Sugg, Mickey T SAW

From: Bennett Wynne [wynnemb@coastalnet.com]
Sent: Wednesday, June 05, 2002 11:25 AM
To: 'Sugg, Mickey'
Cc: 'McBride, Franklin T.'; 'Deaton, Shannon'; 'Allen, David'
Subject: FW: Bogue Inlet

Hey Mickey. Per the 5-29-02 "pre-scoping" Bogue Inlet Relocation meeting, iterations of WRC's oral comments follow.

- Loss of intertidal habitat, particularly on the inlet flood tide delta, must be minimized.

- At least 1 year of seasonal (quarterly) pre-treatment infaunal sampling should be performed. Post-treatment infaunal sampling should also be seasonal and last 5 years.

- We support preparation of an EIS rather than an EA. This will better address biological effects (direct & cumulative) and should save the applicant time in the long run. Nobody wants a repeat of the Masons Inlet scenario.

Please also see Dave's comments below.

Thanks,
Bennett

-----Original Message-----
From: David Allen [SMTP:allend@coastalnet.com]
Sent: Wednesday, May 29, 2002 5:48 PM
To: Bennett Wynne
Subject: Bogue Inlet

If you decide to send written comments on the Bogue Inlet project please mention our concerns about intertidal bird habitat, as well as our concern that the inlet spit and our unnamed island (I call it Bogue Inlet Shoal) is not starved of sand or caused to erode.

David H. Allen
Nongame Coastal Region Project Leader
North Carolina Wildlife Resources Commission
183 Paul Dr.
Trenton, NC 28585
Phone: (252)448-1546
Email: allend@coastalnet.com

Michael F. Easley
Governor

William G. Ross, Jr., Secretary
Department of Environment and Natural Resources

Alan Klimek, Director
Division of Water Quality

Cheryl Miller
Coastal Planning and Engineering
2481 NW Boca Raton Blvd
Boca Raton, FL 33431

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Ms. Miller:

On 29 May 2002, Coastal Planning and Engineering had a meeting with the USACOE, other state and federal agencies and concerned citizens about the feasibility of moving the main channel of Bogue Inlet further west to stop erosion in The Pointe subdivision in Emerald Isle. In addition to the comments made at the meeting, the following comments and questions were brought up by DWQ personnel.

First of all, as was discussed at the meeting, it is the opinion of the Division that a new EIS will be required for this project, because cutting a new channel is a new project rather than a continuation of an existing project (e.g. maintenance dredging of an existing channel).

The first questions involved the size of the currently maintained channel. One section of the notes said 150' wide and 8 ' deep, while later it was suggested it might be 500' wide. This is important because, as the COE showed in Oregon Inlet, that a channel will try to maintain a constant cross-sectional area, be it wide and shallow or narrow and deep. Any attempt to move the channel should replace the current channel with one of a similar cross-sectional area, which will probably require some effort to block the existing channel for the effort to succeed. If the current channel is 150'X8' and the COE dredges a new inlet 500'X14', then large amounts of shoaling would be expected to occur due to reduced current velocities, making the inlet unsafe for all but the smallest boats, especially if there is no effort to block the current channel. This would incur large ongoing dredging costs to try to keep the inlet safe for boats. Will the increased inlet opening allow in more storm surge that could cause erosion to the marshes and tidal flats that provide habitat to many species in the area? Will a larger inlet change the salinity regime in the inlet and the White Oak River?

The next point concerned the "historic location" of the inlet. The proposed placement of the new channel through the widest part of the ebb tide delta was justified by the inlet's location within the last 30 years which was defined as its "historic location". This is only a fraction of the lifetime of this inlet, which if its entire history were examined, would probably show even further eastward migration than currently, based upon the westward edge of the maritime forest on Bogue Banks, as well as westward migrations. If we discard the notion of an historic location, moving the proposed channel about 300'

NCDENR

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eastward of its currently proposed location will not only disturb less ebb tide delta, it would also straighten out the approach to the inlet. This is important because the COE rejected a similarly shaped dogleg approach to Oregon Inlet as a hazard to navigation during storms.

