Brunswick Harbor Navigation Project Modifications and Harbor Dredging Operations and Maintenance Glynn County, Georgia

Final Integrated Feasibility Report and Environmental Assessment

Appendix G: Agency Coordination and Correspondence

U.S. ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT
100 WEST OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401

November 2021

National Marine Fisheries Service (NMFS)
NMFS-Habitat Conservation Division (HPD)

NMFS-Protected Resources Division (PRD)

Environmental Protection Agency (EPA)

U.S. Fish and Wildlife Service (USFWS)

Georgia Department of Natural Resources (GADNR)
GADNR-Coastal Resources Division (CRD)
GADNR-Wildlife Resources Division (WRD)
GADNR-Environmental Protection Division (EPD)

Note: Bookmarks for each agencies' correspondence section and links to all referenced attachments can be found in the Navigation Pane. Repeated links to attachments in email threads have been removed.

NMFS-Habitat Conservation Division (HCD)
Agency Correspondence

From: Richards, Mary E CIV USARMY CESAS (USA)
To: pace.wilber@noaa.gov
Cc: Cynthia Cooksey - NOAA Federal
Subject: Cooperating Agency Request for the Brunswick Harbor Modification Study
Date: Thursday, May 23, 2019 11:41:00 AM

Dear Mr. Wilber,

The U.S. Army Corps of Engineers, Savannah District (Corps) intends to prepare an environmental assessment for the Brunswick Harbor Modification Study (BHMS). This study will investigate two areas in the Brunswick inner harbor navigation channel which have been identified by the Brunswick Harbor pilots as problems for commercial vessel maneuverability. The first area of concern is in the vicinity of Coast Guard buoy 24 at the intersection of the Cedar Hammock Range and the Brunswick Harbor Range. The second area of concern is the South Brunswick River Turning Basin at the convergence of the South Brunswick River and the Turtle River.

Pursuant to Sections 1501.6 and 1508.5, of the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) of 1969, the Corps requests the participation of the National Marine Fisheries Service as a cooperating agency in providing assistance in preparing the environmental assessment for the BHMS.

This request is being made to the following Federal agencies: U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, and Georgia Department of Natural Resources. The purpose of this request is to formalize, via designation as a Cooperating Agency, the continuing coordination and active participation by your agency, and these other agencies, in the BHMS.

If you require further information, please contact me at (912) 652-5020, or via E-Mail at mary.e.richards@usace.army.mil.

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

From: Pace Wilber - NOAA Federal
To: Fox, Stephen M CIV USARMY CESAD (USA)
Cc: Cooksey, Cynthia; Garvey, Kimberly L CIV USARMY CESAS (US)
Subject: [Non-DoD Source] Re: Brunswick Harbor Modification Study- NOAA- EFH
Date: Tuesday, June 9, 2020 4:41:49 PM

Thanks Steve. We are reviewing the project and will let you know if we have questions. Pace

On Tue, Jun 9, 2020 at 1:21 PM Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil> wrote:

> Good Afternoon Mr. Wilber,
>
> The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA), a draft Finding of No Significant Impact (FONSI) and the associated Appendix H to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.
>
> Attached is our signed official letter from Savannah District to USFWS with regards to the IFR/EA and FONSI, as well as a copy of the signed public notice. The Corps has made a determination that the proposed alterations to EFH are not adverse in nature and request your concurrence on our determination.
>
> A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.
>
> Please don't hesitate to reach out if you have any questions or concerns!
>
> Regards,
>
> Steve
>
> Stephen M. Fox
>
> Biologist- Planning Branch

US Army Corps of Engineers, Savannah District

100 W. Oglethorpe Avenue

Savannah, Georgia 31401-3640

Ph: (912)652-6210

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Pace Wilber, Ph.D.
HCD Atlantic Branch Supervisor
NOAA Fisheries Service
331 Ft Johnson Road<----New Number
Charleston, SC 29412

843-460-9926 <----Office Number
843-568-4184 <----Office Cell Number
Pace.Wilber@noaa.gov

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

June 9, 2020

Planning Branch

Mr. Pace Wilber
Branch Chief
Habitat Conservation Division
Atlantic Branch National Oceanic
and Atmospheric Administration
National Marine Fisheries Service
219 Fort Johnson Road
Charleston, South Carolina 29412

Dear Mr. Wilber:

The U.S. Army Corps of Engineers, Savannah District (Corps), in collaboration with the Georgia Ports Authority, has evaluated the feasibility of increasing transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia. A draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) under the authority of Section 1201 of the Water Resources Development Act (WRDA) of 2016 have been prepared to present the results of the study, and to analyze impacts of the proposed measures on the environment.

The Draft IFR/EA evaluates the potential impacts of eight action alternatives against the no action alternative. Alterative 8 consists of expansion of a bend widener, the turning basin, and a meeting area at St. Simons Sound and includes removal of 205,000 cubic yards of material at the bend widener and 346,000 cubic yards at the turning basin expansion. No dredging is needed at St. Simon's Sound as it is naturally deep and only requires realignment of the authorized channel dimensions. This alternative was identified as the plan that reasonably maximized net National Economic Development (NED) benefits, consistent with protecting the Nation's environment, and as such, is the Tentatively Selected Plan (TSP).

With implementation of the proposed action, there is the potential to alter Essential Fish Habitat (EFH) within the project area as described in the IFR/EA. The Corps has determined that these alterations are not adverse because the temporary and minor impacts do not reduce either the quality or quantity of EFH in the project area. Further, given the amount of EFH in the area, the conversion of one EFH type to another as a result of the proposed action will not eliminate, diminish, or appreciably disrupt EFH in the project area.

In accordance with the provisions of the National Environmental Policy Act (NEPA), your comments on the Draft IFR/EA and Draft FONSI are hereby solicited. We also

request that you review the prosed action under the authority of the Magnuson-Stevens Fishery Conservation and Management Act. The Draft IFR/EA are available for review at http://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/. A Public Notice has also been sent to all the parties on the Corps' Regulatory mailing list in Georgia for the project area and is available at: https://www.sas.usace.army.mil/Missions/Regulatory/Public-Notices/.

Please submit comments within 30 calendar days to CESAS-PD@usace.army.mil. Questions concerning this request can be directed to Mr. Stephen Fox, Biologist, at Stephen.M.Fox@usace.army.mil or (912) 652-6210.

Sincerely,

Kimberly L Garvey

Kimberly L. Garvey
Chief, Planning Branch

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
https://www.fisheries.noaa.gov/region/southeast

July 8, 2020 F/SER47:CC/pw

(Sent via Electronic Mail)

Col. Daniel Hibner, Commander
Savannah District Corps of Engineers
100 W. Oglethorpe Avenue
Savannah, Georgia 31402-0889

Attention: Stephen Fox

Dear Colonel Hibner:

NOAA's National Marine Fisheries Service (NMFS) reviewed the *Brunswick Harbor Modifications Study draft Integrated Feasibility Report/Environmental Assessment* (Draft IFR/EA) and Draft *Finding of No Significant* Impact, dated June 2020, prepared by the U.S. Army Corps of Engineers, Savannah District. The Draft IFR/EA evaluated potential impacts from modifying the Federal navigation channel at Brunswick Harbor, Glynn County, Georgia. The District's initial determination in the Draft IFR/EA is the proposed modifications to Brunswick Harbor would not adversely affect essential fish habitat (EFH). As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the NMFS provides the following comments and recommendations pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The Savannah District, in collaboration with the Georgia Ports Authority, evaluated eight action alternatives against the no action alternative. The Savannah District initiated this study in May 2019 with a planning charrette. Over the next year as the planning process progressed, the Savannah District continued its engagement with the NMFS to discuss avoidance and minimization strategies resulting in a significant reduction in adverse impacts to EFH during development of the Final Array of Alternatives. The Final Array of Alternatives is:

- No Action Alternative
- Alternative 2 – bend widener (BW)
- Alternative 3 – turning basin expansion (TB)
- Alternative 4 – meeting area west of Sidney Lanier Bridge (SLB)
- Alternative 5 - meeting area at St. Simons Sound (SSS)
- Alternative 6 – BW and TB
- Alternative 7 – BW, TB and SLB
- Alternative 8 – BW, TB, and SSS (Tentatively Selected Plan)
- Alternative 9 – BW, TB, SLB and SSS

The Tentatively Selected Plan (TSP) includes the bend widener, turning basin expansion, and meeting area at St. Simons Sound. Implementing the TSP would include dredging 205,000 cubic yards of material at the bend widener and 346,000 cubic yards at the turning basin expansion for a total of approximately 551,000 cubic yards of dredged material; no dredging is necessary for the meeting area at St. Simons Sound.

The South Atlantic Fishery Management Council (SAFMC) identifies sub-tidal and intertidal non-vegetated flats (unconsolidated bottom) and coastal inlets as EFH in several fishery management plans, including the plans for penaeid shrimp, the snapper-grouper complex, and coastal migratory pelagic species. The NMFS identifies these habitats as EFH in the fishery management plan for highly migratory species. In addition to serving as EFH, these areas provide habitat for numerous species and their prey that have commercial or recreational importance, including red drum (*Sciaenops ocellatus*), southern flounder (*Paralichthys lethostigma*), Florida pompano (*Trachinotus carolinus*), summer flounder (*Paralichthys entatus*), spot (*Leiostomus xanthurus*), and blue crab (*Callinectes sapidus*). The SAFMC also identifies inlets as a Habitat Area of Particular Concern (HAPC) in the fishery management plans for shrimp and the snapper-grouper complex. HAPCs are subsets of EFH that are rare, particularly susceptible to human-induced degradation, especially important ecologically, or located in an environmentally stressed area. The SAFMC provides detailed information on the EFH requirements of federally managed species in amendments to the fishery management plans and in *Fishery Ecosystem Plan of the South Atlantic Region*[1] and the *Users Guide to Essential Fish Habitat Designations by the South Atlantic Fishery Management Council*[2].

While the TSP includes a meeting area at St. Simons Sound, the proposed activity at that location does not require any new dredging activity. The bend widener dredging activity would require removal of material in deep, open-water habitat and, given the abundance of nearby habitats for organisms to recruit from, will likely recovery quickly. Dredging at the turning basin expansion will result in converting some shallow sub-tidal habitat to open-water habitat. Habitat conversion will cause a loss of ecosystem services resulting from photosynthetic limitations, reductions in primary and secondary productivity, likely exacerbated occurrence of bottom hypoxia, and alteration of the benthic-pelagic coupling system that will negatively impact federally managed species. The NMFS agrees that benthic organisms will likely rapidly colonize that dredged footprint, but they will be different communities due to alteration in depths from shallow to deep. The Savannah District has historically not sought compensatory mitigation for project impacts to unconsolidated bottom in open water; therefore, the Savannah District does not propose compensatory mitigation for these proposed impacts. However, the NMFS stresses that converting shallow subtidal habitat to open-water habitat results in the loss of ecosystem services that would normally require implementing an appropriate mitigation plan. The NMFS notes early engagement during the planning process resulted in reducing the proposed size of the turning basin expansion from approximately 18 acres to approximately 2 to 3 acres. In addition, as noted in Appendix I of the Fish and Wildlife Coordination Act Report, beneficial use of the dredged material is likely as the project plans develop further, and the NMFS strongly encourages pursuit of the opportunities identified in the report that include intertidal shelfs, shell

[1] https://safmc.net/fishery-ecosystem-plan-ii-essential-fish-habitat-and-habitat-conservation-essential-fish-habitat/
[2] https://safmc.net/download/SAFMCEFHUsersGuideFinalRevAug17_2.pdf

rakes, and other EFH features. Consequently, the NMFS offers no EFH conservation recommendations at this time for the proposed Brunswick Harbor Modifications.

The NMFS appreciates the opportunity to provide these comments and thanks the Savannah District for their efforts in coordination on the Brunswick Harbor Modification Study. Please direct related correspondence to the attention of Cindy Cooksey at our Charleston Area Office. She may be reached at (843) 460-9922 or by e-mail at Cynthia.Cooksey@noaa.gov.

Sincerely,

/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc: COE, Stephen.M.Fox@usace.army.mil
GADNR CRD, Karl.Burgess@gadnr.org
GADNR EPD, Bradley.Smith@dnr.ga.gov
EPA, Somerville.Eric@epa.gov
FWS, Bill_Wikoff@fws.gov
SAFMC, Roger.Pugliese@safmc.net
F/SER47, Cynthia.Cooksey@noaa.gov

From:	Pace Wilber - NOAA Federal
To:	Fox, Stephen M CIV USARMY CESAD (USA)
Cc:	Karl.Burgess@gadnr.org; Smith, Bradley; Somerville, Eric; Bill Wikoff; Roger Pugliese; Cynthia Cooksey - NOAA Federal
Subject:	[Non-DoD Source] NMFS EFH comments CESAS Brunswick Harbor
Date:	Thursday, July 9, 2020 9:12:36 AM
Attachments:	CESAS-BrunswickHarbor-DraftIFR-EA-FONSI_EFH_FINAL.pdf

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HILL, SUZANNE CIV USARMY CENSAS (USA)

From: CESAS-Planning
Sent: Wednesday, June 23, 2021 4:26 PM
To: Cynthia Cooksey ; Pace.Wilber@noaa.gov
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); CESAS-Planning
Subject: Brunswick Harbor Modification Study- draft IFR/EA comment period extended
Attachments: BHMS_ Public Notice_2021_extension.pdf

Pace and Cindy-

Letting you know that we have received a request to extend the comment period and will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thanks,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:45 PM
To: Cynthia Cooksey <Cynthia.Cooksey@noaa.gov>; Pace.Wilber@noaa.gov
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Cindy and Pace,

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft FONSI are available for public review and comment. The documents can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Thank you,

Suzy

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324

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
https://www.fisheries.noaa.gov/region/southeast

July 21, 2021 F/SER47:CC/pw

(Sent via Electronic Mail)

Col. Joseph Geary, Commander
U.S. Army Corps of Engineers Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31402-0889

Attention: Kim Garvey

Dear Colonel Geary:

NOAA's National Marine Fisheries Service (NMFS) reviewed the revised *Brunswick Harbor Modifications Study draft Integrated Feasibility Report/Environmental Assessment* (revised IFR/EA) and Draft *Finding of No Significant Impact*, dated June 2021, prepared by the U.S. Army Corps of Engineers (USACE) Savannah District. The revised IFR/EA evaluates potential impacts from modifying the federal navigation channel and changes to the operation and maintenance (O&M) dredging at Brunswick Harbor, Glynn County, Georgia. The Savannah District's initial determination in the revised IFR/EA is the proposed modifications to Brunswick Harbor would not adversely affect essential fish habitat (EFH). As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the NMFS provides the following comments and recommendations pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The NMFS previously reviewed the Draft IFR/EA, dated June 2020, and provided comments by letter on July 8, 2020, which offered no EFH conservation recommendations at that time for the proposed Brunswick Harbor modifications. The Draft IFR/EA from June 2020 evaluated eight action alternatives against the no action alternative and identified Alternative 8 as the Tentatively Selected Plan (TSP), which included a bend widener, turning basin expansion, and meeting area at Saint Simons Sound. The revised IFR/EA clarifies the proposed changes related to the O&M dredging of the federal navigation channel and the TSP. Specifically, the Public Notice for the revised IFR/EA notes the "O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO)."

The Savannah District's proposed O&M action is the elimination of the existing hopper dredging window in portions of Brunswick Harbor so that maintenance dredging and bed leveling can occur year-round. One important benefit of the window, which limited hopper dredging to the period of December 1 to April 15 and has been in place for over twenty years, is that it

minimized impacts from dredging to fishery resources migrating between ocean and nursery areas and to the habitats used by the migrants.

The NMFS letter dated July 8, 2020, provided comments reviewing EFH and Habitat Areas of Particular Concern (HAPCs) from the South Atlantic Fishery Management Council (SAFMC) for the fishery management plans (FMPs) covering penaeid shrimp, the snapper-grouper complex, and coastal migratory pelagic species. The NMFS continues to support those descriptions and, for brevity, will focus instead on information missing from the revised IFR/EA and relevant to the proposed changes to the environmental window for hopper dredging. While most species with FMPs are managed by regional fishery management councils, highly migratory species (HMS) such as sharks differ by occurring throughout U.S. Atlantic Ocean waters and the NMFS having primary authority for developing and implementing an Atlantic HMS FMP (Amendment 10 to the 2006 Consolidated HMS Fishery Management Plan: Essential Fish Habitat). The Atlantic HMS FMP designated EFH in the proposed project area includes coastal inlets and estuaries for bull sharks (*Carcharhinus leucas*), finetooth sharks (*C. isodon*), blacktip sharks (*C. limbatus*), sandbar sharks (*C. plumbeus*), scalloped hammerhead sharks (*Sphyrna lewini*), bonnethead sharks (*S. tiburo*), and Atlantic sharpnose shark (*Rhizoprionodon terraenovae*). Georgia estuaries have specifically been identified as primary and secondary nursery habitats for many coastal sharks with pregnant females entering estuaries to pup during spring through early summer and then neonates and juveniles using these areas as nursery habitats until exiting in the fall.

The revised IFR/EA does not review the historically successful application of hopper dredge environmental windows in Georgia to provide safe, efficient navigation while also protecting safe ingress of pregnant sharks through coastal inlets to access estuaries for pupping, and the safe egress of neonates and juveniles through coastal inlets. Sub-adult mortality is already high in Georgia estuaries and coastal habitats as a result of trawling bycatch[1]. Altering the hopper dredge environmental windows may increase the cumulative impacts to these species by increasing mortality of pregnant adults as well as that of neonates and juveniles due to entrainment into the suction draghead of the hopper dredge during periods of ingress and egress though the coastal inlet.

The revised IFR/EA does not review the efforts by the NMFS and the NOAA National Centers for Coastal Ocean Science (NCCOS) to continue developing new information for efficiently tailoring environmental windows to navigation projects with applicability for Georgia. The NCCOS recently completed *An Assessment of the Fisheries Species Time-of-Year Restrictions for North Carolina and South Carolina*[2] to provide an up-to-date synthesis of the information about the distribution of vulnerable life stages of fishery resources with respect to dredging projects and is applicable to Georgia. Additionally, the North Carolina Division of Coastal Management, in partnership with USACE Engineer Research and Development Center (ERDC),

[1] Belcher, C.N. 2008. Investigating Georgia's shark nurseries: Evaluation of sampling gear, habitat use, and a source of sub-adult mortality. Ph.D. Dissertation. University of Georgia, Athens, GA. 154 pp.

[2] Wickliffe, L.C., F.C. Rohde, K.L. Riley, and J.A. Morris, Jr. (eds.). 2019. An Assessment of Fisheries Species to Inform Time-of-Year Restrictions for North Carolina and South Carolina. NOAA Technical Memorandum NOS NCCOS 263. 268 pages.

