



**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 9, 2015

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(Sent via Electronic Mail)

Colonel Alan Dodd, Commander  
U.S. Army Corps of Engineers, Jacksonville District  
Palm Beach Gardens Regulatory Office  
4400 PGA Boulevard, Suite 500  
Palm Beach Gardens, Florida 33140

Attention: Garrett Lips

Dear Colonel Dodd:

NOAA's National Marine Fisheries Service (NMFS) reviewed public notices SAJ-2005-07908 (SP-GGL) for the Town of Palm Beach and SAJ-2008-04086 (SP-GGL) for Palm Beach County, dated December 12, 2014, and December 15, 2014, respectively. The applicants propose to nourish two contiguous stretches of beach totaling 2.07 miles. The Jacksonville District has prepared a single Draft Environmental Impact Statement (EIS) for the two projects based on proximity, similarity in the proposed actions, and similarity in expected effects. The Draft EIS, published on December 5, 2014, refers to the combined work as the Southern Palm Beach Islands Comprehensive Shoreline Stabilization Project (Project). Appendix F of the Draft EIS is an essential fish habitat (EFH) assessment. The initial determination by the Jacksonville District in each public notice is the proposed filling of 12.16 acres<sup>1</sup> of nearshore hardbottom, which is designated a Habitat Area of Particular Concern (HAPC) by the South Atlantic Fishery Management Council (SAFMC), would not have an adverse impact on EFH or federally managed fishery species. The Draft EIS does not include an EFH determination. The Draft EFH assessment says the Project may adversely impact hardbottom and softbottom, and will temporarily impact the marine water column for various life stages of managed 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 made pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

### **Descriptions of the Proposed Projects**

#### *Town of Palm Beach, SAJ-2005-07908*

The Town of Palm Beach segment of the Project includes dredging approximately 75,000 cubic yards of material from a still-to-be-identified offshore borrow area and placing the material along approximately 1.24 miles of beach between Florida Department of Environmental Protection (FDEP) monuments R-129-210 and R-134+135. Approximately 12,000 cubic yards would be placed at or below the mean high water line (MHWL), and the remaining 63,000 cubic yards would be placed at or above the MHWL to restore partially dunes and supra-tidal beach. The dredged material would be transported by hopper dredge or

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<sup>1</sup> The Draft EFH assessment states the Project may result in permanent impacts to 4.03 acres of hardbottom from the construction toe-of-fill and an additional 8.13 acres of impact from the equilibrium toe-of-fill, 12.16 total acres. The separate public notices for the two Project segments list 2.99 acres and 7.14 acres, which sums to 10.13 acres. Jacksonville District consultants have explained this difference results from the models used. The Draft EIS (page 4-92) notes the total impact acreage is 12.18 acres; it is not clear why this number is 0.02 acres more than the EFH assessment.



hydraulic pipeline to an upland staging area, and then transported by truck to this portion of the Project beach. Table 1 summarizes the District's estimate of impacts to nearshore hardbottom from the Town of Palm Beach segment of the Project as currently and previously proposed. In the public notice, the District estimates the work would impact 2.99 acres of nearshore hardbottom. However, the Draft EIS and EFH assessment note this impact would be larger if both the Town of Palm Beach and Palm Beach County segments of the Project are constructed because a larger amount of introduced sand would be available to drift onto and cover nearshore hardbottom. The Draft EIS and EFH assessment also note the difficulty of precisely attributing the hardbottom impacts by Project segment.

#### *Palm Beach County SAJ-2008-04086*

The Palm Beach County segment of the Project includes construction of seven low-profile concrete groins and placement of 75,000 cubic yards of sand on the beach and dune between FDEP monuments R-134+135 and R-138+551. Approximately 24,500 cubic yards of material would be placed at or below the MHWL, and approximately 50,500 cubic yards of sand would be placed above the MHWL to restore partially dunes and supra-tidal beach. The applicant proposes an upland source of sand. The seven concrete groins would extend seaward approximately 90 feet from the existing dune area and would be spaced along the shoreline at approximately 300-foot intervals. Construction of the groins may occur from land-based operations, in-water operations, or a combination of both approaches. The District estimates the work would impact 7.14 acres of nearshore hardbottom. As noted above, the Draft EIS and EFH assessment note this impact would be larger if both the Town of Palm Beach and Palm Beach County segments of the Project are constructed and the difficulty of precisely apportioning the hardbottom impacts by Project segment.

