

# **APPENDIX C**

## **SCOPING DOCUMENTS**

**ACTION:** Notice to Delete a System of Records.

**SUMMARY:** The Defense Intelligence Agency is deleting a system of records notice in its existing inventory of record systems subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended.

**DATES:** This proposed action will be effective on April 13, 2012 unless comments are received which result in a contrary determination.

**ADDRESSES:** You may submit comments, identified by docket number and title, by any of the following methods:

\* *Federal Rulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

\* *Mail:* Federal Docket Management System Office, 4800 Mark Center Drive, East Tower, 2nd Floor, Suite 02G09, Alexandria, VA 22350-3100.

*Instructions:* All submissions received must include the agency name and docket number for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the Internet at <http://www.regulations.gov> as they are received without change, including any personal identifiers or contact information.

**FOR FURTHER INFORMATION CONTACT:** Ms. Theresa Lowery at (202) 231-1193.

**SUPPLEMENTARY INFORMATION:** The Defense Intelligence Agency systems of records notices subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended, have been published in the **Federal Register** and are available from the individual listed in **FOR FURTHER INFORMATION CONTACT**. The proposed deletion is not within the purview of subsection (r) of the Privacy Act of 1974 (5 U.S.C. 552a), as amended, which requires the submission of a new or altered system report.

Dated: March 8, 2012.

**Aaron Siegel,**

*Alternate OSD Federal Register Liaison Officer, Department of Defense.*

**DELETION:**

**LDIA 06-0002**

**SYSTEM NAME:**

Department of Defense Intelligence Information Systems Access, Authorization, and Control Records (April 11, 2007, 72 FR 18209).

**REASON:**

Records have been incorporated into LDIA 07-0003, entitled Department of Defense Intelligence Information System (DoDIIS) Customer Relationship

Management System. The records will assume the same retention schedule as listed in LDIA 07-0003.

[FR Doc. 2012-6003 Filed 3-13-12; 8:45 am]

**BILLING CODE 5001-06-P**

**DEPARTMENT OF DEFENSE**

**Department of the Army; Corps of Engineers**

**Intent To Prepare a Draft Environmental Impact Statement (DEIS) for the Installation of a Terminal Groin Structure at the Western End of South Beach, Bald Head Island, in Close Proximity to the Federal Wilmington Harbor Channel of the Cape Fear River (Brunswick County, NC)**

**AGENCY:** Department of the Army, U.S. Army Corps of Engineers, DoD.

**ACTION:** Notice of intent.

**SUMMARY:** The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington Regulatory Field Office has received a request for Department of the Army authorization, pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbor Act, from the Village of Bald Head Island (VBHI) to develop and implement a shoreline protection plan that includes the installation of a terminal groin structure on the east side of the Wilmington Harbor Baldhead Shoal Entrance Channel (a federally-maintained navigation channel of the Cape Fear River) at the "Point" of Bald Head Island. The structure will be designed to be strategically incorporated into the federal beach disposal operations associated with the Wilmington Harbor Sand Management Plan.

**DATES:** A public scoping meeting for the DEIS will be held at the ILA Hall, located at 211 West 10th Street in Southport (NC) on March 22, 2012 at 6 p.m. Written comments will be received until April 9, 2012.

**ADDRESSES:** Copies of comments and questions regarding scoping of the DEIS may be submitted to: U.S. Army Corps of Engineers, Wilmington District, Regulatory Division. ATTN: File Number SAW-2012-00040, 69 Darlington Avenue, Wilmington, NC 28403.

**FOR FURTHER INFORMATION CONTACT:** Questions about the proposed action and DEIS can be directed to Mr. David Timpy, Project Manager, Wilmington Regulatory Field Office, telephone: (910) 251-4634. Additional description of the

VBHI's proposal can be found at the following link, <http://www.saw.usace.army.mil/WETLANDS/Projects/index.html>, under the Village of Bald Head Island Terminal Groin Project.

**SUPPLEMENTARY INFORMATION:**

**1. Project Description**

The west end of South Beach has experienced both chronic mid-term (decadal) and accelerated short-term erosion losses (with direct impacts to beaches and dunes of this segment of shoreline). A nourishment project has been employed by the VBHI to mitigate the effects of these losses. In addition, several million cubic yards of sand from a Federal navigation project has been disposed on the beach since 1991. Despite this sand placement on the beach, a portion of South Beach continues to experience substantial erosion, potentially impacting public infrastructure and homes. It is the VBHI's desire to implement a long-term beach and dune stabilization strategy. The applicant contends that a necessary component to the success of this strategy is the installation of a terminal groin that would (1) reduce inlet-directed sand losses from beach fill construction projects; and (2) stabilize shoreline alignment along the westernmost segment of South Beach in such a manner that alongshore transport rates are reduced. The VBHI proposal calls for the construction of a single terminal groin designed to compliment future placement of beach fill at South Beach. The structure will serve as a "template" for fill material placed eastward of the proposed terminal groin. In that regard, the groin will be designed as a "leaky" structure (i.e. semi-permeable) so as to provide for some level of sand transport to West Beach (located northward of the proposed groin).

**2. Issues**

There are several potential environmental and public interest issues that will be addressed in the DEIS. Additional issues may be identified during the scoping process. Issues initially identified as potentially significant include:

- a. Potential impacts to marine biological resources (benthic organisms, passageway for fish and other marine life) and Essential Fish Habitat.
- b. Potential impacts to threatened and endangered marine mammals, birds, fish, and plants.
- c. Potential impacts to adjacent shoreline changes on West Beach of Bald Head Island and adjacent shorelines.

d. Potential impacts to Navigation, commercial and recreational.

e. Potential impacts to the long-term management of the oceanfront shorelines.

f. Potential effects on regional sand sources and how it relates to sand management practices and North Carolina's Beach Inlet Management Practices.

g. Potential effects of shoreline protection.

h. Potential impacts on public health and safety.

i. Potential impacts to recreational and commercial fishing.

j. Potential impacts to cultural resources.

k. Cumulative impacts of past, present, and foreseeable future dredging and nourishment activities.

### 3. Alternatives

Several alternatives are being considered for the development of the protection plan. These alternatives will be further formulated and developed during the scoping process and an appropriate range of alternatives, including the no federal action alternative, will be considered in the DEIS.

### 4. Scoping Process

A public scoping meeting (see **DATES**) will be held to receive public comment and assess public concerns regarding the appropriate scope and preparation of the DEIS. Participation in the public meeting by federal, state, and local agencies and other interested organizations and persons is encouraged.

The USACE will consult with the U.S. Fish and Wildlife Service under the Endangered Species Act and the Fish and Wildlife Coordination Act; with the National Marine Fisheries Service under the Magnuson-Stevens Fishery Conservation and Management Act and the Endangered Species Act; and with the North Carolina State Historic Preservation Office under the National Historic Preservation Act. Additionally, the USACE will coordinate the DEIS with the North Carolina Division of Water Quality (NCDWQ) to assess the potential water quality impacts pursuant to Section 401 of the Clean Water Act, and with the North Carolina Division of Coastal Management (NCDCM) to determine the projects consistency with the Coastal Zone Management Act. The USACE will closely work with NCDCM and NCDWQ in the development of the DEIS to ensure the process complies with current State Environmental Policy Act (SEPA) requirements. It is the intention

of both the USACE and the State of North Carolina to consolidate the NEPA and SEPA processes thereby eliminating duplication.

### 6. Availability of the DEIS

The DEIS is expected to be published and circulated by the end of 2012. A public hearing will be held after the publication of the DEIS.

Dated: March 2, 2012.

**Scott McLendon,**

*Assistant Chief, Regulatory Division.*

[FR Doc. 2012-6127 Filed 3-13-12; 8:45 am]

**BILLING CODE 3720-58-P**

## DEPARTMENT OF DEFENSE

### Department of the Army; Corps of Engineers

#### Public Scoping Meeting and Preparation of Environmental Impact Statement for Baryonyx Corporation, Inc.'s Proposed Wind Farm, Offshore, Willacy and Cameron Counties, TX

**AGENCY:** Department of the Army, U.S. Army Corps of Engineers, DoD.

**ACTION:** Notice of Intent.

**SUMMARY:** The U.S. Army Corps of Engineers, Galveston District, has received a permit application for a Department of the Army (DA) Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344) from Baryonyx Corporation, Inc. (SWG-2011-00511) for the proposed approximately 300-turbine offshore wind farm located in the Gulf of Mexico state waters, offshore Willacy and Cameron Counties in state tracts: 1068, 1069, 1085, 1086, 1087, 1088, 1089, 1090, 1126, 1127, 1129, 1130 and 1131. The primary Federal involvement associated with the proposed action is the discharge or dredged or fill material into waters of the United States, and the construction of structures that may affect navigable waters. Federal authorizations for the proposed project would constitute a "major federal action." Based on the potential impacts, both individually and cumulatively, the Corps intends to prepare an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act to render a final decision on the permit applications.

The Corps' decision will be to issue, issue with modification or deny DA permits for the proposed action. The EIS will assess the potential social, economic and environmental impacts of the construction and operation of the

offshore wind farm, associated facilities, and appurtenances and is intended to be sufficient in scope to address Federal, State and local requirements, environmental and socio-economic issues concerning the proposed action, and permit reviews.

**DATES:** The agency must receive comments on or before May 14, 2012.

**ADDRESSES:** You may submit comments by any of the following methods: *Mail:* Jayson M. Hudson, U.S. Army Corps of Engineers, Regulatory Branch, P.O. Box 1229, Galveston, TX 77553-1229; *Fax:* (409) 766-3931 or *Email:* SWG2011511@usace.army.mil. Emailed comments, including attachments, should be provided in .doc, .docx, .pdf or .txt formats. Documents pertinent to the proposed project may be examined at <http://www.swg.usace.army.mil/reg/eis.asp>.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jayson Hudson, (409) 766-3108.

**SUPPLEMENTARY INFORMATION:** The Galveston District intends to prepare an EIS on the proposed Baryonyx offshore wind farm which would include the proposed construction of approximately 300 offshore turbines in the Gulf of Mexico offshore Willacy and Cameron Counties, TX. Baryonyx Corporation, Inc. proposed this project and is the applicant for the DA permit SWG-2011-00511.

1. *Project Background:* The applicant proposes to construct an approximately 300-turbine wind farm in two areas referred to as the North Rio Grande Lease and Rio Grande Lease. The project is located in Gulf of Mexico state waters, offshore Willacy and Cameron Counties in state tracts: 1068, 1069, 1085, 1086, 1087, 1088, 1089, 1090, 1126, 1127, 1129, 1130 and 1131. The proposed project consists of the following:

a. *Wind Turbines and Foundations:* Each lease site will be comprised of 100-200 wind turbine generators in a grid pattern (turbine array). The final locations will be determined by consultation with appropriate state and federal agencies and consideration of constraints including: wind resource characteristics; safety and navigation; technical characteristics of the wind turbine generators; electrical collection system characteristics; geophysical site constraints; and environmental and ecological considerations. The specific turbine has not been selected so that Baryonyx may take advantage of the latest technologies in wind generation which may become commercially available at the time of procurement. Turbines will be installed onto individual platform foundations attached to the seabed. Foundation type



US Army Corps  
Of Engineers  
Wilmington District

# PUBLIC NOTICE

Issue Date: March 14, 2012  
Comment Deadline: April 13, 2012  
Corps Action ID #: SAW-2012-00040

The Wilmington District, Corps of Engineers (Corps) has received a proposal from the Village of Bald Head Island (VBHI) seeking Department of the Army authorization to construct a terminal groin structure on Bald Head Island, Brunswick, North Carolina.

Current 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 [www.saw.usace.army.mil/wetlands](http://www.saw.usace.army.mil/wetlands)

**Applicant:** Calvin Peck  
Village of Bald Head Island  
Post Office Box 3009  
Bald Head Island, North Carolina 28461-7000

**AGENT (if applicable):** Erik J. Olsen  
Olsen Associates, Inc.  
2618 Herschel Street  
Jacksonville, Florida 32204

## Authority

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 404 of the Clean Water Act (33 USC 1344) and Section 10 of the River and Harbors Act.

## Location

Bald Head Island is located in Brunswick County, North Carolina at approximately 33°51' N, 78°00' W (Figure 1.1). It is roughly 25 miles south of the City of Wilmington and 32 miles east of the South Carolina/North Carolina state line. It is the southernmost of the coastal barrier islands which form the Smith Island complex at the mouth of the Cape Fear River. The southeastern tip of the island is Cape Fear (also referred to as Cape Fear Point) from which Frying Pan Shoals extend seaward over 20 miles to the southeast.

The island's east and south shorelines, "East Beach" and "South Beach", front the Atlantic shoreline. The west shoreline, or "West Beach", fronts the Cape Fear River. A depositional spit feature known as the "Point" lies at the juncture of West Beach and South Beach (see Figure 1.2). The north side of the island is bounded by the Bald Head Creek estuary, Middle Island and Bluff Island. The Cape Fear River entrance, over one mile in width, separates Bald Head Island from Oak Island (or Caswell Beach).

### **Existing Site Conditions**

A temporary sand-filled tube groin field was constructed by the VBHI along the westernmost portion of South Beach in March 1996, immediately following completion of a 1996 dredge disposal project constructed by the Wilmington District. Sixteen groins (sand-filled tubes) were constructed of geotextile material and filled with sand. These temporary groins were replaced by the applicant in 2005 and in 2009.

According to the applicant, the island's gross volumetric sediment loss over the period from November 2000 to May 2011 (excluding East Beach) was approximately 4.363 M cy, or approximately 415,000 cy per year. During this period, the largest erosion impacts occurred at the extreme west end of South Beach bordering the Cape Fear River entrance. Since 2001, the Wilmington District has placed approximately 4.09 mcy on the South Beach shoreline from material dredged during the Cape Fear River channel deepening/widening project and two channel maintenance projects. In 2009, the VBHI dredged approximately 1.85 mcy from Jay Bird shoals and placed this material onto South Beach and West Beach. In July 2011, the VBHI constructed an extension to groin no. 16 (located closest to the Cape Fear River Entrance). The need for this structure was due to severe erosion on the downdrift side of groin #16. In December 2011, the VBHI constructed approximately 350 ft. of sand bag revetment located downdrift of groin no. 16. The purpose of this structure is to alleviate erosion impacts to the adjacent dunes, roads, homes, habitat, and infrastructure occurring downdrift of groin #16. The VBHI recently placed approximately 140,000 cy of material at the western end of South Beach. The source of material for this project was Bald Head Creek shoal.

