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 5, 2015 F/SER47:JK/pw

(Sent via Electronic Mail)

Colonel Alan Dodd, Commander
U.S. Army Corps of Engineers, Jacksonville District
Palm Beach Gardens Permits Section
4400 PGA Boulevard, Suite 500
Palm Beach Gardens, Florida 33410

Attention: Susan R. Kaynor

Dear Colonel Dodd:

NOAA's National Marine Fisheries Service (NMFS) reviewed public notice SAJ-2005-00972, dated March 31, 2015. The Jacksonville District proposes to re-issue Regional General Permit (RGP) SAJ-93, which authorizes the Florida Inland Navigation District (FIND) to maintenance dredge within the federal channel of the Atlantic Intracoastal Waterway (AIWW) and the Intracoastal Waterway (ICW) in Nassau, Duval, St. Johns, Flagler, Volusia, Brevard, Indian River, St. Lucie, Martin, Palm Beach, Broward, and Miami-Dade Counties. RGP SAJ-93 would also include maintenance of the Okeechobee Waterway (OWW) in Martin County and Lake Okeechobee. The current version of RGP SAJ-93 was issued on February 16, 2011, and expires on February 16, 2016. If re-issued, the new RGP SAJ-93 also would have a five-year term. The Jacksonville District's initial determination is re-issuance of RGP SAJ-93 would not have a substantial adverse impact 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 offered pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Consultation History

- November 23, 2005. The NMFS responded to a public notice the Jacksonville District issued on October 24, 2005, for an earlier version of RGP SAJ-93. The NMFS advised substantial impacts to seagrass would occur under RGP SAJ-93 and recommended the Jacksonville District not issue the RGP. The letter was sent in accordance with Part IV, Section 3(a) of the Memorandum of Agreement between the Department of Commerce and Department of the Army, dated August 11, 1992 (MOA).
- December 5, 2005. The NMFS affirmed the November 23, 2005, letter by sending a letter pursuant to Part IV, Section 3(b), of the MOA.
- May 10, 2006. The Jacksonville District and FIND hosted an interagency meeting in an effort to resolve objections made by the NMFS and other agencies. During the meeting, the NMFS recommended FIND establish mitigation procedures, which may include a mitigation bank, for seagrass to offset minor impacts to seagrass from maintaining the AIWW, ICW,

and OWW. Neither the Jacksonville District nor FIND formally responded to this recommendation.

- December 1, 2009. The Jacksonville District provided the NMFS with a revised RGP SAJ-93 to assess whether the proposed permit conditions would resolve the MOA objection. Notably, the draft permit did not authorize seagrass impacts.
- December 31, 2009. The NMFS affirmed its desire to resolve the impasse without further elevation under the terms of the MOA and provided detailed comments on the proposed permit conditions, including a recommendation for FIND to identify annually all dredging actions performed under the RGP with a map or station numbers defining where dredging occurred and a summary of all seagrass surveys conducted.
- September 1, 2010. The Jacksonville District provided the NMFS with an updated version of RGP SAJ-93.
- September 22, 2010. The NMFS acknowledged the updated version of RGP SAJ-93 reflected many changes NMFS requested, including conditions 2 through 11 and 14. However, the NMFS disagreed with the District's decision to require a buffer of only 100 feet between seagrass and dredging areas (NMFS had recommended 500 feet due to the mobility of fine material and the susceptibility of seagrass to sedimentation). The NMFS also restated its earlier request for RGP SAJ-93 to require FIND to identify annually all dredging actions performed under the RGP with a map or station numbers defining where dredging occurred and a summary of all seagrass surveys conducted. Lastly, the NMFS agreed with the Jacksonville District that sufficient progress had been made revising RGP SAJ-93 to withdraw the MOA elevation and that the remaining issues could be resolved under standard Magnuson-Stevens Act procedures.
- February 16, 2011. The Jacksonville District issued RGP SAJ-93 for a period of five years. The permit did not include the conditions described above regarding annual reporting and providing surveys to the NMFS.
- April 20, 2015. The Jacksonville District provided the NMFS with information on four dredging events authorized under the RGP SAJ-93 (Table 1). In November 2013, a FIND consultant provided as-built drawings to the NMFS for a fifth dredging event.