East Carolina University, Duke University, and other state offices, is examining impacts to marine resources and habitats from hopper dredging operations at Wilmington Harbor and Morehead City Harbor. Results of this study will be valuable for addressing issues needed to complete the revised IFR/EA and for guiding any follow-up work necessary for minimizing dredging impacts to Georgia's marine resources.

The revised IFR/EA does not review or acknowledge the successful use of environmental windows by USACE district offices outside the USACE South Atlantic Division to provide safe, efficient navigation while also protecting vital fisheries resources. For example, various reports prepared by the USACE ERDC and others discuss dozens of federal projects in the Mid-Atlantic and New England successfully maintained through use of environmental windows[3].

Lastly, the revised IFR/EA does not reflect the USACE-funded review by the National Research Council Marine Board and Ocean Studies Board (NRC) of the effectiveness of environmental windows for providing safe, efficient navigation while also protecting public-trust resources[4]. Among NRC's key findings is "environmental windows are one of a number of tools for reducing the environmental impacts of dredging and disposal operations and for increasing the efficiency and effectiveness of those operations." The NRC goes on to describe adaptive management processes for obtaining and incorporating new information about environmental windows into a risk management framework for managing dredge operation.

In summary, the NMFS believes the revised IFR/EA is incomplete, particularly in its review of the successful application of environmental windows to provide safe, efficient navigation while also protecting economically important and federally managed fisheries. Reports prepared and/or funded by the USACE describe processes for adaptively managing environmental windows for dredging projects. The revised IFR/EA should be based on those processes. The NMFS stands ready to work with the Savannah District, state resource agencies, and stakeholders to improve the IFR/EA and adaptively manage environmental windows for hopper dredges using the most up-to-date information available.

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[3] Evans, N.T., K.H. Ford, B.C. Chase, and J.J. Sheppard. 2011 (revised 2015). Recommended Time of Year Restrictions (TOYs) for Coastal Alteration Projects to Protect Marine Fisheries Resources in Massachusetts. Massachusetts Division of Marine Fisheries, New Bedford, Massachusetts. 80 pages.

LaSalle, M.W., D.G. Clarke, J. Homziak, J.D. Lunz, and T.J. Fredette. 1991. A Framework for Assessing the Need for Seasonal Restorations on Dredging and Disposal Operations. Dredging Operations and Technical Support Program TR D-91-1. USACE Waterways Experiment Station, Vicksburg, Mississippi. 77 pages.

Latchford, L. 2016. Collaborative Research during Massive Port Deepening Does Not Flounder: NOAA Fisheries Teams up with the U.S. Army Corps of Engineers on its Latest Deep-Draft Navigation Project. Environment Coastal and Offshore October 2016:30-35

Reine, K.J., D.D. Dickerson, and D.G. Clarke. 1998. Environmental Windows Associated with Dredging Operations. Technical Report DOER-E2. USACE Waterways Experiment Station, Vicksburg, Mississippi. 14 pages.

[4] National Research Council. 2001. A Process for Setting, Managing, and Monitoring Environmental Windows for Dredging Projects. National Research Council Special Report 262, National Academy Press, Washington D.C. 96 pages.

EFH Conservation Recommendation

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:

- The USACE Savannah District should use the adaptive management process described by the National Research Council, or a similar adaptive/risk management process, to update the existing hopper dredging windows for operations and maintenance dredging in Brunswick Harbor.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and implementing regulation at 50 CFR Section 600.920(k) require the USACE 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 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 USACE Savannah District to avoid, mitigate, or offset the adverse impacts of the activity. If the response is inconsistent with the EFH conservation recommendation, the USACE Savannah District must provide a substantive discussion justifying the reasons for not following the recommendation.

The NMFS appreciates the opportunity to provide these comments and thanks the Savannah District for their efforts in coordination on the Brunswick Harbor Modification Study. Please direct related correspondence to the attention of Cindy Cooksey at our Charleston Area Office. She may be reached at (843) 460-9922 or by e-mail at Cynthia.Cooksey@noaa.gov.

Sincerely,

Rusty Swafford
Acting Assistant Regional Administrator
Habitat Conservation Division

cc: COE, Kimberly.L.Garvey@usace.army.mil
GADNR CRD, Karl.Burgess@gadnr.org
GADNR EPD, Bradley.Smith@dnr.ga.gov
EPA, Somerville.Eric@epa.gov
FWS, Bill_Wikoff@fws.gov
SAFMC, Roger.Pugliese@safmc.net
ASMFC, LHavel@asfmc.org
F/SER47, Cynthia.Cooksey@noaa.gov

HILL, SUZANNE CIV USARMY CENSAS (USA)

From: Garvey, Kimberly L CIV USARMY CESAS (US)
Sent: Monday, July 26, 2021 3:20 PM
To: Pace Wilber - NOAA Federal; Cynthia Cooksey - NOAA Federal
Cc: Somerville, Eric; Roger Pugliese; Lisa Havel; CESAS-Planning; HILL, SUZANNE CIV USARMY CENSAS (USA); Bonine, Nicole M CIV USARMY CESAD (USA)
Subject: RE: [Non-DoD Source] NMFS comments on revised IFR/EA for Brunswick Harbor

Pace/Cindy,

Thank you for your July 21, 2021 comment letter. I appreciate the detailed information; it will help inform both the final IFR/EA and includes great information for our event specific risk assessments.

I also want to acknowledge your conservation recommendation: "The USACE Savannah District should use the adaptive management process described by the National Research Council, or a similar adaptive/risk management process, to update the existing hopper dredging windows for operations and maintenance dredging in Brunswick Harbor."

We are currently working on finalizing the IFR/EA and actively coordinating with our South Atlantic Division to respond to your comment. Please let this serve as an interim response and we will circle back with you on more detailed information prior to final approval of the proposed action. The Corps' planning process has this proposed action being finalized March/April of 2022.

Thank you,
Kim

Kimberly L. Garvey
Chief, Planning Branch
Savannah District
100 West Oglethorpe Avenue
Savannah, GA 31401
912.667.4010

From: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>
Sent: Wednesday, July 21, 2021 6:13 PM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Cc: Burgess, Karl <Karl.Burgess@dnr.ga.gov>; Smith, Bradley <Bradley.Smith@dnr.ga.gov>; Somerville, Eric <Somerville.Eric@epa.gov>; Bill Wikoff <Bill_Wikoff@fws.gov>; Roger Pugliese <roger.pugliese@safmc.net>; Lisa Havel <lhavel@asmfc.org>; Cynthia Cooksey - NOAA Federal <cynthia.cooksey@noaa.gov>; CESAS-Planning <CESAS-Planning@usace.army.mil>; Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Subject: [Non-DoD Source] NMFS comments on revised IFR/EA for Brunswick Harbor

HILL, SUZANNE CIV USARMY CENSAS (USA)

From: Garvey, Kimberly L CIV USARMY CESAS (US)
Sent: Thursday, November 4, 2021 6:38 PM
To: Pace Wilber - NOAA Federal; Cynthia Cooksey - NOAA Federal
Cc: Burgess, Karl; Smith, Bradley; Somerville, Eric; Bill Wikoff; Roger Pugliese; Lisa Havel; CESAS-Planning; Bonine, Nicole M CIV USARMY CESAD (USA); HILL, SUZANNE CIV USARMY CENSAS (USA); Moore, Kelie; Jocelyn.Karazsia@noaa.gov; Richards, Mary E CIV USARMY CESAS (USA); Karla Reece - NOAA Federal
Subject: RE: [Non-DoD Source] NMFS comments on revised IFR/EA for Brunswick Harbor
Attachments: BHMS EFH CR response 4Nov21.pdf; RE: [Non-DoD Source] NMFS comments on revised IFR/EA for Brunswick Harbor

Follow Up Flag: Follow up
Flag Status: Completed

Pace/Cindy,

Attached please find our initial acknowledgement and detailed response to your BHMS letter.

Truly appreciate your engagement on this. We have recently created a SARBO webpage for the district. It is available at: https://www.sas.usace.army.mil/Missions/Civil-Works/SARBO/. We will be posting relevant info as it is created and approved for release.

Regarding Brunswick Harbor maintenance dredging, I'm hearing right now that we plan to start dredging 15 December or soon thereafter. Mary Richards is just starting to put the event specific information together for the risk assessment. If you have anything you would like to share, now would be a good time. I anticipate beginning the yearly stakeholder meetings early in 22.

Thank you,
Kim

Kimberly L. Garvey
Chief, Planning Branch
Savannah District
100 West Oglethorpe Avenue
Savannah, GA 31401
912.667.4010

From: Pace Wilber - NOAA Federal <pace.wilber@noaa.gov>
Sent: Wednesday, July 21, 2021 6:13 PM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Cc: Burgess, Karl <Karl.Burgess@dnr.ga.gov>; Smith, Bradley <Bradley.Smith@dnr.ga.gov>; Somerville, Eric <Somerville.Eric@epa.gov>; Bill Wikoff <Bill_Wikoff@fws.gov>; Roger Pugliese <roger.pugliese@safmc.net>; Lisa Havel <lhavel@asmfc.org>; Cynthia Cooksey - NOAA Federal <cynthia.cooksey@noaa.gov>; CESAS-Planning <CESAS-Planning@usace.army.mil>; Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Subject: [Non-DoD Source] NMFS comments on revised IFR/EA for Brunswick Harbor

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

November 4, 2021

Mr. Russell Swafford
Acting Assistance Regional Administrator
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Habitat Conservation Division
Southeastern Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505

Dear Mr. Swafford,

Thank you for your July 21, 2021 letter regarding the Corps' revised draft Integrated Feasibility Report/Environmental Assessment (revised IFR/EA) and Draft Finding of No Significant Impact (revised IFR/EA/FONSI for the Brunswick Harbor Modifications Study), including continued operations and maintenance of the navigation channel in compliance with the 2020 South Atlantic Regional Biological Opinion (SARBO). Your comments were provided in accordance with Section 305(b)(4)(A) of the Magnuson-Stevens Fishery conservation and management Act (MSA). On July 26, 2021, we provided an email acknowledgment of the letter. Through this letter, we are providing the detailed response to your Conservation Recommendation:

> The USACE Savannah District should use the adaptive management process described by the National Research Council, or a similar adaptive/risk management process, to update the existing hopper dredging windows for operations and maintenance dredging in Brunswick Harbor.

In reviewing the recommendations and the template process outlined in the referenced 2001 National Research Council (NRC) study, we find that the risk assessment and risk management process outlined in Section 2.9.2.2. of the 2020 SARBO is substantially consistent with the adaptive management process described in the 2001 NRC study. However, the 2001 NRC study recommendations are intended to be used in determining environmental windows in a static environment (i.e. preset environmental windows) and compliance with the 2020 SARBO including appropriate application of the risk assessment process will not necessarily result in a static window. Specifically, the 2020 SARBO risk assessment process is an adaptive management approach that uses a broad-based management strategy for consideration of dredging activities across multiple Corps districts in the Southeast. The 2020 SARBO risk assessment process also considers current and best available scientific information and applies institutional knowledge of specific project sites and effects to endangered

species to determine not only the timing for future dredge events, but also applicable minimization measures.

The Corps will assess data collected during monitoring of dredge events, including data from Protected Species Observers (PSOs) and information from the Corps Operations and Dredging Endangered Species System (ODESS) and the National Dredging Quality Management Program (DQM). The Corps will use this data to make informed decisions on the use of dredge equipment, timing, and minimization measures for future dredge events. The Corps will be collecting information related to by-catch (including MSA species, such as coastal sharks) during monitoring for ESA-listed species. This information will be made available to resource agencies. Under the 2020 SARBO, the Corps coordinates with the National Marine Fisheries Service (NMFS), Protected Resources Division (PRD) at least monthly to discuss current and upcoming projects, risk-assessment, new information available, and lessons learned. The Corps and Bureau of Ocean Energy Management (BOEM) also provide NMFS PRD an annual review that documents what happened during the year and any lessons learned that can be applied to future projects. This process actively applies, in collaboration with NMFS PRD, adaptive management principles in the development of risk assessments for future dredge events. Therefore, the 2020 SARBO risk assessment process will substantially meet the Conservation Recommendation regarding the use of an adaptive management approach. Furthermore, the risk assessment process in the 2020 SARBO, by relying on recent scientific data, provides for adaptability for effects related to climate change.

Additionally, the 2001 NRC study prescribes engagement with stakeholders during the adaptive management process. As part of the 2020 SARBO, the Corps' South Atlantic Division, NMFS, and BOEM will continue to meet with state and federal partners and species experts to assure the best-available information is used in the risk assessment process and to consider the risk to all species and habitat from activities covered under the 2020 SARBO. To further meet the Conservation Recommendation, the Corps will convene annually, for five years, a Georgia stakeholder session that presents lessons learned regarding implementation of the risk assessment process under the 2020 SARBO.

In summary, the Corps has determined that following the risk assessment process in section 2.9.2.2 in the 2020 SARBO, along with the commitment to hold an annual session with Georgia stakeholders, meet the substance of your conservation recommendation.

The Corps appreciates your comments and continued coordination on the Brunswick Harbor Modification Study. Please feel free to call me with any questions or concerns at Kimberly.L.Garvey@usace.army.mil or (912) 667-4010.

Respectfully,

Kimberly L. Garvey

Kimberly L. Garvey
Chief, Planning Branch

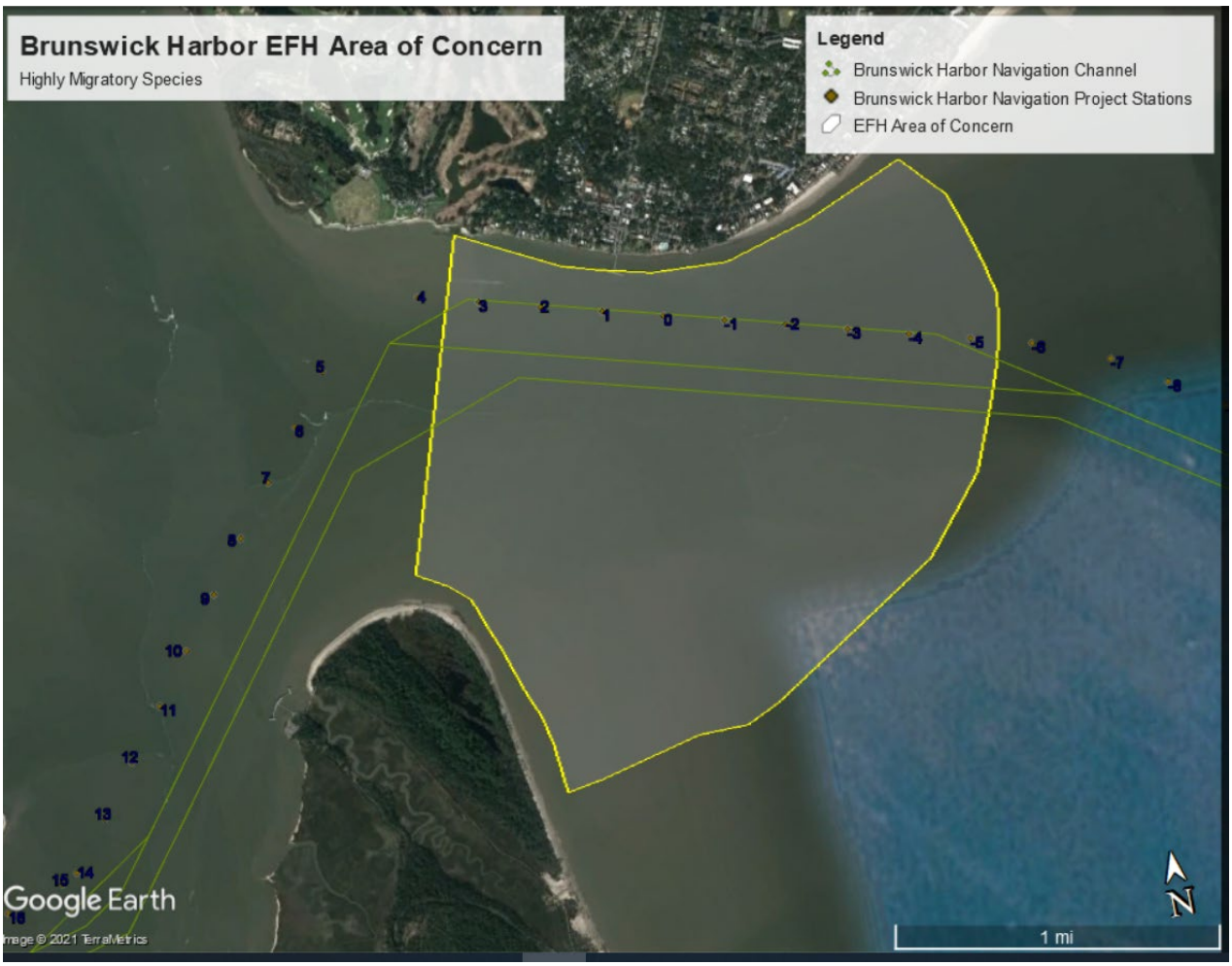
DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

Brunswick Harbor Navigation Project Operations and Maintenance Magnuson-Stevens Fishery Conservation and Management Act (MSA) Response Addendum December 03, 2021

Purpose: In accordance with the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the National Marine Fisheries Service's Habitat Conservation Division (NMFS-HCD) provided a conservation recommendation for the continued operations and maintenance (O&M) of the Brunswick Harbor Navigation Project, in a letter dated July 21,2021. The U.S. Army Corps of Engineers, Savannah District (Corps) responded to the conservation recommendation on November 4, 2021. The purpose of this addendum is to provide additional details regarding the Corps implementation of the conservation recommendation in regards to coastal sharks. Specifically, this addendum outlines the integration of essential fish habitat (EFH) considerations for coastal sharks into USACE Savannah District's risk assessment and management process for the continued O&M of the Brunswick Harbor Navigation Project.

Background Information: The Atlantic Highly Migratory Species Fisheries Management Plan designated EFH in the project area includes coastal inlets and estuaries for bull sharks (*Carcharhinus leucas*), finetooth sharks (*C. isodon*), blacktip sharks (*C. limbatus*), sandbar sharks (*C. plumbeus*), scalloped hammerhead sharks (*Sphyrna lewini*), bonnethead sharks (*S. tiburo*), and Atlantic sharpnose shark (*Rhizoprionodon terraenovae*). Georgia estuaries have specifically been identified as primary and secondary nursery habitats for many coastal sharks with pregnant females entering estuaries to pup during spring through early summer and then neonates and juveniles using these areas as nursery habitats until exiting in the fall.
Continued coordination with NMFS-HCD further identified that the project area posing the greatest risk to coastal sharks is the narrow transition between entrance channel and inner harbor, which is approximated in Figure 1. As neonate/juvenile sharks are exiting estuaries in the fall, through the narrow transition between inner harbor and entrance channel, sufficient area may not be available for them to avoid dredging activities. Additionally, during the neonate and juvenile life stages, because of their size and mobility they may not be able to avoid dredging activities. Neonate/juvenile migration through the area of concern typically occurs in the fall months of September and October.