According to the applicant, the island's gross volumetric sediment loss over the November 2000 to May 2011 timeframe (excluding East Beach) was approximately 4.363 M cy, or approximately 415,000 cy per year – on "average". Most of this loss occurred at the extreme West end of South Beach bordering the Cape Fear River entrance. The assignment of an average annual long-term rate of sand loss at Bald Head Island however, is not necessarily a meaningful indicator of "erosional stress". According to the applicant, such a "rate" is temporally biased by factors such as periods of beach fill equilibration and groin field performance as well as other physiographic phenomena. Figure 3.1 depicts the location of the MHWL over the time span extending from November 2000 through May 2011. A portion of the South Beach shoreline retreated by as much as 400 ft. since 2000 despite placement (approximately 6 mcy) of sand on South Beach. According to the applicant, this magnitude of shoreline

realignment can be addressed by its proposed terminal groin structure – with concurrent beach fill.

The Applicant contends that dredging of the Wilmington Harbor Entrance Channel by the Corps of Engineers has caused accelerated erosion on South Beach. The Corps of Engineers recognizes that the VBHI has experienced serious erosion and dramatic shifts in shorelines over many years; however, we do not concur that maintenance of the Wilmington Harbor Entrance Channel is the cause of that erosion.

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

According to information provided by the applicant, the purpose of the proposed work is to address accelerating erosion at the western end of South Beach and to thereby protect public infrastructure, roads, homes, beaches, protective dunes and wildlife habitat.

### **Project Description**

The VBHI is proposing to construct a single terminal groin designed to compliment future placement of beach fill at South Beach. The structure will serve as a “template” for fill material placed eastward of the proposed terminal groin. The proposed terminal groin will be designed as a “leaky” structure (i.e. semi-permeable) so as to provide for some level of sand transport to West Beach (located northward of the proposed groin). According to the applicant, this magnitude of shoreline realignment, as discussed above, can be addressed by its proposed terminal groin structure – with concurrent beach fill.

### **Other Required Authorizations**

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice combined with appropriate application fee at the North Carolina Division of Water Quality central office in Raleigh will constitute initial receipt of an application for a 401 Water Quality Certification. A waiver will be deemed to occur if the NCDWQ fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, 401 Oversight and Express Permits Unit, 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 1650 Mail Service Center, Raleigh, North Carolina 27699-1650 Attention: Ms Karen Higgins by April 6, 2012.

The applicant has not provided to the Corps, a certification statement that his/her proposed activity complies with and will 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 can not issue a permit for the proposed work until the applicant submits such a certification to the Corps and the North Carolina Division of Coastal Management (NCDCM), and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification.

### **Essential Fish Habitat**

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The Corps' initial determination is that the proposed project may adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service. The potential impacts to EFH associated with the proposed groin structure and concurrent beach fill are not known at this time.

### **Cultural Resources**

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

### **Endangered Species**

The Corps has 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 has determined pursuant to the Endangered Species Act of 1973 (ESA), that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. The potential impacts associated with the construction of the proposed project to federal species protected under the ESA are not known at this time. Consultation under Section 7 of the ESA will be initiated and no permit will be issued until the consultation process is complete.

### **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 consolidate 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 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.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, April 13, 2012. Comments should be submitted to Dave Timpy, Project Manager, 69 Darlington Avenue, Wilmington, North Carolina, 28403, telephone (910) 251-4634.



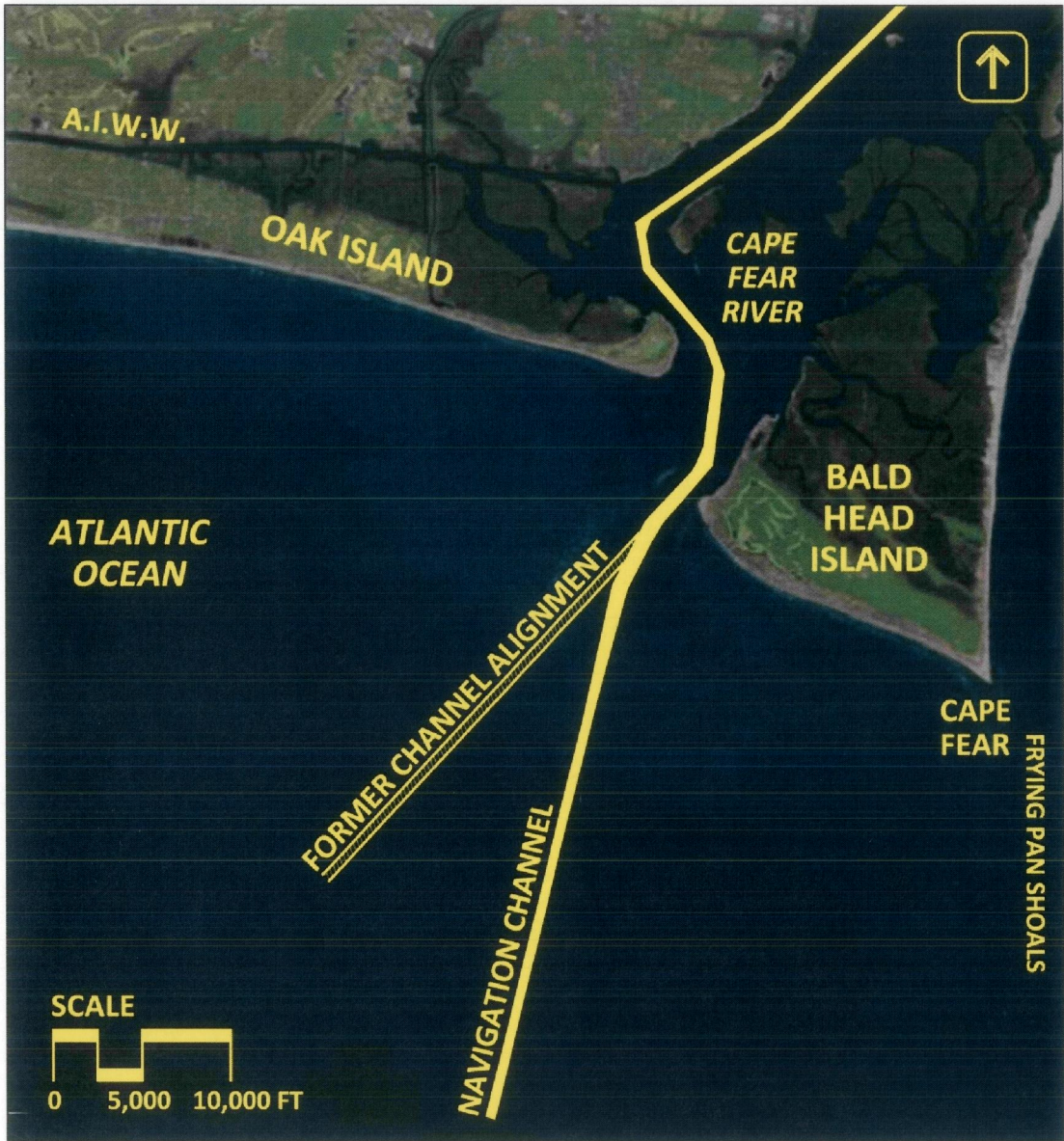


Figure 1.1: Location of Bald Head Island, N.C. and Federal Navigation Channel.

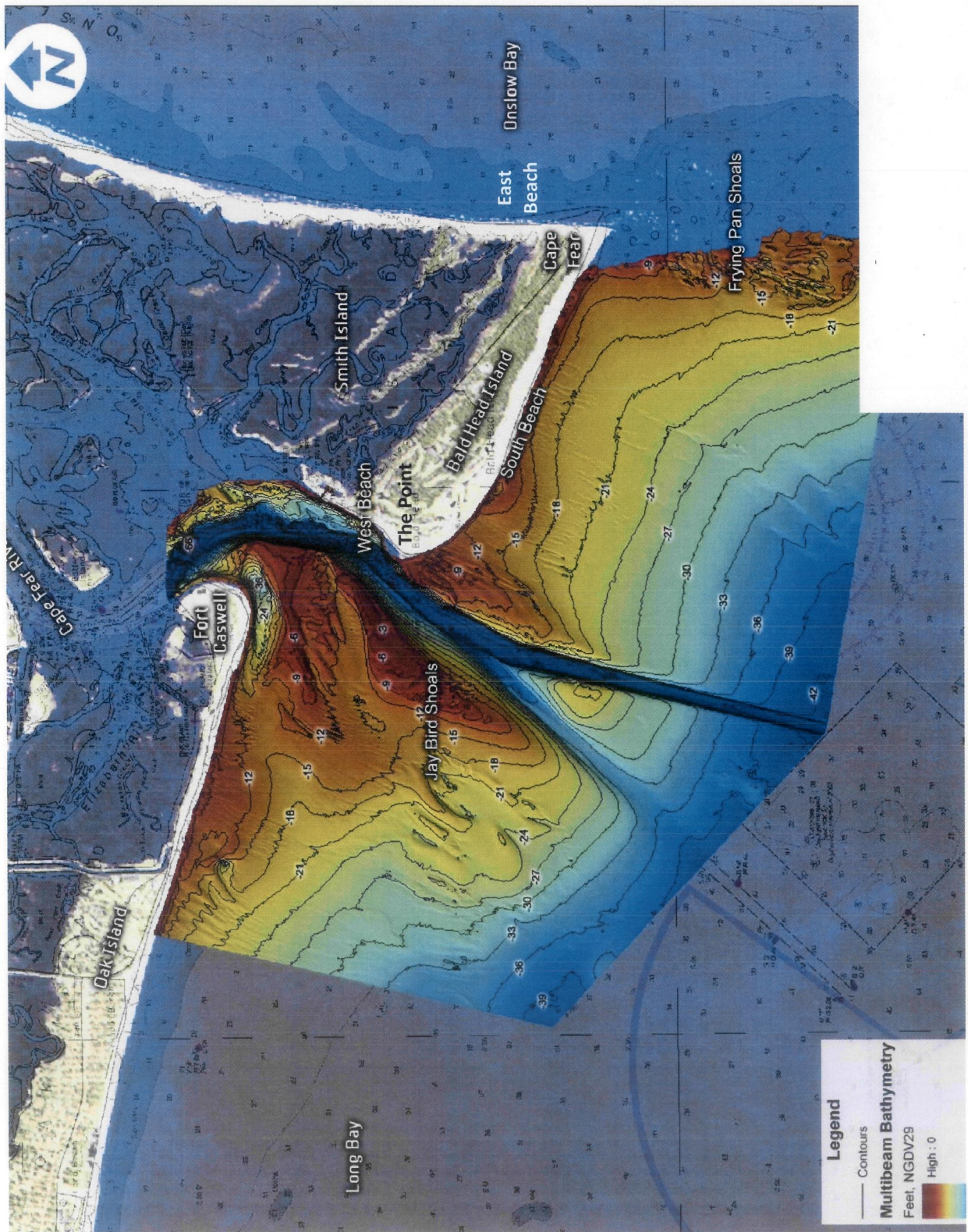


Figure 1.2: Bald Head Island/Oak Island/Cape Fear River.

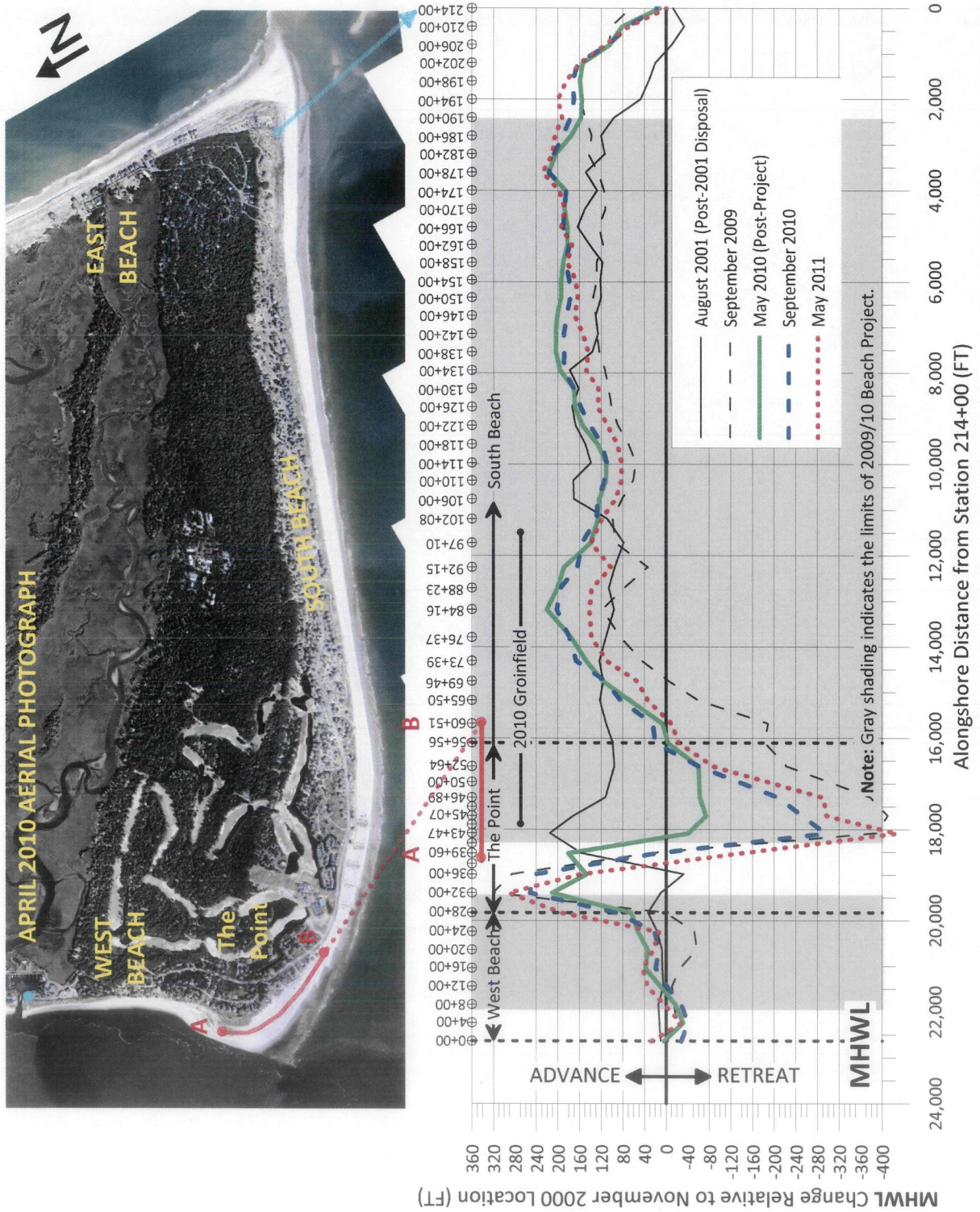


Figure 3.1: Location of the MHWL (+2.5 ft-NGVD) relative to the November 2000 survey.



