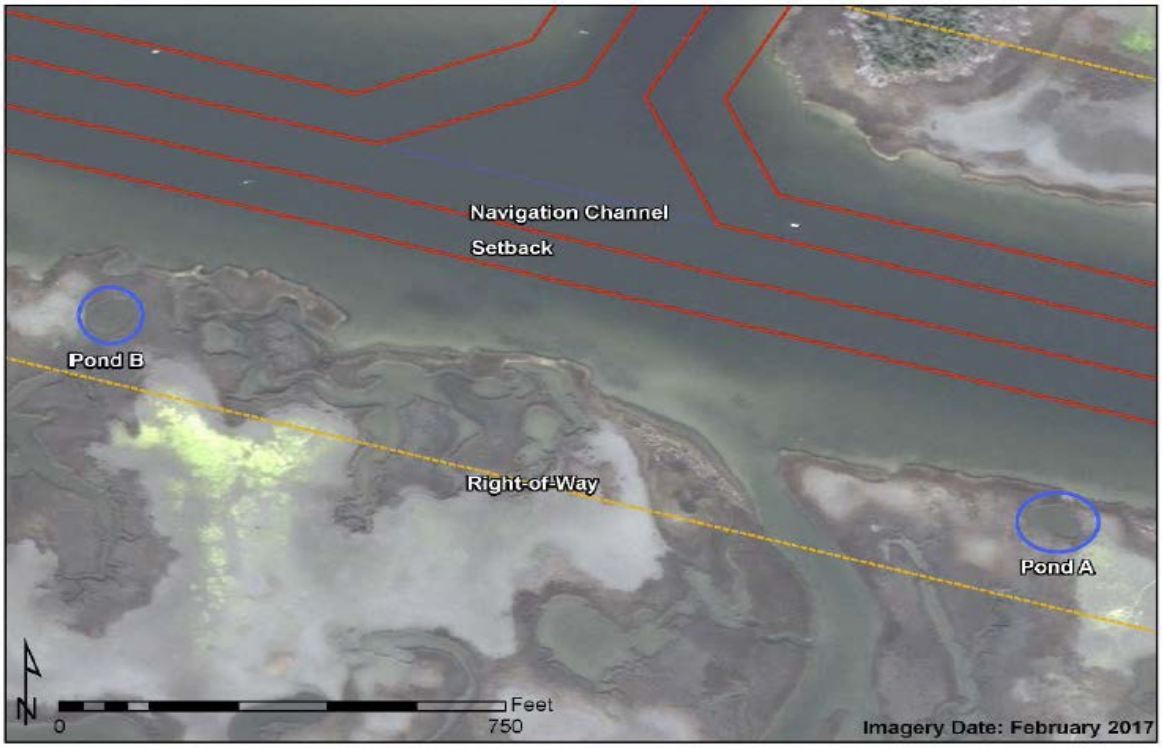

Figure 2. Project Map, Pond A and Pond B targeted for restoration

Applicant's Stated Purpose

The applicant's stated purpose and need for this project is to demonstrate and test effectiveness of applying dredged material to marsh ponds for research purposes and study their response. The research hypothesis anticipates that this one-time application of material will reduce fragmentation of the marsh surface, ameliorate shoreline erosion, and provide opportunity for understanding the effects of material placement on the local marsh platform.

Project Description

NOAA proposes to fill two ponds (Pond A and Pond B) with dredged sediment, bringing the surface elevation up to that of the surrounding marsh, which is approximately 0 – 8" NAVD88. After the elevation is restored, *Spartina alterniflora* will be planted over the filled areas. The ponds are, on average, approximately 18-24" deep. Filling of Pond A and B will require approximately 750 cubic yards of dredged material and will cover

approximately 0.17 acre (approximate volumes of Pond A and Pond B are 350 and 400 cubic yards, respectively).

To minimize damage to the marsh surface, NOAA will install 12”-wide grated, fiberglass boardwalks over the marsh to temporarily accommodate the dredge pipe and to facilitate monitoring. In addition, temporary boardwalks consisting of planks attached to plastic crates, may be used during sediment application and monitoring activities to minimize the impact of walking directly on the salt marsh.

