

**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 <u>www.saw.usace.army.mil/wetlands</u>

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, FL 32204

#### Authority

The Corps will evaluate this application and a 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 a1996 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 equilibrationand 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 5, 2012. Comments should be submitted to Dave Timpy, Project Manager, P.O. Timpy at (910) 251-4634.

# **Distribution:**

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1 Honorable Mike McIntyre, 1605 Longworth House Office Building, Washington, DC 20515	
1	Ron Sechler, National Marine Fisheries Service
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