### **Project History**

Section 1.3 of the Draft EIS indicates most of the hardbottom expected to be impacted by the Project have not been impacted by previous beach nourishment events. NMFS has not commented previously on the Palm Beach County segment of the Project (SAJ-2008-04086); however NMFS has commented extensively on the Town of Palm Beach segment (SAJ-2005-07908), which was initially referred to as "Reach 8" and later referred to as "Reach 8 North" and "Reach 8 South" after the scope of the Reach 8 project was reduced and its boundaries adjusted.

#### *Project Consultation History for Town of Palm Beach Reach 8, SAJ-2005-07908*

- On December 15, 2005, under the same identification number as the current public notice, the Jacksonville District coordinated review of a beach nourishment project known as Reach 8 extending from FDEP monument T-125 to R-131 (a public notice dated August 30, 2007, expanded the boundary to R-132). Based on expected impacts to aquatic resources of national importance (ARNI) and EFH, especially the expected indirect and cumulative effects to nearshore hardbottom, NMFS responded to the notice on January 11, 2006, and February 3, 2006, with letters recommending the project not be authorized as proposed and indicating that, if necessary, NMFS would elevate review of the project in accordance with Part IV Section 3(a) and Part IV Section 3(b) of the Clean Water Act Section 404(q) Memorandum of Agreement (MOA) between the Department of Commerce and Department of the Army, dated August 11, 1992. By letter dated November 4, 2008, NMFS removed the MOA objection, but because of a successful challenge to the state permit, only a small part of the northern portion of Reach 8 was constructed. The southern portion of Reach 8, specifically the portion between FDEP monuments R-129-210 and R-132, overlaps the northern portion of the Town of Palm Beach segment of the Project.
- On January 31, 2011, and also under the same identification number as the current public notice, the Jacksonville District coordinated a public notice for a modified version of the Reach 8 project. This notice divided the Reach 8 project into two components. Reach 8 North (FDEP monument T-125 to R-127+100) would include dune restoration and beach fill. Reach 8 South would include dune restoration (FDEP monument T-128+950 to R-134+250) and beach fill (FDEP

monument R-129+100 to R-133+500). Based on expected impacts to ARNI and EFH, especially the expected indirect and cumulative effects to nearshore hardbottom, NMFS responded to the notice on March 14, 2011, and March 29, 2011, with letters recommending the project not be authorized as proposed and indicating that, if necessary, NMFS would elevate review of the project in accordance with Part IV Section 3(a) and Part IV Section 3(b) of the Clean Water Act Section 404(q) MOA between the Department of Commerce and Department of the Army, dated August 11, 1992. To date, the Jacksonville District has not responded to NMFS pursuant to Part IV Section 3(c) of the MOA. Note the southern boundary for Reach 8 South is farther south than the southern boundary for Reach 8 as amended in August 2007. Also note the Town of Palm Beach segment of the Project encompasses nearly all of Reach 8 South.

- Since 2011, NMFS has provided additional comments on Reach 8 North and Reach 8 South several times. Correspondences dated May 29, 2012, and June 8, 2012, note the District’s intent to evaluate the environmental effects from Reach 8 South in an EIS. NMFS indicated it would remove the objection made under the MOA for Reach 8 North provided the permit required a biological monitoring program for the downdrift nearshore hardbottom habitats. NMFS also offered to work with the Jacksonville District, Town of Palm Beach, and resource agencies to address issues germane to Reach 8 South (essentially now the Town of Palm Beach segment of the Project) before a Draft EIS was presented for public and agency review. The District did not request assistance from NMFS with the current EIS.

<b>Table 1. Summary of projects coordinated under SAJ-2005-07908.</b>				
Project specifications	Public Notice 12/15/2005	Public Notice 1/31/2011	Public Notice 12/15/2014	Draft EFH assessment 12/05/14
FDEP Monuments	Reach 8 T-125 to R-131 (lengthened to R-132 in August 2007)	Reach 8 North R-125 to R-127+100  Reach 8 South (dunes) T-128+950 to R-134+250  Reach 8 South (beach fill) R-129+100 to R-133+500	Reach 8 South R-129-210 to R-134+135	Reach 8 South R-129-210 to R- 134+135
USACE estimate of nearshore hardbottom impacts (acres)	3.10 acres	Reach 8 North - none Reach 8 South - 0.90 ac.	2.99 acres	Estimated to be 2.99 to 5.01 acres <sup>1</sup>
Fill (cubic yards)	218,500 cy, includes 84,700 cy above MHWL	Reach 8 North 179,000 cy Reach 8 South 114,000 cy	75,000 cy (12,000 below MHWL)	75,000 cy (12,000 below MHWL)
USACE initial determination on impacts to EFH	Would not adversely affect	Would adversely affect	Would not adversely affect	May adversely affect hardbottom
<sup>1</sup> By email dated February 26, 2015, Jacksonville District contractors confirmed impact modelling shows the hardbottom impacts from the combined Town of Palm Beach and Palm Beach County segments of the Project are greater than modelling the impacts from each segment separately and then adding the two results. The District contractors also noted the models cannot precisely partition the total hardbottom impacts, estimated to be 12.16 acres, by Project segment. The Draft EIS and EFH assessment use 12.18 acres and 12.16 acres for the hardbottom impacts, respectively.				