Ponds A and B will receive material from borrow areas located directly waterward of the marsh ponds, primarily within the USACE setback (Figure 3). The setback is a buffer area outside the designated navigation channel that is not maintained by the USACE (undisturbed), with a water depth that is approximately 6-12’ deep. Dredge boxes will not exceed 200’ x 100’ x 12-18” deep in both locations to minimize impacts to benthic habitat. The dredge will be anchored within the borrow area with bow and stern spuds while working sunrise to sunset, and at night it will dock at Mile Hammock Bay. Application work is expected to take less than one week and will occur between November 16 and March 31 to avoid impacts to fisheries within the PNA areas. NOAA staff will be present during work hours to monitor and control the placement of material.

The dredge anticipated to do the proposed work is the SNELL, a multi-purpose vessel owned by the USACE, Wilmington District. It is 104 feet in length and drafts 5’ 6”, making it very versatile for working in shallow areas.

The SNELL is equipped with a 10” diesel-driven pump and a 6” hydraulic pump system that can discharge up to 1,200 feet. A digging head lifts sediment off the bottom as the suction pump draws the material in through the pipe and discharges it through the opposite end. The pipe will be floated from the vessel to the shoreline, and once ashore, the pipe will be supported by the fiberglass boardwalk and, if necessary, cradles made from lumber. A crib structure that will elevate the discharge end of the pipe above the marsh pond will also be constructed of lumber. A diffuser will be fixed to the end of the pipe to spread the material and diffuse the energy, and silt fencing and hay bales (if needed) will line the edges of each pond to minimize impacts to the surrounding marsh. The dredged substrate is anticipated to have a high sand content and therefore the activity is not expected to produce a plume of suspended fine particulates in the project area.

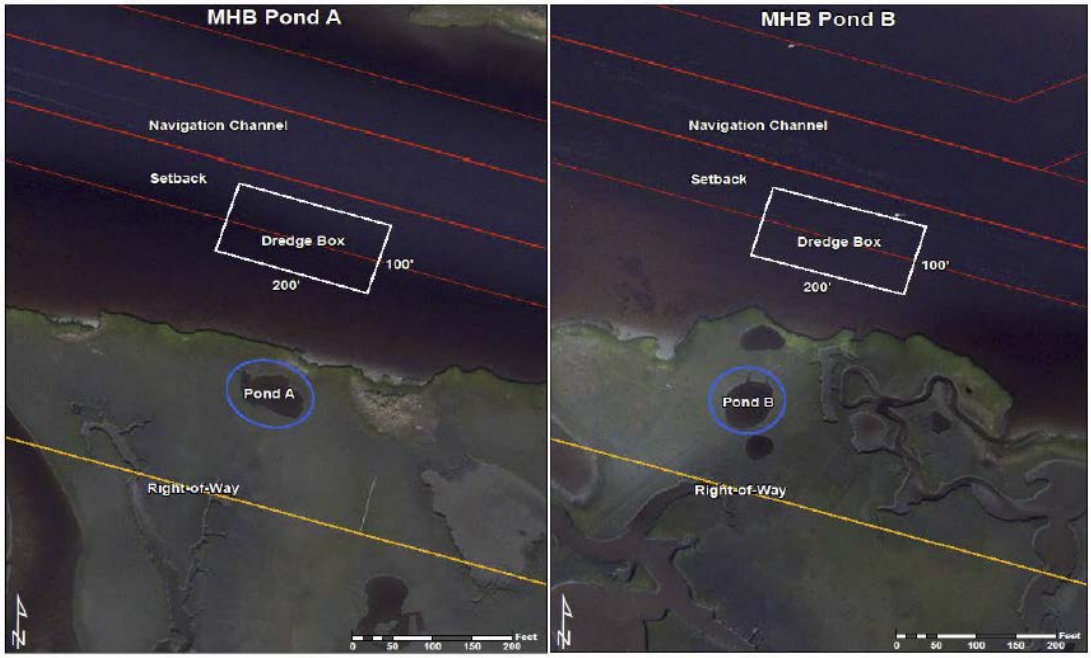

Figure 3. Perspective of ponds and borrow areas from the USACE Navigation Channel (2014 imagery)

According to previous sediment testing conducted in 1989 and 1996, material in the Atlantic Intracoastal Waterway (AIWW) federal channel within the project area consists of ~97% sand. For this particular study, material will be taken from just outside the navigation channel limits and will be primarily from the surface of the waterway bed (within upper 18").

