



North Carolina  
Coastal Federation  
*Working Together for a Healthy Coast*

March 17, 2014

Ronnie D. Smith  
Project Manager  
US Army Corps of Engineers  
Wilmington Regulatory Field Office  
69 Darlington Avenue  
Wilmington, North Carolina 28403-1343

**RE: Corps Action ID: SAW- 2012-00040**

Dear Mr. Smith:

Please accept the following comments on the proposed terminal groin project on Bald Head Island on behalf of the N.C. Coastal Federation. For the past 33 years the federation has been taking an active role in the protection of North Carolina's coastal water quality, habitat, and public beach access.

The Draft Environmental Impact Statement (DEIS) is not consistent with National Environmental Policy Act (NEPA) because it segments the environmental evaluation of the project by disclosing and evaluating the direct effects of only one component of what is clearly planned to be a larger plan. Taking into account recent meetings and reports by the N.C. Division of Coastal Management as well as the Town of Bald Head, it is clear that plans to address erosion problems on Bald Head Island will encompass much more than the preferred alternative identified in the DEIS.

NEPA requires that this DEIS provide a comprehensive evaluation of all components of the proposed project. These components should be evaluated together and not in a piecemeal way into separate documents and analyses that fail to account for the *combined, cumulative, comprehensive and indirect impacts* of the overall plan to address the erosion issue at Bald Head Island.

The federation requests that the U.S. Corps of Engineers produce a supplemental EIS to address the significant new circumstances of information relevant to environmental concerns, described below, and bearing on the proposed action or its impacts, as required by the 40 CFR, Section 1502.9(c)(1)(ii).



**1. The DEIS fails to identify and evaluate combined, cumulative, comprehensive and indirect impacts of the proposed project.**

The recent Draft Report entitled Cape Fear River Area of Environmental Concern Feasibility Study (Study) (November 5, 2013) prepared by the N.C. Division of Coastal Management resulted from various meetings and workshops that involved the city of Bald Head Island among other stakeholders. On pages 3 and 4 the reports states:

*“While the Village is currently seeking a permit for the construction of a terminal groin, they do not believe it will address all of the issues confronting Bald Head Island. The Village indicated that the existing groin field on South Beach may need to be modified and there may also be a need for rock groins and/or breakwaters. The Village believes that there would be a public benefit to pursuing engineered solutions to non-natural beach erosion in reducing the need for and frequency of dredging to maintain the federal navigation channel.”*

Furthermore, in the Study (as summarized on page 18) the city proposes a number of new rules that would allow it to greatly expand upon the scope of the terminal groin project. The city indicates that it plans to build:

- (1) Permanent erosion control structures: This includes rock groins, terminal structures, breakwaters, jetties and other structures currently prohibited under CAMA.
- (2) Temporary erosion control structures: It wants rules that remove restrictions on size, configuration, orientation, sandbag dimensions, underlayments and the time limits.
- (3) Change of the definition of “imminently threatened” structures: It wants this to be determined by a certified coastal engineer rather than by the DCM director.
- (4) Grandfathering existing oceanfront structures: Structures would be exempted from having to meeting current setbacks should they need to be replaced.

Moreover, as stated repeatedly in the DEIS, the dredging of the Cape Fear River is considered to be the major cause of the erosion problems on Bald Head. These dredging activities are subject to periodic NEPA review, and alternative dredging requirements should also be considered as part of the scope of this project.

**2. The DEIS fails to properly analyze the unavoidable, adverse impacts should the proposed be implemented.**

40 CFR, Section 1502.16 states that the DEIS needs to comprehensively address the direct as well as indirect impacts of the proposed project, “as well as any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented... including:

- (b) Indirect effects and their significance
- (c) Possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned
- (h) Means to mitigate adverse environmental impacts.”

On page 3-15 of the DEIS it is stated that the proposed terminal groin is not expected to necessarily resolve the ongoing erosion on the down-drift side of the island, and that it may in fact exacerbate down-drift erosion on the West Beach. This is clearly an indirect effect of the proposed project. However, the DEIS does not discuss in detail how this problem will be mitigated and resolved.

Taking into account this statement along with the recent DCM Study it is very clear that Bald Head plans a much more aggressive and comprehensive project that has as just one component the construction of the proposed terminal groin. NEPA requires that all components of the project be included and thoroughly analyzed in the DEIS, and that all indirect consequences be adequately addressed and analyzed.