Table 1: Summary of dredging events authorized by RGP SAJ-93.

Reach/Cut	*Location*	*FIND Survey*	*NMFS Verification*[1]
Lake Worth	Palm Beach County	Not provided	Seagrass within 85 feet of the south terminus of the dredging in the northern reach
Parker Bridge Cut	Palm Beach County	Provided	No issues with verification
OWW R1-1, R1-2, R1-3, RC-1, and RC-2	Lake Okeechobee	Not needed for the reaches within the lake	Application indicates a reconnaissance survey was performed but does not describe efforts to look for seagrass
SL-3N	St Lucie County	Not provided	No seagrass within 300 feet of the dredging
V-22 to V-28	Volusia County	Post dredging survey provided	No seagrass within 1,500 feet of the dredging

EFH in the Project Area

The EFH summary the NMFS provided in the letter dated November 23, 2005, does not require augmenting for the proposed re-issuance of RGP SAJ-93 and is incorporated here by reference.

[1] Data from the Florida Wildlife Research Institute at *ocean.floridamarine.org/mrgis/Description_Layers_Marine.htm*.

Changes the Jacksonville District Proposes to RGP SAJ-93

The special permit conditions proposed for the re-issuance of RGP SAJ-93 are similar to those in the current RGP. The more significant differences are discussed below.

Special condition 9 now would authorize impacts to seagrass at locations were seagrass impacts have been successfully mitigated since 2002; under the 2011 RGP, no impacts to seagrass are allowed (i.e., an individual permit would be necessary). The NMFS agrees with this decision and has maintained since enactment of the EFH provisions of the Magnuson-Stevens Act that FIND need only mitigate for its impacts once provided the mitigation has met the performance standards established by the Jacksonville District. To ensure efficient operation of this permit condition, the NMFS requests notification each time this permit condition is applied and for the notifications to include information precisely defining dredge locations and documenting the mitigation has met the performance standards established.

Special condition 10 describes the required buffer distances between dredging activities and seagrass habitat and the requirement to survey the buffer area in the pre-dredging seagrass surveys. The 2011 version of RGP SAJ-93 required this buffer distance to be 100 feet and the current version reduces the buffer distance to 25 feet. Further, the condition states the pre-dredging survey may be limited to the federal channel and its side slopes and surveying for seagrass outside the side slopes is not required unless seagrass occurs within 25 feet of the dredging footprint or indirect effects are anticipated. The District also eliminated portions of the condition that recommend seagrass survey methods and time of year for surveying. The public notice provides no explanation for these changes.

Impacts to seagrass from dredging result from removal, burial, turbidity, and sedimentation (Erftemeijer and Lewis 2006). The purpose of a buffer is to protect nearby seagrass habitat from these disturbances. Several studies document deterioration of seagrass habitats due to excessive sedimentation. Sedimentation from dredging and natural sedimentation can differ in timing, duration, and intensity creating unusual, detrimental conditions (Clarke and Wilber 2000, Erftemeijer and Lewis 2006). The effects of sediment burial on seagrass is species specific and size-specific. Cabaca et al. (2008) show *Halophila* species (i.e., small seagrasses) can exhibit 50 percent shoot mortality with 2.0 centimeters of burial whereas *Syringodium filiforme* and *Thalassia testudinum* (large seagrasses) exhibit 50 percent shoot mortality with 4.5 and 5.0 centimeters of burial respectively. Assessing the effects of sedimentation on seagrass also requires knowledge of the temporal and spatial dynamics of the sediment plume to allow examination of exposure durations, and the public notice does not provide this level of detail.

If one focused only on removal of seagrass by a dredge, it may be reasonable to have buffers less than 100 feet and still be protective of this important fishery habitat. However, the sufficiency of a smaller buffer is questionable under a broader focus that includes burial, turbidity, and sedimentation, especially given the variability between dredging operations (Erftemeijer and Lewis 2006), which includes differences in dredging durations, sediment characteristics, and experience of dredge captains. Accordingly, the NMFS does not recommend reducing the spatial scope of the pre-project and post-project seagrass surveys needed to gauge the extent of turbidity and sedimentation impacts near dredging operations.