### EFH Impacts

The comments below follow the framework in 50 CFR 600.920(e)(3) and (4) for the mandatory and additional information requirements, respectively, of an EFH assessment.

#### *Mandatory Components of an EFH Assessment, 50 CFR 600.920(e)(3):*

##### (1) Description of the proposed action

- NMFS requests the Final EIS and EFH assessment provide more explanation on the rationale behind the proposed design. The apparent rationale is to place a minimal amount of fill below the

MHWL, thereby resulting in less impact to hardbottom from the construction toe-of-fill (TOF). Over time, fill placed landward of the MHWL is expected to move to the subtidal beach resulting in an equilibrium-toe-of-fill (ETOF) with greater impacts than those from the construction TOF. While NMFS believes this approach may minimize hardbottom impacts, there are two concerns. First, the Draft EIS and EFH assessment imply impacts from the ETOF are less severe than those from the construction TOF. This issue should be addressed directly and explained. Second, the hardbottom acreage in the 2011 public notice for Reach 8 North and Reach 8 South lists much lower hardbottom impact acreage for Reach 8 South than currently proposed for the Town of Palm Beach segment of the Project. While the cause of this difference likely is the better quality maps used for the Draft EIS and EFH assessment than used several years ago for the 2011 public notice, this difference also complicates evaluation of the effectiveness of the construction strategy for minimizing hardbottom impacts. The Final EIS and EFH assessment would benefit from more discussion of this point.

- NMFS requests the Final EIS and EFH assessment identify the sand source for the Town of Palm Beach segment and analyze the effects of dredging and transporting the material to the beach, including any pipeline corridors. The Draft EIS and EFH assessment state a borrow area permitted under SAJ- 2000-00380 (Phipps) or SAJ-1995-03779 (Mid-Town) may be used or a new, unspecified borrow area may be used.

(2) Analysis of the effects, including cumulative effects, of the action on EFH, and managed species by life history stage

- NMFS requests the Final EIS and EFH assessment more clearly explain the timing and severity of the impacts. National Environmental Policy Act (NEPA) regulation §1508.21 specifies impacts can be (1) direct, (2) indirect, or (3) cumulative. However, the Draft EIS and Draft EFH assessment refer to impacts as direct, indirect, cumulative, and *secondary* (emphasis added). The Jacksonville District appears to use the term secondary to refer to indirect impacts it judges to be less severe. NMFS requests the Final EIS and EFH assessment define “secondary impact” and relate that definition to those in the NEPA regulations for direct and indirect impacts. If the NEPA categories are sufficient for the Project, NMFS recommends the Final EIS and EFH assessment not use the term “secondary impacts.”
- NMFS requests the Final EIS and EFH assessment provide the evidence relied on to conclude in Section 4.1.4 (page 40) that placing approximately 3.8 million cubic yards of material along the Southern Palm Beach Island shoreline over the next 50 years is not anticipated to result in any measurable cumulative losses of ecological functions and services, or cumulative impacts on EFH or managed species. No supporting evidence for this conclusion is presented in the Draft EIS and EFH assessment.

(3) The federal agency’s views regarding the effects of the action on EFH

As noted earlier, the Jacksonville District’s initial determination is neither Project segment individually nor cumulatively would have an adverse impact on EFH or federally managed fishery species. It is not clear how the District arrived at this determination, in particular for the Town of Palm Beach component, given the consultation history and the contrary determination made in the January 31, 2011, public notice and the Draft EFH assessment. NMFS requests the Final EIS and EFH assessment provide a more clear rationale for the determinations made.