REPLY TO  
ATTENTION OF:

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

May 11, 2012

Regulatory Division

Action ID No. SAW-2009-01242

Mr. Calvin Peck  
Village of Bald Head Island  
Post Office Box 3009  
Bald Head Island, North Carolina 28461-7000

Dear Mr. Peck:

Reference our March 14, 2012 Public Notice describing the proposal by the Village of Bald Head Island to construct a shore protection project, including a terminal groin, on Bald Head Island, adjacent to the Northeast Cape Fear River, Brunswick County, North Carolina.

After review of your proposal, we have received comments from the North Carolina Division of Marine Fisheries (letter dated April 9, 2012), the North Carolina Division of Water Quality (letter dated March 21, 2012), the North Carolina State Historic Preservation Office (letter dated March 29, 2012), and the North Carolina Coastal Federation (letter dated April 12, 2012). Copies of all these letters are enclosed and have been previously provided to you by email. These comments and recommendations are due to anticipated adverse environmental impacts associated with your project.

Our administrative process provides you the opportunity to respond to the resource agency comments before we make a final permit decision. In this regard, please review the comments and recommendations and submit your written response to us on or before June 7<sup>th</sup>, 2012.

If you have questions or comments, please do not hesitate to contact me at telephone (910) 251-4634.

Sincerely,



Dave Timpy, Project Manager  
Wilmington Regulatory Field Office

Enclosure

Copies Furnished (with enclosure):

Mr. Doug Huggett  
Division of Coastal Management  
North Carolina Department of  
Environment and Natural Resources  
400 Commerce Avenue  
Morehead City, North Carolina 28557

Ms. Karen Higgins  
Division of Environmental Management  
North Carolina Department of  
Environment and Natural Resources  
1650 Mail Service Center  
Raleigh, North Carolina 27699-1650

Mr. Ronald J. Mikulak, Chief  
Wetlands Section - Region IV  
Water Management Division  
U.S. Environmental Protection Agency  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

Mr. Pete Benjamin  
U.S. Fish and Wildlife Service  
Fish and Wildlife Enhancement  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

Mr. Ron Sechler  
National Marine Fisheries Service  
101 Pivers Island  
Beaufort, North Carolina 28516

Ms. Rennee Gledhill Earley  
North Carolina Department of Cultural  
Resources  
State Historic Preservation Office  
4617 Mail Service Center  
Raleigh, North Carolina 27699

Ms. Anne Deaton  
Division of Marine Fisheries  
North Carolina Department of  
Environment and Natural Resources  
127 Cardinal Drive Extension  
Wilmington, North Carolina 28405

Ms. Jessi Baker  
Division of Marine Fisheries  
North Carolina Department of  
Environment and Natural Resources  
127 Cardinal Drive Extension  
Wilmington, North Carolina 28405

Ms. Deborah Wilson  
Division of Coastal Management  
North Carolina Department of  
Environment and Natural Resources  
127 Cardinal Drive Extension  
Wilmington, North Carolina 28405

Molly Ellwood  
Southeastern Permit Coordinator  
North Carolina Wildlife Resources  
Commission, Habitat Conservation Program  
127 Cardinal Drive  
Wilmington, North Carolina 28405

✓ Christian Preziosi  
Land Management Group, Inc  
Post Office Box 2522  
Wilmington, North Carolina 28402



North Carolina Department of Environment and Natural Resources  
Division of Marine Fisheries

Beverly Eaves Perdue  
Governor

Dr. Louis B. Daniel III  
Director

Dee Freeman  
Secretary

MEMORANDUM:

TO: Dave Timpy, Project Manager, Wilmington USACE Regulatory Field Office

THROUGH: Anne Deaton, DMF Habitat Section Chief

FROM: Jessi Baker, DMF Habitat Alteration Permit Reviewer

SUBJECT: Village of Bald Head Island Terminal Groin Draft EIS - Scoping

DATE: April 9, 2012

The North Carolina Division of Marine Fisheries (DMF) submits the following comments pursuant to General Statute 113-131. Representatives from DMF attended an agency scoping meeting in Wilmington, NC for the Village of Bald Head Island (VBHI) terminal groin on March 28, 2012. DMF has reviewed the Corps of Engineers Public Notice and the Bald Head Island Terminal Groin Work Plan for installing a terminal groin. The VBHI proposes to install a terminal groin with supplemental beach nourishment at the west end of South Beach (or "The Point") at the southernmost extent of the existing sand bag groin field.

The 2010 Coastal Habitat Protection Plan (CHPP) summarizes the latest scientific information available to assess the status and threats to marine fish habitats. The CHPP process brings state regulatory agencies together to implement the recommendations from the CHPP. The CHPP states that research is needed to determine when and where recruitment to adult fish stocks is limited by larval ingress to estuarine nursery habitats. The CHPP also states that the long-term consequences of hardened structures on larval transport and recruitment should also be thoroughly assessed prior to approval of such structures. DMF has concerns that terminal groins will alter larval transport and impact important fish habitats through altered beach and nearshore sediment and profile.

Impacts to Larval Transport

Terminal groins can potentially interfere with the passage of larvae and early juveniles from offshore spawning grounds into estuarine nursery areas. Successful transport of larvae through the inlet occurs within a narrow zone parallel to the shoreline and is highly dependent on along-shore transport processes (Blanton et al. 1999; Churchill et al. 1999; Hare et al. 1999). Obstacles such as jetties adjacent to inlets block the natural passage for larvae into inlets and reduce recruitment success (Kapolnai et al. 1996; Churchill et al. 1997; Blanton et al. 1999) (from 2010 CHPP).

DMF requests a detailed scientific field investigation, analysis, and modelling of larval transport dynamics that exist around Bald Head Island. This information should be used to model estimated impacts of the groin to larval ingress and egress through the inlet.

North Carolina Department of Environment and Natural Resources  
Division of Marine Fisheries

Impacts to Fish Habitat

DMF has significant concerns about the use of hardened shoreline stabilization techniques along high energy ocean shorelines due to accelerated erosion in some location along the shore as a result of the longshore sediment transport being altered. These structures may also modify sediment grain size, increase turbidity in the surf zone, narrow and steepen beaches, and result in reduced intertidal habitat and diversity and abundance of macroinvertebrates. Anchoring inlets may also prevent shoal formation and diminish ebb tidal deltas, which are important foraging grounds for many fish species (Deaton et al. 2010). Changes to the surf zone or inlet could affect species that depend on these areas for nursery, spawning, or foraging.

DMF requests a field investigation of the current distribution of larval and juvenile fishes in the vicinity of the inlet and the proposed groin location. These data can identify the most highly utilized habitat areas as well as serve as baseline data to compare to larval and juvenile fish monitoring data that should be collected after groin construction.

Due to the potential for altered sediment grain size, beach profile and intertidal habitat due to the influence of a groin, DMF requests benthic macroinvertebrate monitoring within the impact area of the proposed groins.

Based on these concerns, DMF also requests detailed discussions of the following be included in the EIS.

- All Essential Fish Habitat (EFH) and state protected habitats that occurs in this area
- All fish habitats outlined in the most recent NC Coastal Habitat Protection Plan (CHPP) that occur in the area
- Characterization of and potential impacts to fish and invertebrate community composition and abundance in the inlet and adjacent surf zone at Bald Head Island
- Compilation of relevant research regarding larval transport through inlets, especially inlets with hardened structures
- Potential impacts to the benthos of the surf/swash zone and nearshore areas and a detailed plan to monitor for impacts within the impact area of the proposed groins
- Potential impacts to commercial or recreational fishing including any indirect economic impacts due to adverse impacts to fish and fish habitat
- Potential direct impacts from dredging, beach placement and nearshore placement of sand, and how those impacts will be minimized
- Potential impacts on regional sand budgets

If the USACE would like assistance in locating information regarding the above topics or has any other questions, please contact Jessi Baker at (252) 808-8064 or [jessi.baker@ncdenr.gov](mailto:jessi.baker@ncdenr.gov).





North Carolina Department of Environment and Natural Resources  
Division of Marine Fisheries

Beverly Eaves Perdue  
Governor

Dr. Louis B. Daniel III  
Director

Dee Freeman  
Secretary

MEMORANDUM:

TO: Dave Timpy, Project Manager, Wilmington USACE Regulatory Field Office

THROUGH: Anne Deaton, DMF Habitat Section Chief *AD*

FROM: Jessi Baker, DMF Habitat Alteration Permit Reviewer *JB*

SUBJECT: Village of Bald Head Island Terminal Groin Draft EIS - Scoping

DATE: April 9, 2012

The North Carolina Division of Marine Fisheries (DMF) submits the following comments pursuant to General Statute 113-131. Representatives from DMF attended an agency scoping meeting in Wilmington, NC for the Village of Bald Head Island (VBHI) terminal groin on March 28, 2012. DMF has reviewed the Corps of Engineers Public Notice and the Bald Head Island Terminal Groin Work Plan for installing a terminal groin. The VBHI proposes to install a terminal groin with supplemental beach nourishment at the west end of South Beach (or "The Point") at the southernmost extent of the existing sand bag groin field.

The 2010 Coastal Habitat Protection Plan (CHPP) summarizes the latest scientific information available to assess the status and threats to marine fish habitats. The CHPP process brings state regulatory agencies together to implement the recommendations from the CHPP. The CHPP states that research is needed to determine when and where recruitment to adult fish stocks is limited by larval ingress to estuarine nursery habitats. The CHPP also states that the long-term consequences of hardened structures on larval transport and recruitment should also be thoroughly assessed prior to approval of such structures. DMF has concerns that terminal groins will alter larval transport and impact important fish habitats through altered beach and nearshore sediment and profile.

Impacts to Larval Transport

Terminal groins can potentially interfere with the passage of larvae and early juveniles from offshore spawning grounds into estuarine nursery areas. Successful transport of larvae through the inlet occurs within a narrow zone parallel to the shoreline and is highly dependent on along-shore transport processes (Blanton et al. 1999; Churchill et al. 1999; Hare et al. 1999). Obstacles such as jetties adjacent to inlets block the natural passage for larvae into inlets and reduce recruitment success (Kapolnai et al. 1996; Churchill et al. 1997; Blanton et al. 1999) (from 2010 CHPP).

DMF requests a detailed scientific field investigation, analysis, and modelling of larval transport dynamics that exist around Bald Head Island. This information should be used to model estimated impacts of the groin to larval ingress and egress through the inlet.

2012-01140



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Charles Wakild, P.E.  
Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

March 21, 2012

DWQ Project # 12-0288  
Brunswick County

**CERTIFIED RETURN RECEIPT REQUESTED**

Village of Bald Head Island  
Calvin Peck  
PO Box 3009  
Bald Head Island, North Carolina 28461-7000

**RECEIVED**

**MAR 26 2012**

REG: WILM: FLD: OFG:

Subject Property: **Village of Bald Head Island – Terminal Groin Structure**

**REQUEST FOR MORE INFORMATION**

Dear Mr. Peck,

The Division of Water Quality (DWQ) received a Public Notice issued by the US Army Corps of Engineers on March 15, 2012. An Individual 404 Permit will be required for this project (SAW-2012-00040). Please note that the following must be received prior to issuance of a 401 Water Quality Certification.

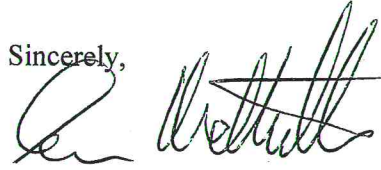
**Additional Information Requested:**

1. The 401 Certification cannot be processed until five (5) complete sets of the application and associated maps are received at the DWQ Central Office in Raleigh along with the appropriate fee.  
Any large scale maps that are provided also need to include a copy of the site plans on a cd. One (1) data CD of full size plans in TIFF Group 4 format (black and white, not grayscale or color). If the plans are too large to store in TIFF format, they can be stored in PDF. If you have questions pertaining to this, please call Bev Strickland at (919) 807-6350.
2. Application Fee: The fee for applications is now \$240 for projects impacting less than an acre of wetland and less than 150 linear feet of streams (whether intermittent or perennial). For projects impacting one or more acres of wetland or 150 linear feet of streams (whether intermittent or perennial), the fee is \$570.

Until the information requested in this letter is provided, I will request (by copy of this letter) that the Corps of Engineers place this project on hold. Also, this project will be placed on hold for our processing due to incomplete information (15A NCAC 2H .0507(a)).

Thank you for your attention. If you have any questions, please contact me in our Central Office in Raleigh at (919) 807-6360 or Ian McMillan at (919) 807-6364.