The area of concern is a naturally deep reach of the Federal navigation channel that is infrequently dredged. Typical dredging equipment used in that area is hopper dredging. Corps analysis of dredging records in the last 15 years (FY07-FY21) for stations 3+000 to -8+000 (area of concern) indicate that the area has only been dredged once in FY10.



Brunswick Harbor O&M Risk Assessment and Management Process: The following steps are the risk assessment and management process that the Corps follows for O&M of the federal navigation channel, for reference these steps are also outlined in section 2.9.2.2 of the 2020 South Atlantic Regional Biological Opinion (2020 SARBO). While the 2020 SARBO risk-assessment is limited to consideration of risk to ESA-listed species under NMFS purview, the Corps has always considered risk from dredging to species and habitat and intends to continue to use this process to evaluate risk to EFH resources. Savannah District's integration of EFH considerations for Brunswick Harbor into the risk assessment process is described generally below. As this risk assessment and management process is a dynamic tool, it is anticipated that specific information gathered in the steps below may be revised based on lessons learned and as new information becomes available.

Assessment Step 1. Pre-construction risk assessment
This assessment will involve considering the presence of EFH species of concern at project locations/times, known equipment interactions with species expected to be present, and the history of interactions at a particular project site. This information combined with past experience of problems encountered working in the same or similar areas are incorporated into the pre-construction risk assessment. Potential minimization measures are identified that consider when, where, and what equipment could be used to reduce impacts.

For the Brunswick Harbor preconstruction risk assessment, Corps' Savannah District will consider the information included in the background section of this document, as well as any new or additional relevant information. Potential minimization measures will be identified and implemented, as practicably allowed. As coastal sharks have been identified as the primary species of concern, the following measures listed below are potential minimization measures for coastal sharks that may be recommended at this step.

<u>Timing/Sequencing of Dredge Activities</u>

- As practicable, hopper dredging and relocation trawling would be sequenced to avoid activities in the approximate area of concern identified in Figure 1 between September 1 and October 31.

<u>Relocation Trawling</u>
Safe handling practices for relocation trawling outlined below will be followed regardless of the status of the shark encountered. These practices are also detailed in Section 9 of the 2020 SARBO.

- Large sharks should be released directly from the net into the water and not brought aboard the vessel.
- If sharks must be brought aboard to safely remove them from the net, cut the net quickly and release them back to the water. If necessary, to bring a smaller animal aboard to free it from the net, make sure to keep shark wet and work quickly to get it safely back in the water. Smaller sharks can be returned to the water by grasping the animal under the jaw and ensuring the jaw is closed. Depending on the size of the shark, this may require 2 hands to hold the jaw closed while a second crew member helps to carry the shark back to the water.
- Sharks are reported to frequently chew through a portion of the net and are retrieved trapped in the net at the gills. In instances such as this, the net will be quickly cut and the shark removed.
- Do not pull sharks free or carry them by the gills.
- Do not relocate sharks. It is more important to release them as soon as possible and described above.
- As safety and time allows, record the total length of the shark either by measuring the shark if brought aboard or by estimating the length based on available photos taken of

the shark in the net. Priority is given to the quick and safe release of the animal and safety of the protected species observer (PSO).
- Tagging and genetic sampling of sharks would not be required, and priority should be given to quickly and safely release the animals due to the sensitivity of these animals to being handled.

Hopper Dredging

Minimization measures listed below are also included as project design criteria (PDCs) in Appendix B, Section 3 in the 2020 SARBO. These minimization measures will be employed to minimize effects to EFH species. Additional requirements for EFH are emphasized in bold italics.

- Hopper dredge observation- The 2020 SARBO details requirements for observation of protected species, ***PSO will also monitor for by-catch including EFH species of concern (see Assessment Step 2 below for identification guidelines).*** (2020 SARBO Appendix B Hopper.1)
- To prevent impingement or entrainment of within the water column, dredging pumps will be disengaged by the operator when the dragheads are not actively dredging and therefore working to keep the draghead firmly on the bottom. Pumps will be disengaged when lowering dragheads to the bottom to start dredging, turning, or lifting dragheads off the bottom at the completion of dredging. Hopper dredges may utilize a bypass or other system that would allow pumps to remain engaged but result in no suction passing through the draghead. This dredge modification (when employed) is commonly referred to as a turtle bypass valve. This precaution is especially important during the cleanup phase of navigation dredging operations to remove remaining high spots or when a shallow veneer of compatible sediment remains within a borrow area; thus limiting overdepth dredging and plowing efficacy of the draghead deflector. (2020 SARBO Appendix B Hopper.2)
- Pumping water through the dragheads is not allowed while maneuvering or during travel to/from the disposal or pumpout area. The dredge operator will ensure the draghead is embedded in sediment when pumps are operational, to the maximum extent practicable. (2020 SARBO Appendix B Hopper.3)
- All waterport or other openings on the hopper dredge are required to be screened. (2020 SARBO Appendix B Hopper.4)
- A state-of-the-art solid-faced deflector that is attached to the draghead must be used on all hopper dredges at all times. (2020 SARBO Appendix B Hopper.5)

Assessment Step 2: During Active Dredge Event. Corps would conduct by-catch monitoring for EFH species of concern, as practicable. Specific species that will be monitored for include the coastal shark species identified in the background section. For relocation trawling, safe release of the shark takes priority over identification. PSOs will be provided with NMFS "Shark Identification and Federal Regulations for the Recreational Fishery of the U.S. Atlantic, Gulf of Mexico and Caribbean" placard[1].

[1] https://media.fisheries.noaa.gov/dam-migration/shark-id-placard-2018-web.pdf

Sharks of South Carolina by Charles Farmer (2004) may also be used as reference for shark identification. Identification guidance for sharks will include:

- As safety and time allows, record the total length of the shark either by measuring the shark if brought aboard or by estimating the length based on available photos taken of the shark in the net. Priority is given to the quick and safe release of the animal and the safety of the PSO.
- Tagging and genetic sampling of sharks would not be required and priority should be given to quickly and safely release the animals due to the sensitivity of these animals to being handled.

Assessment Step 3. Post-Project Review and Reporting. This process will be used to document what happened during the project and any lessons learned that can be applied to future projects. This information, including by-catch monitoring data will be shared with NMFS-HPD.

Assessment Step 4. Annual Review and Reporting This process will be used to document what happened during the year and any lessons learned that can be applied to future projects and should be considered in the preconstruction assessment that occurs in Step 1. The Corps will convene annually for 5 years a Georgia stakeholder meeting to share lessons learned from the O&M dredging risk assessment process, including any data from by-catch monitoring for EFH species of concern.

In conclusion, Savannah District is committed to incorporating EFH considerations into the overall O&M dredging risk assessment process for Brunswick Harbor. Savannah District will continue to coordinate with state and federal partners and species experts to assure the best-available information is used in the risk assessment process and to consider the risk to all species and habitat. The commitment to hold an annual Georgia stakeholder meeting for 5 years, along with the additional information included in this addendum, substantially meets the requirements of the conservation recommendation.

For questions or concerns please contact Kimberly.L.Garvey@usace.army.mil or (912) 667-4010.

Approved by:

Kimberly L. Garvey

Kimberly L. Garvey
Chief, Planning Branch

NMFS-Protected Resources Division (PRD)
Agency Correspondence

From:	Fox, Stephen M CIV USARMY CESAD (USA)
To:	nmfs.ser.esa.consultations@noaa.gov
Cc:	Garvey, Kimberly L CIV USARMY CESAS (US)
Subject:	Re: Brunswick Harbor Modification Study- NOAA-ESA
Date:	Tuesday, June 9, 2020 12:45:00 PM
Attachments:	BHMS Appendix H NMFS ESA Biological Evaluation.docx BHMS_ Public Notice.pdf BHMS NOAA NEPA and ESA letter.pdf
Importance:	High

Good Morning,

The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) and a draft Finding of No Significant Impact (FONSI) to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.

Attached is our signed official letter from Savannah District to USFWS with regards to the IFR/EA and FONSI, as well as a copy of the signed public notice. We have also completed our NOAA-NMFS Biological Evaluation for the project and have attached it here for your review (Appendix H). The Corps has made a determination that the proposed alterations to T&E species are not likely to adversely affect some species and will have a no effect for other listed species. The Corps requests your concurrence on our determination.

A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.

Please don't hesitate to reach out if you have any questions or concerns!

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

From: Nicole Bonine - NOAA Federal
To: Fox, Stephen M CIV USARMY CESAD (USA)
Subject: [Non-DoD Source] Brunswick Harbor Bend and Turning Basin Widening- SERO-2020-01610
Date: Wednesday, June 17, 2020 2:36:31 PM

Hi Stephen,

I'm emailing you to let you know that I have been assigned this consultation and that the ECO tracking number is SERO-2020-01610. I am in the process of reviewing the information that you provided and will get back to you shortly if I have any questions.

If you have any questions, please let me know.

Nicole Bonine
ESA Section 7 Biologist
Protected Resources Division, southeast Regional Office
NOAA Fisheries | U.S. Department of Commerce
Office: (727) 824-5336
Blockedwww.fisheries.noaa.gov

From: Joseph Cavanaugh - NOAA Federal
To: Richards, Mary E CIV USARMY CESAS (USA); Fox, Stephen M CIV USARMY CESAD (USA)
Subject: [Non-DoD Source] SERO-2020-01610 Brunswick Harbor Bend and Turn Basin
Date: Friday, September 18, 2020 8:35:18 PM
Attachments: 09_14_20_DRAFT SERO TEMPLATE For Expedited Consultation.docx
Initial explanatory.docx
New AA details.docx
SERO-2020-01566 Neuse River East Parallel Interceptor.docx

Hi Mary, Stephen,
I figured I would start with a fresh email for an RAI since we've spoken on the phone and you have been following the Altamaha River project since we're in the same email chain. I know you have these already indirectly but I am attaching the template and 2 other Word Docs that my help in giving you links to coordinate and the template to follow for putting what you already have into a Word format for review. I'd like to facilitate this as much as possible and help you get a letter in that we can essentially submit into review.

1) Following the BA, what is the depth at the bend widener and at the turning basin? So 205,000cy removed by mechanical or cutterhead dredging from the bend widener and 346,000 cy from the turning basin expansion?

2) I think you can safely call NE based on not present for Hawksbill Sea turtles.

3) I think you can leave NLAA for giant manta ray, there are sightings up that far in GA, farther in fact, many of them and there is one very close to St. Simons Island.

4) In terms of geographic coordinates, I think you can submit the center points or corner points of each of the project locations, i.e., lat/long for Turning Basin, Bend Widener, Meeting Area - all in decimal please.

5) I would just follow the template closely for all the project elements to be included such as Proposed Action (type of dredging, barge(s) needed, are any in-water moratoriums proposed if you think they are needed for sturgeon? Atlantic and shortnose in this part of the Brunswick I think you said? Be sure to list substrate type, depths, any other relevant habitat pieces in the proposed action. I think the template will really help to make sure you're not missing anything.

I am happy to work with you as you have any questions and just keep the ball rolling as you put the packet into an Expedited Word document format. That way when you do send it to me it should be ready to go and we can get it into review quickly. Please be sure to list why this cannot be authorized under SARBO as well. I will send you some determinations we have been using recently such as those in the Neuse River (attached) although that one has ATS CH and so you can save that for some other project you might have in CH maybe. The language changes usually somewhat unique to the project and that is some of the nuance I spoke of with you on the phone. But I will look for some more current NLAA language from dredge project in sturgeon rivers. I haven't done that recently, mostly utility lines and some cofferdams and pile driving. We need to first make sure that if there is a moratorium needed we negotiate that up front for the dredging to reduce risk of sturgeon being present in the action area. Do you think that might be the case?

Okay, give me a ring anytime Monday or thereafter to discuss and I think if we get all of the back and forth exchange up front that would be best for this project to help you get a completed letter with our guidance on this first go around. I'm learning it too as I said because I don't typically do expedited consultations and this is my first outside of JAX.

Thanks to you both and have a great weekend!

-Joe

--
Joseph Cavanaugh
Endangered Species Specialist
NOAA Fisheries Southeast Regional Office
263 13th Ave. S, St. Petersburg, FL 33701

From: nmfs ser esa consultations - NOAA Service Account
To: Fox, Stephen M CIV USARMY CESAD (USA)
Cc: Garvey, Kimberly L CIV USARMY CESAS (US)
Subject: [Non-DoD Source] Re: Brunswick Harbor Modification Study- Request for Initiation of Expedited Informal Consultation per Section 7(a)(2) of the Endangered Species Act
Date: Monday, November 16, 2020 4:18:35 PM

National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division has received your request for Endangered Species Act Section 7 consultation. You should receive an email from the Consulting Biologist notifying you of the NMFS tracking number and their contact information within 10 business days.

If you do not receive their notification within 10 business days, please forward this email to Karla Reece, Section 7 Team Lead at karla.reece@noaa.gov. She will track down your request and put you in touch with the appropriate Consultation Biologist.

Please note our PCTS Tracking system has been replaced and is no longer being updated. A replacement tracking system is under development. Please email the Consultation biologist to request a status update.

Thank you.

On Mon, Nov 16, 2020 at 3:26 PM Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil> wrote:

> Good Afternoon,
>
> The US Army Corps of Engineers, Savannah District (Corps) is pleased to submit a request for Initiation of Expedited Informal Consultation per Section 7(a)(2) of the Endangered Species Act for the Brunswick Harbor Modification Study. The study is designed to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.
>
> Attached is our official signed revision to the previous NOAA-NMFS-ESA Biological Evaluation (Appendix H) that was submitted on June 9, 2020, in conjunction with the previously referenced IFR/EA, FONSI and signed public notice. The Corps has made a determination that the proposed alterations to T&E species are not likely to adversely affect some species and will have a no effect for other listed species. The Corps requests your concurrence on our determination.
>
> We would appreciate any comments that you may have pursuant to the National Environmental Policy Act (NEPA). Instructions for submitting comments and Points of Contact are in included in the attached letter.

Please don’t hesitate to reach out if you have any questions or concerns!

Regards,

Steve

Stephen M. Fox

Biologist- Planning Branch

US Army Corps of Engineers, Savannah District

100 W. Oglethorpe Avenue

Savannah, Georgia 31401-3640

Ph: (912)652-6210

From: Laura Wright - NOAA Affiliate
To: Fox, Stephen M CIV USARMY CESAD (USA)
Subject: Re: FW: [Non-DoD Source] SERO-2020-01610 Brunswick Harbor Turn Basin
Date: Tuesday, January 19, 2021 4:01:42 PM
Attachments: SERO-2020-03193 EXP Brunswick Harbor Modification Study_20210119_edits.docx

---

Hello and happy Tuesday!

Thank you for checking in and great timing as I have RAI1 ready for you to review and edit/comment on. We did a rewrite of the project description to simplify and to improve clarity.

Please see the attached Word Doc requesting information, in comment bubbles, necessary to initiate consultation. When providing a revised document, please do so in Word's Track Changes should any additional comments/edits be necessary. Should you have any questions, please don't hesitate to ask.

Please be reminded

If no response to this request for additional information is received within 45 days, we will assume the consultation is no longer active. We will then close out the consultation request. Please note this 45-day period has been established as a national policy.

Thank you for your time,
Laura

--
Laura Wright
Endangered Species Biologist - Marine Habitat Restoration Specialist
Contractor with Earth Resources Technology, Inc. in support of
NOAA Southeast Regional Office | U.S. Department of Commerce
Office: 727-209-5977

Updated SERO Sec 7 webpage - New URL

Sec 7 Expedited Consultation Process

On Thu, Jan 14, 2021 at 4:27 PM Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil> wrote:

> Hi Laura,
>
> How are you? I hope all is well your way. I was just following up again as to the status of the below expedited request and also to see if you need anything in addition from me. I know that you had mentioned a RAI, so if there are items to be corrected, please don't hesitate to contact me with any questions or updates. Thanks again and have a great weekend!

From:	Garvey, Kimberly L CIV USARMY CESAS (US)
To:	laura.wright@noaa.gov
Cc:	Fox, Stephen M CIV USARMY CESAD (USA)
Subject:	FW: FW: [Non-DoD Source] SERO-2020-01610 Brunswick Harbor Turn Basin
Date:	Friday, February 12, 2021 7:29:16 AM
Attachments:	SERO-2020-03193 EXP Brunswick Harbor Modification Study_20210119_SFedits_012121.docx

Laura,

Appreciate you flexing on those requirements and getting back with us so quickly, please go ahead and finalize with those additional deletions.

Thanks,
Kim

Kimberly L. Garvey
Chief, Planning Branch
Savannah District
100 West Oglethorpe Avenue
Savannah, GA 31401
912.667.4010

From: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Sent: Monday, February 1, 2021 11:11 AM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Subject: FW: FW: [Non-DoD Source] SERO-2020-01610 Brunswick Harbor Turn Basin

FYSA

From: Fox, Stephen M CIV USARMY CESAD (USA)
Sent: Thursday, January 28, 2021 10:17 AM
To: Laura Wright - NOAA Affiliate <laura.wright@noaa.gov>
Subject: RE: FW: [Non-DoD Source] SERO-2020-01610 Brunswick Harbor Turn Basin

Good Morning Laura,

How are you? Please see the attached expedited letter with our edits and comments with tracked changes. We request concurrence at your earliest convenience however, if you still wish to discuss our comments, we would be happy to setup a conference call to discuss and resolve any outstanding issues. Thanks Laura and have a great day!

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch

From: Laura Wright - NOAA Affiliate
To: Fox, Stephen M CIV USARMY CESAD (USA)
Subject: Re: FW: [Non-DoD Source] SERO-2020-01610 Brunswick Harbor Turn Basin
Date: Wednesday, March 31, 2021 9:20:02 AM
Attachments: SERO-2020-03193 EXP Brunswick Harbor Modification Study_20210324_edits.docx

---

Good morning,

Please see the attached Word doc with comments and suggested edits.