(4) Proposed mitigation

- Appendix H of the Draft EIS provides draft Uniform Mitigation Assessment Method (UMAM) worksheets showing 6.39 acres of mitigation are needed to offset 12.16 acres of intertidal and subtidal nearshore hardbottom. The worksheets use seven categories of impact based on the timing and duration of burial or sedimentation: (1) permanent, (2) direct temporary (<1 year), (3) direct

temporary (>1 year), (4) direct temporary (>2 years), (5) indirect temporary (1 year), (6) indirect temporary (2 years), and (7) secondary. This approach differs from how UMAM is commonly done for beach nourishment projects in Florida, which is to use a single assessment area based on the ETOF and to consider those impacts as permanent so future nourishments of the same beach can proceed without providing additional mitigation. While NMFS is not opposed to a new approach for determining mitigation requirements, the approach outlined in the Draft EIS would not fully offset impacts from the Project (i.e., less mitigation is provided per impact acre relative to other projects) and would not allow future nourishments to occur without providing additional mitigation. NMFS requests the Final EIS and EFH assessment provide a more clear explanation of the mitigation strategy and how it relates to future nourishments of these Project segments.

*Additional Information for an EFH Assessment, 50 CFR 600.920(e)(4):*

(1) Results of an on-site inspection to evaluate the habitat and the site-specific effects of the project.

- The draft EFH assessment lists several habitat mapping and characterization surveys conducted in the Project area during the last ten years. The overall benthic community (intertidal and nearshore subtidal hardbottom) is dominated by turf algae, sediment, bare hard substrate and macroalgae. Common macroalgae genera include *Padina*, *Dictyota*, *Hypnea*, *Dasycladus*, *Laurencia*, and *Halimeda*. Wormrock (*Phragmatopoma caudata*) also occurred along with tunicates, sponges, bryozoans, zoanthids, scleractinian (stony) corals, and octocorals. The scleractinian species most frequently observed were *Siderastrea* spp. and *Solenastrea bournoni*. The most common octocorals observed were from the genus *Pseudopterogorgia*, with colonies of *Pterogorgia*, *Muricea*, and *Eunicea* also documented. While this information is sufficient to support general descriptions of EFH, it may not be sufficiently quantitative to also be used as a baseline assessment for the biological monitoring. The Draft EIS Section 5.2.3 (page 5-17) acknowledges a pre-construction biological assessment of nearshore hardbottom habitat will be needed to document the existing conditions of the hardbottom resources and provide a baseline for post-construction comparisons. NMFS requests an opportunity to review the pre- and post-construction monitoring plans before a permit is issued.

(2-3) *Views of recognized experts on the habitat or species that may be affected and review of pertinent literature and related information*

- Section 4.1.3 (page 39) states “surveys of nearshore fish populations conducted in Florida before and after beach nourishment showed no evidence of any adverse impacts on the abundance and composition of the fishes sampled (NRC 1995).” This section would benefit from including Lindeman and Snyder (1999)<sup>2</sup>, which shows beach nourishment significantly lowers fish abundances and species diversity in Palm Beach County; drawing more from the fish sections of FDEP’s review of the ecological functions of nearshore hardbottom habitat<sup>3</sup>; and noting beach nourishment can affect fishery resources by covering hardbottom habitat and by creating a chronic source of suspended sediments, which can interfere with foraging by fish and shrimp and abrade their gills and other soft tissues.
- The assessment of impacts to the macrobenthic populations at the beach fill and borrow areas would benefit from including:
  - Manning, L., Peterson, C., and Bishop, M. 2014. Dominant macrobenthic populations experience sustained impacts from annual disposal of fine sediments on sandy beaches. *Marine Ecology Progress Series* 508:1-15.

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<sup>2</sup> Lindeman, K.C., and D.B. Snyder. 1999. Nearshore hardbottom fishes of southeast Florida and effects of habitat burial by dredging. *Fishery Bulletin* 97:508-525.

<sup>3</sup> CSA International, Inc. 2009. Ecological functions of nearshore hardbottom habitat in east Florida: A literature synthesis. Prepared for the Florida Department of Environmental Protection Bureau of Beaches and Coastal Systems, Tallahassee, FL. 198 pp + apps.

- Wanless, H. and Maier, K. 2007. An evaluation of beach renourishment sands adjacent to reefal settings, Southeast Florida. *Southeastern Geology* 45:25-42.
- Jordan, L., Banks, K., Fisher, L., Walker, B., and Gilliam, D. 2010. Elevated sedimentation on coral reefs adjacent to a beach renourishment project. *Marine Pollution Bulletin* 60:261-271.