Sincerely,



*KAH* Karen A. Higgins, Supervisor  
Wetlands, Buffers, Stormwater, Compliance  
and Permitting Unit (Webscape)

KAH/ljd

cc: USACE Wilmington Regulatory Field Office  
Olsen Associates, Inc., Erik J Olsen, 2618 Herschel St, Jacksonville FL 32204  
File Copy

Filename: 120288VBHITerminalGroinStructure(Brunswick)\_Hold\_IP\_NeedSets\_Fee



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

RECEIVED

MAY 18 2012

REG. WILM. FLD. OFC.

May 14, 2012

Mr. David Timpy  
U. S. Army Corps of Engineers  
Wilmington Regulatory Field Office  
P. O. Box 1890  
Wilmington, North Carolina 28402-1890

Subject: Action ID #SAW- 2012-00040; Village of Bald Head Island  
Brunswick County, NC

Dear Mr. Timpy:

This letter provides the comments of the U. S. Fish and Wildlife Service (Service) on the subject Public Notice (PN), dated March 14, 2012, and in response to a request for comments at the April 24, 2012 Project Delivery Team (PDT) meeting. The applicant, the Village of Bald Head Island (VBHI), has applied for a Department of the Army (DA) permit to construct a terminal groin structure on Bald Head Island in the Atlantic Ocean. These comments are submitted in accordance with the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661-667d). Comments related to the FWCA are to be used in your determination of compliance with 404(b)(1) guidelines (40 CFR 230) and in your public interest review (33 CFR 320.4) in relation to the protection of fish and wildlife resources. Additional comments are provided regarding the District Engineer's determination of project impacts pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

### **Project Area, Proposed Activities, and Anticipated Impacts**

The project area is South Beach and the adjacent Atlantic Ocean on Bald Head Island. The waters of the project area are classified as SB. The area is not designated as a Primary Nursery Area (PNA) and is not closed to the taking of shellfish. The substrate of the project area is primarily sand.

The applicant proposes to construct a single terminal groin, to complement future placement of beach fill at South Beach. The groin is intended to be a "leaky" structure, so as to provide for a level of sand transport to West Beach, which is located northward of the proposed groin. According to information provided at the April 24, 2012 PDT meeting, the groin is proposed to be constructed in "the dry." In other words, the

applicant proposes to place the sand first on the nearshore area, and then construct the terminal groin. The applicant states that the nourishment portion of the project is proposed to be conducted during the sea turtle nesting season.

### **Federally Protected Species**

The Service has reviewed available information on federally-threatened or endangered species known to occur in Brunswick County. Our review indicates that several species may occur in the project area, including the West Indian manatee (*Trichechus manatus*), piping plovers (*Charadrius melodus*), seabeach amaranth (*Amaranthus pumilus*), and the Kemp's Ridley (*Lepidochelys kempi*), hawksbill (*Eretmochelys imbricata*), leatherback (*Dermochelys coriacea*), loggerhead (*Caretta caretta*), and green (*Chelonia mydas*) sea turtles. Of the five sea turtle species, the loggerhead (*Caretta caretta*), and green (*Chelonia mydas*) sea turtle may nest in the project area. Whales, shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus*), and sea turtles in the water are under the jurisdiction of NOAA Fisheries' Protected Species Division.

Manatees move along the Atlantic Coast during summer months and are seasonal transients in North Carolina, primarily from June through October. Manatees may be found in water over one meter (3.3 feet) deep. The species moves extensively when in North Carolina waters and past occurrence records cannot be used to precisely determine the likelihood that it will be present at a particular construction site.

Seabeach amaranth, an annual plant, exists adjacent to inlets, along beaches between dunes and the high tide line, and in areas of extreme overwash. The plant helps to trap sand and build dunes. The species is listed as threatened by both the federal government and the State of North Carolina. Suitable habitat for this plant occurs in the project area. Seabeach amaranth begins to flower as soon as plants have reached sufficient size, sometimes as early as June, but more typically commencing in July and continuing until the death of the plant in late fall. Seed production begins in July or August and peaks in September during most years, but continues until the death of the plant. The proposed work period would place sand on the beach when only seeds are present. Sediment placement may bury seeds on the beach and delay germination the following year, but the seeds are likely to remain viable and may germinate when the imported sand washes away.

Piping plovers, designated as federally threatened, are known to occur in the project area, but there is no designated critical habitat on Bald Head Island. Piping plovers nest above the high tide line on coastal beaches; on sand flats at the ends of sand spits and barrier islands; on gently sloping foredunes; in blowout areas behind primary dunes

(overwashes); in sparsely vegetated dunes; and in overwash areas cut into or between dunes. The species requires broad, open, sand flats for feeding, and undisturbed flats with low dunes and sparse dune grasses for nesting. Piping plovers from the federally endangered Great Lakes population as well birds from the threatened populations of the Atlantic Coast and Northern Great Plains overwinter on North Carolina beaches. Piping plovers arrive on their breeding grounds in late March or early April. Following establishment of nesting territories and courtship rituals, the pair forms a depression in the sand, where the female lays her eggs. By early September both adults and young depart for their wintering areas.

### **Service Concerns and Recommendations**

As stated above, the applicant states that the nourishment portion of the project is proposed to be conducted during the sea turtle nesting season. It is also likely that the proposed window for beach nourishment includes the nesting period for piping plovers. The Service recommends that the environmental document(s) clearly discern the proposed timeframes for beach nourishment and potential impacts to nesting sea turtles, the West Indian manatee, seabeach amaranth, and piping plovers. Potential impacts to these species on Oak Island should also be fully considered. The environmental document(s) should discuss the potential impacts that may occur if sediment disposals associated with the Wilmington Harbor Sand Management Plan (SMP) occur on Oak Island within the same year.

Section 4.4 of the January 2012 NEPA/EIS work plan states “the proposed structure will be designed to be strategically incorporated into the beach disposal operations associated with the Wilmington Harbor Sand Management Plan. The latter program provides the equivalent of 1 M cy of high quality sand every two years. It is anticipated that construction of the proposed structure would be timed sufficient to take advantage of the beach disposal event’s ability to fill the terminal groin to capacity so as to minimize the probability of downdrift impacts after installation.” However, as mentioned above, the applicant stated at the April 24, 2012 meeting that the beach is proposed to be nourished before the groin is constructed. The EIS should outline the proposed construction logistics and timelines, and examine whether the available sources of sand are adequate to meet the proposed method and schedule of construction. The environmental documents should also examine the long-term effects to the listed species listed above from the proposed beach nourishment schedule (every two years).

Potential impacts to the levels of erosion on Oak Island and West Beach from the construction of the terminal groin should be fully examined in the environmental

documents. The analysis should include how potential impacts to Oak Island will affect listed species.

The Cumulative Impacts Analysis should include an analysis of potential sea-level rise scenarios (similar to what is required by Engineer Circular EC 1165-2-211), and the potential influence that sea-level rise will have on the structural integrity of the terminal groin and the nourishment schedule during the proposed life of the project.

### Summary

The Service appreciates the opportunity to comment on this PN. We look forward to working with the Project Development Team (PDT) to review the EIS/EA and Biological Assessment. If you have questions regarding these comments or wish to discuss the development of the coordinated federal position, please contact Kathy Matthews at 919-856-4520, ext. 27 or by e-mail at <kathryn\_matthews@fws.gov >.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Benjamin". The signature is fluid and cursive, with a large initial "P" and "B".

Peter Benjamin  
Field Supervisor

cc:

Ron Sechler, NOAA Fisheries, Beaufort  
Molly Ellwood, NC Wildlife Resources Commission, Wilmington  
Doug Huggett, NC Division of Coastal Management, Morehead City  
Jessi Baker, NC Division of Marine Fisheries, Wilmington  
Chad Coburn, NC Division of Water Quality, Wilmington



April 12, 2012

Dave Timpy  
Project Manager  
US Army Corps of Engineers  
69 Darlington Avenue  
Wilmington, NC 28403-1343

**Re: Village of Bald Head Island Terminal Groin Scoping Comments: Corps Action ID#: SAW-2012-00040**

Dear Mr. Timpy:

Please accept these comments regarding the needed scope of the Environmental Impact Statement (EIS) that will be prepared to evaluate a possible terminal groin at the Village of Bald Head Island to address the erosion at the western end of South Beach. These comments are based upon the federation's experience with beach and inlet management in North Carolina, and participation in the development of numerous environmental reviews for beach and inlet management projects. In addition, our direct participation in the development of terminal groin legislation in North Carolina during 2011 (NC General Assembly Senate Bill 110) as well as at the scoping meeting held by the Corps on March 8, 2012, allow us to provide some insights into issues that need to be thoroughly vetted by this environmental analysis.

To provide adequate and useful information to federal and state agencies to make permit decisions regarding this proposed project, the federal EIS that is ultimately prepared for this project must address and resolve significant regulatory requirements that are specified in the terminal groin law enacted in 2011 by the North Carolina General Assembly. This law is being incorporated into the federally approved coastal plan for North Carolina, and therefore, there is an obligation by all federal agencies to act in a manner consistent with the state's plan as mandated by the Coastal Zone Management Act of 1972.

Fortunately, the Council of Environmental Quality's (CEQ) guidelines call for detailed descriptions of proposed alternatives as well as for a thorough explanation of their rejection (CFR 40 § 1502.14(a-f)). This is further supported by the NCGS § 113A-4 that defines the information the state agency needs to include in an EIS to satisfy state environmental review requirements. Similarly, the NCGS § 113 A – 115.1 (e)(1) requires the applicant for the permit to submit "information to demonstrate that ... non structural approaches to erosion control including relocation of threatened structures, are



impractical.” Under state law, no permit for a terminal groin can be issued if nonstructural alternatives are practical and will achieve the project’s purpose.

The applicant’s stated purpose of the project is to implement an erosion control and beach/dune restoration that will provide long-term protection to residential structures and Town infrastructure along the western end of South Beach. The applicant also states the project would be expected to complement existing island wide nourishment activities and is expected to protect town infrastructure, roads, homes, beaches, protective dunes and wildlife habitat.

The project description is troublesome in that the applicant clearly states its preferred alternative before any alternatives have been thoroughly investigated and discussed during the formal EIS process. It would seem reasonable to limit the project’s purpose as stated in the public notice, and vet all alternatives prior to selection of the preferred alternative by the applicant. The description of the project purpose in the Corps public notice dated March 14, 2012 would provide that overall general purpose of the applicant but it instead takes the leap from that stated purpose to the specific alternative of a terminal groin which would seem to prejudice the project’s stated purpose from the beginning.

Clearly other alternatives must be evaluated, and non-structural alternatives may be much more practical once the total benefits and costs of this project are more fully understood. Other communities have selected to pursue non-structural alternatives to achieve similar project purposes. For example, the Town of North Topsail Beach has chosen the option of inlet channel relocation over the one of building a terminal groin. Similar inlet channel relocation projects have been permitted in the past at both Mason and Bogue Inlets.

In addition, the applicant also needs to provide detailed information necessary to “demonstrate that structures or infrastructures are imminently threatened by erosion.” [NCGS § 113 A – 115.1 (e)(1)]. According to 15A NCAC 07H.0308, imminently threatened structures are defined as those which “foundation, septic system, or right-of-way in the case of roads, is less than 20 feet away from the erosion scarp.” The actual number and location of structures that qualify as “imminently threatened” based upon the rules of the Coastal Resources Commission need to be identified.

In relation to the latter it is paramount for the applicant to demonstrate that “the construction and maintenance of the terminal groin will not result in significant adverse impacts to private property or to the public recreational beach” [NCGS § 113 A – 115.1 (f)(4)]. In order to comply with this requirement the applicant needs to identify what constitutes a significant “negative” impact that must be mitigated as well as what boundaries (and specifically why certain boundaries are chosen over others) the applicant is considering when demonstrating lack of significant adverse impacts.

NCGS § 113 A – 115.1 (f)(5) also requires the post-project monitoring and necessary mitigation. To comply with this the project application must show one crucial component

- the definition of thresholds. This definition will serve the dual purpose: serve as a baseline for determining mitigation of any future adverse impacts; and serve as a baseline for future monitoring. Shifting baselines, a widely accepted term among scientific community, is used to describe ways in which significant changes in a system are measured against previous reference points or baselines. Failure to identify correct baseline can significantly affect future assessment of not only monitoring of natural systems, but also of mitigation of the adverse impacts to the natural system and private property as well.

The federation suggests that the thresholds be determined based upon the predictions of future shoreline and inlet configurations that are associated with each individual project alternative identified in the EIS. In order to demonstrate that non-structural alternatives are impractical, the EIS must clearly prove that a terminal groin will result in more beneficial shoreline and inlet configurations that cost-effectively accomplish the project purposes. This means the terminal groin alternative must then deliver on what the applicant promises since any future shoreline and inlet configurations that could have been achieved with a non-structural alternative constitute unacceptable performance by the terminal groin. Therefore, the thresholds for mitigation of unacceptable impacts caused by the preferred alternative are any actual beach and inlet configurations that could have been achieved by using a non-structural alternative or no action.

In evaluating the costs and benefits of various project alternatives, the applicant should represent scenarios that include the effects of storms on the project area. The applicant should compare the effects of storms on the project area with a terminal groin, with non-structural alternatives, and with no action. If the applicant is unable to account for the effects of storms in predicting and comparing project benefits and costs among various alternatives, then the state law will make the applicant liable for future damages that result from storms once the terminal groin is constructed. In other words, if the EIS indicates that the terminal groin will protect property, and property--supposedly protected is later lost during a storm--that constitutes a project failure unless those losses are not accounted for upfront in the analysis of alternatives.

According to National Atmospheric and Oceanic Administration and the U.S. Geological Service, recent data show that the coast of North Carolina will likely be affected by more than 60 hurricanes in a 100-year period. It is, therefore, reasonable to assume that the proposed project will be affected by at least one major storm with catastrophic consequences over its projected lifetime (which in the case of terminal groins is 30 years). The CEQ defines those "impacts which have catastrophic consequences, even if their probability of occurrence is low" as "reasonably foreseeable" (CFR 40 § 1502.22(b)(4), and hence requires to the applicant to include them in the EIS. Therefore, the applicant should account for the impacts of storms when drafting the EIS for the proposed project.