Thank you,
Laura

--
Laura Wright
Endangered Species Biologist - Marine Habitat Restoration Specialist
Contractor with Earth Resources Technology, Inc. in support of
NOAA Southeast Regional Office | U.S. Department of Commerce
Office: 727-209-5977

Updated SERO Sec 7 webpage - New URL

Sec 7 Expedited Consultation Process

On Thu, Jan 28, 2021 at 10:30 AM Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil> wrote:

> Good Morning Laura,
>
> How are you? Please see the attached expedited letter with our edits and comments with tracked changes. We request concurrence at your earliest convenience however, if you still wish to discuss our comments, we would be happy to setup a conference call to discuss and resolve any outstanding issues. Thanks Laura and have a great day!
>
> Regards,
>
> Steve
>
> Stephen M. Fox
>
> Biologist- Planning Branch
>
> US Army Corps of Engineers, Savannah District

From:	Hill, Suzanne SAS
To:	Laura Wright - NOAA Affiliate
Cc:	Fox, Stephen M CIV USARMY CESAD (USA)
Subject:	RE: [Non-DoD Source] Re: SERO-2020-01610 Brunswick Harbor Turn Basin
Date:	Wednesday, April 7, 2021 10:22:24 AM

Oh that's great news. Thank you.

From: Laura Wright - NOAA Affiliate <laura.wright@noaa.gov>
Sent: Wednesday, April 7, 2021 10:11 AM
To: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Cc: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Subject: Re: [Non-DoD Source] Re: SERO-2020-01610 Brunswick Harbor Turn Basin

Completely understand.

If there are no outstanding issues with the Word doc/pdf provided by you yesterday then NMFS will accept the provided signed pdf at that time so there is no need to submit another signed letter unless there are further revisions needed.

Thanks again,
Laura

--
Laura Wright
Endangered Species Biologist - Marine Habitat Restoration Specialist
Contractor with Earth Resources Technology, Inc. in support of
NOAA Southeast Regional Office | U.S. Department of Commerce
Office: 727-209-5977

Updated SERO Sec 7 webpage - New URL

Sec 7 Expedited Consultation Process

On Wed, Apr 7, 2021 at 9:28 AM Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil> wrote:

> Thank you. I forgot to mention, but I know we are anxious to get the official signed letter out this week. So if you could give a look through today, that would be much appreciated.
>
> Again thanks so much for your help!!
>
> ---
>
> **From:** Laura Wright - NOAA Affiliate <laura.wright@noaa.gov>
> **Sent:** Wednesday, April 7, 2021 9:11 AM

To: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Cc: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Subject: [Non-DoD Source] Re: SERO-2020-01610 Brunswick Harbor Turn Basin

Thank you very much and glad to have you on board!

I'll review and advise if I need anything further.

Have a fabulous week,
Laura

--
Laura Wright
Endangered Species Biologist - Marine Habitat Restoration Specialist
Contractor with Earth Resources Technology, Inc. in support of
NOAA Southeast Regional Office | U.S. Department of Commerce
Office: 727-209-5977

Updated SERO Sec 7 webpage - New URL

Sec 7 Expedited Consultation Process

On Tue, Apr 6, 2021 at 4:58 PM Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil> wrote:

> Laura-
>
> Wanted to introduce myself, I'm the new environmental lead for USACE Savannah District. We have looked over your edits/suggestions. I think we have addressed all your comments. I'm attaching a clean, signed version (I'm signing on behalf of Kim Garvey), and a track changes version so that you can track how we have responded.
>
> If this looks good to you, I will go ahead and send the signed version to Mr. Bernhart directly.
>
> Thank you for all your help in getting this completed,
>
> Suzy
>
> Suzanne Hill
> NEPA Team Lead
> USACE Savannah District, Planning Branch
> Ph. 912.423.2324

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

April 6, 2021

Planning Branch

Mr. David Bernhart
Assistant Regional Administrator for Protected Resources
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

Re: Request for Initiation of Expedited Informal Consultation under Section 7(a)(2) of the Endangered Species Act for the Brunswick Harbor Modification Study (BHMS)

Dear Mr. Bernhart:

The U.S. Army Corps of Engineers, Savannah District (Corps) has completed a draft Integrated Feasibility Report and Environmental Assessment (IFR/EA) and draft Finding of No Significant Impact (FONSI) in accordance with the National Environmental Policy Act of 1969, as amended, for the Brunswick Harbor Modification Study (BHMS), Glynn County, Georgia.

The Corps proposes to authorize the proposed project as described below. We request initiation of expedited informal consultation under Section 7(a)(2) of the Endangered Species Act (ESA) for the BHMS. The Corps has determined that the proposed project may affect but is not likely to adversely affect (NLAA) federally-listed species as described below, and is therefore requesting concurrence with our determinations pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. § 1536) and the consultation procedures at 50 C.F.R. Part 402.

Dredging in existing Brunswick Harbor navigation channel is currently authorized by the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (2020 SARBO). All proposed new work activities in the BHMS project are abutting areas currently covered by the 2020 SARBO. This expedited informal consultation is specifically for the new work dredging proposed by the BHMS. All proposed activities are designed and will be implemented in compliance with the 2020 SARBO, including all relevant Project Design Criteria (PDC) listed in the Appendices of the 2020 SARBO.

Pursuant to our request for expedited informal consultation, we are providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or critical habitat that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or critical habitat.

Proposed Action:

The purpose of the BHMS is to improve marine vessel transport efficiency and contribute to National Economic Development in an environmentally acceptable and sustainable manner. The Corps will continue to follow the 2020 SARBO for long term Operation and Maintenance (O&M) of Brunswick Harbor once these areas are incorporated into the Federal Navigation Channel. This proposed project is intended to focus on vessels transiting to and from the Colonel's Island facility which is the second busiest "roll-on/roll-off" port in the United States. This project is located in Brunswick Harbor, as shown in Figure 1, and is a combination of the bend widener, turning basin expansion, and meeting area at St. Simons Sound.

The new dredging (cutterhead) portion of the project is anticipated to commence on November 1, 2024 and continue for approximately 12 months. Upon construction completion, O&M dredging would occur annually as needed based on shoaling rates, would be covered under and consistent with the 2020 SARBO, and will not be discussed further in this consultation.

The proposed new work dredging will be accomplished through the exclusive use of a cutterhead dredge. Cutterhead dredging typically occurs on a fixed boat/barge system and is used for new work and maintenance projects where suitable placement/disposal areas are available and operate in an almost continuous dredging cycle resulting in maximum production, economy, and efficiency. Pipeline dredges are rarely self-propelled, and typically must be transported to and from the dredge site where they are secured in place by special anchor pilings, called spuds. They require an extensive array of support equipment including pipeline (floating, shore, and submerged), boats (crew, work, survey), barges, and pipe handling equipment (USACE and BOEM 2017).

For the proposed action, the barge will be positioned in a fixed location. A floating/submerged pipe goes from the barge and directly to an onshore location (Andrews Island DCMA). The onshore pipe on the discharge end will sit in the staging area at the DMCA, as shown in Figure 2. The barge and pipeline will be placed in this fashion for both locations that new work dredging will occur. The length of pipe

anticipated from the DMCA to bend widener is 16,300 linear feet (lin ft) and 10,100 lin ft from the DMCA to the turning basin.

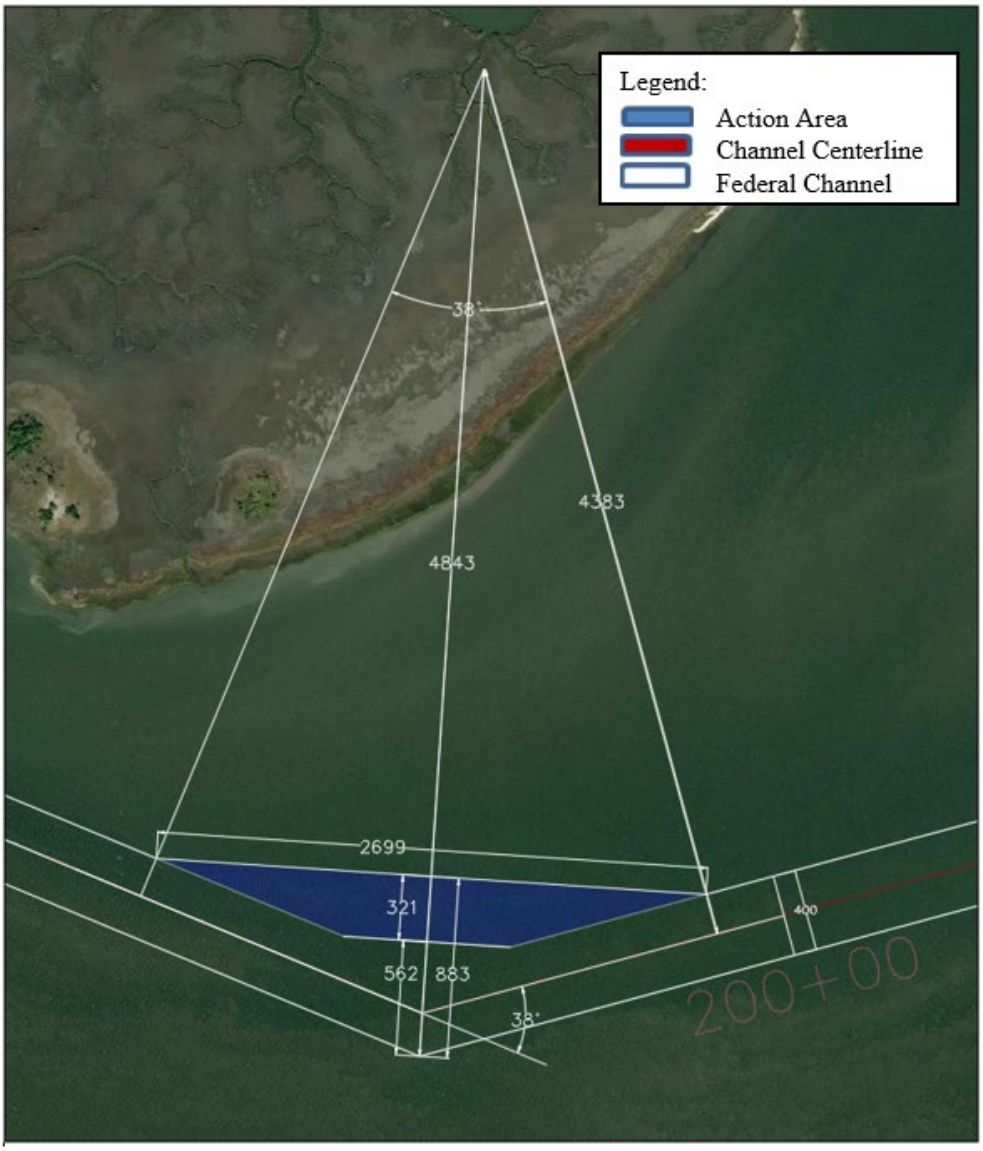
Figure 1. Location of Brunswick Harbor Project Area

Figure 2. Brunswick Harbor Staging and Disposal Areas

Bend Widener:

The proposed Cedar Hammock Range bend widener would widen the Federal Navigation channel by a maximum width of 321 feet (ft) and a length of approximately 2,700 ft. Approximately 205,000 y^3 of material would be dredged to expand the bend widener, as shown in Figure 3. The depth at the existing bend widener is 36'. The adjacent areas proposed to be widened will be dredged to the same authorized depth of -36' plus 2' allowable over-depth. The dredge material at the bend widener consists of poorly graded sands, silty sands, and highly weathered limestone. The dredged material is to be disposed of at the Andrews Island DMCA.

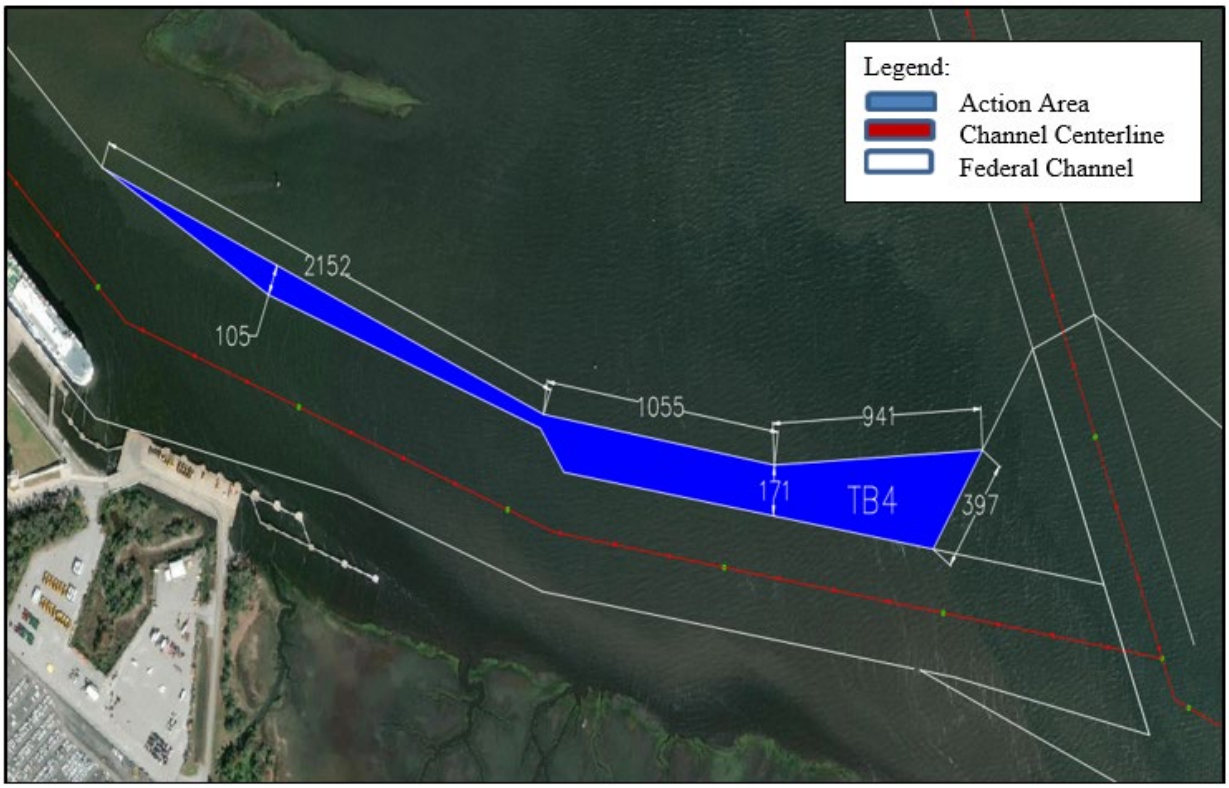
Figure 3. Bend Widener



Turning Basin Expansion:

The proposed expansion of the existing turning basin at the Colonel's Island facility would add to the Federal Navigation channel by a maximum width of 397 feet and a length totaling approximately 4,100 feet. The turning basin expansion would require approximately 346,000 cubic yards of dredge material, as shown in Figure 4. The depth at the existing turning basin is 36'. The areas proposed to be widened will be dredged to the same authorized depth of -36' plus 2' allowable over-depth. The dredge material at the turning basin consists of poorly graded sands, clayey sands, sandy clays, highly weathered limestone, and highly plastic clays. The dredged material is to be disposed of at the Andrews Island DMCA.

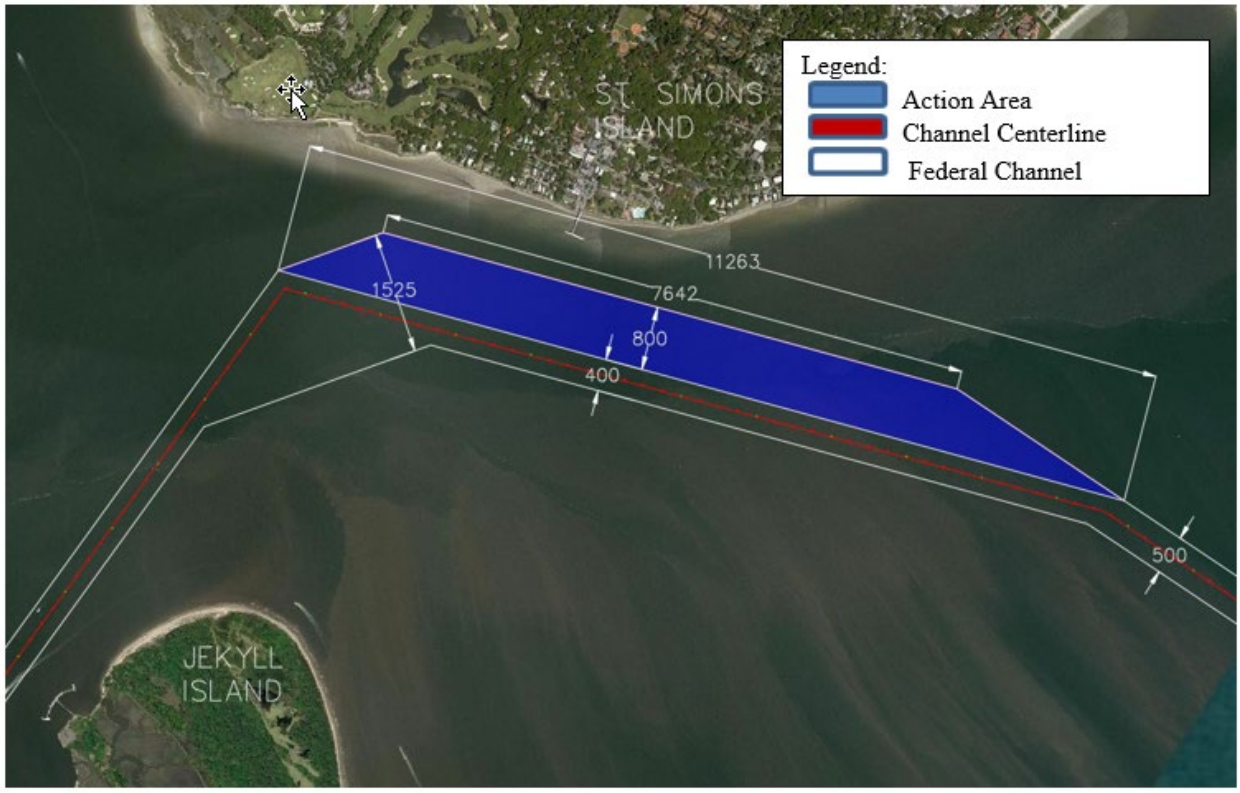
Figure 4. Turning Basin



St. Simons Meeting Area:

The proposed action also calls for creating a designated meeting area in St. Simons Sound by widening the currently authorized channel dimensions to those shown in Figure 5. This action does not include dredging, is not anticipated to impact ESA-listed species (NE), and is only being included for completeness of the proposed action description. No consultation on the St. Simons Meeting Area is requested.

