



**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>

March 30, 2015

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(Sent via Electronic Mail)

Colonel Thomas J. Tickner, Commander  
Savannah District Corps of Engineers  
100 W. Oglethorpe Avenue  
Savannah, Georgia 31402-0889

Attention: Shaun Blocker

Dear Colonel Tickner:

NOAA's National Marine Fisheries Service (NMFS) reviewed public notice SAS-2011-00567, dated February 27, 2015. Belfast Commerce Centre, LLC, requests authorization from the Department of the Army to fill approximately 40 acres of jurisdictional freshwater wetlands and streams to construct a mixed-use commerce center in Bryan County. These wetlands are adjacent to salt marsh associated with the Jerico River. To compensate for the proposed direct impacts to freshwater wetlands and streams, the applicant would purchase 346.3 wetland credits and 1,465.2 stream credits from an approved freshwater mitigation bank servicing the Ogeechee River watershed. The Savannah District indicated the applicant's proposed project could result in the destruction or alteration of essential fish habitat (EFH) but made an initial determination that filling these freshwater wetlands and streams would not have substantial individual or cumulative adverse impacts on 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 proposed project includes filling 38.26 acres of jurisdictional freshwater wetlands, 9.05 acres of non-jurisdictional freshwater wetlands, 0.59 acres of a ditch, and 296 linear feet of stream to convert a timber plantation to a manufacturing, warehouse, and commerce center. Site development is concentrated in four areas of the parcel: northeast rail served warehouse/distribution, centrally located small manufacturing sites, southwest major manufacturing anchor site, and southeastern Interstate frontage area containing smaller parcel office and retail uses. Multiple access and connector roads and new rail lines would be built throughout the property. To treat stormwater runoff, the applicant would construct 41 detention ponds of various sizes throughout the property. No salt marsh would be directly impacted; however, approximately 22.52 acres of marsh exists within the southern portion of the project boundary with additional salt marsh adjacent to the site. The setback between development and salt marsh would be no less than 50 feet.



### *Essential Fish Habitat in the Project Area*

The site of the proposed project includes estuarine emergent wetlands (salt marsh) and headwater tidal creeks. The South Atlantic Fishery Management Council (SAFMC) identifies these habitats as EFH for estuarine-dependent species of the snapper-grouper complex while salt marsh is designated EFH for penaeid shrimp, including white shrimp (*Litopenaeus setiferus*) and brown shrimp (*Farfantepenaeus aztecus*). Salt marshes are EFH 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 provides additional information on EFH and federally managed species in Volume IV of the *Fishery Ecosystem Plan of the South Atlantic Region*.<sup>1</sup>

The waters of the Jerico Creek, 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 are important as a recreationally caught species, and estuarine wetlands within the project area provide habitat necessary for development and survival throughout all life stages of red drum.

NMFS believes the freshwater stream on-site and proposed for impact may be tidally influenced based on the stream's sinuosity and landscape position. In such case, this stream would also be EFH. NMFS requests the Savannah District examine the characterization of this stream.

### *Impacts to Essential Fish Habitat*

No direct impacts to EFH would occur from site development; however, the potential for indirect effects exists due to the proximity of EFH to portions of the parcel proposed for development. The applicant would fill 47.31 acres of the 256.42 acres of total wetlands currently on the site, or approximately 18 percent. When combined with the filling of uplands for buildings, parking lots, roads, etc., a large portion of the site may have an impervious surface because of the development. Holland et al. (2004)<sup>2</sup> found measurable adverse changes in the physical and chemical environment when impervious land cover exceeded 10 to 20 percent in a watershed and the abundance of shrimp declined when impervious land cover exceeded 20 to 30 percent. The reasons for these biological, chemical, and physical impacts are due to the increased runoff, which alters salinity, temperature, and alkalinity regimes, and the quality of that runoff. Johnson et al. (2008)<sup>3</sup> and Volume IV of the SAFMC's *Fishery Ecosystem Plan of the South Atlantic Region* provide reviews of impacts to EFH and fish from commercial development in the coastal zone. Their key findings relevant to this public notice include:

- Fishery resources in brackish estuarine waters are especially sensitive to acidic effluents because of the lower buffering capacity of freshwater as compared to salt water.

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<sup>1</sup> Available at <http://safmc.net/EcosystemLibrary/FEPVolumeIV>

<sup>2</sup> 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.

<sup>3</sup> 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.

- Radiant heating from impervious surfaces, such as concrete and asphalt, can increase the water temperature in streams and creeks, reducing dissolved oxygen concentrations.
- Runoff from coastal development can result in an unnatural influx of suspended particles from soil erosion decreasing respiration by fish and invertebrates, growth and survival of filter feeders, and foraging efficiency of sight-feeders.

*Avoidance, Minimization, and Mitigation*

The applicant could further minimize impacts to freshwater wetlands and downstream EFH. The major concern for this site is the amount of impervious surface proposed and resulting amount of runoff. NMFS recommends the applicant further minimize indirect impacts by incorporating low-impact design principles into the project plans. Examples include vegetated bioretention areas and pervious pavements to control hydrology through infiltration and/or evapotranspiration. These practices are consistent with recommendations the Georgia Department of Natural Resources, Environmental Protection Division, provides in the 2009 *Coastal Stormwater Supplement to the Georgia Stormwater Management Manual*. With respect to stormwater discharge, the applicant is currently piping all ponds to the remaining wetlands on-site. Some of the proposed discharge pipes are close to salt marsh and should be relocated to more interior sections of wetlands to increase percolation time before entering tidal waters. Finally, preserving the wetlands remaining on-site would ensure that future development would not further impair downstream EFH.

**EFH Conservation Recommendations**

NMFS finds the proposed wetland fill 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 recommends:

- The Savannah District confirm the wetland delineation of the site, especially the stream proposed for filling.
- The project incorporate low-impact design principles to retain water on-site to the maximum extent practicable, including use of bioswales, pervious pavements, locating stormwater pond discharge pipes away from tidal wetlands, and a 75-foot vegetated buffer between all tidally influenced wetlands and development.
- The permit require placing the remaining wetlands on-site under protection.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) require the Savannah 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 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 Savannah 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 Savannah 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 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](mailto:Jaclyn.Daly@noaa.gov).

Sincerely,



/ for

Virginia M. Fay  
Assistant Regional Administrator  
Habitat Conservation Division

cc:

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