*(4) An analysis of alternatives to the proposed action*

The range of alternatives provided in the Draft EIS is sufficient for the EFH assessment. The Draft EIS evaluates six alternatives: (1) the No Action (Status Quo) Alternative; (2) the Applicants' Preferred Alternative - Beach Fill and Dune Restoration with Shoreline Protection Structures; (3) the Applicants' Preferred Alternative without Shoreline Protection Structures, (4) The Town of Palm Beach Preferred Project and County Increased Sand Volume without Shoreline Protection Structures Project; (5) The Town of Palm Beach Increased Sand Volume and County Preferred Project; and (6) The Town of Palm Beach Increased Sand Volume and County Increased Sand Volume without Shoreline Protection Structures Project.

**Recommendations for the Town of Palm Beach segment of the Project, SAJ-2005-07908**

For the Town of Palm Beach segment of the Project, NMFS affirms its March 2011 determinations that the proposed beach fill would adversely impact EFH and result in substantial impacts to ARNI, in accordance with Part IV, Section 3(a) and Section 3(b) of the current MOA between the Departments of Commerce and the Army, and that authorization of the proposed action would impact EFH. Accordingly, NMFS continues to recommend this segment of the Project not be authorized. The March 2011 letters also recommended a path forward for addressing the stated concerns, and NMFS affirms its commitment to that path and desire to resolve the impasse informally and at the field level.

**Recommendations for the Palm Beach County segment of the Project, SAJ-2008-04086**

NMFS concludes the groin construction and beach fill proposed for the Palm Beach County segment of the Project would adversely impact 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 impact EFH. In consideration of this requirement, NMFS provides the following:

**EFH Conservation Recommendations**

1. NMFS recommends the applicant provide an updated habitat map and characterization of hardbottom habitat within the Palm Beach County segment of the Project. Methods for mapping and characterizing the hardbottom should be coordinated with NMFS to ensure the survey will be sufficient to determine the amount of worm reef in the project area and to locate all coral suitable for relocation (suitability would be based on species and size class).
2. The permit include a coral relocation plan describing relocation of scleractinian corals greater than or equal to 10 centimeters in diameter and octocorals from the genera *Gorgonia*, *Eunicea*, *Plexaura*, *Plexaurella*, *Muricea*, and *Pterogorgia*. NMFS recommends the plan be based on the coral species and size classes identified in updated habitat map (see EFH conservation recommendation 1), identify the mitigation reefs as the relocation site, and provide no less than two years of monitoring with performance standards of no less than 85% successful re-attachment and positive linear extension after two years.
3. The permit includes a biological monitoring plan describing how actual impacts will be gauged relative to those predicted in the EFH assessment. NMFS recommends the plan include triggers for additional compensatory mitigation when appropriate.
4. The permit includes a mitigation plan fully offsetting both temporary and permanent losses of EFH. NMFS recommends the plan provide updated functional assessment scores for the hardbottom

impacts that reflect input from NMFS and FDEP and a mitigation monitoring plan that contains clear performance criteria.

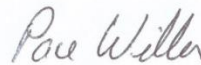
5. For stretches of the beach where dune fill only is proposed, the permit includes a requirement for clearly marking the annual highest tide line in the field and for having an independent contractor on-site to verify no material is placed waterward of the annual highest tide line.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) require the Jacksonville 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, in accordance with the “findings” with the Jacksonville District, an interim response should be provided to NMFS. A detailed response then must be provided prior to final approval of the action. The detailed response must include a description of measures proposed by the Jacksonville District to avoid, mitigate, or offset the adverse impacts of the activity. If the response is inconsistent with the EFH conservation recommendations, the Jacksonville District must provide a substantive discussion justifying the reasons for not following the recommendations.

The Draft EIS states loggerhead sea turtles (*Caretta caretta*) and their designated critical habitat occur within the Project area. In addition, the Draft EIS states hawksbill sea turtles (*Eretmochelys imbricate*), Kemp’s Ridley sea turtles (*Lepidochelys kempii*), green sea turtles (*Chelonia mydas*), and leatherback sea turtles (*Dermochelys coriacea*) may also occur in the Project vicinity. Impacts to endangered or threatened species and their critical habitat may require consultation with the NMFS Protected Resources Division. If the Jacksonville District determines the permitted action may affect a listed species, the District should contact the NMFS Southeast Region, Protected Resources Division at the letterhead address.

Thank you for the opportunity to provide comments. Related correspondence should be directed to the attention of Ms. Jocelyn Karazsia at our West Palm Beach office, 400 North Congress Avenue, Suite 110, West Palm Beach, Florida, 33401. She may be reached by telephone at (561) 249-1925, or by e-mail at [Jocelyn.Karazsia@noaa.gov](mailto:Jocelyn.Karazsia@noaa.gov).

Sincerely,



/ for

Virginia M. Fay  
Assistant Regional Administrator  
Habitat Conservation Division

cc:

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