Figure 5. St. Simons Meeting Area



Conservation Measures and Best Management Practices:

- In order to minimize impacts to threatened and endangered (T&E) species and marine mammals, all relevant Project Design Criteria (PDC) from the 2020 SARBO will be incorporated in the new work.
- Apparent cold-stunned sea turtles and/or distressed marine mammals will be immediately reported to the Georgia Sea Turtle Stranding and Salvage Network (1-800-2-SAVE Me or 912-280-6892) or the Georgia Marine Mammal Stranding Hotline (912-269-7587), respectively.
- All personnel shall report giant manta ray sightings to the giant manta ray recovery coordinator at NMFS Southeast Region Protected Resources Division (manta.ray@noaa.gov). Giant manta ray's observations should be photographed and include the latitude/longitude, date, and environmental conditions at the time of the sighting.
- All personnel shall follow observation and reporting observation guidelines of ESA-listed species found in Appendix H in 2020 SARBO.
- The BHMS new work dredging proposes to use the cutterhead dredge method, minimizing turbidity by piping away the sediments without having to bring material up through the water column in a bucket or transport them to an offshore location by way of scow.

- Cutterhead dredging shall be monitored for take of sturgeon in accordance with the guidelines outlined in the 2020 SARBO (NMFS 2020a).
- In-water lines (rope, chain and cable), if used, shall be stiff, taut and non-looping. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, shall be enclosed in a plastic or rubber sleeve/tube to add rigidity and to prevent the line from looping or tangling. No excess line is allowed in the water. All lines or cables shall be monitored regularly to ensure nothing has become entangled and then immediately removed upon project completion. Cables or lines with loops used to move pipelines, or buoys shall not be left in the water unattended. .

Description of the Proposed Action Area:

For the purposes of this consultation, the Corps has defined two separate action areas (as shown in Figure 6) that include the bend widener, which is located between stations 20+300 to 23+300, and the turning basin, which runs along South Brunswick River from stations 0+900 to 5+300. The corner GPS coordinates for each of the proposed locations are shown below in Table 1.

Habitats within the project site consist of submerged unconsolidated estuarine bottom, intertidal flats, and estuarine emergent marsh. Most of the project area is open water that receives semi-diurnal tidal flushing from St. Simons Sound. As a result, the salinity levels tend to be approximately 25 parts per thousand (ppt), depending on tide stage. The average St. Simons Sound tide range is approximately 6.5 feet, and the water in the harbor is well-mixed with a relatively uniform salinity. Substrate analysis from existing boring logs taken within proximity of the proposed areas indicate the presence of clays, silts, and gravels (i.e., weathered limestone rock).

Figure 6. Proposed Action Area- Alternative 8

Table 1. Proposed dredge locations (Corner Coordinates)

Latitude	Longitude
Turning Basin	
31.133783	-81.535114
31.131533	-81.528753
31.131006	-81.525425
Bend Widener	
31.106153	-81.455428
31.105619	-81.446825

Potentially Affected NMFS ESA-Listed Species and Critical Habitat:

We have assessed the listed species that may be present in the action area and our determination of the project's potential effects to them as shown in Table 2 below.

Table 2: Species in the Action Area

Species	ESA Listing Status	Listing Rule/Date	Most Recent recovery plan date	USACE Effect Determination (Species)
Kemp's ridley sea turtle	E	35 FR 18319/ December 2, 1970	September 2011	NLAA
Hawksbill sea turtle	E	35 FR 8491/ June 2, 1970	December 1993	NLAA
Green sea turtle	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Loggerhead sea turtle	T	76 FR 58868/ September 22, 2011	December 2008	NLAA
Leatherback sea turtle	E	35 FR 8491/ June 2, 1970	April 1992	NLAA
Shortnose sturgeon	E	32 FR 4001/ March 11, 1967	December 1998	NLAA
Atlantic sturgeon (All DPSs)	T/E	77 FR 5914/ February 6, 2012	March 1, 2018	NLAA
Giant manta ray	T	83 FR 2916 January 22, 2018	December 4, 2019	NLAA

Effects of the Action

Route(s) of Effect to ESA-Listed Species:

The following effects are being considered for this project:

Effects to ESA-listed species (Table 2) include the risk of direct physical impact from dredging activities. We believe the risk of physical injury is extremely unlikely to occur due to the species' ability to move away from the project site and into adjacent suitable habitat, if disturbed. NMFS has previously determined in dredging Biological Opinions that, while oceangoing hopper-type dredges may lethally entrain protected species, non-hopper-type dredging methods, such as the cutterhead dredge proposed in this project, are slower and extremely unlikely to overtake or adversely affect them (NMFS 2020b). Conservation measures and best management practices listed in the document above will be followed to minimize any impacts.

ESA-listed species may be entangled by in-water lines and other in-water equipment. However, we believe this is extremely unlikely to occur because the following measures are included as part of the proposed action. All in-water lines and other in-water equipment must be properly secured with materials that reduce the risk of entanglement of marine species. Project materials must be designed to reduce the risk of entanglement of marine species. In-water lines (rope, chain, and cable) must be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, must be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line is allowed in the water. In-water lines and other in-water equipment must be placed in a manner that does not entrap species within the project area or block access for them to navigate around the project area.

ESA-listed species might be adversely affected by their inability to access the project area for foraging, refuge, and/or nursery habitat, due to their avoidance of construction activities and related noise. We have determined that these effects will be insignificant. The site does not contain any structure that could be used by ESA-listed species for shelter. It also does not support submerged aquatic vegetation. EAS-listed species may forage in the area but the size of the area from which animals will be excluded is relatively small in comparison to the available similar habitat nearby. In addition, any disturbances to listed species would be temporary, last 12 months of in-water construction, after which the site conditions are expected to return to background levels and animals will be able to return.

Critical Habitat

The project is not located in critical habitat, and there are no potential routes of effect to any critical habitat.

Conclusion:

With the implementation of best management practices in accordance with Section 7 of the Endangered Species Act, and the Project Design Criteria in the 2020 SARBO, the Corps has made a may affect, not likely to adversely affect determination for the ESA-listed species (Table 2).

The Corps is requesting your concurrence with our determinations. Please submit any comments within 30 calendar days to CESAS-PD@usace.army.mil. Questions concerning this request can be directed to Mr. Stephen Fox, Biologist, at Stephen.M.Fox@usace.army.mil or (912) 652-6210.

Sincerely,

for
Kimberly L. Garvey
Chief, Planning Branch
Savannah District

Enclosure

Literature Cited

NMFS. 2020a. Section 4. Cutterhead dredging monitoring in sturgeon rivers, Appendix E. 2020 SARBO sturgeon PDCs. Pages 588 *in* South Atlantic Regional Biological Opinion for dredging and material placement activities in the southeast United States (2020 SARBO). U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, SERO-2019-03111, revised July 30, 2020, Saint Petersburg, FL.

NMFS. 2020b. South Atlantic Regional Biological Opinion for dredging and material placement activities in the southeast United States (2020 SARBO). U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, SERO-2019-03111, revised July 30, 2020, Saint Petersburg, FL.

USACE and BOEM. 2017. Updated South Atlantic Regional Biological Assessment (SARBA) for maintenance dredging and sediment placement activities in coastal waters, navigation channels, and placement and borrow areas in the South Atlantic Ocean to support USACE and BOEM missions, North Carolina/Virginia Border through and including Key West, Florida and the Islands of Puerto Rico and the U.S. Virgin Islands (USVI). U.S. Army Corps of Engineers, South Atlantic Division and Bureau of Ocean Energy Management, Atlanta, GA.

From:	CESAS-Planning
To:	Laura Wright - NOAA Affiliate
Cc:	Garvey, Kimberly L CIV USARMY CESAS (US); CESAS-Planning; Bonine, Nicole M CIV USARMY CESAD (USA)
Subject:	Brunswick Harbor Modification Study- draft IFR/EA comment period extended
Date:	Wednesday, June 23, 2021 4:28:28 PM
Attachments:	BHMS_Public Notice_2021_extension.pdf

Laura,

We have received a request to extend the comment period and will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thanks,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:46 PM
To: Laura Wright - NOAA Affiliate <laura.wright@noaa.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: FW: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Laura,

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft

FONSI are available for public review and comment. The documents can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Thank you,

Suzy

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324

EPA Agency Correspondence

From: Militscher, Chris
To: Richards, Mary E CIV USARMY CESAS (USA)
Cc: Higgins, Jamie
Subject: [Non-DoD Source] RE: Cooperating Agency Request for the Brunswick Harbor Modification Study
Date: Friday, May 24, 2019 10:47:44 AM

Mary E. Richards
Biologist-Planning Branch
Planning and Environmental Division
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, GA 31401

Subject: EPA Cooperating Agency Request for the Brunswick Harbor Modification Study, Brunswick, Georgia

Dear Ms. Richards:

The U.S. Environmental Protection Agency, Region 4, received your e-mail request offering this Agency an opportunity to be a cooperating for an Environmental Assessment (EA) document. As the Lead Federal Agency under the National Environmental Policy Act, the U.S. Army Corps of Engineers (USACE), Savannah District is preparing the EA for the subject project.

We accept the USACE's request to be a cooperating agency with the understanding that this office's limited resources may not allow us to fully participate in all aspects of the study. It should be noted that our status as a cooperating agency has no effect on our review responsibilities under Section 102(2)(C) of the National Environmental Policy Act or Section 309 of the Clean Air Act, and being a cooperating agency does not imply that the EPA will necessarily concur with all aspects of the proposed EA.

The EPA agrees to provide preliminary agency feedback on areas in which we have a level of expertise. The USACE should ensure that information relevant for providing comments will be provided to the agency in a timely manner, allowing sufficient review time, and with levels of detail necessary for meaningful feedback. The EPA also agrees to participate in important project milestones to the extent practicable.

We appreciate your coordination with us and look forward to reviewing the environmental document for the proposed project. If you have any further questions or concerns, you may contact EPA's principle reviewer for this project Ms. Jamie Higgins at (404) 562-9681 or higgins.jamie@epa.gov. Thank you.

Christopher A. Militscher
Chief, NEPA Section
Strategic Programs Office

-----Original Message-----
From: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Sent: Thursday, May 23, 2019 11:55 AM
To: Militscher, Chris <Militscher.Chris@epa.gov>
Cc: Holliman, Daniel <Holliman.Daniel@epa.gov>; Higgins, Jamie <Higgins.Jamie@epa.gov>; Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: Cooperating Agency Request for the Brunswick Harbor Modification Study

Dear Mr. Militscher,

The U.S. Army Corps of Engineers, Savannah District (Corps) intends to prepare an environmental assessment for the Brunswick Harbor Modification Study (BHMS). This study will investigate two areas in the Brunswick inner harbor navigation channel which have been identified by the Brunswick Harbor pilots as problems for commercial vessel maneuverability. The first area of concern is in the vicinity of Coast Guard buoy 24 at the intersection of the Cedar Hammock Range and the Brunswick Harbor Range. The second area of concern is the South Brunswick River Turning Basin at the convergence of the South Brunswick River and the Turtle River.

Pursuant to Sections 1501.6 and 1508.5, of the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) of 1969, the Corps requests the participation of the Environmental Protection Agency as a cooperating agency in providing assistance in preparing the environmental assessment for the BHMS.

This request is being made to the following Federal agencies: U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, and Georgia Department of Natural Resources. The purpose of this request is to formalize, via designation as a Cooperating Agency, the continuing coordination and active participation by your agency, and these other agencies, in the BHMS.

If you require further information, please contact me at (912) 652-5020, or via E-Mail at mary.e.richards@usace.army.mil.

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

From:	Richards, Mary E CIV USARMY CESAS (USA)
To:	"Holliman, Daniel"
Cc:	"Reid.Jackson@dnr.ga.gov"; "Cynthia Cooksey - NOAA Federal"
Subject:	Brunswick Harbor Modification Study (BHMS) - 1997 Sediment Analysis of New Work Sediments
Date:	Wednesday, November 13, 2019 5:43:00 PM
Attachments:	1997 Brunswick Harbor Deepening Sediment Evaluation - Summary.pdf 1998 EIS Part 5 (Encl F) Sed Analysis.pdf Background and Alternatives.docx

---

Dan (Cindy and Reid - I believe you both wanted to see this summary as well),

As promised, attached is an informal summary of the new work sediment analysis conducted for the 1998 Brunswick Harbor Deepening feasibility study. Sorry I've been a little slow getting it to you. As a reminder, I was to give you this summary in support of Savannah District's decision to forego additional sediment testing for the Brunswick Harbor Modification Study (BHMS).

This summary is really just excerpts from the '97 report that I hope is laid out logically and conveniently for your review. I copied the tables straight from the pdf. They're presented a little differently than I'm used to seeing in more recent reports. So if you need further details/explanations, I pulled the sediment evaluation section from the Final EIS and attached it for reference (1998 EIS Part 5 (Encl F) Sed Analysis). For comparison I also threw in some sediment data from the 2016 Tier III Section 103 sediment evaluation for the Cedar Hammock portion of the inner harbor. That's the reach closest to the bend widener that we would like to expand. It's O&M sediment, but it's the most recent sed eval we have for Brunswick. We coordinated that work with Gary. I can forward the full report if you want but only the Cedar Hammock sampling site is inside enough to be relevant. The rest of the report was for entrance channel sediments destined for disposal into the ODMDS. It may or may not benefit the story to know what we typically see in our O&M sediments but I thought it worth showing. And, of course, there have been a couple of earlier Tier III and miscellaneous sediment evaluations that I can dig up for you if needed. But, again, most if not all of those will be for O&M, not new work material. Oh, and since this little recap is for those with sediment chemistry background, I didn't define all the acronyms.

As we stated earlier, based on the 1997 results, the District does not believe there is need for additional testing of the sediments proposed to be dredged to construct this project. I would like to reiterate that these sediments are NOT going to the Brunswick Harbor ODMDS. Placement is to be upland in the Andrews Island Dredged Material Containment Area (DMCA) or possibly used to fortify an existing bird island in St. Simons Sound. Over 500,000 cubic yards of the '97 new work sediments built that island. We believe that adjacent new work sediments from similar depths, if physically and economically feasible, are safe to use on it again, and/or are suitable for placement upland in the DMCA.

I also attached our latest list of alternatives that show the preliminary site locations in more detail. Final designs will be determined after the ship simulation analysis.

Oh, and I recently talked to Hope Moorer with GPA. She has not forgotten about you and the other agency representatives who were promised a tour of the Brunswick Port. She had tentatively selected some early November dates for me to pass along for consideration but then a big ship fell over on its side in the middle of the channel, and her priorities changed. The tour is still on the books but I have no clue on when it will next be offered.

Let me know if you have any questions or how else I may help in your review.

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

From: Richards, Mary E CIV USARMY CESAS (USA)
To: Holliman, Daniel; Martin, Molly
Subject: BHMS Data Request
Date: Thursday, December 12, 2019 2:34:00 PM
Attachments: EPA Additional Info Request.docx
MV Golden Ray Project Location Map.pdf

Dan/Molly -

I've attached a brief doc on the additional info you requested. You also expressed interest in -

- a pdf depicting the location of the Golden Ray (attached). It also contains other miscellaneous information good through September 13th. I don't have anything more recent as far as spill info (obviously the location of the vessel has not changed) but I'm sure someone there at EPA does.
- a summary of the geo borings from the '97 testing. The PDT (our Savannah District team for the study) wants to review the draft of that write up before I send that out. I should be able to get that to you by the end of next week.

Debbie Scerno thought an email response on whether you concur or not with our determination that no further testing is needed will be sufficient for our documentation/NEPA purposes. And we would appreciate a response by January 31, 2020. If it's determined that there is a requirement for additional testing, we'll have to add that to the economic analysis before we select the Tentatively Selected Plan (TSP), which is scheduled for mid-February.

Call with questions if you have them or if there is something I left out.

Mary E. Richards
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(912) 652-5020

From: Martin, Molly
To: Richards, Mary E CIV USARMY CESAS (USA)
Cc: Holliman, Daniel; Collins, Gary
Subject: [Non-DoD Source] RE: Sediment Testing Results from the Golden Ray
Date: Monday, January 13, 2020 2:16:02 PM

Noting the distance to the dredge site I agree that data is not necessary.

Molly Martin
E-mail: Martin.Molly@epa.gov
tel: (404) 562-9405

-----Original Message-----
From: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Sent: Friday, January 10, 2020 4:30 PM
To: Martin, Molly <Martin.Molly@epa.gov>
Cc: Holliman, Daniel <Holliman.Daniel@epa.gov>; Collins, Gary <Collins.Garyw@epa.gov>
Subject: Sediment Testing Results from the Golden Ray

Molly,

We don't think the Golden Ray and all that mess has any bearing on the Brunswick Harbor Mod Study (BHMS), but I just received the results of the few sediment samples they took around the vessel? Would you be interested in seeing those? I'm also about ready to send the graphical displays of the boring data that we spoke of earlier for the BHMS. Will get those to you very soon.

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
Office: (912) 652-5020
Cell: (912) 346-0066

From: Holliman, Daniel
To: Richards, Mary E CIV USARMY CESAS (USA)
Cc: Martin, Molly; Kajumba, Ntale; Calli, Rosemary
Subject: [Non-DoD Source] Brunswick Harbor Modification Study - Sediment Testing Data
Date: Monday, January 27, 2020 8:35:03 AM

Mary,

You made a request for us to weigh in on the use of sediment data from geo borings (analyzed in 1997) and appropriateness for use in the current Brunswick Harbor Modification Study (BHMS). As discussed in our December 11th call, the EPA has concerns with using the historical sediment data for the current project. It is our understanding that sediment data was collected in 1997 (33 years ago) and the boring was not collected from the actual dredge footprint, therefore, we are requesting the Corps to provide a Tier 1 analysis that could provide reasonable assurance that the conditions have not likely changed since the last testing. This would include a compilation and analysis of information pertaining to potential sources and/or changes in sources of contaminants which may have been introduced to the dredge material.

Information in a Tier 1 analysis should include new industrial uses, discontinued industrial uses, any new NPDES permits, chemical/oil/pesticide spills, releases from Superfund sites or other hazardous waste sites, or any other available information describing the source of the material to be dredged which would be relevant to the identification of any additions of potential contaminants of concern.

Consideration of Tier 1 results would inform the if further evaluation in higher tiers is appropriate.

Let me know if you would like to have an additional call to discuss.

Thanks,
Dan

Dan Holliman
NEPA Section | Strategic Programs Office
USEPA Region 4 | Office of the Regional Administrator
61 Forsyth Street SW | Atlanta, GA 30303

tel 404.562.9531 | holliman.daniel@epa.gov

From: Holliman, Daniel
To: Richards, Mary E CIV USARMY CESAS (USA)
Cc: Martin, Molly; Kajumba, Ntale; Calli, Rosemary
Subject: [Non-DoD Source] RE: Brunswick Harbor Modification Study - Sediment Testing Data
Date: Friday, February 7, 2020 4:27:18 PM

As long as Molly is satisfied with this approach we are good. Thanks for the update Mary!