State law requires that the applicant for a terminal groin submit proof of financial assurance (bond, escrow account or other financial instrument) that can cover the costs

of monitoring and maintenance, implementation of mitigation measures and modification and/or removal of the structure, as well as of restoration of public and private property negatively affected by the structure. These exact costs of this bond, insurance policy, or escrow account need to be determined so they can be factored into the cost/benefit analysis that is done as part of the alternatives analysis. Additional project costs that need to be determined include the increased commitment to beach nourishment near the inlet as well as inlet management costs and how the proposed terminal groin will affect the inlet as well as the inlet inner beaches and estuarine ecosystems. Also, the EIS should detail the costs of preparing the EIS, obtaining permits, and expected legal proceedings since any permitting around this issue is likely to be challenged through the courts. These total costs of the project are necessary to fully evaluate project alternatives, and especially to determine if the terminal groin option is practical, feasible, and cost-effective.

Below is a list of other information and issues that the EIS should address:

- The CRC terminal groin report dated March 1, 2010 recommended strategies other than hardened structures to protect beaches and manage inlets should always be considered first. To comply with state policy, investigating non-structural alternatives should be the main objective of this analysis, not rationalizing the construction of a terminal groin. Non-structural approaches to erosion control include inlet channel relocation, beach nourishment, relocation of structures and relocation of power, water and sewer infrastructure in a manner and location to protect such infrastructure and public health and safety.
- Jurisdictional 404 wetlands throughout the project area must be identified and mapped. This area includes both sides of the inlet. Any impacts to jurisdictional wetlands need to be evaluated, and compliance with avoidance, minimization and mitigation requirements explained for each project alternative.
- “Critical habitat” as defined by the US Fish and Wildlife Service needs to be mapped on both sides of the inlet. The effects of the project alternatives need to be evaluated on this habitat. There now seems to be a general agreement by some regulators and agencies that some protected species, such as the federally listed endangered Piping Plover, can adapt to changes in its required habitat and “find new places to live” are troublesome to say the least. Critical habitats must be identified and protected as much as reasonably possible due to any impacts of proposed beach erosion measures.
- Structures or infrastructures that are imminently threatened by erosion” as defined by 15A NCAC 07H.0308 need to be identified and mapped. “Imminently threatened structures” are defined as those which “foundation, septic system, or right-of-way in the case of roads, is less than 20-feet away from the erosion scarp.”
- A plan for construction and maintenance of the proposed terminal groin and its accompanying beach fill project that is prepared by a professional engineer licensed to practice in North Carolina must be provided as part of the terminal groin option (NCGS § 113 A – 115.1(e)(4)).

- A plan for the management of the inlet and the estuarine and ocean shorelines immediately adjacent to and under the influence of the inlet must be provided. The inlet management plan shall do all of the following relative to the terminal groin alternative and its accompanying beach fill project (NCGS § 113 A – 115.1 (e)(5)):
  - Describe the post-construction activities that the applicant will undertake to monitor the impacts on coastal resources.
  - Define the baseline for assessing any adverse impacts and the thresholds for when the adverse impacts must be mitigated. (These thresholds should correlate with the various alternatives evaluated by the EIS, and any performance of the terminal groin alternative that could have been achieved by a non-structural alternative should be identified as an “adverse impact.”)
  - Identify mitigation measures to be implemented if adverse impacts reach the thresholds defined above, and state the costs of these mitigation measures.
  - Provide for modification or removal of the terminal groin if the adverse impacts cannot be mitigated and the costs for these modifications and removal.
- Under each possible project alternative, identify those property owners and local governments on both sides of the inlet that may be affected.
- Identify funding sources necessary to fund the terminal groin and beach fill alternative (including the costs of developing this EIS and obtaining permits) over its design life given that no state funds are available for these projects, and local funds spent on these projects by a local government need voter approval. No permits for Terminal groins can be issued in North Carolina where funds are generated from any of the following financing mechanisms and would be used for any activity related to the terminal groin or its accompanying beach fill project (NCGS § 113 A – 115.1 (h)):
  - Special obligation bonds issued pursuant to Chapter 1591 of the General Statutes.
  - Nonvoted general obligation bonds issued pursuant to G.S. 1590148.
  - Financing contracts entered into under G.S. 160A-20 or G.S. 159-148.
- The applicant must provide cost estimates for the required financial assurances specified by state law for a terminal groin project. These assurances must be in the form of a bond, insurance policy, escrow account or other financial instrument, that is adequate to cover the cost of:
  - Removal of the terminal groin and restoration of the beach if it is determined by an independent third party that the groin has an adverse impact on the environment or on other properties, and;
  - Removal of the terminal groin and restoration of the beach if it is determined that the groin has an adverse impact on the environment or on other properties and on the federal navigation channel, and;
  - Long-term maintenance of the terminal groin, including the cost of any required mitigation measures and compliance with all conditions of the permit and variance.

- Detailed information about storm impact and effects upon the terminal groin and also on the inlet dynamics and morphology, the beach profile, sand resources, residential structures, private property, adjacent properties, and the natural resources and environment of the permit area due to the placement of the terminal groin.
- Detailed information and modeling on the impacts of sea level rise on the terminal groin and the resulting effects upon inlet dynamics, adjacent property, beach profiles, residential structures and the natural resources and environment of the island and adjacent islands and estuarine habitats and resources.
- The development of accurate cost-benefit analysis to ensure the costs of storm events is appropriately considered and modeled using real world and real time property appraisals for all project alternatives. The high risk of significant storm damage to beach front properties should be part of the cost-benefit analysis and used to discount the project benefits for each possible alternative considered.
- The economic costs and benefits of each project alternative should include the positive economic values associated with natural inlet processes (fishing, tourism, habitat creation, and larvae transport and fish migration).
- Detailed study and modeling of the effect of any proposed terminal groin on the inlet dynamics, which increase the frequency of, needed dredging and could have long-term negative impacts upon the structure itself and on adjacent shorelines both east and west of the groin. The effect of the groin on inlet narrowing and loss of natural inlet shoals and sand flats should be investigated as well as the possible increase in tidal flow due to inlet morphology changes.
- Thorough modeling of the effects of the terminal groin on the ebb shoal deflation should be considered along with both the economic and resource related costs. This loss of sediment volume could steepen the near shore beach profiles and in turn increase the wave energy reaching the coast and inner inlet areas.
- Thorough modeling of the effects of the terminal groin on the navigation channel and the effects of the continued required navigation channel maintenance and dredging on the integrity of the terminal groin itself and its proposed functions and purported benefits.
- Incorporation of the state Beach and Inlet Management plan into the EIS process and consideration of those recommendations for avoidance of hardened structures on the beach.
- Consideration of the proposed terminal groin and its possible effects of reducing the long shore transport of sediment to the area identified as “West Beach” and how that reduction of sediment will affect erosion or accretion at that location as well as that potential effect upon the area's natural resources and public and private infrastructure.
- Identification of the purpose and need to keep the existing permitted sand filled tube groins in addition to the construction of a terminal groin as proposed. Detailed analysis of the success or failure of the permitted sand groins and detailed modeling of the effects of the terminal groin with the sand groins removed and kept upon the affected areas and requested terminal groin.
- Consideration of the proposed terminal groin and its possible effect upon the east end of Oak Island, the historic sites, public and private property. Detailed

modeling should be required to review the possible effects of the proposed groin upon the federal navigation project and detailed modeling and monitoring of any impacts upon that public project as a result of a terminal groin.

- The effects of the terminal groin on the critical piping plover habitat on each side of the inlet must be evaluated. How the project will comply with the Endangered Species Act must be addressed.
- The potential effects of the terminal groin upon the just listed Atlantic Sturgeon on the federal Endangered Species Act and upon the Short Eared Sturgeon, Eastern Manatee and other endangered marine life that utilize the Cape Fear River and inlet channel in their life cycle.
- The effects of the terminal groin upon endangered sea turtle habitat on both Bald Head Beaches and beaches at Oak Island should be thoroughly researched and analyzed.
  - The potential effects of the design of the proposed terminal groin as a “leaky” structure should be researched and analyzed and how any injury or death will be avoided due to the leaky structure design from trapping sea turtles and other critical marine and mammals within the groin itself.
- - How will both adult and hatching sea turtles survive storm and wave action in and around the terminal groin?
- The proposed terminal groin is described as a leaky structure. Detailed description of that structure should include it’s “leakage” rate and how that will affect the required beach nourishment and identify milestones that should be established to address the groin’s leakage rate. How will this leakage rate affect the use of the public beach and its affect upon the natural resources of the beach community? How will the leakage rate affect erosion or accretion on the “West Beach” area and how will that leakage rate be calculated.
- Consideration of the gradual blockage of the “leaky” groin due to growth of marine life, debris and other impediments and what measures and strategies will be designed to address this possibility.
- The potential effects of the groin upon the Cape Fear River inlet system, tidal flow and fish migration should be investigated as well as the effects upon Jaybird shoals and essential fish habitat identified in the inlet system.
- Proof and analysis that a terminal groin will reduce the frequency of required beach nourishment and address how the proposed “leaky” structure will affect that required frequency.
- A terminal groin could negatively affect an inlet’s equilibrium and its ability to maintain a sediment balance. This could result in more manipulation of the inlet and associated costs to the overall long-term project. These long-term management costs need to be determined and factored into the alternatives analysis.
- One option that is not addressed in the proposal is to augment or enhance and improve the current permitted sand filled tubes to address the erosion issues and perform a detailed analysis of the sand filled tube groin field success and how those permitted structures could be revised to fulfill the projects stated purpose.
- If the permitted sand filled groin field is allowed to remain and a terminal groin is permitted will that violate the intent and language of Senate Bill 110? According

to the approved legislation only one terminal groin will be permitted at the end of a barrier island. The 16 sand filled groins, if left on the public beach, might violate the intent and spirit of the approved legislation. A legal opinion of this issue should be considered by the state and the Coastal Resources Commission.

The Federation has serious concerns about the proposed terminal groin project at Bald Head Island. A careful analysis of alternatives that are evaluated based upon the requirements established by the NC General Assembly are likely to show that non-structural alternatives are more cost-effective and practical. The Corps must ensure that the EIS addresses these explicit state mandates since they are part of the state's coastal management requirements and program.

We appreciate the opportunity to comment and be involved in this project. Please do not hesitate to contact us if you have any questions or need any clarification of these preliminary comments. We intend to fully participate in the development of this EIS, the review of project permits, and any court proceedings that might follow.

With best regards,

*Mike Giles*

Mike Giles  
Coastal Advocate



Ana Zivanovic-Nenadovic  
Program and Policy Analyst



North Carolina Department of Cultural Resources  
State Historic Preservation Office

Ramona M. Bartos, Administrator

Beverly Eaves Perdue, Governor  
Linda A. Carlisle, Secretary  
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

March 29, 2012

RECEIVED

MAR 30 2012

REG. WILM. FLD. OFC.

Dave Timpy  
US Army Corps of Engineers  
Wilmington Regulatory Field Office  
69 Darlington Avenue,  
Wilmington, NC 28403

Re: Construction of a Terminal Groin at the Juncture of Bald Head Island and the Entrance to the Cape Fear River, SAW 2012-00040, Brunswick County, ER 12-0437

Dear Mr. Timpy,

We have reviewed the above public notice concerning proposed plans to construct a terminal groin at the juncture of Bald Head Island and the entrance to the Cape Fear River. Your agency and the applicant should be aware that the Office of State Archaeology underwater research files have references to extensive maritime activities and shipwreck losses in the general project vicinity; therefore, much of the project area holds a high potential for containing submerged cultural resources. Three known shipwrecks (*La Rosa de Bilbao*, 1804; *Ella*, 1864; USS *Violet*, 1864) and two probable shipwrecks are located within less than one mile of the proposed groin.

While no known archaeological sites are within the project boundaries, the project area has never been systematically surveyed to determine the location or significance of submerged cultural resources. As the project creates a bottom disturbance that may damage unknown elements of our underwater cultural heritage we recommend that a comprehensive survey be conducted by an experienced archaeologist to identify the presence and significance of submerged archaeological remains lying within the project boundaries. Potential effects on these resources should be assessed prior to the initiation of construction activities.

A list of archaeological consultants who have conducted or expressed an interest in contract work in North Carolina is available at <http://www.archaeology.ncdcr.gov/ncarch/resource/consultants.htm>. The archaeologists listed, or any other experienced archaeologist, may be contacted to conduct the recommended investigation.

These comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, North Carolina legislation (G.S. 121-22 to 28, Article 3), and the Abandoned Shipwreck Act of 1987 (P.L. 100-298).

We have determined that the project as proposed will not have an effect on any historic structures.



Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced ER tracking number.

Sincerely,

*Renee Gledhill-Earley*

for Ramona M. Bartos

cc: Calvin Peck, Village of Bald Head Island  
Eric Olsen, Olsen Associates, Inc.

**RECEIVED**  
**MAR 30 2012**  
REG. WILM. FILE. OFF.

JAN 22 2013



**North Carolina Department of Cultural Resources**  
**State Historic Preservation Office**

Ramona M. Bartos, Administrator

Pat McCrory, Governor  
Susan W. Kluttz, Secretary  
Kevin Cherry, Deputy Secretary

Office of Archives and History  
Division of Historical Resources  
David Brook, Director

January 17, 2013

Dave Timpy  
US Army Corps of Engineers  
Wilmington Regulatory Field Office  
69 Darlington Avenue,  
Wilmington, NC 28403

Re: Construction of a Terminal Groin at the Juncture of Bald Head Island and the Entrance to the Cape Fear River, SAW 2012-00040, Brunswick County, ER 12-0437

Dear Mr. Timpy,

We have received the archaeological survey report "A Phase I Remote-Sensing Archaeological Survey & Phase II Shipwreck Assessment at the Location of a Proposed Terminal Groin at the Mouth of the Cape Fear River, Bald Head Island, Brunswick County, North Carolina" from Tidewater Atlantic Research, Inc. (TAR) for the above project. The report meets our office's guidelines and those of the Secretary of the Interior and we would like to take this opportunity to comment.