Are the homeowners whose houses are threatened by channel erosion, agreeable to this proposal? As currently envisioned, the channel in the homeowners back yard will not be filled, and the sand produced by this project will go on beaches elsewhere.

Are there any suggestions about why the inlet moved from stable to westerly migration in the 1960s to a sudden jump to the east in 1975? Finally, on the topic of channel location, is there any evidence to suggest that the newly moved channel will not merely migrate back into the old channel bed within a few years?

In the process of developing your monitoring plan for the area, you will need to collect information about previous biological studies in the area. DWQ has collected macroinvertebrates from one site, on 27 February 1996, within about a mile of the inlet. This information can be obtained from Trish MacPherson [(919) 733-6946] by asking for White Oak River station 1. I am unaware of other biological information from this inlet, so collection of baseline data of macroinvertebrates and fish before dredging starts in the area is very important. Finally, be certain to send a copy of the draft study plan to us for review <u>before</u> new data are collected. Otherwise the data may not be sufficient for permitting purposes.

Based on the photographs in Figure 4, Bear Island has lost at least as much land as Bogue Banks. Are there any plans to replace some of the Bear Island loss with a portion of the dredge spoil which is currently entirely earmarked to replace sand losses on Bogue Banks?

Sincerely,

John Dorney

Cc Mickey Suggs, USAED Wilmington, P.O. Box 1890, Wilmington, NC 28402-1890
Joanne Steenhuis, WiRO
Lawrence Eaton, Wetlands/401 Unit

NCDENR

North Carolina Department of Environment and Natural Resources
Division of Parks and Recreation

Michael F. Easley, Governor William G. Ross, Jr., Secretary Philip K. McKnelly, Director

June 24, 2002

Mr. Mickey Sugg
US Army Corps of Engineers
Wilmington Regulatory Field Office
Post Office Box 1890
Wilmington, North Carolina 28402-1890

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1500 CO
CM, TC

Dear Mr. Sugg:

I am writing in regards to the proposed Bogue Inlet channel relocation and beach nourishment project at Emerald Isle, North Carolina. Staff with the North Carolina Division of Parks and Recreation (Division) would like to submit the following comments concerning this proposed project. The Division believes the proposed channel relocation could impact Hammocks Beach State Park through shoreline loss on the north end of Bear Island and navigational impacts within Cow Channel.

Impacts to Bear Island

Hammocks Beach State Park consists of approximately 33 acres on the mainland and Bear Island an 892 acre barrier island, and Huggins Island containing 210 acres. Bear Island is approximately three and one half miles long and less than one mile wide. Bear Island is bordered by Bogue Inlet to the northeast and Bear Inlet to the southwest. A number of rare plant and animal species are endemic to the island. Rare plant species known to occur in the area include: Seabeach Amaranth, Winged Seedbox, Four-angled Flatsedge, and Moundlily Yucca. Rare animal species include: Loggerhead Turtle, Green Turtle, Wilson's Plover, Black Skimmer, Common Tern, Least Tern, Giant Swallowtail, Loammi Skipper, Eastern Painted Bunting, and Manatee. In addition, the tidal flats located around Bear Island are important feeding and roosting areas for shorebirds including the federally endangered Piping Plover.

The concentration of rare plant and animal species and the unique nature of Bear Island dictates concerted effort to protect this unique natural resource. Aerial photos compiled by Coastal Science & Engineering demonstrate the highly variable nature of Bogue Inlet. The inlet has assumed a number of different configurations over the years. Recently, the stable location of the inlet adjacent to Emerald Isle appears to be due to the dredging by the Corp at its current location. The Division is concerned that moving the inlet may lead to an increased movement of the inlet with the possibility for shoreline loss on the eastern end of Bear Island. Loss of this habitat would significantly impact the habitat of colonial nesting birds and turtles who traditionally utilize these areas.