### **3. The DEIS fails to adequately and logically discuss relevant information pertaining to the proposed project.**

The Council of Environmental Quality requires federal agencies to clearly and logically present all relevant information pertaining to the environmental impacts of the proposed project in the NEPA process. For this reason, a number of components of the proposed project need further analysis:

- (1) The modeling of performance of the three terminal groin lengths considered in the project was only done for the preferred 1900 feet groin alternative, whereas the performance of the shorter and the longer groin was extrapolated from the numbers obtained for the middle length groin. The modeling should be done for all three groin lengths.
- (2) The Delft3D modeling of the preferred alternative was done for the time period of nine years, whereas the life of the project is 30 years. The modeling should include the entire life of the proposed project.
- (3) None of the models take into account expected and normal weather events, such as major hurricanes and northeasters. These events, which will occur, cause all the predicted results of the computer models to be wrong, and the cost figures of the proposed structural alternatives to be grossly underestimated. This also skews the cost-benefit analysis since the cost of structural alternatives is not accurately estimated due to the failure to include normal storm conditions as part of the modeling.

- (4) The DEIS states that before the second phase of the project is implemented two to four years will be necessary to observe the performance of the first phase of the groin. Several concerns arise with this proposal:
- (a) The timeframe given for the observation of the first phase is too short. As stated in the DEIS the proposed groin will reorient the South Beach shoreline. In the Appendix E of the DEIS it is stated that it took the shoreline 12 years to reorient clockwise, yet measurable outcomes are expected to be seen from Phase I only after two to four years. It is clear that this time frame is too short.
  - (b) The DEIS needs to specify the criteria that will be used to determine whether the performance of the first phase was successful or not. No such information can be found in the DEIS.
- (5) According to the DEIS, the engineer claims that the groin will be able to reorient the South Beach shoreline, as well as to decrease the effective angle between the shoreline and the incident breaking wave, and to reduce the rate of sand transport from the beach. Therefore, this goal should be the main benchmarks of the performance of the proposed terminal groin.
- (6) The DEIS does not provide relevant discussion about how the proposed project would affect the natural habitats located inside the mouth of the inlet. These areas are important bird nesting habitats and shoals used as critical foraging areas by many species. Additional environmental concerns that need to be discussed in more detail include:
- (a) impacts of construction during the month of turtle moratorium;
  - (b) impacts of sand compaction on turtle nesting; and
  - (c) impact of sand borrowing sand from the surrounding shoals on natural habitat.

#### **4. The DEIS describes a project that is not consistent with state regulations.**

Terminal groins as commonly defined in N.C. have been repeatedly characterized as a single structure at the terminus of a barrier island (or inlet) that is designed to prevent beach erosion. Elsewhere in the nation, the term terminal groin has also been used to describe the last groin in a field of groins that stretches along an oceanfront beach. Lawmakers, local governments, and state regulators have repeatedly stated that terminal groins should not result in the expanded use of structures that harden the beachfront such as multiple groins or seawalls. This project that includes 17 groin structures, and not one single terminal groin, and is described by the town on numerous occasions in other public documents as a “groin field”, is likely in the future to also include additional rock structures, sand bags, and other erosion control measures that are not identified in the DEIS.

**5. In conclusion, the DEIS is inconsistent with the requirements of NEPA.**

In conclusion, Section 1.1 of the DEIS states that:

*The purpose of the Village of Bald Head Island Shoreline Protection Project is to address on-going and chronic erosion at the western end of South Beach and to thereby protect public infrastructure, road, homes, businesses and rental properties, golf course, beaches, recreational assets, and protective dunes.*

The DEIS is inadequate because it does not provide a comprehensive description or evaluation of all components of the project as have been described elsewhere in other government documents. The complete project needs to be clearly described, alternatives and costs of various options for achieving the project purpose need to be more fully identified, and the environmental and economic effects of this expanded number of options need further analysis and review. This can only be accomplished by producing a supplement to the DEIS that addresses all these additional elements of the city's plans that are not identified or evaluated in this DEIS.

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ana Zivanovic-Nenadovic', written in a cursive style.

Ana Zivanovic-Nenadovic  
Program and Policy Analyst