The terrestrial and underwater survey conducted by TAR identified 104 magnetic anomalies and two acoustic targets. A cluster of four magnetic anomalies (86, 89, 90, and 93) associated with one acoustic signature were generated by the remains of a vessel requiring additional archaeological investigation. The remaining targets were determined to not warrant further investigation.

A Phase II non-disturbance investigation of the shipwreck remains, determined it to be a large wood hull sailing vessel dating to the late 19<sup>th</sup> or early 20<sup>th</sup> century. This shipwreck is deemed potentially eligible and requires avoidance. Because the wreck is located within 70 feet of the proposed groin location, TAR proposed a shift in the construction alignment to provide a minimum 150 foot buffer. We concur with this recommendation that a 150 foot buffer is required around the wreck location. Additionally, during construction all contractors should be made aware of the location of the wreck and provide assurance that vessels and equipment engaged in construction of the groin will not infringe on the buffer created, to preserve the surviving vessel remains.

These comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, North Carolina legislation (G.S. 121-22 to 28, Article 3), and the Abandoned Shipwreck Act of 1987 (P.L. 100-298).

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above referenced ER tracking number.

Sincerely,

*Renee Gledhill-Earley*

*for* Ramona M. Bartos

cc: Chris McCall, Village of Bald Head Island  
Eric Olsen, Olsen Associates, Inc.

## Village of Bald Head Island Shoreline Protection Project - Scoping Comment Table

No.	Nature of Comment (Summary)	Agency/Entity	Category	Inclusion in DEIS
1	Limit project purpose as stated in public notice and vet all alternatives prior to selection of applicant's preferred alternative	NCCF	Alternatives Analysis	Sections 1.0 and 3.0
2	Provide detailed information necessary to "demonstrate that structures or infrastructures are imminently threatened by erosion"	NCCF	SB 110 State Regulation	Section 4.0 provides information to demonstrate that structures are threatened by erosion
3	Define mitigation thresholds and correct baseline/boundaries for determining mitigation	NCCF	SB 110 State Regulation	Inlet Management Plan (Appendix B)
4	Include information on impacts of storms on terminal groin and project area	NCCF	Meteorological/Storm	Storm Response Simulation (Appendix P)
5	Determine costs of financial assurance (bond, escrow account, insurance policy) and include cost/benefit analysis as part of alternatives analysis	NCCF	Financial/Economic	Beyond Scope of EIS
6	Include costs of preparation of document, obtaining permits and expected legal costs if final permit is challenged through the courts	NCCF	Financial/Economic	Beyond Scope of EIS
7	Investigate non-structural alternatives prior to rationalization of construction of terminal groin (ie. inlet channel relocation, beach nourishment, relocation of structure and infrastructure	NCCF	Physical	Section 3.0 Section 4.0 (Bald Head Island wetlands), Oak Island wetland delineation beyond scope of EIS
8	Identify and map 404 wetlands on both sides of inlet, evaluate impacts of project alternatives on resource	NCCF	Wetlands	
9	Identify and map "critical habitat" as defined by USFWS on both sides of inlet, evaluate impacts of project alternatives on resource	NCCF	Habitat	No USFWS Critical Habitat in project area
10	Identify and map structures and infrastructure "imminently threatened by erosion" as defined by 15A NCAC 07H.0308	NCCF	Public/Private Property	Section 5.0 and Figures 5.30-5.37
11	Professional engineer licensed in NC should prepare plan for construction and maintenance of proposed terminal groin and accompanying beachfill project	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013)
12	Include "inlet management plan" for inlet, estuarine and ocean shorelines adjacent to and under influence of inlet	NCCF	SB 110 State Regulation	Inlet Management Plan (Appendix B)
13	Identify property owners and local governments on both sides of inlet that may be impacted for each project alternative	NCCF	Public/Private Property	CAMA Major Application

### Village of Bald Head Island Shoreline Protection Project - Scoping Comment Table

No.	Nature of Comment (Summary)	Agency/Entity	Category	Inclusion in DEIS
14	Identify funding sources for terminal groin and beachfill alternative assuming no state funds available and voter approval necessary for local government funding	NCCF	Financial/Economic	Not currently addressed
15	Provide cost estimates for required financial assurances specified by state law including removal of terminal groin/restoration of beach and long term maintenance of terminal groin	NCCF	Financial/Economic	Economic considerations identified in Section 5.14
16	Include information on potential storm impacts to inlet dynamics/morphology, beach profile, sand resources, residential structures, private property, adjacent property and natural resources in permit area	NCCF	Meteorological/Storm	Refer to Engineering Report
17	Include information and model of impacts of sea level rise on terminal groin and resultant impacts to inlet dynamics, adjacent property, beach profiles, residential structures, natural resources/environment of island, adjacent islands and estuarine habitats	NCCF	Sea Level Rise	Section 4.0 and Section 5.0; Scale of sea level rise not able to be accounted for in modeling
18	Include cost-benefit analysis associated with storms for each project alternative using real world property appraisals, including risk of storm damage to beach front properties	NCCF	Financial/Economic	Beyond Scope of EIS
19	Include cost-benefit analysis of positive economic values associated with natural inlet processes (fishing, tourism, habitat creation, larval transport and fish migration)	NCCF	Financial/Economic	Section 5.14
20	Study/model effects of terminal groin on inlet dynamics, including alteration of dredge frequency, structural integrity of groin, and impacts to shoreline east and west of terminal groin	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013)
21	Study/model effects of terminal groin on ebb shoal deflation and associated economic and resource related costs	NCCF	Physical/Economic	Olsen Associates Engineering Report (Olsen 2013), Economics of shoal deflation beyond scope of EIS
22	Study/model effects of terminal groin on federal navigation project (including impacts to terminal groin associated with future navigation channel maintenance events), include plan for monitoring these impacts	NCCF	Physical	Inlet Management Plan (Appendix B) and Olsen Associates Engineering Report (Olsen 2013)

### Village of Bald Head Island Shoreline Protection Project - Scoping Comment Table

No.	Nature of Comment (Summary)	Agency/Entity	Category	Inclusion in DEIS
23	Assess impacts to longshore transport of sediment to West Beach and resultant erosion/accretion including impacts to natural resources and infrastructure from erosion/accretion	NCCF	Physical	Section 5.0 and Olsen Associates Engineering Report (Olsen 2013)
24	Study/model need for existing sand tube groin field in addition to construction of terminal groin, include effects of project without sand tube groin field	NCCF	Physical	Section 5.0 and Olsen Associates Engineering Report (Olsen 2013)
25	Assess effects of terminal groin on Oak Island (historic sites, public and private infrastructure)	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013)
26	Address impacts to piping plover habitat on both sides of inlet and compliance with Endangered Species Act	NCCF	Threatened and Endangered Species	Section 5.4 and Biological Assessment (to be submitted to USFWS)
27	Address impacts to Atlantic Sturgeon, Shortnose Sturgeon, Eastern Manatee and other endangered marine life in project area	NCCF	Threatened and Endangered Species	Section 5.4, Biological Assessment and Essential Fish Habitat (to be submitted to NMFS)
28	Address impacts to sea turtle habitat on Bald Head Island	NCCF	Sea Turtles	Section 5.4 and Biological Assessment
29	Address impacts to sea turtle habitat on Oak Island	NCCF	Sea Turtles	Section 5.0 addresses potential downdrift physical impacts. No impact to sea turtle nesting on Oak Island
30	Analysis of physical impacts of 'leaky' structure to sea turtles, critical marine and mammals	NCCF	Physical	Section 5.4, Biological Assessment and Essential Fish Habitat Report
31	Assess how adult and hatching turtles will survive storm and wave action in and around terminal groin	NCCF	Sea Turtles	Section 5.4 and Biological Assessment
32	Include 'leakage' rate of terminal groin, calculation of 'leakage' rate and milestones to address/monitor 'leakage' rate	NCCF	Physical	Section 3.0 and Engineering Report
33	Assess impacts of groin 'leakage' to beach nourishment, public beach, beach natural resources, erosion/accretion on West Beach	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013)

### Village of Bald Head Island Shoreline Protection Project - Scoping Comment Table

No.	Nature of Comment (Summary)	Agency/Entity	Category	Inclusion in DEIS
34	Address potential blockage of 'leaky' groin (i.e. growth of marine life, debris, etc.) and strategies to address blockages	NCCF	Physical	Physical monitoring and maintenance as identified in Inlet Management Plan
35	Assess terminal groin impacts to Cape Fear River inlet system, tidal flow and fish migration, EFH and Jay Bird Shoals	NCCF	Physical	Section 5.5, Olsen Associates Engineering Report (Olsen 2013); Appendix M and Essential Fish Habitat Report
36	Provide proof and analysis that terminal groin will reduce beach nourishment	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013)
37	Assess effects of 'leaky' structure on frequency of beach nourishment	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013)
38	Study effects of terminal groin on inlet sediment balance and include resultant inlet/sediment management costs in project alternatives	NCCF	Physical	Olsen Associates Engineering Report (Olsen 2013) and Inlet Management Plan (Appendix B)
39	Include enhancement/revision of existing sand tube groin field as project alternative, including analysis of sand tube success on the Island	NCCF	Physical	Section 1.4 and 3.2
40	Is combination of both sand tube groin field permit plus TG permit a violation of SB 110? provide legal opinion from state and CRC	NCCF	SB 110 State Regulation	Not currently addressed
41	Determine if recruitment to adult fish stocks is limited by larval ingress to estuarine nursery habitats	NC DMF	Fisheries	Fish Larvae Response Model (Appendix M); EFH Report
42	Study effects of terminal groin on larval transport through altered beach and nearshore sediment profile	NC DMF	Fisheries	Fish Larvae Response Model (Appendix M); EFH Report
43	Provide detailed scientific field investigation, analysis and modeling of larval transport and distribution around Bald Head Island	NC DMF	Fisheries	Literature Review submitted under separate cover to NCDMF, Fish Larvae Response Model (Appendix M), and EFH Report

### Village of Bald Head Island Shoreline Protection Project - Scoping Comment Table

No.	Nature of Comment (Summary)	Agency/Entity	Category	Inclusion in DEIS
44	Model estimated impacts of the groin to larval ingress and egress through inlet	NC DMF	Fisheries	Fish Larvae Response Model (Appendix M)
45	Provide field investigation of juvenile fishes in vicinity of the inlet and proposed groin location	NC DMF	Fisheries	Literature Review submitted under separate cover to NCDMF
46	Provide benthic macroinvertebrate monitoring within impact area of proposed groin	NC DMF	Fisheries	Literature Review, VBHI Monitoring Reports (2010 - 2013)
47	Provide discussion of all EFH and state protected habitats occurring in this area	NC DMF	Fisheries	Section 5.4, Essential Fish Habitat Report and Biological Assessment
48	Provide discussion of all fish habitats outline in NC CHPP occurring in this area	NC DMF	Fisheries	Essential Fish Habitat Report
49	Identify potential impacts to fish and invertebrate community composition and abundance in inlet and adjacent surf zone on BHI	NC DMF	Fisheries	Section 5.5 and Essential Fish Habitat Report
50	Provide literature review of research regarding larval transport through inlets, especially inlets with hardened structures and include in EIS	NC DMF	Fisheries	Literature Review submitted under separate cover to NCDMF
51	Identify potential impacts to benthos of the surf/swash zone and nearshore areas	NC DMF	Fisheries	Section 5.5 and Essential Fish Habitat Report
52	Provide detailed monitoring plan for impact assessment within project area	NC DMF	Fisheries	Appendix B – Inlet Management Plan (existing detailed survey monitoring program)
53	Identify potential impacts to commercial or recreational fishing	NC DMF	Fisheries	Section 5.9 and 5.11
54	Identify economic impacts due to adverse impacts to fish and fish habitat	NC DMF	Fisheries/Economic	Section 5.14
55	Identify impacts from dredging, beach placement and nearshore placement of sand and minimization efforts	NC DMF	Fisheries	Section 5.4; 5.5; 6.0; and pending BA and EFH Reports
56	Identify potential impacts to regional sand budgets	NC DMF	Fisheries	Olsen Associates Engineering Report (Olsen 2013)



### Village of Bald Head Island Shoreline Protection Project - Scoping Comment Table

No.	Nature of Comment (Summary)	Agency/Entity	Category	Inclusion in DEIS
57	Clearly discern proposed timelines for beach nourishment and identify potential impacts to nesting sea turtles, West Indian manatee, seabeach amaranth and piping plover in project area	USFWS	Threatened and Endangered Species	Section 5.4 and Biological Assessment
58	Identify potential impacts to nesting sea turtles, West Indian manatee, seabeach amaranth and piping plover on Oak Island	USFWS	Threatened and Endangered Species	Beyond Scope of EIS
59	Assess impacts from sediment disposal from Wilmington Harbor SMP occurring on Oak Island within the same year	USFWS	Physical	Beyond Scope of EIS
60	Outline proposed construction logistics and timelines	USFWS	Physical	Section 3.2.5 and CAMA Major Application
61	Determine if available sources of sand are adequate to meet proposed method and schedule of construction	USFWS	Physical	Section 3.2.5
62	Examine long-term effects to sea turtles, West Indian manatee, seabeach amaranth and piping plover from proposed beach nourishment schedule (every 2 years)	USFWS	Threatened and Endangered Species	Cumulative Effects Analysis (Appendix Q)
63	Identify levels of erosion on Oak Island and West Beach from construction of terminal groin and resultant impacts to listed species	USFWS	Physical/Threatened and Endangered Species	Biological Assessment and Olsen Associates Engineering Report (Olsen 2013)
64	Include analysis of potential sea-level rise scenarios in Cumulative Impacts Analysis, including sea level rise impacts to structural integrity of terminal groin and nourishment schedule for life of the project	USFWS	Sea Level Rise	Section 5.0; Cumulative Effects Analysis (Appendix Q)
65	Assess sea level rise impacts to structural integrity of terminal groin and nourishment schedule for life of the project	USFWS	Sea Level Rise	Section 5.0
66	Provide underwater survey (conducted by experienced archaeologist) to identify presence of submerged archaeological remains in project boundaries, assess impacts of terminal groin construction on historical resources	SHPO	Cultural/Historical Resources	Archeological Report (Appendix H)
67	Provide 5 complete sets of the application and associated maps to DWQ Central Office in Raleigh	NC DWQ	Administrative	CAMA Major Application
68	Provide appropriate application fee	NC DWQ	Administrative	CAMA Major Application

**Bald Head Terminal Groin & Beach Nourishment  
Scoping Meeting March 22, 2012  
ILA Hall @ 211 W 10<sup>th</sup> St, Southport**

**AGENDA**

SIGN IN.

