



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

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<http://sero.nmfs.noaa.gov>

June 29, 2015

F/SER47:JD/pw

(Sent via Electronic Mail)

Lt. Col. John Litz, Commander
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, South Carolina 29403-5107

Attention: Wiley Bracey

Dear Colonel Litz:

NOAA's National Marine Fisheries Service (NMFS) reviewed public notice 2015-00515-3B, dated May 12, 2015. The Inlet Harbour Homeowners Association (Inlet Harbour HOA) requests authorization from the Department of the Army to perform beach nourishment along 4,200 linear feet of beachfront via sand scraping, Georgetown County. According to the public notice, the purpose of the project is to maintain a healthier beach, expand the recreation area, and improve storm protection. No compensatory mitigation is proposed. The Charleston District's initial determination is the proposed excavating and filling would not have substantial individual or cumulative adverse impacts on essential fish habitat (EFH) or federally managed fishery species. As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Description of the Proposed Project

The Inlet Harbour HOA proposes to excavate 40,000 to 75,000 cubic yards of intertidal and subtidal sand from approximately 18 acres of shoals and sand bars within Murrels Inlet near the town of Garden City. Each event would require less than two months and nourish a maximum of 4,200 linear feet of shoreline along the Inlet Harbour subdivision (about 12 acres at a beach width of 125 feet)¹. The proposed excavation areas include the federal navigation channel, the federal deposition basin, and the adjacent spit. Land-based equipment (e.g., excavators) would scrape sand to a depth of no more than -3.0 feet mean lower low water (MLLW) and transfer the sand to an area designated Reach 1, which is 2,500 linear feet long. The initial transfer event would involve at least 40,000 cubic yards. Reach 2, located north of Reach 1 between groin 1 and 4 for a total distance of 1,700 linear feet, is designated for additional fill as necessary to provide a feeder beach for Reach 1. The Inlet Harbour HOA anticipates no more than three events and a total volume of no more 200,000 cubic yards over the life of the permit, which the

¹ While the permit application describes 30 acres of impact, the public notice states the project would impact 25 acres of EFH.



NMFS presumes is five years. The Inlet Harbour HOA proposes to conduct work during winter months and would characterize the beach profile annually.

Essential Fish Habitat in the Project Area

The proposed project would impact a tidal inlet, sandy shoals, and the surf zone. Because tidal inlets are migratory corridors linking spawning and nursery areas and because many fishery species spawn or forage in the shoal complexes associated with inlets, the South Atlantic Fishery Management Council (SAFMC) designates tidal inlets as a Habitat Area of Particular Concern in the fishery management plans for penaeid shrimp and the snapper-grouper complex. HAPCs are a subset of EFH that is either rare, particularly susceptible to human-induced degradation, especially important ecologically, or located in an environmentally stressed area. In the fishery management plan for coastal migratory species, the SAFMC designates sandy shoals and the surf zone as EFH because Spanish mackerel (*Scomberomorus maculatus*) and cobia (*Rachycentron canadum*) concentrate in these habitats. The SAFMC provides additional information on EFH for federally managed species in amendments to fishery management plans and in Volume IV of the *Fishery Ecosystem Plan of the South Atlantic Region*². Species managed by the Mid-Atlantic Fishery Management Council (MAFMC) and NMFS also occur within the project area. The MAFMC designates estuarine waters as EFH for bluefish and summer flounder (*Paralichthys dentatus*). The MAFMC provides details about the EFH requirements of species it manages in amendments to individual fishery management plans and in technical reports³. The NMFS designates coastal waters near the project area as EFH for several species of shark in the fishery management plan for highly migratory species. The NMFS provides additional information about these designations in *Amendment 1 to the 2006 Consolidated HMS Fishery Management Plan: Essential Fish Habitat*⁴.

Over 130 species of fish have been recorded in studies of South Carolina and Georgia's surf zone (as reviewed in Hackney et al., 1996). Many of the life stages of fish found within the surf zone are also found in nearby estuaries, suggesting that the surf zone is a nursery habitat. Species such as the Florida pompano (*Trachinotus carolinus*) and kingfish (*Menticirrhus littoralis*) demonstrate extreme site fidelity, suggesting resources are not infinite and local disturbances such as beach nourishment could impact behavior or survival of juvenile fishes in the surf zone (Ross and Lancaster 2002). In the late spring through summer, young fish life stages (larvae and post-larvae) are ingressing from the ocean to the estuary. In the fall, juvenile and adult fish leave estuaries through the inlet (also part of the project area) and migrate along the coast.