Once the elevation within the ponds begins to reach the elevation of surrounding marsh, the pumps will be shut off and the pipe and cribbing will be adjusted to uniformly fill in remaining areas within the ponds. The end result will be a leveled surface (as much as possible) to mimic the natural landscape. Vegetation planting of *Spartina alterniflora* will occur in the spring following the fill activity (see Figure 4 for profile view of before and after project). Silt fencing will be removed once the vegetation is established. If hay bales are used they would be expected to break down naturally over time. Monitoring of both sites will begin in the spring and continue for at least three growing seasons, or until *Spartina alterniflora* percent coverage equals 75%.

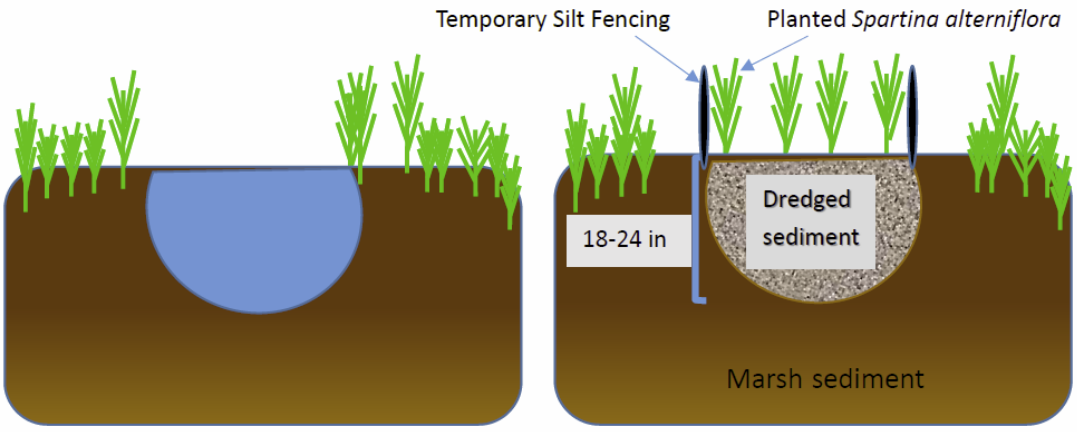

Figure 4. Profile view of pond before (left) and after (right) sediment application and planting.

Avoidance and Minimization

Additional impacts were avoided by eliminating a proposed pond located approximately 400 feet southeast of Pond A. This pond was considered "connected" and therefore more critical EFH, resulting in the avoidance of 0.125 ac of marsh impacts. The ponds selected for this project are "isolated" from open water and not directly accessible by fish or marine mammals, while also closest to the channel, which reduces impacts of the dredge pipe and the need for additional boardwalk.

Material excavated for the ponds will be dredged from the setback area adjacent to the AIWW. Dredge boxes have been established to minimize bottom disturbance and excavation depths will not exceed 12-18". Placement of dredged material in ponds will not exceed the elevation of surrounding marsh to avoid creating high marsh and introducing *Phragmites spp*.

The suggested November 16 – March 31 work window will be implemented to avoid impacts to fisheries (finfish and shrimp). The dredge operator will abide by the USFWS manatee guidelines to avoid any potential injury or harm to the protected species.

SAVs will be avoided to the maximum extent practicable; excavation will be within the setback of the channel within waters too deep to support SAVs (typically 3 feet or less). Nearest SAV colonies identified are 500 feet to the west of Pond B; nearest dredging will occur 150+ feet beyond SAVs.

Compensatory Mitigation

Permanent impacts (fill) are designed to restore the sites to the original marsh elevation. A diffuser will be fixed to the end of the pipe to spread the material and diffuse the energy of the dredged material slurry. Temporary impacts during construction will not permanently alter wetland functions and; therefore, mitigation is not proposed.