Welcome Remarks	Dave Timpy, Corps of Engineers
Elected officials remarks.	Mayor Pro Tem John Smith
EIS Process	Dale Beter, Corps of Engineers
Project Overview	Erik Olsen, Olsen & Associates
Break out into group sessions.	Corps of Engineers & Olsen & Associates
Meeting was adjourned.	

## Meeting Summary

The Bald Head Terminal Groin & Beach Nourishment scoping meeting was held on March 22, 2012 at the ILA Hall located in Southport, North Carolina. There were approximately 14 attendees with three citizens from Bald Head Island.

One group session was held. The comments obtained from this group were as follows:

1. Will the EIS address all the points in Senate Bill 110?
2. Does the Terminal Groin alleviate the need for the 16 sand filled groin tubes?
3. Will the EIS address changes of wave energy on the opposite side of the channel?
4. Will the EIS address how the groin will affect the navigation channel or vice versa?
5. How will the beach fill be affected by permeability of the groin?
6. Will the groin affect the need of beach sand on Bald Head Island?
7. How will the EIS address Sea Level Rise?

BALD HEAD ISLAND TERMINAL GROIN AND BEACH NOURISHMENT PROJECT - PUBLIC SCOPING MEETING  
 ILA HALL - SOUTHPORT (NC) - MARCH 22, 2012

SIGN-IN SHEET - GROUP 1

	NAME	AFFILIATION	TELEPHONE OR EMAIL
1	KAREN ALLISON	Village of Baldhead Isd	kallison@VillageBHI.org
2	JOE BRAUNER	BHI	BRAUNER.PLANO@msn.com
3	CITRIS MCCALL	VBHE	cmccall@villagebhi.org
4	LARRY CARLIS	DeSA	lkarls@DePerely.com
5	Steve Dial	DeSA	sdial@DePerely.com
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BALD HEAD ISLAND TERMINAL GROIN AND BEACH NOURISHMENT PROJECT - PUBLIC SCOPING MEETING  
 ILA HALL - SOUTHPORT (NC) - MARCH 22, 2012

SIGN-IN SHEET - GROUP 2

	NAME	AFFILIATION	TELEPHONE OR EMAIL
1	John Snyder	Village of BHI	Fisher Seatt.net
2	John Peck	Village BHI	peck@villagebhi.org
3	SEN Bironin	STATE PORT PILOT	blorand@stateportpilot.com
4	Harry Simons	Caswell Beach	harry@caswellbeach.org
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BALD HEAD ISLAND TERMINAL GROIN AND BEACH NOURISHMENT PROJECT - PUBLIC SCOPING MEETING  
 ILA HALL - SOUTHPORT (NC) - MARCH 22, 2012

SIGN-IN SHEET - GROUP 3

	NAME	AFFILIATION	TELEPHONE OR EMAIL
1	Mike Giles	NC Coastal Federation	mike.giles@coast.org
2	Ray Walsh	Bald Head Island	<del>419-808-8634</del> Webb 816-340-2111 BellSouth.NET
3	Michael Rice	Save the Cape	mike@save.thecape.org
4	Bob Helgesen	Village of Bald Head	Khelgesen@M.E.com
5	Stevan Henner	Den	252-808-2808
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# Village of Bald Head Island Shore Protection Project

## PDT Meeting #1

April 24, 2012  
2:00 PM @ DENR Wilmington Office

### Meeting Minutes

Cameron Weaver (DENR) initiated the meeting and asked attendants to introduce themselves and identify their respective affiliation. The following individuals were in attendance: Cameron Weaver (NCDENR-DEAO), Ron Sechler (NOAA-NMF) via conference call, John Ellis (USFWS) via conference call, Kathryn Matthews (USFWS) via conference call, Jessi Baker (DMF) via conference call, Doug Huggett (DCM), Debbie Wilson (DCM), Heather Coats (DCM), Jonathan Howell (DCM), Chad Coburn (DWQ), Molly Ellwood (WRC), Dave Timpy (USACE), Justin McCorkle (USACE), Todd Horton (USACE), Spencer Rogers (NC Sea Grant), Christian Preziosi (LMG), Jenny Johnson (LMG), Laura Stasavich (LMG), Erik Olsen (Olsen Associates, Inc), Andy Sayre (VBHI), Calvin Peck (VBHI), Chris McCall (VBHI), Charles Baldwin (Rountree, Losee & Baldwin, LLP), Suzanne Dorsey (BHI Conservancy), Dara Royal (Town of Oak Island) and Harry Simmons (Town of Caswell Beach).

Corps Presentation - Dave Timpy provided the PDT members with a summary of the PDT protocol including the primary roles of the Corps and the PDT members. Dave reiterated that the Corps will make the ultimate decisions with consideration to PDT input, and future permit decisions will be made through the individual permitting agencies (i.e. Corps, DCM and DWQ). Dave also indicated that the Corps permit decision will only be made after permit decisions are made by DCM and DWQ. The following specific roles of the Corps and PDT members were further discussed:

1. The Corps will establish a study schedule based on input from the applicant and PDT. This schedule will establish future dates of PDT meetings. These dates may be revised as needed. *Project Update: A DRAFT Study schedule has been prepared by LMG and the Corps and will be refined after today's meeting.*

2. The Corps will post all environmental documents and current study schedule on the Corps website at:

[http://www.saw.usace.army.mil/Wetlands/Projects/BaldHead\\_Terminal\\_Groin/index.html](http://www.saw.usace.army.mil/Wetlands/Projects/BaldHead_Terminal_Groin/index.html)

3. In coordination with the NCDCEM, the Corps will coordinate the time and place of all PDT meetings. The Corps will provide as much advance notice to the PDT as possible. The Corps of Engineers will moderate all PDT meetings.

4. The Corps will provide meeting agendas for each PDT meeting to ensure discussions are focused on selected topics. Extended discussions on singular topics may be limited by the Corps to a reasonable time frame.
5. PDT members will be provided information regarding the ongoing study and will be solicited for input on the study. At no time will the PDT be asked to vote on any item related to the Corps permit decision. In addition, PDT members are not to construe participation on the PDT as a way to “vote” on certain aspects of the project.
6. The Corps will document all PDT meetings. Meeting summaries will be provided to the PDT members. These summaries will likely be included in the EIS for this project.
7. Notification of PDT meetings will be sent to the PDT prior to each meeting. Due to the large number of PDT members on this project, it may be necessary to hold some meetings without full attendance by all members of the PDT. Meetings held prior to the scheduled PDT meetings by PDT members are not encouraged. Any such meetings shall be brought to the attention of the Corps and documented.
8. PDT members can at any time provide input and/or suggestions regarding the proposed project or PDT process to the Corps for consideration. PDT members can at any time submit a request for a PDT meeting to the Corps. The Corps, in coordination with the NCDCM, will decide if the requested PDT meeting is warranted.
9. The Corps, in close coordination with the NCDCM, will make final decisions regarding the project purpose and need, alternatives to be carried forward, the least environmentally damaging practicable alternative, and mitigation requirements associated with the proposed project.
10. The Corp’s permit decision will only be made after permit decisions are made by the NC Division of Water Quality (i.e. 401 Water Quality Certification) and the NCDCM (CAMA Major Permit) for this project.

Doug Huggett asked if the study schedule has been sent to the PDT. Christian Preziosi indicated that the DRAFT has been sent to the PDT. Dave Timpy indicated that he will resend the DRAFT study schedule following the meeting. Doug also suggested that given the complexity of the process, future meetings be allotted more time for discussion. Dave indicated that PDT meeting minutes will be included in the EIS.

Olsen Associates, Inc Presentation - Erik Olsen from Olsen Associates, Inc. (project engineer for the Applicant) provided the group with a history of the bathymetry and hydrodynamics of the area prior to the construction of the federal navigation channel to



present day conditions. Erik gave an overview of the draft proposed action (terminal groin) and provided the group with examples of similar structures that Olsen Associates, Inc. have successfully implemented in the southeast (including Hilton Head and Amelia Island). Erik also discussed the 'leaky' nature of the structure to allow for some level of sediment transport around the Point to West Beach. Jay Bird Shoals (JBS) was identified as an alternate sand source for the groin fillet. (JBS is a previously authorized borrow site with sufficient volume of beach quality sand remaining within the permitted limits of the borrow site.) Erik indicated that there is an existing inlet management plan by way of the Federal Sand Management Plan (SMP).

Justin McCorkle reminded members of the PDT that Erik's presentation is an analysis of the project as presented by Olsen Associates/VBHI. VBHI and Corps are presently engaged in a lawsuit and some of the information presented during the meeting is in the midst of litigation to which a resolution has yet to be determined. Justin indicated that the overall consensus is to reduce erosion for the VBHI. The Corps EIS document will try to contain facts independent of the issues presently in litigation.

LMG, Inc Presentation - Christian Preziosi provided a summary of the status of the project and the EIS process to date:

- Jan 2012 – EIS process initiated
- March 14, 2012 – Notice of Intent
- March 14, 2012 – Public Notice
- March 22, 2012 – Public Scoping Meeting, Southport, NC
- March 28, 2012 – Interagency Meeting

Christian indicated that there are 3 PDT meetings planned, however, this may be subject to change. Christian indicated that currently the Corps and LMG (as the third-party contractor) are in the information gathering stage of the EIS. Christian provided a general description of the different sources of information to be used and a summary of the literature review by resource. He discussed the need to identify the study area by resource type and requested input from the PDT regarding any potential data/information needs.

Christian provided a brief description of the elements of the draft EIS – including the Purpose and Need and Alternatives advanced by the Applicant. He stated that the EIS will consider a full range of reasonable alternatives to address the purpose and need of the project. The actual alternatives to be included in the Draft EIS will be determined by the Corps with the input of the PDT. Christian described that the EIS will also include a description of the existing environment, potential effects of the alternatives on the existing environment, a Cumulative Effects Analysis (CEA), an Essential Fish Habitat (EFH) report, and a Biological Assessment (BA). Christian also provided a summary of the remaining tasks in the project processing (i.e. submittal of Final EIS, CAMA Major application, DA Permit application and the Record of Decision).

Doug Huggett reminded the PDT that the EIS process will result in a NEPA document; however a document compliant with SEPA must still be submitted to DCM for Clearinghouse review and public review/comment (45 day process depending on when notice is given in the Environmental Bulletin). Justin McCorkle suggested submitting SEPA document in conjunction with CAMA Major Permit application. Doug indicated that the Clearinghouse review will have to be completed before the CAMA Major application can be accepted as complete. Justin indicated that he would hope that the State Clearinghouse review period could align with the public review period for the EIS (NEPA process).

Dave Timpy asked for comments from NOAA-NMFS and USFWS concerning submittal of BA and EFH documents and formalized Section 7 consultation. Kathryn Matthews will consult with John Ellis and get back to Dave or Christian. Ron Sechler indicated that Atlantic Sturgeon has been recently listed and Fritz Rhode will be the point of contact concerning this species.

Calvin Peck indicated a concern for getting more agency comments circulating during present and future PDT meetings. Christian stated that the Corps will need feedback from the PDT for potential alternatives at the next PDT meeting. Justin indicated that this is a 'phased' process. Phase I is to get all relevant issues on the table while Phase II will be a response to data gathered. Justin suggested that we are still in Phase I and comments will be collected during PDT meetings and submittal of a DRAFT EIS.

Doug discussed the alternatives analysis as seen through NC Senate Bill 110 and suggested that mitigation costs and requirements, including project failure/removal of structure will need to be included in the alternatives analysis. Spencer Rogers asked if project removal will need to be included in the alternatives analysis. Doug indicated yes, as project bonding, mitigation, etc. will need to be addressed, and the legislation requires the terminal groin alternative to include full failure in the EIS and CAMA Major Permit application. Charles Baldwin suggested that the Delft 3D model will give good insight to the potential level of failure, short of complete failure. Doug Huggett indicated that a financial threshold will need to be set so the cost is not open-ended if removal is required. Also, discovery of mitigative measures need to be identified on the front end of the project rather than the back end.

Christian asked if the legislation states that failure/removal must be included in the Alternatives Analysis section of the document or if it could be addressed elsewhere in the EIS. Doug suggested that detailed discussion of all alternatives need to be in the Alternatives Analysis section of the EIS, including project failure.

Justin indicated that this level of analysis is not required as part of NEPA; however, the document will need to meet all agency requirements, including DCM. Harry Simmons questioned the need to determine failure costs for all alternatives. Doug answered yes.

Doug further discussed portions of NC Senate Bill 110 including inlet management plan, post-construction activities, baseline for adverse impacts, threshold for mitigation

including groin removal and establishment of error bars, etc. Spencer Rogers indicated that the Delft 3D model will be an advantage. Doug reminded PDT that if a data set already exists to use it.

Christian asked about the Regulatory Reform Act and how it affects the SEPA requirement of SB 110. Doug indicated that SB 110 requires SEPA since it is an individual item in a separate law. Spencer Rogers asked if this was a jetty project, would the SEPA process be triggered. Doug indicated that he believes there would be no SEPA process for a jetty project.