The benthic macro-invertebrate community (e.g., mole crabs, bivalve mollusks, amphipods, and polychaetes) that dominates the intertidal and subtidal zone represent the prey base for these surf fishes as well as shorebirds and predatory crabs. Beach nourishment has the potential to decrease locally the forage value of surf zone habitat by directly burying prey and by introducing sediments that lead to establishment of benthic communities that are less valuable as a food source to multiple fisheries. Excavating sand from the productive and highly utilized inlet and depositing new sand on the beach will temporarily eliminate this community at both the dredge

² Available at safmc.net/EcosystemLibrary/FEPVolumeIV

³ Available at www.greateratlantic.fisheries.noaa.gov/hcd/

⁴ Available at www.nmfs.noaa.gov/sfa/hms/documents/fmp/am1/index.html

and fill sites; however it would be expected to re-establish itself within six months to two years following project completion provided compatible sand is placed on the beach.

Impacts to Essential Fish Habitat

The Inlet Harbour HOA proposes sand scraping as a permanent beach management strategy to combat erosion. The primary threat to EFH and federally managed fisheries from this project is the cumulative impact from multiple beach scraping events. The recovery time of the benthic community (six months to two years) could preclude full recovery and availability before another event occurs. The amount of sand proposed to be mined is not extensive; however, multiple projects occurring back to back could remove approximately 30 acres of foraging habitat for surf zone fishes over many years.

Currently, the Charleston District periodically nourishes Garden City using an offshore sand source; however, this project terminates north of the Inlet Harbour HOA property. Consequently, Inlet Harbour HOA residents have constructed seawalls, installed emergency sand bags, or scraped the upper beach to combat erosion. While the Inlet Harbour HOA clearly describes its need for the project, the applicant has not provided an alternatives analysis to demonstrate the proposed beach scraping avoids and minimizes environmental impacts to the maximum extent practicable. Such analysis should include a management strategy that involves disturbing the beach less frequently, adding sand to littoral system, constructing dunes, and coordinating with the Charleston District to use any material dredged from the deposition basin and federal channel as beneficial use to the beach.

EFH Conservation Recommendations

Section 305(B)(4)(A) of the Magnuson-Stevens Act requires the NMFS to provide EFH Conservation Recommendations for any federal action or permit which may result in adverse impacts to EFH. Therefore, the NMFS recommends the following to ensure the conservation of EFH and associated fishery resources:

- The permit should be limited to two events over the course of five years with a minimum of two years between events.
- The permit should contain a special condition that restricts work to the period between November 1 and February 28.
- If the applicant intends to request additional permits for this type of activity, the NMFS recommends monitoring of the recovery of the biological communities at the excavation and disposal sites be conducted to inform future management decisions. NMFS is available to assist in monitoring plan development.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) require the Charleston District to provide a written response to this letter within 30 days of its receipt. If it is not possible to provide a substantive response within 30 days, an interim response should be provided to the NMFS. A detailed response then must be provided 10 days prior to final approval of the action. The detailed response must include a description of measures proposed by the Charleston District to avoid, mitigate, or offset the adverse impacts of the activity. If the response is inconsistent with an EFH conservation recommendation, a substantive discussion justifying the reasons for not following the recommendation must be provided.

In accordance with section 7 of the Endangered Species Act of 1973, as amended, it is the responsibility of the Charleston District to review and identify any proposed activity that may affect endangered or threatened species and their designated critical habitat. Determinations involving species under NMFS jurisdiction should be reported to the Protected Resources Division at the letterhead address.

NMFS appreciates the opportunity to provide these comments. Please direct related correspondence to the attention of Ms. Jaclyn Daly-Fuchs at our Charleston Area Office. She may be reached at (843) 762-8610 or by e-mail at Jaclyn.Daly@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
Assistant Regional Administrator

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Literature Cited

Hackney, C.T., M.H. Posey, S.W. Ross and A.R. Norris (editors). 1996. A review and synthesis of data on surf zone fishes and invertebrates in the South Atlantic Bight and the potential impacts from beach nourishment. Final Report to the Wilmington District, US Army Corps of Engineers.

Ross, S.W. and J. E. Lancaster. 2002. Movements and site fidelity of two juvenile fish species using surf zone nursery habitats along the southeastern North Carolina coast. *Environmental Biology of Fishes* 63:161–172.