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Impacts within Cow Channel

Access to Bear Island is maintained through a ferry system from the mainland through Cow Channel and then to Bear Island. Over the past several years, Cow Channel has seen a significant increase in sand deposition. This has required a more frequent dredging regiment for the channel (annual versus every 5 years). Although there are several possible explanation for the increased sand deposition, the number and extent of hurricanes in the past several years may have lead to an exacerbation of the problem. The Division is concerned that dredging of a new channel at Bogue Inlet may introduce more sand into the system (similar to the hurricanes) increasing the amount of dredging necessary to maintain Cow Channel.

Contingency Plan

One of the biggest hurdles facing this project is the uncertainty associated with channel and shoreline modification. Although predications can be made based on past history and understanding of beach dynamics, all parties involved must acknowledge that there is a significant amount of uncertainty associated with the project. Noted experts have stated there are serious concerns associated with mining sand from a tidal delta. Recent events associated with the shoaling at Mason Inlet demonstrate that modifying the natural beach dynamics can have unknown and possibly hazardous consequences. If this project is undertaken, there needs to be some type of contingency plan if impacts to Hammocks Beach State Park are realized. Options for this type of contingency may mean a fund that is designated to mitigate or remediate any negative impacts associated with the project. The Division would not be agreeable to commencement of this project without some type of contingency plan.

The Division appreciates this opportunity to comment on the proposed Bogue Inlet channel relocation and beach nourishment project. The Division requests that the US Army Corp of Engineers seriously considers these concerns in your review. If you have any further questions regarding these comments please call me at (919) 715-8711.

Sincerely,

Brian L. Strong
Resource Management Specialist

cc: Sam Bland, Hammocks Beach State Park Superintendent
William Berry, East District Superintendent
Mr. Tom Jarrett, Coastal Planning

Sugg, Mickey T SAW

From: Matthews.Kathy@epamail.epa.gov
Sent: Thursday, June 27, 2002 1:29 PM
To: Mickey.T.Sugg@saw02.usace.army.mil
Subject: comments on Bogue Inlet

BogueInlet.wpd

Sorry the comments are so late. Will go out in hard copy next week (unless my boss changes them, which he hardly ever does).

(See attached file: BogueInlet.wpd)

See ya!
Kathy Matthews

(Wetlands Regulatory Section)
USEPA/EAB
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303 - 8960

Colonel Charles R. Alexander, Jr.
District Engineer
ATTN: Mr. Mickey Sugg
U.S. Army Corps of Engineers
P.O. Box 1890
Wilmington, North Carolina 28402-1890

SUBJ: Town of Emerald Isle: Proposed Relocation of Bogue Inlet Channel

Dear Colonel Alexander:

This is in reference to the request for comments on the proposed relocation of Bogue Inlet Channel and nourishment of 5.3 miles of beach, in the Town of Emerald Isle, Carteret County, North Carolina. The stated purpose of the project is to restore the shoreline that has been severely damaged from hurricanes and winter storms.

The U.S. Environmental Protection Agency, Region 4, Wetlands Section (EPA), has reviewed this proposal and the information prepared for the May 29, 2002 scoping meeting. We regret that we were unable to attend the scoping meeting, but would like to provide comments at this time. EPA has significant concerns about potential direct, secondary, and cumulative impacts from this project, which have not been adequately addressed. Our comments and recommendations are provided below.

1. The scoping information submitted for the May 29, 2002 meeting states that the Environmental Impact Statement (EIS) for the Bogue Banks beach nourishment project will be supplemented to discuss the proposed inlet relocation and associated beach nourishment of Reach 1. However, EPA believes that a separate EIS should be developed for this project, which is different in scope, and not a subset of the Bogue Banks project. The EIS should discuss the specific purpose and need for both the inlet relocation activity and the newly proposed beach nourishment activity. It appears from preliminary information that the relocation of the inlet is proposed mainly to provide the beach quality sand for beach nourishment, rather than to address a need to relocate the thalweg of the inlet. This issue should be clarified in the EIS, and each activity (inlet relocation and beach nourishment) should be examined independently of the other, as well as a combined project.