-----Original Message-----
From: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Sent: Friday, February 7, 2020 3:12 PM
To: Holliman, Daniel <Holliman.Daniel@epa.gov>
Cc: Martin, Molly <Martin.Molly@epa.gov>
Subject: RE: Brunswick Harbor Modification Study - Sediment Testing Data

Good afternoon, Dan.

Savannah District believes that your request for a Tier I sediment evaluation for the BHMS is reasonable and warranted. However, due to the time that it will require to complete this study, and the additional time that it will take to construct the project IF we're given the appropriations/funding to do so, we propose to conduct the Tier I analysis during the PED (Pre-construction, Engineering and Design) phase of the project. In compliance with the Marine Protection, Research, and Sanctuaries Act (MPRSA), a Tier I sediment evaluation was completed for Brunswick Harbor in August 2019 (EPA concurrence signed August 27, 2019, amended October 17, 2019) for Operations & Maintenance dredging of the Brunswick entrance channel. This evaluation included all of Brunswick Harbor, both the outer and inner channel. During the PED phase of the BHMS, that analysis will be updated to reflect any changes in harbor conditions that may have occurred since.

I have briefly discussed this with Molly and she's in agreement on this approach. [And I apologize for that - I probably broke some protocol or chain-of-command speaking with her first before replying to you.]

Please let me know if you have any questions.

Mary E. Richards
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100 W. Oglethorpe Avenue
Savannah, GA 31401
Office: (912) 652-5020
Cell: (912) 346-0066

-----Original Message-----
From: Holliman, Daniel [mailto:Holliman.Daniel@epa.gov]
Sent: Monday, January 27, 2020 8:34 AM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Cc: Martin, Molly <Martin.Molly@epa.gov>; Kajumba, Ntale <Kajumba.Ntale@epa.gov>; Calli, Rosemary <Calli.Rosemary@epa.gov>
Subject: [Non-DoD Source] Brunswick Harbor Modification Study - Sediment Testing Data

Mary,

You made a request for us to weigh in on the use of sediment data from geo borings (analyzed in 1997) and appropriateness for use in the current Brunswick Harbor Modification Study (BHMS). As discussed in our

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

June 9, 2020

Planning Branch

Ms. Ntale Kajumba
Acting Chief
NEPA Program Office
U.S. Environmental Protection Agency
61 Forsythe Street S.W.
Atlanta, Georgia 30303-3104

Dear Ms. Kajumba:

The U.S. Army Corps of Engineers, Savannah District (Corps), in collaboration with the Georgia Ports Authority, has evaluated the feasibility of increasing transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia. A draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) under the authority of Section 1201 of the Water Resources Development Act (WRDA) of 2016 have been prepared to present the results of the study, and to analyze impacts of the proposed measures on the environment.

The Draft IFR/EA evaluates the potential impacts of eight action alternatives against the no action alternative. Alterative 8 consists of expansion of a bend widener, the turning basin, and a meeting area at St. Simons Sound and includes removal of 205,000 cubic yards of material at the bend widener and 346,000 cubic yards at the turning basin expansion. No dredging is needed at St. Simon's Sound as it is naturally deep and only requires realignment of the authorized channel dimensions. This alternative was identified as the plan that reasonably maximized net National Economic Development (NED) benefits, consistent with protecting the Nation's environment, and as such, is the Tentatively Selected Plan (TSP).

In accordance with the provisions of the National Environmental Policy Act (NEPA), your comments on the Draft IFR/EA and Draft FONSI are hereby solicited. The Draft IFR/EA are available for review at http://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/. A Public Notice has also been sent to all the parties on the Corps' Regulatory mailing list in Georgia for the project area and is available at: https://www.sas.usace.army.mil/Missions/Regulatory/Public-Notices/.

Please submit comments within 30 calendar days to CESAS-PD@usace.army.mil. Questions concerning this request can be directed to Mr. Stephen Fox, Biologist, at Stephen.M.Fox@usace.army.mil or (912) 652-6210.

Sincerely,

Kimberly L Garvey

Kimberly L. Garvey
Chief, Planning Branch

From: Kajumba, Ntale
To: Fox, Stephen M CIV USARMY CESAD (USA)
Cc: Holliman, Daniel; Garvey, Kimberly L CIV USARMY CESAS (US)
Subject: [Non-DoD Source] RE: Brunswick Harbor Modification Study- EPA-NEPA
Date: Tuesday, June 9, 2020 8:05:48 AM

Hi Stephanie,

Thanks for sharing the Draft Integrated Feasibility Report/Environmental Assessment and draft Finding of No Significant Impact with us for review. We will work to get you comments by July 9th.

Ntale

Ntale Kajumba
NEPA Section, Chief
Strategic Programs Office
Office of the Regional Administrator
U.S. EPA, Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
(404) 562-9620
Kajumba.ntale@epa.gov

From: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Sent: Tuesday, June 9, 2020 7:40 AM
To: Kajumba, Ntale <Kajumba.Ntale@epa.gov>
Cc: Holliman, Daniel <Holliman.Daniel@epa.gov>; Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Subject: Brunswick Harbor Modification Study- EPA-NEPA

Dear Ms. Kajumba :

The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) and draft Finding of No Significant Impact (FONSI) to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.

Attached is our signed official letter from Savannah District to EPA with regards to the Draft Integrated Disposition Study as well as a copy of the signed public notice. A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the

National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.

Please feel free to contact me if you have any questions.

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

From: Holliman, Daniel
To: Richards, Mary E CIV USARMY CESAS (USA)
Cc: Kajumba, Ntale; Martin, Molly; Calli, Rosemary
Subject: [Non-DoD Source] EPA Comments for Brunswick Harbor Modification Draft EA
Date: Thursday, July 9, 2020 4:13:47 PM

Dear Ms. Richards:

The US Environmental Protection Agency Region 4 is in receipt of a public notice dated June 4, 2020, for the draft Environmental Assessment (EA) to evaluate the potential environmental impacts for the Brunswick Harbor Modifications. The Port of Brunswick, located at Brunswick Harbor, consists of three terminals. Of these, the Colonel's Island Terminal handles all the Roll-on/Roll-off (RO/RO) traffic and is the second busiest port in the U.S. for total RO/RO cargo and busiest for RO/RO imports.

The EPA understands that the purpose of the draft EA is to investigate the feasibility of reducing transportation cost inefficiencies associated with the Federal deep draft navigation channel at Brunswick Harbor. The EPA understands that vessels that call on the Port of Brunswick experience navigation and maneuverability issues primarily due to the channel width at specific locations between St. Simons Sound and the Colonel's Island Terminal including a channel bend near the Cedar Hammock Range and a turning basin near Colonel's Island Terminal.

The U.S. Army Corps of Engineers (Corps) selected Alternative eight as the agency recommended plan. The proposed action includes bend widening, turning basin expansion, and meeting area at St. Simons Sound.

Based on our review of the EA, the EPA provides the following comments:

1. Clean Water Act - 404 (b)(1) – Discharge of dredge material is defined in 40 CFR 232.2 to include the runoff or overflow, associated with a dredging operation, from a contained land or water disposal area. The EPA notes that the draft Finding of No Significant Impact Statement (FONSI) includes a statement that no 404(b)(1) analysis will be needed since this project would not involve discharge of dredge or fill material under Section 404 of the Clean Water Act. The EPA also notes that Section 4.7 – Water Quality - indicates that a 404(b)(1) analysis was prepared for the project and is in Appendix F. The EPA reviewed Appendix F which includes agency communications but does not include a 404(b)(1) analysis. After further discussion with the Corps, it is our understanding that the Corps does not intend on developing a new 404(b)(1) for this project. The EPA reviewed the 1998 EIS 404(b)(1) analysis and finds that it does not address the currently proposed project. The EPA recommends a new 404(b)(1) evaluation be included in the environmental assessment to support the currently proposed project. The 404(b)(1) evaluation should include factual determinations of the potential effects of the discharge including potential contaminant-related impacts to aquatic resources. Any conclusions reached from past or future sediment evaluations should also be included in the 404(b)(1) evaluation.
2. Beneficial Use Disposal – Beneficial use of dredge material is considered by the Corps in

Section 5.2.2 of the EA. Resource agencies are working with the Corps to identify potential sites for beneficial use of dredge materials. The EPA supports the use of dredge materials for beneficial uses such as marsh creation and enhancement of wildlife habitat. Based on discussions with the Corps, the EPA understands that the Corps will perform additional environmental analysis and NEPA documents on decisions related to material to use for beneficial use and selection of sites should the options become viable. As fine-grained material is more likely to carry contaminants, placement of contaminated sediments would be counter-productive to the intent of beneficial use goals. Therefore, the EPA recommends updating sediment testing and evaluation for any material proposed for beneficial use that is less than 80% sand following methods outlined in the Inland Testing Manual. Lastly, the EPA is available to provide additional technical guidance and support for selection of appropriate sites and determining suitability of material.

3. Water Quality Certification – The EPA recommends continued consultation with the Georgia Environmental Protection Division regarding water quality impacts from the proposed project. The EPA recommends including any project conditions outlined in the State Water Quality certification and any mitigation commitments made by the Corps in the FONSI.
4. Dissolved Oxygen and Salinity – Historically, the EPA has noted dissolved oxygen (DO) and salinity impacts associated with similar dredging projects along the east coast. However, we note that the Brunswick Harbor project area has unique geomorphic and tidal conditions that may minimize the impact of the current proposed project on water quality conditions. We also note the following statement in the EA on page 90 “In addition, most of the project area is open water that receives semi-diurnal tidal flushing from St. Simons Sound. As a result, the water in the harbor is well-mixed with a relatively uniform salinity, DO, and other important water quality parameters. This tidal flush in turn enables the water quality to return to normal levels relatively quick.” The EPA recommends the Corps include supporting information relative to the anticipated impact on water quality.
5. Turbidity Monitoring - The EPA supports turbidity monitoring in the project area during dredging events to ensure State Water Quality Standards are always met.
6. Impacts to Threatened & Endangered Species –The EPA recommends any Endangered Species Act commitments required by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service be included in the FONSI.

Thanks for the opportunity to comment on this project. If you have questions, please contact me at Holliman.daniel@epa.gov.

Thanks,
Dan

Dan Holliman
NEPA Section | Strategic Programs Office
USEPA Region 4 | Office of the Regional Administrator
61 Forsyth Street SW | Atlanta, GA 30303

From:	Schwindaman, Jeffrey P CIV USARMY CESAS (USA)
To:	Potter, Amy; Wiedl, Stephen; Smith, Bradley
Cc:	Martin, Molly; Holliman, Daniel; Garvey, Kimberly L CIV USARMY CESAS (US); Chirpich, Michael C CIV USARMY CESAS (USA); Richards, Mary E CIV USARMY CESAS (USA); Henshaw, Susan H CIV USARMY CELRE (USA)
Subject:	Brunswick Harbor Modification Study - Environmental Results
Date:	Thursday, February 25, 2021 11:23:15 AM
Attachments:	Tetratech-Brunswick Harbor Mod Study Env Site Investigation Report - Draft 2-16-21 part 1 of 2.pdf Brunswick Harbor Modification, Glynn Co. 401 WQC Signed 10-26-2020.pdf

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All,

Attached are the environmental results for the Brunswick Harbor Modification Study as per the sampling plan that we had discussed last summer, and section 3 of the Water Quality Certification dated 26 Oct 2020.

Based on these results, we do not anticipate that the placement of these materials in the Dredged Material Containment Area (DMCA) at Andrews Island will result in any release which may cause or contribute to a violation of state water quality standards.

Please feel free to review and let us know if you have any questions or concerns.

Please note: Part 2 of 2 of the environmental report consists of the analytical lab reports and can be provided via FTP large file transfer upon request.

Thanks,

Jeff

Jeff Schwindaman, P.G.
Project Manager, Civil Works
US Army Corps of Engineers, Savannah District
(912) 652-5099 (o)
(912) 547-0896 (m)
jeffrey.p.schwindaman@usace.army.mil

HILL, SUZANNE CIV USARMY CENSAS (USA)

From: Hill, Suzanne SAS
Sent: Wednesday, June 23, 2021 4:32 PM
To: Holliman.Daniel@epa.gov; Militscher.Chris@epa.gov
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); CESAS-Planning
Subject: Brunswick Harbor Modification Study- draft IFR/EA extended public comment period
Attachments: BHMS_ Public Notice_2021_extension.pdf

Dear Mr. Holliman and Mr. Militscher,

Writing to let you know we have received a request to extend the public comment period. We will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thank you,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:50 PM
To: Holliman.Daniel@epa.gov; Militscher.Chris@epa.gov
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Dear Mr. Holliman and Mr. Militscher,

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft FONSI are available for public review and comment. The documents can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Thank you,

Suzy

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324

Department of the Army
U.S. Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3604
(CESAS-Planning@usace.army.mil)

Re: EPA Comments on the Draft Integrated Feasibility Study and Environmental Assessment of the Brunswick Harbor Modifications Study, Glynn County, Georgia

The United States Environmental Protection Agency (EPA) has reviewed the referenced document in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The purpose of this draft Integrated Feasibility Study and Environmental Assessment (IFR/EA) is for the United States Army Corps of Engineers (Corps) to evaluate navigational improvements for the reduction of transportation cost inefficiencies associated with the federal deep draft navigation channel at Brunswick Harbor and evaluate associated impacts of the proposed modification. The Brunswick Harbor Modifications Study (BHMS) analysis is based on the current and projected traffic of Brunswick Harbor's Colonel's Island terminal which is the destination of all Roll On/Roll Off (RO/RO) traffic in Brunswick Harbor and the busiest RO/RO import harbor in the United States. The EPA understands that vessels that call on the Port of Brunswick experience navigation and maneuverability issues primarily due to the channel width at specific locations between St. Simons Sound and the Colonel's Island terminal including a channel bend near the Cedar Hammock Range and a turning basin near Colonel's Island terminal.

The Corps' recommended action, Alternative Eight, will add a bend widener and turning basin expansion to the inner channel of Brunswick Harbor, in addition to procedural expansion of the outer channel. 351,000-cubic yards of dredged material will be initially removed to the upland Andrew's Island Dredged Material Containment Area (DMCA). Annual maintenance dredging of Brunswick Harbor will increase by one percent as a result of this additional area. Entrance channel maintenance dredged materials will continue to be deposited at the Brunswick Ocean Dredged Material Disposal Site.

The EPA has not identified any significant environmental impacts from the proposed action that would require substantive changes to the draft IFR/EA or require the Corp's consideration of other alternatives for navigational improvements. The EPA has enclosed detailed technical comments for your consideration (See enclosure).

The EPA appreciates the opportunity to review the draft IFR/EA of the Brunswick Harbor Modifications Study. If you have questions regarding our comments, please contact Douglas White, Project Manager in the NEPA Section at white.douglas@epa.gov or at 404-562-8586.

Enclosure

EPA Comments on the Draft Integrated Feasibility Study and Environmental Assessment of the Brunswick Harbor Modifications Study, Glynn County, Georgia

Water Quality: 404(b)(1) analysis in Appendix L evaluates potential impacts from the discharge of dredged materials. Sediment samples taken November of 2020 from the area of the proposed modification indicate the presence of arsenic, cadmium, and mercury levels in exceedance of EPA Region 4 Ecological Screen Values (ESV). The EPA understands that the preferred hydraulic dredging method will limit mixing of dredged sediments with immediately adjacent waters and place sediments on the upland DMCA that drains to the Turtle and East rivers. DMCA outfalls will be monitored regularly and sampled when there is a discharge. Tidal conditions at Brunswick Harbor contribute to well-mixed waters that maintain dissolved oxygen and salinity levels. The 404 analysis indicates that a section 401 State Certification of Water Quality will be obtained from the Georgia Department of Natural Resources (DNR) prior to construction.

Recommendation: The EPA recommends continued consultation with the DNR regarding water quality impacts from the proposed modification. Periodic turbidity monitoring should be implemented to ensure suspended solids fall out of the water column as expected.

Beneficial Use of Sediments: The Corps has acknowledged the requests from federal and state organizations for the beneficial use of sediments and indicated the Corps' own restraints on funding of sediment placement above the cost of navigational improvements. ACE Manual 1110-2-5026 Beneficial Uses of Dredge Material requires that the beneficial use of dredged material be maximized within the coastal system. The EPA also understands that sediment placement at the upland DMCA allows for future use including continued use by local and state agencies.

Recommendation: In general, using dredged material for beach nourishment and other environmentally sensitive applications is strongly encouraged and supported by the EPA. Where sediments are potentially contaminated with toxic metals, the Corps should coordinate with DNR for their proper disposal. The EPA is available to provide additional technical guidance and support for selection of appropriate placement sites and determining suitability of material.

Biological Resources: Section 4.5 of the draft IFR/EA indicates that the Corps will continue coordinating with the National Marine Fisheries Service (NMFS). The proposed modification is regulated by NMFS's 2020 South Atlantic Regional Biological Opinion (SARBO). While the 2020 SARBO allows dredging at any time of year, including the historic winter environmental windows, it also requires that a project meet all relevant project design criteria and that the dredging equipment, timing, and minimization measures be evaluated under the umbrella of risk-based adaptive project management, as outlined in the 2020 SARBO Section 2.9.2. The EPA understands that Corps has consulted the United States Fish and Wildlife Service (FWS) and was issued a Fish and Wildlife Coordination Act Evaluation on May 2020.

Recommendation: The EPA recommends consulting with NMFS, FWS, and DNR through the project's duration including for ongoing maintenance and operations.

Cultural Resources: The Corps entered into a Programmatic Agreement with the Georgia Historic Preservation Division (HPD) on October 2020. Historical records indicate the possible presence of multiple shipwrecks within Brunswick Harbor. Section 2.10 indicates that archeological investigation of shipwrecks will take place prior to construction, under coordination with the HPD. Compensatory mitigation will be funded where impacts cannot be avoided.

Recommendation: The EPA recommends adding final archeological survey findings as an appendix to the final NEPA document.

Air Quality and Climate Change: The proposed activity is located in Glynn county, Georgia. In accordance with National Ambient Air Quality Standards (NAAQS), Glynn county is designated as in attainment. Air emissions are likely to increase slightly during the one-year construction period beginning in the latter half of 2025, while efficiencies gained through the proposed modification may result in less idling time of vessels waiting to navigate the channel. The EPA understands that the majority of vehicle traffic at the Colonel's Island Terminal is made up of new vehicles with modern emissions equipment being driven under their own power. RO/RO vehicle and machinery handling capability is determined by the Georgia Ports Authority (GPA) and is planned to increase from 800,000 units to 1.5 million units over the fifty-year analysis period; this additional capacity is planned separately from the proposed modification. Sea level rise has been calculated using software models and determined to not likely affect Port of Brunswick operations over the next fifty years. Additional modeling determined that the proposed modification will not directly alter sea levels within the harbor.