Special condition 11 has been modified from stating indirect impacts to seagrass and wetlands are prohibited to stating indirect impacts to coral and hardbottom habitat are prohibited. While the NMFS supports the decision to expressly prohibit impacts to hardbottom and corals, NMFS requests this condition still list seagrass and wetlands.

Special condition 12 has been modified to no longer require a pre-construction survey because this requirement is now in special condition 10, however, the requirement for a post-dredging survey is still in special condition 12. The NMFS recommends the new RGP SAJ-93 retain the language in the existing RGP on methods, reporting requirements, and time-of-year for the surveys:

> *The survey will clearly identify the limits of all SAV [submerged aquatic vegetation] beds in their entirety, and they will be illustrated on the engineering construction plans (plan view and cross sections). In addition, the size, species identified, estimate of percent coverage, and estimate of percent species abundance shall be provided. The pre-dredging survey shall be conducted prior to each dredging event/cycle and during the period June 1 through September 30. All surveys within the range of Johnson's Seagrass shall fully adhere to the attached Guidelines for Surveying Johnson's Seagrass as provided in the Johnson's Seagrass Recovery Plan and as developed by the Johnson's Seagrass Recovery Team. The most current acceptable survey methodology approved by the Corps and the NMFS will be used.*

EFH Conservation Recommendations

The NMFS concludes the proposed reissuance of RGP SAJ-93 would adversely impact EFH by impacting seagrass habitat, designated a Habitat Area of Particular Concern by the South Atlantic Fishery Management Council, with sedimentation and turbidity. Section 305(B)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH Conservation Recommendations for any federal action or permit which may result in adverse impacts to EFH. Therefore, NMFS recommends the following to ensure the conservation of EFH and associated fishery resources:

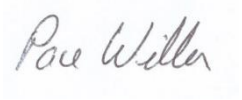
1. When impacts to previously mitigated seagrass would occur, the RGP SAJ-93 require FIND to provide the NMFS with information precisely defining dredge locations, projected volumes, and construction schedule and documenting the seagrass mitigation has met performance standards established by the Jacksonville District.
2. RGP SAJ-93 require FIND to conduct pre-dredging and post-dredging surveys with a buffer distance of no less than 100 feet from dredging locations to allow verification that no indirect impacts to seagrass are occurring from the dredging.
3. RGP SAJ-93 require a buffer of no less than 100 feet between dredging and seagrass habitats.
4. RGP SAJ-93 include a special condition requiring compensatory mitigation in the case that indirect impacts are documented through comparison of post-dredging surveys and pre-dredging surveys.
5. RGP SAJ-93 stipulate the methods, reporting requirements, and time of year for the seagrass surveys. The language included in special condition 10 of the existing RGP (quoted above) is sufficient.
6. RGP SAJ-93 require FIND to annually provide a list of all dredging actions performed under the RGP. The NMFS requests the list include a map or station numbers defining

actual areas where dredging occurred and a summary of seagrass surveys conducted. NMFS requests the surveys be sent to nmfs.ser.monitoringreportshc@noaa.gov.

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 the 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 NMFS appreciates the opportunity to provide these comments. Please direct related questions to the attention of Ms. Jocelyn Karazsia at our Palm Beach Office, 400 N Congress Ave, Suite 110, West Palm Beach, Florida 33401, at 561-249-1925, or at Jocelyn.Karazsia@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
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Literature Cited

Clarke, D., and Wilber, D. 2000. Assessment of potential impacts of dredging operations due to sediment resuspension. DOER Technical Notes Collection (ERDC TN-DOER-E9), U.S. Army Engineer Research and Development Center, Vicksburg, MS. 14 pages.

Cabaca, S., Santos, R., and Durante, C. 2008. The impact of sediment burial and erosion of seagrasses: A review. *Estuarine, Coastal and Shelf Science* 79:354-366.

Erftemeijer, P. and R. Lewis III. 2006. Environmental impacts of dredging on seagrass: A review. *Marine Pollution Bulletin* 52:1553-1572.