2. EPA recommends that the EIS examine several alternatives for a long-range solution, including but not limited to (1) no action, (2) abandonment and relocation of homes, (3) inlet relocation with no beach nourishment (4) beach nourishment with no inlet

relocation, and (5) inlet relocation and beach nourishment as one project. EPA recommends that the applicant discuss long-term solutions, which include actions other than repetitive inlet dredging and beach nourishment projects. We believe that a 50-year period may be a sensible timeframe to consider for shoreline changes and impacts to oceanfront properties. This is an appropriate planning period to use, because of the likely impacts from sea-level rise during this timeframe, and also because a long-term plan to abandon and/or relocate homes may be more acceptable when occurring over a 50-year period rather than shorter periods.

3. We suggest that a proposal for long-term measures include potential alternative mitigation for project impacts to the near-shore environment. Any measures which can lessen the impacts of increasingly pervasive shoreline development need to be examined. We note that the Town, although interested in protecting the existing houses on the Island, has made little effort to halt oceanfront development. We recommend that the County and municipalities revise land use plans and improve zoning ordinances (if it has not already been done), specifically targeting the acquisition and/or preservation of developed and undeveloped lots to prevent future development. We recognize that there are few undeveloped lots on this end of Emerald Isle, but the applicant should consider making arrangements remaining lots as undeveloped. These preserved properties could become a network of greenspace and public beach access, enhancing the Bogue Banks experience for tourists and locals alike. Further, we recommend that greater avoidance of hazard areas by development, expanded use of setbacks for structures, and an overall lower development density would significantly reduce storm damage, without necessarily significantly affecting the tax base.

4. By their very nature, the ocean inlets and coastal areas are unstable. Bogue Inlet's configuration has been highly dynamic, perhaps more dynamic than many other North Carolina inlets. It is not likely that this characteristic of the inlet will change. EPA does not believe that the proposal provides assurance that the relocated inlet will be stable enough to prevent future emergency dredging or other actions on the part of the applicant and/or Corps. Maintenance dredging of the inlet and/or future relocations represent a cumulative impact, which must be addressed in the EIS. Also, the EIS should discuss the financial mechanisms for maintenance of the area, particularly if the channel begins to migrate easterly again.

5. In the hydrodynamic model, the EIS should consider potential shoaling impacts, as well as erosive impacts.

6. We are particularly bewildered that although the channel has been migrating easterly at a rate of approximately 170 feet /year since 1975, homes were placed on the western-most portion of Emerald Isle. Certainly the developing entities should have been cognizant of the threats from the inlet, and the Ocean and Inlet Hazard Areas in general.

7. Finally, we note that there are so many beach nourishment projects planned across the North Carolina coastline, that EPA is becoming concerned about cumulative impacts from all of these projects on suitable habitat for shorebirds and fishes which depend on intertidal benthic macrofauna. To date, no studies have examined the cumulative impacts of all of these projects on the shorebirds and nearshore fish communities. We believe that it is appropriate for this EIS to discuss the potential cumulative impacts from all of the projects in Carteret and Onslow Counties to shorebirds and fish communities.

We recommend that all agency comments be addressed in the completion of an EIS for the project. Thank you for the opportunity to comment on this project. If you have any questions regarding these comments, please contact Kathy Matthews at the above address or by telephone at (706) 369-8754.

Sincerely,

Ronald J. Mikulak, Chief
Wetlands Regulatory Section

cc: USFWS, Raleigh
DCM/NCDENR, Raleigh
NMFS, Beaufort
DCM/NCDENR, Morehead City