ATTACHMENT 1

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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May 20, 2016

Mr. Tyler Crumbley, Project Manager
Wilmington Regulatory Division
U. S. Army Corps of Engineers
69 Darlington Ave.
Wilmington, NC 28403-1343

Subject: Town of Ocean Isle Beach: Terminal Groin
Final Environmental Impact Statement
Action ID. No. SAW-2011-01241

Dear Mr. Crumbley:

This is in response to the April 29, 2016 public notice for the Final Environmental Impact Statement (FEIS) for the Town of Ocean Isle Beach. The Town of Ocean Isle Beach plans to construct a 750 linear foot (lf) terminal groin, with a 300 lf shore anchorage system and associated beach nourishment on Ocean Isle Beach. The U.S. Fish and Wildlife Service (Service) has reviewed the public notice and the April 2016 FEIS, and other information concerning the project. This letter is provided in accordance with the National Environmental Policy Act (NEPA), section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*), and the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Project Description

The project is on the oceanfront of the eastern end of Ocean Isle Beach, adjacent to Shallotte Inlet and the Atlantic Ocean, in Brunswick County, North Carolina. According to the FEIS, the purpose of the proposed project is to mitigate chronic erosion on the eastern portion of the Town's oceanfront shoreline so as to preserve the integrity of its infrastructure, provide protection to existing development, and ensure the continued use of the oceanfront beach along this area.

The applicant's preferred alternative includes construction of a 750 lf terminal groin with a 300 lf anchorage system. The applicant also proposes to dredge portions of Shallotte Inlet every five years and place 264,000 cubic yards (cy) of beach fill along approximately 3,214 lf of shoreline

west of the terminal groin. Beach fill, groin construction, and sand fillet maintenance activities are proposed to be conducted between November 16 and April 30. The preferred alternative also includes the continuation of the Corps of Engineers Coastal Storm Damage Reduction (CSDR) project on Ocean Isle Beach.

Federally-listed species

The following Federally- listed species are found within the project area: West Indian manatee (*Trichechus manatus*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), 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. Whales, shortnose sturgeon (*Acipenser brevisrostrum*), Atlantic sturgeon (*Acipenser oxyrinchus*), and sea turtles in the water are under the jurisdiction of NOAA Fisheries' Protected Species Division.

All five sea turtle species may nest in the project area. On July 10, 2014, the Service designated Critical Habitat for the Northwest Atlantic Ocean distinct population segment of the loggerhead sea turtle. Critical Habitat Unit LOGG-T-NC-08 is just east of the project area on Holden Beach.

Piping plover critical habitat unit NC-17 is located in Shallotte Inlet and on Holden Beach, east of the proposed project. The entire unit is privately owned. This unit begins just west of Skimmer Court on the western end of Holden Beach. It includes land south of SR 1116, to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur to the MLLW along the Atlantic Ocean. It includes the contiguous shoreline from MLLW to where densely vegetated habitat, not used by the piping plover, begins and where the constituent elements no longer occur along the Atlantic Ocean, Shallotte Inlet, and Intracoastal Waterway stopping north of Skimmer Court Road. The unnamed island and emergent sandbars to MLLW within Shallotte Inlet are also included.

Potential affects to the piping plover, red knot, West Indian manatee, seabeach amaranth, and sea turtles were addressed through formal consultation and issuance of a biological opinion on August 6, 2015. Therefore, this letter primarily addresses comments concerning the project itself and the FEIS.

Service Comments

1. The Service continues to recommend that the proposed project not be authorized. The proposed project has the potential to adversely affect nesting female sea turtles, nests, and hatchlings on the beach, piping plovers, red knots, and seabeach amaranth within the proposed project area.

Potential effects to sea turtles include disorientation of hatchling turtles on beaches adjacent to the construction area as they emerge from the nest and crawl to the water as a result of lighting or presence of the groin, and behavior modification of nesting females during the nesting season resulting in false crawls or situations where they choose marginal or unsuitable nesting areas to deposit eggs due to escarpment formation or presence of the groin within the action area. The presence of the groin could affect the movement of sand by altering the natural coastal processes and could affect the ability of female turtles to nest, the suitability of the nest incubation environment, and the ability of hatchlings to emerge from the nest and crawl to the ocean. The presence of the groin may create a physical obstacle to nesting sea turtles, and the proposed groin is anticipated to result in decreased nesting and loss of nests that do get laid within the project area for all subsequent nesting seasons following the completion of the proposed project.

Potential effects to piping plover and red knots include degradation and loss of habitat, particularly down-drift of the structure. Groins can act as barriers to longshore sand transport and cause downdrift erosion (Hayes and Michel 2008), which prevents optimal habitat creation by limiting sediment deposition and accretion. The proposed action has the potential to adversely affect wintering and migrating red knots, wintering and migrating piping plovers and their habitat from all breeding populations, and breeding piping plovers from the Atlantic Coast breeding population that may use the project area. Potential effects to piping plover and red knot include direct loss of foraging and roosting habitat in the Action Area and in the updrift and downdrift portions of the project area, degradation of foraging habitat and destruction of the prey base from sand disposal, and attraction of predators due to food waste from the construction crew. Plovers and red knots face predation by avian and mammalian predators that are present year-round on the wintering and nesting grounds. Although the piping plover is not currently known to nest in the Action Area, the stabilization of the shoreline may also result in less suitable nesting habitat for all shorebirds, including the piping plover.