Jessi Baker indicated that she had submitted comments on behalf of DMF to the Corps and that the effects to larval transport will be especially important. Ron Sechler shares same concerns as DMF and will also submit a letter with comments/concerns to Corps.

Kathryn Matthews will discuss project with John Ellis and send a letter with comments/concerns on behalf of USFWS. Initial concerns include sea turtles and plover, but not necessarily seabeach amaranth.

Chad Coburn had no formal comments at this time. Dara Royal had no official comment at this time.

Dave Timpy indicated that he will send the meeting minutes and DRAFT project schedule to the PDT. The next meeting will help establish a definitive 'purpose and need' and the alternatives that will be carried forward in the Draft EIS.

The meeting was adjourned as approximately 4:00.

# Village of Bald Head Island Shore Protection Project

## PRT Meeting #2

September 12, 2012  
10:00 AM @ DENR Wilmington Office

### Meeting Minutes

Cameron Weaver (DENR) initiated the meeting and asked attendants to introduce themselves and identify their respective affiliation. The following individuals were in attendance: Cameron Weaver (NCDENR-DEAO), Kathryn Matthews (USFWS) via conference call, Jessi Baker (DMF), Fritz Rohde (NOAA-NMF), Doug Huggett (DCM), Debbie Wilson (DCM), Heather Coats (DCM), Jonathan Howell (DCM), Chad Coburn (DWO), Jim Gregson (DWO), Dave Timpy (USACE), Justin McCorkle (USACE), Bill Dennis (USACE), Dale Beter (USACE), Emily Hughes (USACE), Thekla Spencer (USACE), Spencer Rogers (NC Sea Grant), Christian Preziosi (LMG), Jenny Johnson (LMG), Erik Olsen (Olsen Associates, Inc), Calvin Peck (VBHI), Charles Baldwin (Rountree, Losee & Baldwin, LLP), Suzanne Dorsey (BHI Conservancy), Harry Simmons (Town of Caswell Beach), Peter Schuhmann (UNCW), Mike Giles (NCCF) and Anazivanovic Nenadovic (NCCF).

Dave Timpy provided a brief introduction before handing the meeting over to Land Management Group, Inc (LMG). Christian Preziosi stated the purpose and objectives of the meeting and encouraged attendees to feel free to have an open discussion on any items discussed during the meeting. The following items highlight the meeting objectives and resultant PRT discussion.

#### **1.0 Meeting Objectives**

No comments.

#### **2.0 Actions Completed Since PRT Meeting No. 1**

No comments.

#### **3.0 Purpose and Need Statement**

Suzanne Dorsey suggests that the proposed terminal groin is an engineered response to an already engineered (non-natural) shoreline adjacent to a federal navigation channel which is important from a resource perspective.

Erik Olsen stated that there is already a structural component to reduce erosion on South Beach (existing sand tube groinfield). The proposed terminal groin will take the project to the next tier of structural stabilization. Existing groinfield has not been sufficient to solve current shoreline recession.

#### **4.0 Range of Alternatives under Consideration**

##### **4.1 No Action Alternative**

E. Olsen discussed that under this alternative the groinfield would not be removed and ultimately will be allowed to degrade (until required to remove due to degradation). This alternative would lead to ineffective nourishment efforts during federal channel maintenance/sand placement events and thus Corps would likely move sand placement further East away from the channel which would be detrimental to needs of VBHI.

H. Simmons asked if this alternative assumes current SMP will remain (ie. sand placement every 4 years).

D. Huggett indicated that the No-Action alternative should include additional components including a Status Quo option in which the Village would maintain the existing sand tube groinfield as well as providing for periodic nourishment.

C. Preziosi concurred with the Status Quo component of groinfield maintenance, but stated that additional nourishment events are best evaluated under separate alternative (as has been identified). J. McCorcle agreed that any additional nourishment action would be another alternative. J. McCorcle went on to state that federal disposal events under current SMP can be considered under the Village's No-Action Alternative.

S. Dorsey indicated that VBHI citizens would prefer not having the need of the sand tube groinfield for several reasons including expense and aesthetics. H. Simmons asked about sea turtle nesting in existing groinfield. S. Dorsey indicated that groinfield is not ideal habitat but better than no sand.

#### **4.2 Retreat**

S. Dorsey asked the PRT to recognize how hard this alternative would be for the citizens of VBHI, especially given the sensitive and sustainable land plan the Island has adopted.

D. Huggett indicated that this alternative is critical for satisfying SB 110 since it is a non-structural alternative. PRT members asked about public vs. private nature of golf course. C. Preziosi indicated that the lagoons are an integral aspect of stormwater management on the Island. C. Peck indicated that VBHI is not economically stable without golf course.

Several PRT members suggested adding business (particularly with respect to the BHI Club) to the Purpose and Need Statement.

S. Rogers stated that relocation was implemented in the past but given the extent of private and public infrastructure present today, this alternative is not practical.

E. Olsen also suggested the consideration of the effect of retreat on historic structures in the vicinity of the project. Village to provide information on historic structures.

#### **4.3 Beach Nourishment/Beach Disposal w/ Existing Sand Tube Groinfield**

D. Huggett indicated that this was the second half of the No-Action alternative that he suggested earlier in the meeting. E. Olsen indicated that it was considered a separate alternative because it is so proactive. C. Peck asked where/when the costs for Wilmington Harbor Entrance Channel will be discussed.

D. Huggett indicated that DCM will require an alternatives analysis for a permit decision and understood that the actual alternatives analysis is not performed in the DEIS but later in the NEPA process. The Village has identified a proposed action (terminal groin with sand tube groinfield remaining), but J. McCorcle stated that the Corps will not endorse or prefer any alternative during the EIS process. The Corps makes its determination on a permit through the 404(b)(1)/public interest review analysis (done in the ROD).

The PRT had a general conversation concerning the economic costs for the range of alternatives proposed for the DEIS. The Corps and DCM explained that a full range of analysis is required as part of the process and ultimately this information will be used to determine which alternatives may or may not be practicable.

S. Dorsey and C. Peck expressed concerns for the potential costs of some of the alternatives included in the document. The Corps indicated that costs considerations will be factored into the analysis, and that the Village can provide any supporting information they feel necessary to assist with the Corps' analysis. D. Huggett indicated that there may be items needed within DCM's permit application as a result of SB110 which might not necessarily be included for the Corps' ROD.

E. Olsen provided information on how he is initially evaluating costs – including the use of a long-term interest rate used by the Corps. D. Huggett indicated that there was no specific guidance in SB110 regarding the duration of the assessment, but stated that a 30-year analysis would be sufficient.

#### **4.4 Beach Nourishment/Beach Disposal and Sand Tube Groinfield Removal**

No Comments.

#### **4.5 Terminal Groin with Beach Nourishment/Beach Disposal (Sand Tube Groinfield Remaining)**

C. Preziosi discussed the range of proposed designs for the terminal groin and clarified that all options in this alternative would be considered in the Environmental Consequences Section of the EIS. This alternative represents the Village's proposed action.

D. Huggett asked if this alternative addresses future nourishment events.

The PRT discussed that this alternative assumes continuation of the SMP. Part of the analysis to be included in the document will discuss the frequency of nourishment events subsequent to project completion. E. Olsen indicated that the frequency of nourishment may not change; however, the volume of sand lost will be reduced once a stable beach condition is obtained. This will be a net benefit to the federal project but it will be hard to determine where the sand will end up upon construction of a terminal groin.

D. Huggett indicated that SB110 requires a plan for the fillet but does not mandate periodic sand placement. However, the required inlet management plan will likely include items such as maintenance of the fillet, etc. The plan would need to acknowledge contingencies for additional nourishment. Separate sand sources and mitigative thresholds would need to be identified in the permit application, and future nourishment may be authorized via permit modification prior to sand placement.

J. McCorcle suggested that the EIS could be used for a decision document on a 30-year permit if it incorporated sufficient information.

C. Peck expressed concern that the cost for analyzing separate sand sources is expensive. The Corps and DCM suggested analyzing sources that have been used in the past (ie. Jay Bird Shoals, Bald Head Shoal, Wilmington Harbor Entrance Channel). While permitting

agencies made no commitment to authorizing the use of these areas for future sand source sites, it was agreed that new information on other sites may not be warranted since there are existing sites that have been thoroughly analyzed in other documents.

The PRT discussed the logistics of utilizing the existing Wilmington Harbor Entrance Channel. D. Timpy indicated that as long the request was within the confines of the approved project, a General Permit could be issued through Corps.

D. Huggett suggested including source sites for contingency nourishment so that it could be factored into DCM's permit decision.

#### **4.6 Terminal Groin with Beach Nourishment/Beach Disposal and Removal of Sand Tube Groinfield**

C. Peck asked if there was an 'intermediate' between Alternative #5 and #6 that would evaluate the redesign of the existing groinfield (i.e. converting the existing sand tubes to a rock groinfield). S. Rogers indicated that this was against State law.

E. Olsen indicated that he likely could not design a terminal groin long enough to justify complete removal of the sand tube groinfield; however, it is likely that some tubes could be removed. Physical monitoring would provide information necessary to determine need for maintenance or modification to groinfield.

#### **4.7 Terminal Groin without Beach Nourishment**

The PRT discussed if this alternative needed to be discussed further in the DEIS since it is a violation of SB110. The Corps indicated that the document would need to include the engineering rationale of why this alternative may not be practicable. This alternative would be identified in the DEIS, but may be eliminated without a discussion of its consequences on the affected environment.

### **5.0 Study Areas**

C. Preziosi provided a visual of the respective study areas (physical, biological, etc.). H. Simmons concurred that the study area was sufficient to address the concerns of Caswell Beach. S. Rogers suggested that the study area include the inlet hazard areas.

F. Rohde reminded LMG to make sure that the study area include Bald Head Creek Shoal area for any alternative that included that area as potential sand source.

### **6.0 Scoping Comments**

C. Preziosi discussed the generalized scoping comments received to date. M. Giles asked if the comments could be distributed. The Corps will update their website for the project and will likely include scoping comments.

### **7.0 Next Steps**

C. Baldwin and C. Peck asked about the timeline for submission of the DEIS and permit application. It was determined that permit applications will likely be submitted upon release of the Final EIS. The PRT discussed the timing for the next PRT meeting. The Corps will make a decision as to when the next PRT will be held.

LMG or Corps will supply copies of the meeting minutes and the Powerpoint Presentation to the PRT following the meeting.

# Village of Bald Head Island Shoreline Protection Project

Interagency Scoping Meeting - March 28, 2012  
2:00 PM @ DENR Wilmington Office

## Meeting Notes

Cameron Weaver (DENR) initiated the meeting and asked attendants to introduce themselves and identify their respective affiliation. The following individuals were in attendance: Cameron Weaver (NCDENR-DEAO), Jessi Baker (DMF), Doug Huggett (DCM), Debbie Wilson (DCM), Heather Coats (DCM), Jonathan Howell (DCM), Shaun Simpson (DCM), Chad Coburn (DWQ), Molly Ellwood (WRC), David Cox (WRC), Jim Gregson (DWQ), Dave Timpy (USACE), Dale Beter (USACE), Christian Preziosi (LMG), Jenny Johnson (LMG), Erik Olsen (Olsen Associates, Inc), Calvin Peck (VBHI), Chris McCall (VBHI), Mike Giles (NCCF), Dawn York (Dial-Cordy) and Layton Bedsole (Dial-Cordy). NMFS and FWS did not participate in the meeting.

Cameron Weaver introduced Christian Preziosi from Land Management Group, Inc., the 3rd party contractor responsible for preparing the EIS and supporting documentation.

Christian Preziosi provided a brief status/schedule of the Public Notice for the EIS.

Doug Huggett followed with a discussion of NC Senate Bill 110. Mr. Huggett provided all attendants with a copy of the Senate Bill and provided the group with a overview of the legislation, specifically Section 1.(e)(5) discussing the inlet management plan. Chris McCall (VBH) asked about the science panel's framework/thresholds for monitoring. Mr. Huggett indicated that this information was available for review upon request.

Erik Olsen from Olsen Associates, Inc, (project engineer for the Applicant) provided the group with a history of the bathymetry and hydrodynamics of the area prior to the construction of the federal navigation channel to present day conditions. Erik gave an overview of the draft proposed project (terminal groin) and provided the group with examples of similar structures that Olsen Associates, Inc. have successfully implemented in the southeast (including Hilton Head and Amelia Island). Erik also discussed the 'leaky' nature of the structure to allow for some level of sediment transport around the Point to West Beach. Jay Bird Shoals (JBS) was identified as an alternate sand source for the groin fillet. (JBS is a previously authorized borrow site with sufficient volume of beach quality sand remaining within the permitted limits of the borrow site.) Erik indicated that there is an existing inlet management plan by way of the Federal Sand Management Plan (SMP).

Mr. Huggett gave agencies the opportunity to voice environmental concerns after the presentation was complete.

- DWQ – no comment at this time
- WRC – Ramifications of working in the moratorium
  - What is the frequency of nourishment on West Beach and South Beach?
  - How will the proposed project affect nourishment frequency on West Beach? (Will there be more erosion on West Beach?)
  - What will be the frequency and volume needs on West Beach post-construction?
- DCM – Response measures will need to be included in the EIS (*i.e.* account for cause and effect of proposed structure)



- DMF – Concerned about effect of TG on larval transport (i.e. longshore transport and daily migrations through water column)
  - Possibly include additional fish trawls/sampling as baseline
  - Is there a method to identify/model the effect on larval transport?
  - Juvenile/larval data, possibly using existing database but may need additional sampling
  - Benthic sampling and monitoring may be required
- USACE – Dale Beter reiterated that all resource issues will be evaluated through the EIS process. Dave Timpy identified need to finalize Project Delivery Team (PDT). A request for participation on PDT will be sent Week of April 2. USACE is tentatively planning for first PDT in late April.

Mr. Huggett adjourned the meeting at approximately 4:15 pm