Essential Fish Habitat

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, this Public Notice initiates the Essential Fish Habitat (EFH) consultation requirements. The Corps' initial determination is that the proposed project may adversely affect EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service. **The applicant is completing the Essential Fish Habitat Assessment which will be forwarded to NOAA Fisheries upon completion for conservation recommendations.**

Cultural Resources

Pursuant to Section 106 of the National Historic Preservation Act of 1966, Appendix C of 33 CFR Part 325, and the 2005 Revised Interim Guidance for Implementing Appendix C, the District Engineer consulted district files and records and the latest published version of the National Register of Historic Places and initially determines that:

☐ Should historic properties, or properties eligible for inclusion in the National Register, be present within the Corps' permit area; the proposed activity requiring the DA permit (the undertaking) is a type of activity that will have no potential to cause an effect to an historic properties.

☒ No historic properties, nor properties eligible for inclusion in the National Register, are present within the Corps' permit area; therefore, there will be no historic properties affected. The Corps subsequently requests concurrence from the SHPO (or THPO).

☐ Properties ineligible for inclusion in the National Register are present within the Corps' permit area; there will be no historic properties affected by the proposed work. The Corps subsequently requests concurrence from the SHPO (or THPO).

☐ Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; however, the undertaking will have no adverse effect on these historic properties. The Corps subsequently requests concurrence from the SHPO (or THPO).

☐ Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; moreover, the undertaking may have an adverse effect on these historic properties. The Corps subsequently initiates consultation with the SHPO (or THPO).

☐ The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present

in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-indentified permit area.

Endangered Species

Pursuant to the Endangered Species Act of 1973, the Corps reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information:

☐ The Corps determines that the proposed project would not affect federally listed endangered or threatened species or their formally designated critical habitat.

☒ The Corps determines that the proposed project may affect, not likely to adversely affect federally listed endangered or threatened species or their formally designated critical habitat. The listed Species identified from the Heritage database include; Shortnose Sturgeon (*Acipenser brevirestrum*), Atlantic Sturgeon (*Acipenser oxyrinchus*), Loggerhead Seaturtle (*Caretta caretta)*, Green Seaturtle (*Chelonia* mydas) and West Indian Manatee (*Trichechus manatus*) within the project area.

☐ The Corps initiates consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

☒ NOAA NCCOS will consult under Section 7 of the ESA and the Corps will not make a permit decision until the consultation process is complete.

☐ The Corps has initiated consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

☐ The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. Consultation has been completed for this type of activity and the effects of the proposed activity have been evaluated and/or authorized by the National Marine Fisheries Service (NMFS) in the South Atlantic Regional Biological Opinion or its associated documents, including 7(a)(2) & 7(d) analyses and Critical Habitat assessments. A copy of this public notice will be sent to the NMFS.

☐ The Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. The Corps will make a final determination on the effects of the proposed project upon additional

review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Other Required Authorizations

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). The receipt of the application and this public notice, combined with the appropriate application fee, at the NCDWR Central Office in Raleigh constitutes initial receipt of an application for a 401 Certification. A waiver will be deemed to occur if the NCDWR fails to act on this request for certification within sixty days of receipt of a complete application. Additional information regarding the 401 Certification may be reviewed at the NCDWR Central Office, 401 and Buffer Permitting Unit, 512 North Salisbury Street, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for a 401 Certification should do so, in writing, by 10/11/2017 to:

NCDWR Central Office
Attention: Ms. Karen Higgins, 401 and Buffer Permitting Unit
(USPS mailing address): 1617 Mail Service Center, Raleigh, NC 27699-1617

Or,

(physical address): 512 North Salisbury Street, Raleigh, North Carolina 27604

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.

☐ Based upon all available information, the Corps determines that this application for a Department of Army (DA) permit does not involve an activity which would affect the coastal zone, which is defined by the Coastal Zone Management (CZM) Act (16 U.S.C. § 1453).

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 are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and 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 will 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.

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, 10/11/2017. Comments should be submitted to Brad Shaver, Project Manager, Wilmington Regulatory Field Office, 69 Darlington Avenue, Wilmington, North Carolina 28403 , at (910) 251-4611.