



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

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St. Petersburg, Florida 33701-5505

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

January 9, 2015

F/SER47:JD/pw

(Sent via Electronic Mail)

Mark Epstein
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Joint Base Charleston, SC 29404-4827

Attention: Richard Reaves

Dear Mr. Epstein:

NOAA's National Marine Fisheries Service (NMFS) reviewed the letter, dated November 11, 2014, submitted by Joint Base Charleston (JB CHS) describing stabilization of the embankment at the base of the Grace Hopper Bridge, Berkeley County. The letter included an Essential Fish Habitat (EFH) Assessment. JB CHS intends to apply for a Nationwide Permit from the U.S. Army Corps of Engineers to comply with section 404 of the Clean Water Act for the placement of grout-filled, interconnected mattresses along 120 feet of the eastern bank of Goose Creek. Laterally, the mattresses would extend approximately 30 feet from the high point on the bank into the water. No compensatory mitigation is proposed. The initial determination by JB CHS is the proposed activity would have no overall adverse effect on EFH. 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 proposed grout-filled, interconnected mattresses would protect the Grace Hopper Bridge from the lateral migration of the stream channel along the eastern bank of Goose Creek. Due to lateral migration of the channel, erosion along the eastern embankment has created vertical cuts into the embankment and the undercut vegetation upstream and downstream of the bridge. JB CHS believes continued erosion could undermine the bridge abutments and ultimately cause the bridge to fail.

The proposed mattresses would extend 50 feet north of the bridge and 30 feet south of the bridge for a total length (including the bridge) of 120 feet. The mattresses would consist of a double layer of synthetic fabric divided into individual compartments connected internally. Grout would be pumped into each compartment. Prior to placement of the mattresses, sand and gravel would be placed as backfill in eroded areas, where needed, to create the desired slope. The mattresses would extend approximately 3 to 7 feet below the mean low water line and terminate above the mean high water line. A turbidity curtain would be placed around the site and anchored to the bank on both ends. Construction activities would take place from a barge and designated upland work area. Construction is anticipated to begin in 2015 and would take approximately six months to complete. The alternatives JB CHS considered for the proposed bank



stabilization focused on the materials used. In lieu of mattresses, Alternative 1 would use gabions, and Alternative 2 would use articulating concrete blocks.

Essential Fish Habitat in the Project Area

The EFH Assessment includes descriptions of the EFH within the project area. While those descriptions are consistent with a site visit NMFS conducted on December 15, 2014, and do not require augmenting to complete the EFH consultation, some improvement could be made.

The EFH Assessment inaccurately describes the bank that would be impacted as upland. While some upland is included, a majority of fill would be placed below the mean high water mark. In addition, the EFH Assessment states no wetlands occur within the project area; however, the small patch of vegetation on the northern side of the bridge is wetland vegetation. The site itself is degraded with a three to four foot vertical embankment; however, the surrounding marsh has a regionally appropriate vegetation density and appears healthy. The proposed fill area is currently all mud and sandy bottom except for a small patch of marsh vegetation on the northern side of the bridge and remnants of previously placed stone riprap directly under the bridge. The U.S. Geological Survey water quality monitoring gauge at Filbin Creek (021720677), the approximately 1.5 miles downstream of the Goose Creek entrance, indicates the site has mesohaline salinities and dissolved oxygen concentrations supportive of aquatic life. In summary, the area provides nursery habitat for estuarine-dependent life stages of federally managed fishery species.

Impacts to Essential Fish Habitat

The proposed bank stabilization would create a hardened shoreline along 120 linear feet of Goose Creek; however, a long-term benefit to EFH in the area could result from decreased erosion and turbidity after the embankment is stabilized. During construction, JB CHS indicates the potential exists for spills of uncured grout while filling the mattresses; this could temporarily reduce water quality due to increased pH. Other potential indirect effects include increased turbidity from soil disturbances during construction; however, the turbidity curtain is designed to limit this impact to a localized area.

JB CHS has proposed impact avoidance and minimization methods. To minimize impacts to the surrounding bank, JB CHS proposes to conduct some construction from barges and to place a turbidity curtain around the work area. Despite loss of EFH, JB CHS has not proposed compensatory mitigation. During the site visit, NMFS recommended a living shoreline approach, i.e., incorporation of oyster bags into the construction design. Given the water quality conditions, oyster should survive at the site once recruitment is successful. JB CHS was receptive to the idea and indicated the concrete could be poured in such a way (e.g., step-like) to support oyster bag stabilization.

Conservation Recommendations

NMFS finds the proposed creek bank stabilization would adversely affect EFH. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely affect EFH. Based on this requirement, NMFS provides the following:

EFH Conservation Recommendations

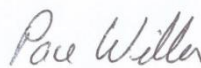
- To minimize impacts of shoreline hardening, the project design shall include a living shoreline approach, such as incorporation of oyster bags. If a living shoreline design is not practicable, compensatory mitigation should be provided for the impacted salt marsh and shallow water habitat.
- The project shall include best management practices to prevent grout spills and have a response plan in place should a spill occur.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) require JB CHS 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. A detailed response must then be provided to NMFS 10 days prior to final approval of the action. The detailed response must include a description of measures proposed by JB CHS 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 JB CHS 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 NMFS' 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
Habitat Conservation Division

cc:

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