UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

May 4, 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: Steven Currie

Dear Colonel Litz:

NOAA's National Marine Fisheries Service (NMFS) reviewed public notice SAC-2014-00622-2IU, dated April 10, 2015. Steve Mansfield, DB Aster, LLC, requests authorization from the Department of the Army to fill 5.71 acres of freshwater wetlands associated with Sawmill Branch and the Ashley River to construct phase II of the Limehouse Village residential development in Dorchester County. Forty-nine credits from the Congaree-Carton Mitigation Bank or Pigeon Pond Mitigation Bank are proposed as compensatory mitigation, and the credits would be purchased in phases over ten years tied to the development's construction phases. The Charleston District's initial determination is the proposed wetland impacts are upstream of essential fish habitat (EFH). NMFS agrees EFH is not in the area of the proposed project; however, EFH may be impacted indirectly. 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 site of the proposed project is a 156.2-acre tract containing 44.86 acres of jurisdictional freshwater wetlands. The proposed work consists of filling 4.9 acres of freshwater wetlands for home sites and stormwater ponds and 0.81 acres for access roads. While the public notice states five road crossings would contain culverts, project plans show only four (wetlands C, D, F, and G). The applicant proposes to design the culverts after permits are issued. The applicant would preserve the remaining 39.15 acres of wetlands and 11.69 acres of uplands. The upland buffer between development and wetlands would be a minimum of 15 feet with an average width of 30 feet.

Essential Fish Habitat in the Project Area
The site of the proposed project does not include EFH; however, the Ashley River, which receives waters from the site, includes tidal freshwater and estuarine wetlands (salt marsh) and tidal palustrine forested areas. The South Atlantic Fishery Management Council (SAFMC) identifies these habitats as EFH for penaeid shrimp, including white shrimp (*Litopenaeus*

setiferus) and brown shrimp (*Farfantepenaeus aztecus*) because larvae and juveniles concentrate and feed extensively and shelter within these habitats. As a consequence, growth rates are high and predation rates are low, which makes these habitats effective nursery areas. The SAFMC also identifies salt marshes and associated tidal creeks as EFH for estuarine-dependent species of the snapper-grouper complex. The SAFMC provides additional information on EFH for federally managed species in Volume IV of the *Fishery Ecosystem Plan of the South Atlantic Region*[1].

The waters of the Ashley River, the tidal creeks connected to it, and the surrounding coastal marsh also serve as nursery and forage habitat for other species, such as red drum (*Sciaenops ocellatus*), black drum (*Pogonias cromis*), Atlantic menhaden (*Brevoortia tyrannus*), and blue crab (*Callinectes sapidus*). Many of these species are prey for fish managed under the Magnuson-Stevens Act, such as mackerels, snappers, groupers, billfish, and sharks. Red drum is an important state-managed fishery, and estuarine wetlands within the project area provide habitat for all life stages of red drum.

Impacts to Essential Fish Habitat

The proposed development may indirectly impact EFH. Construction of urban and suburban centers commonly include creation of impervious surface[2]. Adverse impacts to aquatic habitat occurs when impervious land cover exceeds 10 to 20 percent in a watershed, and the abundance of shrimp has been shown to decline when impervious land cover exceeds 20 to 30 percent[3]. These biological, chemical, and physical impacts are due primarily to increased runoff, which contains nutrients and chemicals (e.g., from lawn fertilizers, weed control, and cars) and can alter salinity, temperature, and alkalinity regimes[1].

Avoidance, Minimization, and Mitigation

The proposed site design avoids filling large wetlands with the exception of wetland A (3.21 acres) and wetland B (1.69 acres). The proposed roads bifurcate the wetlands proposed for preservation and may affect their hydrology. While the public notice states the applicant would design culverts after permits are issued, NMFS recommends the Charleston District review the culvert designs before making a final decision on the permit application to ensure the designs are adequate for the local hydrology. Alternatively, and more ideal, the road crossings could be bridged to reduce the likelihood of hydrologic impacts to the preserved wetlands.

The applicant could further minimize impacts to freshwater wetlands and downstream EFH by increasing upland buffer width to a minimum of 25 feet and incorporating into project plans low-impact design principles, such as reducing impervious surface, constructing vegetated bioretention areas to control hydrology through infiltration and/or evapotranspiration, and using pervious pavements wherever possible (e.g., at the amenity center).

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[1] Available at *safmc.net/EcosystemLibrary/FEPVolumeIV*

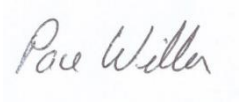
[2] Johnson, M.R., Boelke, C., Chiarella, L.A., Colosi, P.D., Greene, K., Lellis-Dibble, K., Ludemann, H., Ludwig, M., McDermott, S., Ortiz, J., Rusanowsky, D., Scott, M., and Smith, J. 2008. *Impacts to Marine Fisheries Habitat from Nonfishing Activities in the Northeastern United States*. NOAA Technical Memorandum NMFS-NE-209, Northeast Regional Office, Gloucester, Massachusetts. 322 pages.

[3] Holland, A.F., Sanger, D.M., Gawle, C.P., Lerberg, S.B., Santiago, M.S., Riekerk, G.H.M., Zimmerman, L.E., and Scott, G.I. 2004. Linkages between tidal creek ecosystems and the landscape and demographic attributes of their watersheds. Journal of Experimental Marine Biology and Ecology 298:151-178.

To meet mitigation needs, the applicant proposes upland buffers around the preserved wetlands and purchase of credits over ten years. It is unclear from the public notice if the upland buffers include uplands surrounded by wetlands (i.e., "upland islands"). Only uplands located between development and wetlands should generate upland buffer credit. Finally, NMFS recommends the permit require all credits be purchased before construction begins because the availability of credits in later years is not certain. Given its proximity to EFH, the Congaree-Carton Mitigation is preferable over the Pigeon Pond Mitigation Bank.

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

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