Environmental Justice: The EPA appreciates the Corps' use of EJSCREEN in the analysis of the proposed modification. Existing land, sea, and air use associated with the Port of Brunswick will not significantly change because of the proposed modification.

USFWS Agency Correspondence

From:	Richards, Mary E CIV USARMY CESAS (USA)
To:	Imm, Donald
Cc:	Henshaw, Susan H CIV USARMY CELRE (US); Acree, James S (Sterling) CIV (US); Dayan, Nathan S CIV USARMY CESAS (US); Wikoff, Bill
Subject:	RE: [Non-DoD Source] Re: [EXTERNAL] Cooperating Agency Request for the Brunswick Harbor Modification Study
Date:	Friday, June 7, 2019 4:26:00 PM

Don,

Thank you for your response. I do not believe we need a certain date on your acceptance letter to become a cooperating agency for the Brunswick Harbor Modification Study. However, I cannot speak to the Savannah River Below Augusta restoration project. I believe the POC for that is Robin Armetta and I'm sure you have her contact information as she's been the individual corresponding with your office on that study.

GADNR and EPA have already sent acceptances for the Brunswick project; however, they sent theirs via email. I do not believe it matters to our office whether the response be email or formal letter. That decision is yours. Either way, we look forward to working with your staff on this study.

Thank you and have a great weekend!

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

-----Original Message-----
From: Imm, Donald [mailto:donald_imm@fws.gov]
Sent: Friday, June 7, 2019 3:52 PM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Cc: Wikoff, Bill <bill_wikoff@fws.gov>; Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: [Non-DoD Source] Re: [EXTERNAL] Cooperating Agency Request for the Brunswick Harbor Modification Study

Hi Mary, first, thank you for the opportunity to become a cooperating agency on this project. As you may know, only our Regional Director (SES) can make the decision to become a cooperating agency; that being said, I have shared the information with our regional office, and received word that our Regional Director would like our office to become a cooperating agency on this project, as well as the Savannah River restoration effort. With that said, I am drafting the letters, and should get them up to the regional office by Monday, and after a short period of review, I expect to have them signed. Is there a date in which you must have confirmation (ie. the signed letter)? Let me know, and i can pass that along as well. Again, thanks for the opportunity, we really look forward to working with you and the other partners on this project. Don

On Fri, May 24, 2019 at 2:58 PM Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil <mailto:Mary.E.Richards@usace.army.mil> > wrote:

Dear Mr. Imm,

The U.S. Army Corps of Engineers, Savannah District (Corps) intends to prepare an environmental assessment for the Brunswick Harbor Modification Study (BHMS). This study will investigate two areas in the Brunswick

From:	Richards, Mary E CIV USARMY CESAS (USA)
To:	Imm, Donald
Cc:	Wikoff, Bill; Davis, Spencer W CIV USARMY CESAS (USA); Henshaw, Susan H CIV USARMY CELRE (US); Dayan, Nathan S CIV USARMY CESAS (USA)
Subject:	FW: [Non-DoD Source] Re: [EXTERNAL] Cooperating Agency Request for the Brunswick Harbor Modification Study
Date:	Friday, October 25, 2019 2:06:00 PM

Mr. Imm,

I believe we've all let this matter fall onto the back burner, but Savannah District wants to confirm your desire to participate as a cooperating agency in the Brunswick Harbor Modification Study (see email below). If we do not hear from your office within the next 10 business days, we will assume the USFWS does not wish to participate as a cooperating agency. If that is the case, please be assured that Savannah District will still be closely coordinating with the USFWS as this study progresses.

In a separate action, we are currently developing a Scope of Work requesting USFWS support to aid us in identifying problems and opportunities related to potentially impacted fish and wildlife resources. This is in fulfillment of the statutory requirements under the Fish and Wildlife Coordination Act. Your office should be receiving that document early next week.

Thank you for your time and we look forward to working with you and your staff on this study!

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

-----Original Message-----
From: Imm, Donald [mailto:donald_imm@fws.gov]
Sent: Friday, June 7, 2019 3:52 PM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Cc: Wikoff, Bill <bill_wikoff@fws.gov>; Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: [Non-DoD Source] Re: [EXTERNAL] Cooperating Agency Request for the Brunswick Harbor Modification Study

Hi Mary, first, thank you for the opportunity to become a cooperating agency on this project. As you may know, only our Regional Director (SES) can make the decision to become a cooperating agency; that being said, I have shared the information with our regional office, and received word that our Regional Director would like our office to become a cooperating agency on this project, as well as the Savannah River restoration effort. With that said, I am drafting the letters, and should get them up to the regional office by Monday, and after a short period of review, I expect to have them signed. Is there a date in which you must have confirmation (ie. the signed letter)? Let me know, and i can pass that along as well. Again, thanks for the opportunity, we really look forward to working with you and the other partners on this project. Don

On Fri, May 24, 2019 at 2:58 PM Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil <mailto:Mary.E.Richards@usace.army.mil> > wrote:

From: Imm, Donald
To: Dayan, Nathan S CIV USARMY CESAS (USA)
Cc: Wikoff, Bill; Richards, Mary E CIV USARMY CESAS (USA)
Subject: [Non-DoD Source] Re: [EXTERNAL] RE: FWCA Coordination for the Brunswick Harbor Modification Study
Date: Wednesday, November 20, 2019 2:17:02 PM

Sorry Nathan and Mary, yes, we accept the SOW for the FWCA, Bill is out until the end of the week, my apologies for not being quicker to respond. Don

On Tue, Nov 19, 2019 at 9:03 AM Dayan, Nathan S CIV USARMY CESAS (USA) <Nathan.S.Dayan@usace.army.mil> wrote:

> Don/Bill
> We did not hear back from you on this SOW for FWCA for the Brunswick Harbor Modification Study. Do you except this SOW? We would like to MIPIR you money so please let us know.
>
> Thank You
> Nathan Dayan
> Environmental Team Leader
> Planning Branch - Planning, Programs, and Project Management Division USACE - Savannah District
> 912-652-5172
>
> -----Original Message-----
> From: Richards, Mary E CIV USARMY CESAS (USA)
> Sent: Monday, November 4, 2019 12:57 PM
> To: Imm, Donald <donald_imm@fws.gov>
> Cc: Wikoff, Bill <bill_wikoff@fws.gov>; Dayan, Nathan S CIV USARMY CESAS (USA) <Nathan.S.Dayan@usace.army.mil>
> Subject: FWCA Coordination for the Brunswick Harbor Modification Study
> Importance: High
>
> Don,
>
> As you know, under Section 1201 of the Water Resources Development (WRDA) Act of 2016, Savannah District has been authorized to study potential modifications to Brunswick Harbor with the intent to improve navigation conditions for the larger Roll-on/Roll-off (Ro/Ro) cargo vessels in the existing commercial fleet. For years harbor pilots have expressed safety and efficiency concerns with navigation through a bend widener between Brunswick Point and Cedar Hammock Ranges, and the turning basin at the confluence of the South Brunswick and Turtle Rivers. The purpose of this Brunswick Harbor Modification Study (BHMS) is to investigate existing and future conditions in the harbor and to formulate alternatives which contribute to the national economy while protecting the environment and maintaining safety for navigating vessels.
>
> The alternatives tentatively selected are:
> * The No Action Alternative - no change to the federal channel.
> * Widen the existing bend widener between Brunswick Point and Cedar Hammock Ranges.
> * Widen the existing turning basin.
> * Widen both the bend widener and turning basin.

* Widen some section of the channel to allow a meeting area for vessels to safely pass.
* Widen all three - the bend widener, turning basin, and a portion of the channel for a meeting area.

In order to fulfil the statutory requirements under the Fish and Wildlife Coordination Act, Savannah District requests USFWS aid in identifying problems and opportunities related to potentially impacted fish and wildlife resources. Attached is the Scope of Work for the BHMS, to include budget and schedule. Please let us know if you agree to these terms no later than Monday, November 11.

If you have any questions or need further clarification, please do not hesitate to contact me. Bill and I have already had brief conversations regarding the study so he is situationally aware.

As always, we look forward to coordinating this study with you and your staff!

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

--

Donald W. Imm, PhD.
Field Supervisor
U.S.Fish & Wildlife Service, Georgia Ecological Service
355 East Hancock Avenue, Room 320 Box 7
Athens, GA 30601

cell: 850/532-2046
office: 706/208-7501
fax: 706/613-6059

From: Richards, Mary E CIV USARMY CESAS (USA)
To: Wikoff, Bill
Subject: BHMS Alternatives
Date: Friday, January 31, 2020 1:37:00 PM
Attachments: BHMS_Final Array of Alternatives_Distributed to USFWS & EPA_20200131.pdf

---

Hi Bill.

Finally! Attached are the BHMS revised alternatives based on the SHIPSIM models. Now, you'll notice that the title states 'Final', well, that's always a relative term for the Corps. We have an In Progress Review meeting with SAD in a couple of weeks to make sure that they're all on board with our reasoning and alternatives formulation. We've already had the AMM where they approved of our old alternatives, but I guess now that get another shot at approving them since they've changed so much. Having said all that, I doubt they'll change much, if at all, after the meeting.

Anyway, you can at least include these in your report. If the alts change again, it can be corrected in the your final report.

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
Office: (912) 652-5020
Cell: (912) 346-0066

From:	Imm, Donald
To:	Richards, Mary E CIV USARMY CESAS (USA)
Cc:	Wikoff, Bill; Dayan, Nathan S CIV USARMY CESAS (USA); Fox, Stephen M CIV USARMY CESAD (USA)
Subject:	[Non-DoD Source] Re: draft FWCA comments on Brunswick Harbor Modification Project
Date:	Friday, March 6, 2020 8:20:25 AM

Thanks Mary, we'll take a look at your modifications and let you know whether we have any additional concerns. Don

---

From: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Sent: Thursday, March 5, 2020 4:26 PM
To: Imm, Donald <donald_imm@fws.gov>
Cc: Wikoff, Bill <bill_wikoff@fws.gov>; Dayan, Nathan S CIV USARMY CESAS (USA) <Nathan.S.Dayan@usace.army.mil>; Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Subject: [EXTERNAL] RE: draft FWCA comments on Brunswick Harbor Modification Project

Don,

Thank you for your comments on the BHMS. We agree with the Service's assessment of fish and wildlife resources present in the project area and appreciate your recommendations aimed to reduce potential impacts to those resources during project construction. Since the submittal of your draft report we have modified the alternatives to include varying combinations of the original list. We do not believe those changes will alter the Service's position on the project's implementation as the scope of dredging in regards to location and sediments removed remain unchanged. The final array of alternatives is attached for inclusion in your reviews with the other resource agencies and in your final report. We also recognize and understand the Service's desire to see dredged sediments used beneficially when possible and are evaluating those potential options.

We look forward to continuing to work with you and your office during this study effort. If you have any questions, please feel free to contact to me.

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
Office: (912) 652-5020
Cell: (912) 346-0066

-----Original Message-----
From: Wikoff, Bill [mailto:bill_wikoff@fws.gov]
Sent: Tuesday, February 18, 2020 9:00 AM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Cc: Cynthia Cooksey - NOAA Federal <cynthia.cooksey@noaa.gov>; Kelie Moore <kelie.moore@dnr.ga.gov>; Lee, Jason <Jason.Lee@dnr.ga.gov>; Ben Carswell <bcarswell@jekyllisland.com>
Subject: [Non-DoD Source] draft FWCA comments on Brunswick Harbor Modification Project

Hi Mary,

Please find attached our draft FWCA comments on the Brunswick Harbor Modification Project. We await your input on it before requesting comments from other agencies.

Bill Wikoff fish & wildlife biologist

bill_wikoff@fws.gov

U.S. Fish and Wildlife Service

Ecological Services - Coastal Georgia Sub Office

4980 Wildlife Drive, NE

Townsend, Georgia 31331

912-832-8739 ext.5

From: Richards, Mary E CIV USARMY CESAS (USA)
To: Wikoff, Bill
Subject: RE: draft FWCA comments on Brunswick Harbor Modification Project
Date: Tuesday, March 10, 2020 5:01:00 PM

Hey Bill.

We used sediment borings from the last Brunswick deepening that were adjacent to the BHMS project areas as a proxy for the type of sediments we can expect when we dredge those areas - for study purposes. I have boring logs I can give you but in general the sediment characteristics are -
bend widener - poorly graded sands, silty sands and highly weathered limestone
turning basin - poorly graded sands, clayey sands, sandy clays, highly weathered limestone and highly plastic clays
meeting area at the bridge - highly plastic clays and silts to moderately-highly weathered limestone with intermittent sandy clay and clayey sand deposits

These descriptions came from a review of the boring logs by one of our geologists. The only area he thought could possibly be used as beneficial use for a bird island was the bend widener and only then because 'its proxy' was somewhat similar to the boring logs of the channel sediments that were used to build the existing bird island. I told Tim Keyes a while back that if it ends up we do pump material from the widener onto the bird island, we cannot guarantee what will come out of the pipe. There will be some new borings done in the areas to be dredged prior to construction because we have to include material descriptions in the contract specs. Things like that affect a contractor's bid on a dredging project, aka he'll want more $$ to dig clay than he will to dig fluff. But that won't be done till PED, after the study has been approved and IF we get the appropriations to construct it.

As for if the sediments would be suitable for the other options you mention, you would have to help me by telling what type of sediments you would require for those purposes. I honestly don't know what type of sediment would be suitable for a shell rake. I talked a little about this with the PM and he said it would be useful, not just now but for future beneficial use considerations, if the agencies could put a table together on what type of sediment could be best used where. Know what I mean? It may already exist. Heck, we (maybe ERDC) may have something like that and I'm just not aware of it.

Call if you want to talk more on this. I have a few graphics I could send you.

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
Office: (912) 652-5020
Cell: (912) 346-0066

-----Original Message-----
From: Wikoff, Bill [mailto:bill_wikoff@fws.gov]
Sent: Thursday, March 5, 2020 5:14 PM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Subject: [Non-DoD Source] Re: draft FWCA comments on Brunswick Harbor Modification Project

Thanks Mary. Do you have indicators to tell what type of sediments would be dredged from each of the areas; St. Simon's sound meeting area (the document indicates no dredging here), bend widener, Sidney Lanier Bridge meeting area, and the turning basin? General descriptions would suffice. Would the sediments from each of the areas be good enough for the uses I describe; bird island creation or maintenance, artificial shell rake, offshore bar, feeder berm for Jekyll Island?

Thanks,

From:	Wikoff, Bill
To:	Richards, Mary E CIV USARMY CESAS (USA)
Cc:	Cynthia Cooksey - NOAA Federal; Kelie Moore; Lee, Jason; Ben Carswell
Subject:	[Non-DoD Source] Brunswick Harbor Modification Study - final FWCA comments
Date:	Wednesday, May 20, 2020 9:34:42 AM
Attachments:	20200520_fFWCA EvaluationCmts_BwkHarborModStudy-BHMS.pdf

Please find attached the U.S. Fish and Wildlife Service's final comments made under the Fish & Wildlife Coordination Act for the Brunswick Harbor Modification Study.

Thank you for considering them. We support and are open to discussions on implementing beneficial use alternatives.

Bill Wikoff fish & wildlife biologist

bill_wikoff@fws.gov
U.S. Fish and Wildlife Service
Ecological Services - Coastal Georgia Sub Office
4980 Wildlife Drive, NE
Townsend, Georgia 31331
912-832-8739 ext.5

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

Planning Branch

Mr. Don Imm
Field Supervisor
U.S. Fish and Wildlif
RG Stephens Jr. Fed
355 East Hancock A
Athens, Georgia 306

U. S. Fish and Wildlife Service
RG Stephens, Jr. Federal Building
355 E. Hancock Ave., Rm 320, Box 7
Athens, GA 30601 ; 706-613-9493

FWS Log No.
2020-2494

Based on information provided, we concur with your determination that the project is not likely to adversely affect federally-listed species. No further ESA Section 7 action is required, unless the project changes, a new species is listed, or new data indicate impacts to listed species may occur.

Donald W. Imm, Ph.D., Field Supervisor

June 18, 2020
Date

Dear Mr. Imm:

The U.S. Army Corps of Engineers, Savannah District (Corps), in collaboration with the Georgia Ports Authority, has evaluated the feasibility of increasing transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia. A draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) under the authority of Section 1201 of the Water Resources Development Act (WRDA) of 2016 have been prepared to present the results of the study, and to analyze impacts of the proposed measures on the environment.

The Draft IFR/EA evaluates the potential impacts of eight action alternatives against the no action alternative. Alterative 8 consists of expansion of a bend widener, the turning basin, and a meeting area at St. Simons Sound and includes removal of 205,000 cubic yards of material at the bend widener and 346,000 cubic yards at the turning basin expansion. No dredging is needed at St. Simon's Sound as it is naturally deep and only requires realignment of the authorized channel dimensions. This alternative was identified as the plan that reasonably maximized net National Economic Development (NED) benefits, consistent with protecting the Nation's environment, and as such, is the Tentatively Selected Plan (TSP).

In accordance with Section 7 of the Endangered Species Act, the Corps has made a no effect determination for the piping plover (Charadrius melodus) and red knot (Calidris canutus). Piping plovers and red knot do not nest in the proposed project area, and the area does not possess their preferred feeding or resting habitats. With implementation of the Project Design Criteria in the 2020 Nation Marine Fisheries Service South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States, the Corps has made a may affect, not likely to adversely affect determination for the West Indian manatee (Trichechus manatus). There is no designated critical habitat within the project location.

In accordance with the provisions of the National Environmental Policy Act (NEPA), your comments on the Draft IFR/EA and Draft FONSI are hereby solicited. We also

request your concurrence on our effects determination for the West Indian Mantee. The Draft IFR/EA are available for review at http://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/. A Public Notice has also been sent to all the parties on the Corps' Regulatory mailing list in Georgia for the project area and is available at: https://www.sas.usace.army.mil/Missions/Regulatory/Public-Notices/.

Please submit comments within 30 calendar days to CESAS-PD@usace.army.mil. Questions concerning this request can be directed to Mr. Stephen Fox, Biologist, at Stephen.M.Fox@usace.army.mil or (912) 652-6210.

Sincerely,

Kimberly L Garvey

Kimberly L. Garvey
Chief, Planning Branch

From: Wikoff, Bill
To: Fox, Stephen M CIV USARMY CESAD (USA)
Subject: [Non-DoD Source] Re: [EXTERNAL] RE: Black Rail- NE for BHMS
Date: Monday, January 25, 2021 10:37:22 AM

Thank you for the informational email Steve.

As you know the FWS does not concur with ESA No Effect (NE) determinations.

As a note for your project file, I have no objection to your NE determination.