Structural development along the shoreline and manipulation of natural inlets upset the naturally dynamic coastal processes and result in loss or degradation of beach habitat (Melvin et al. 1991). As beaches narrow, the reduced habitat can directly lower the diversity and abundance of biota, especially in the upper intertidal zone. Shorebirds may be impacted both by reduced habitat area for roosting and foraging, and by declining intertidal prey resources (Defeo et al. 2009; Dugan and Hubbard 2006). Shorebird habitat has been, and may continue to be, lost where hard structures have been built (Clark in Farrell and Martin 1997). In addition to directly eliminating red knot habitat, hard structures interfere with the creation of new shorebird habitats by interrupting the natural processes of overwash and inlet formation. Where hard stabilization is installed, the eventual loss of the beach and its associated habitats is virtually assured (Rice 2009), absent beach nourishment, which may also impact piping plover and red knots. Where they are maintained, hard structures are likely to significantly increase the amount of piping plover and red knot habitat lost as sea levels continue to rise.

Potential impacts to seabeach amaranth include burying, trampling, or injuring plants as a result of construction operations and/or sediment disposal activities; burying seeds to a depth that would prevent future germination as a result of construction operations and/or sediment disposal activities; and, destruction of plants by trampling or breaking as a result of increased recreational activities. The Applicant proposes to place sand between November 15 and March 31 of any given year. However, given favorable weather, seabeach amaranth plants may persist until January. Therefore, there is still the potential for sand placement to adversely impact plants in the Action Area. Indirect impacts to seabeach amaranth include degradation of habitat from stabilization of the shoreline.

2. Responses to Comments 106, 107, and 108 (Appendix G, Pages 11 and 12) do not adequately address the Service's concerns for potential down-drift erosion within Shallotte Inlet.

3. Responses to Comments 109, 110, and 115 do not adequately address the Service's concerns with the estimation of costs of the five alternatives. The FEIS discusses 45 dwellings and 155 total parcels east of station 15+00 which are threatened by erosion over the next 30 years. The Draft EIS listed 238 total parcels, but concerns expressed by our agency and others led to revision of the total lot number. However, the location of the 155 parcels is still not clearly demarcated on any figures, nor are their locations adequately described in the text. There is no discussion in the FEIS about why these empty parcels are threatened by erosion over the next 30 years, and so the level of threat to those parcels is not clear. Figure 3.1 on page 27, which shows future scarp line positions under Alternative 1 does not appear to be revised since the DEIS and does not show 155 parcels within the erosive area. As stated in our comments to the DEIS, there are approximately 80-90 parcels shown on this figure. Please clearly explain where the other 65-75 parcels are located with respect to the proposed project, and why they are threatened by erosion over the next 30 years.

On Page i of the Executive Summary, and pages 155 and 160, the text still refers to 238 parcels that are vulnerable to erosion.

The predicted loss or protection of the 155 parcels factors heavily in the estimated costs of each alternative. For example, on pages 27 and 28, in the discussion of the 30-year cost of Alternative 1 (No Additional Action) and Alternative 2 (Abandon/Retreat), the loss of the 155 parcels is estimated to cost $21.36 million. This is only $30,000 less than the cost when 238 parcels were considered to be threatened. The Service recommends that the precise area that the FEIS claims will be impacted by Alternative 1 and protected from long-term erosion by Alternative 5 should be clearly demarcated on a figure, including clear demarcation of all 155 parcels. If a figure cannot be provided, then a list of all 155 parcels (including street addresses) and their current tax values should be provided in the Appendix.

3. Table 5.5 on Page 82 of the Engineering Report indicates that over 30 years, the costs for the non-federal share of the five alternatives are so similar that the differences appear to be insignificant. In fact, the costs for Alternative 1 (No New Action) and Alternative 2 (Abandon/Retreat) are only $420,000 more than the preferred alternative, a difference of less than 2%. We recognize that the federal share (and the total cost) is higher for Alternatives 1 and 2 than for Alternative 5.

As for the remainder of our comments, the Service believes that our mostly editorial comments were adequately addressed in the FEIS. The Service's comments and concerns about impacts to our trust resources, downdrift erosion, and the inability to model past three years for a 30-year project were not. However, it is unlikely that the applicant could address these comments adequately without significantly revising the project or changing their preferred alternative, and as far as we can tell, there have not been any significant revisions to the preferred project.

Service Recommendations

As stated above, the Service recommends that the project, as currently proposed not be authorized, due to potential impacts to piping plovers, red knot, seabeach amaranth, and sea turtles. We recommend that the Final EIS incorporate our comments listed above. Thank you for the opportunity to comment on this project. If you have any questions concerning these comments, please contact Kathy Matthews at (919) 856-4520, Ext. 27, or by e-mail at <kathryn_matthews@fws.gov>.

Sincerely,

Pete Benjamin
Field Supervisor

cc:
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