Bill Wikoff fish & wildlife biologist

bill_wikoff@fws.gov
U.S. Fish and Wildlife Service
Ecological Services - Coastal Georgia Sub Office
4980 Wildlife Drive, NE
Townsend, Georgia 31331
912-832-8739 ext.5

From: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Sent: Friday, January 22, 2021 8:25 AM
To: Wikoff, Bill <bill_wikoff@fws.gov>
Subject: [EXTERNAL] RE: Black Rail- NE for BHMS

Good Morning Bill,

In accordance with Section 7 and section 4(d) of the Endangered Species Act, the Corps has made a No Effect (NE) determination for the Eastern Black Rail *(Laterallus jamaicensis jamaicensis*) for the Brunswick Harbor Modification Study. The Eastern Black Rail typically occupies emergent wetlands with “overhead cover”, with little to no view of bare ground. No sections of the project area include their preferred feeding or resting habitats. Although the existing marsh area adjacent to the project area is considered part of their historical range, no Eastern Black Rails have been identified on the Georgia coast during the 2017 and 2018 Eastern Black Rail surveys conducted in cooperation with USFWS.

The Draft IFR/EA evaluates the potential impacts of eight action alternatives against the no action alternative. Alterative 8 consists of expansion of a bend widener, the turning basin, and a meeting area at St. Simons Sound and includes removal of 205,000 cubic yards of material at the bend widener and 346,000 cubic yards at the turning basin expansion. No dredging is needed at St. Simon's Sound as it is naturally deep and only requires realignment of the authorized channel dimensions. This alternative was identified as the plan that reasonably maximized net National Economic Development (NED) benefits, consistent with protecting the Nation's environment, and as such, is the Selected Plan (SP).

Dredge activity will occur within and adjacent to existing federal navigation channels and will avoid impacts to marsh that are the Black Rail preferred feeding or resting habitat. Any adverse impacts or disturbance during dredging would be temporary and insignificant in nature and not result in a "take" as defined in the ESA due to both the fact that there is plentiful similar suitable habitat for the bird adjacent to and near the project area and the current project area does not include their suitable habitat. As such, the Corps has made a NE determination for the Eastern Black Rail. If you have any questions regarding our NE determination, please feel free to contact me. Thank you Bill and I look forward to working with you further as the Corps approaches 95% design of the Brunswick Harbor Modification Study. Take care and have a great day.

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

From: Hill, Suzanne SAS
To: CESAS-Planning; Wikoff, Bill
Cc: Garvey, Kimberly L CIV USARMY CESAS (US)
Subject: RE: Brunswick Harbor Modification Study- draft IFR/EA extended comment period
Date: Wednesday, June 23, 2021 4:39:51 PM
Attachments: BHMS_Public Notice_2021_extension.pdf

Bill-

Apologies forgot to attached the revised public notice. Please find attached.

Please reach out if you have any questions: 912.423.2324

Thank you,

Suzy

From: CESAS-Planning <CESAS-Planning@usace.army.mil>
Sent: Wednesday, June 23, 2021 4:23 PM
To: Wikoff, Bill <bill_wikoff@fws.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA extended comment period

Bill-

Letting you know that we have received a request to extend the comment period and will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thanks,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:40 PM
To: Wikoff, Bill <bill_wikoff@fws.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Bill-

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft

Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft
FONSI are available for public review and comment. The documents
can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324

GADNR-CRD Correspondence

From:	Garrison, Rusty
To:	Moore, Kelie; Richards, Mary E CIV USARMY CESAS (USA)
Cc:	Dayan, Nathan S CIV USARMY CESAS (US); Henshaw, Susan H CIV USARMY CELRE (US); Lee, Jason; Ambrose, Jon
Subject:	[Non-DoD Source] RE: Cooperating Agency Request for the Brunswick Harbor Modification Study
Date:	Tuesday, May 28, 2019 9:30:04 AM

Good morning Kelie,

The WRD point of contact will be Jason Lee. He is copied on this email. Let me know if you need anything else.

Thanks,

Rusty

-----Original Message-----
From: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Sent: Tuesday, May 28, 2019 8:42 AM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Cc: Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Garrison, Rusty <Rusty.Garrison@dnr.ga.gov>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: RE: Cooperating Agency Request for the Brunswick Harbor Modification Study
Importance: High

DNR will be a cooperating agency and I will serve as CRD's point of contact. Please let me know who the WRD point of contact is once it is determined. Thank you.

Kelie Moore
Federal Consistency Coordinator
Coastal Resources Division
(912) 264-7218 | (912) 262-2334
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GEORGIA DEPARTMENT OF NATURAL RESOURCES

-----Original Message-----
From: Richards, Mary E CIV USARMY CESAS (USA) [mailto:Mary.E.Richards@usace.army.mil]
Sent: Thursday, May 23, 2019 11:39 AM
To: Moore, Kelie <Kelie.Moore@dnr.ga.gov>; Garrison, Rusty <Rusty.Garrison@dnr.ga.gov>
Cc: Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: Cooperating Agency Request for the Brunswick Harbor Modification Study

Dear Ms. Moore and Mr. Garrison,

The U.S. Army Corps of Engineers, Savannah District (Corps) intends to prepare an environmental assessment for the Brunswick Harbor Modification Study (BHMS). This study will investigate two areas in the Brunswick inner harbor navigation channel which have been identified by the Brunswick Harbor pilots as problems for commercial

vessel maneuverability. The first area of concern is in the vicinity of Coast Guard buoy 24 at the intersection of the Cedar Hammock Range and the Brunswick Harbor Range. The second area of concern is the South Brunswick River Turning Basin at the convergence of the South Brunswick River and the Turtle River.

Pursuant to Sections 1501.6 and 1508.5, of the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) of 1969, the Corps requests the participation of the Georgia Department of Natural Resources as a cooperating agency in providing assistance in preparing the environmental assessment for the BHMS.

This request is being made to the following Federal agencies: U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, and Georgia Department of Natural Resources. The purpose of this request is to formalize, via designation as a Cooperating Agency, the continuing coordination and active participation by your agency, and these other agencies, in the BHMS.

If you require further information, please contact me at (912) 652-5020, or via E-Mail at mary.e.richards@usace.army.mil.

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

June 9, 2020

Planning Branch

Mr. Doug Haymans
Georgia Department of Natural Resources
Coastal Resources Division
One Conservation Way, Suite 300
Brunswick, Georgia 31520-8687

Dear Mr. Haymans:

The U.S. Army Corps of Engineers, Savannah District (Corps), in collaboration with the Georgia Ports Authority, has evaluated the feasibility of increasing transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia. A draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) under the authority of Section 1201 of the Water Resources Development Act (WRDA) of 2016 have been prepared to present the results of the study, and to analyze impacts of the proposed measures on the environment.

The Draft IFR/EA evaluates the potential impacts of eight action alternatives against the no action alternative. Alterative 8 consists of expansion of a bend widener, the turning basin, and a meeting area at St. Simons Sound and includes removal of 205,000 cubic yards of material at the bend widener and 346,000 cubic yards at the turning basin expansion. No dredging is needed at St. Simon's Sound as it is naturally deep and only requires realignment of the authorized channel dimensions. This alternative was identified as the plan that reasonably maximized net National Economic Development (NED) benefits, consistent with protecting the Nation's environment, and as such, is the Tentatively Selected Plan (TSP).

The proposed project will have localized, minor adverse impacts on coastal resources within the existing previously disturbed project area. However, the proposed project will have beneficial impacts to coastal uses by reducing transportation cost inefficiencies resulting from navigation maneuverability limitations due primarily to the existing width of a channel bend near the Cedar Hammock Range and turning basin near Colonel's Island Terminal. Therefore, in accordance with the Coastal Zone Management Act (CZMA), and as detailed in Appendix J of the report, it has been determined that the proposed project would be carried out in a manner which is fully consistent with the enforceable policies of Georgia's coastal management program.

In accordance with the provisions of the National Environmental Policy Act (NEPA), your comments on the Draft IFR/EA and Draft FONSI are hereby solicited. We also

request your concurrence on our CZMA determination. The Draft IFR/EA are available for review at http://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/. A Public Notice has also been sent to all the parties on the Corps' Regulatory mailing list in Georgia for the project area and is available at: https://www.sas.usace.army.mil/Missions/Regulatory/Public-Notices/.

Please submit comments within 30 calendar days to CESAS-PD@usace.army.mil. Questions concerning this request can be directed to Mr. Stephen Fox, Biologist, at Stephen.M.Fox@usace.army.mil or (912) 652-6210.

Sincerely,

Kimberly L Garvey

Kimberly L. Garvey
Chief, Planning Branch

From: Haymans, Doug
To: Fox, Stephen M CIV USARMY CESAD (USA)
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); Moore, Kelie
Subject: [Non-DoD Source] RE: Brunswick Harbor Modification Study- GADNR CRD CZM
Date: Tuesday, June 9, 2020 9:05:13 AM

Thank you Mr. Fox –

This acknowledges receipt of your letter. Ms. Kelie Moore will be your principal contact and I see that you have cc'd her. Comments will be forthcoming.

Doug

Doug Haymans
Director
Coastal Resources Division
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From: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Sent: Tuesday, June 9, 2020 8:21 AM
To: Haymans, Doug <Doug.Haymans@dnr.ga.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Subject: Brunswick Harbor Modification Study- GADNR CRD CZM

Good Morning Mr. Hayman,

The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) a draft Finding of No Significant Impact (FONSI) and the associated Appendix J to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.

Attached is our signed official letter from Savannah District to GADNR-CRD with regards to the IFR/EA and FONSI, as well as a copy of the signed public notice. A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.

Please don’t hesitate to reach out if you have any questions or concerns!

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

From: Moore, Kelie
To: Fox, Stephen M CIV USARMY CESAD (USA)
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); Haymans, Doug
Subject: RE: Brunswick Harbor Modification Study- GADNR CRD CZM

Good Morning Mr. Fox:

CFR 15 930.41(a) allows the State 60 days for federal consistency review, rather than the 30 day response requested in your June 9, 2020 notification. Our response will be forthcoming or prior to August 8th. Thank you.

Kelie Moore
Federal Consistency Coordinator
Coastal Resources Division
(912) 264-7218 | (912) 262-2334
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From: Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Sent: Tuesday, June 9, 2020 8:21 AM
To: Haymans, Doug <Doug.Haymans@dnr.ga.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Subject: Brunswick Harbor Modification Study- GADNR CRD CZM

Good Morning Mr. Hayman,

The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) a draft Finding of No Significant Impact (FONSI) and the associated Appendix J to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.

Attached is our signed official letter from Savannah District to GADNR-CRD with regards to the IFR/EA and FONSI, as well as a copy of the signed public notice. A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.

Please don't hesitate to reach out if you have any questions or concerns!

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

Brunswick Harbor Modification – Draft Comments 7/21/20
Compiled by Kelie Moore

General Comments:

1. The St. Simons Sound Meeting Area expansion looks like it will encompass the naturally deep hole that we (USACE) used to place the AIWW Jekyll Creek dredge material in the BU project last year (approximately 800' x 1,700' with center at 31.131486 x -81.401328). If this placement site becomes part of the Federal Project, can it be used for future disposal of Jekyll Creek material and would additional permitting be required (e.g. Section 408) that could delay the project? Should this be addressed in the EA as a potential secondary impact (i.e. time delays for permitting and/or loss of an AIWW disposal site)?
2. The Jekyll Creek TLP demonstration project has completed 1 year of monitoring and has a 2nd year of monitoring to go (circa August 2021) before we can make any assumptions as to its success, value, etc. The demonstration project was more a test of the technology to see if it might be appropriate for use in other areas of the state, and that has not yet been determined. Would prefer if references to TLP were not included in the EA (page 91) as potential Future Condition as that technology is too speculative to be called beneficial in Georgia at this time.
3. We'd like to see vegetative saltmarsh loss at Andrews Island Weir #3 outfall addressed in the EA, both the incremental increase of erosion & vegetative loss reasonably anticipated from extended use during the project and losses/restoration attributable to the 2008 deepening and ongoing O&M that have not been satisfactorily addressed. Some potential ways to ameliorate the problem:
    a. Extend the weir pipe past the vegetated area so source of scour if further from vegetation
    b. Install a diffuser on the end of the pipe to reduce energy to the surrounding marsh
    c. Reduce the outflow volume/rate to reduce scour energy when operating the weir
    d. Place coarse material from the Turning Basin (346,000 cy material available) in the scour hole and on adjacent mudflat to elevation that would support vegetation. This option may have to be combined with one of the options above so that material is not scoured away
    e. Include language in the dredging contract that pre- and post-surveys of the vegetation surrounding Weir #3 outfall is documented (e.g. via UAV photos) and any loss in vegetation will be rectified by replanting (though there is going to need to be some additional source of sediments – if there is vegetation loss there is also loss in elevation that will need to be corrected)
4. Include discussion on potential loss of wetlands from Weir operation in Section 4.4 Environmental Consequences of Alternatives – Wetlands.

Appendix J: Federal Consistency Determination Comments:

5. Please include the River and Harbor Development Act (O.C.G.A. 50-9-1 et seq) as a relevant enforceable policy in Appendix J
    a. Requires grain size analysis (% sand, clay, silt) to determine if material can be used beneficially
    b. Material that does not contain a majority of sand (50% or more) is not considered beneficial material
    c. Predominantly sandy material (80% or more) does not typically require contaminant testing prior to BU placement if Tier 1 analysis indicate it is unlikely to contain contaminants
    d. Requires cost estimate for beneficially using suitable material to determine feasibility (i.e. non-federal sponsor can compare costs of BU options)
6. Coastal Marshlands Protection Act 12-5-295(3) Applicability of Part specifically exempts agencies of the US charged by law with the responsibility of keeping the rivers and harbors of this state open for navigation and are not required to obtain a CMPA permit

a. This does not exempt the US agency from the Act itself, which regulates removing, filling, dredging, draining or otherwise altering any marshlands [O.C.G.A. 12-5-286(a)]
b. O.C.G.A. 12-5-282(3) "marshlands" include intertidal area, mud flat, tidal waterbottom or salt marsh within the estuarine areas, whether the tidewaters reach the littoral areas through natural or artificial watercourses
c. Modify Required State, Federal, and Local Permits section of Appendix J to reflect above CMPA permit exemption

Coastal Zone Management Act Federal Consistency processes and options:

7. 15 CFR 930.41(a) "the federal agency may presume state agency concurrence if the state agencies response is not received within 60 days from receipt of the federal agency's consistency determination and supporting information required by (a)"
    a. We received your consistency determination June 9th and intend to formally respond on or before August 8th.
8. 15 CFR 930.36(2) "federal and state agencies may mutually agree upon procedures for extending the notification requirement beyond 90 days for activities requiring a substantial review period"
    a. We intend to request an extension of CZM Federal Consistency review until Section 401 Water Quality Certification is issued, modified, a determination is made that an existing 401 is valid, or a determination is made that a 401 is not required for this project.
    b. We intend to include this request in our August 8th letter
9. 15 CFR 930.41(b) "state agency concurrence shall not be presumed in cases where the state agency, within the 60-day period, requests an extension of time to review the matter"
10. 15 CFR 930.37(d): "Phased Consistency Determinations – In cases where federal decisions related to a proposed development project or other activity will be made in phases based upon developing information that was not available at the time of the original consistency determination, with each subsequent phase subject to Federal agency discretion to implement alternative decisions based upon such information (e.g. planning, siting, and design decisions), a consistency determination will be required for each major decision. In cases of phased decision making, federal agencies shall ensure that the development project or other activity continues to be consistent to the maximum extent practicable with the management program."
    a. The June 9, 2020 federal consistency determination (Appendix J) and accompany project description (EA) contains several areas where reasonably foreseeable impacts to coastal resources or activities have not been well described and/or are subject to change based on further investigation, including:
        i. Planned geotechnical investigations (20 core samples) have not been well described and have yet to be collected or analyzed for contaminants, which could reveal additional coastal effects
        ii. It has not been determined whether any BU (beneficial use) projects will be undertaken in conjunction with the proposed project, which could reveal additional coastal effects
        iii. a section 401 water quality certification has not been issued/modified, which could contain conditions that could mitigate or reduce coastal impacts
11. Given these uncertainties, we propose a phased approach to federal consistency: that written concurrence/objection/conditional concurrence will be provided for each of the 3 items above (i-iii) separately
    a. We cannot concur with any phase of the project until the 401 situation is straightened out, which seems to include production of a Section 404(b)(1) analysis

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MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

August 6, 2020

Ms. Kim Garvey
USACE Savannah District
CESAS-PD.SAS@usace.army.mil
Kimberly.L.Garvey@usace.army.mil

RE: CZMA Federal Consistency Determination: Request for Extension of Time and Phased or Supplemental Determination – Brunswick Harbor Modifications Study, Brunswick Harbor, Glynn County, Georgia

Dear Ms. Garvey:

Staff of the Georgia Coastal Management Program (GCMP, the Program) have reviewed your June 9, 2020 letter requesting concurrence with the federal consistency determination contained in the June 2020 Brunswick Harbor Modification Study Draft Integrated Feasibility Report and Environmental Assessment and Draft Findings of No Significant Impact (FONSI). The U.S Army Corps of Engineers, Savannah District (the Corps) is investigating the feasibility of navigation channel improvements in the Brunswick Harbor from St. Simons Sound to the Colonel's Island Terminal to reduce transportation cost inefficiencies experienced by the largest ship type utilizing the harbor.

The Tentatively Selected Plan, Alternative 8, includes dredging 205,000 cubic yards (cy) of material from a 321' x 2,700' (maximum) bend widener; 346,000 cy from a 100'-170' x 1,000' turning basin expansion, and 0 cy from a naturally deep 800' x 10,000' meeting area at St. Simons Sound. Dredge material from the bend widener would first be considered for beneficial use (BU) on Bird Island. Otherwise it will be placed in the Andrews Island Dredge Material Containment Area (DMCA). It is expected that all dredge material from the turning basin expansion will be placed in Andrews Island DMCA. Beneficial use has been considered, but no suitable location has been identified. Some physical characteristic data was collected in adjacent areas during the last deepening project (circa 2005-2008) and additional borings and sediment data will be collected from the areas to be modified as part of the feasibility-level engineering design and included in a final report.

Resource agencies have requested a more specific description of the additional borings and sediment data collection (number and location) that is planned, as well as development of a contaminant testing protocol. The results of the contaminant testing may influence whether materials can be used beneficially. It has not yet been determined if a new, existing, or

modified Clean Water Act Section 401 Water Quality Certification will be required. The Georgia Water Quality Control Act, upon which the Water Quality Certification is based, is an applicable enforceable policy of the GCMP and Certification must be issued/modified/determined to be adequate before the Program can issue a concurrence or conditional concurrence with your Coastal Zone Management Act (CZMA) federal consistency determination. For this reason, we respectfully request an extension to review this project for consistency until such time as a decision is made on the Water Quality Certification.

Additionally, we will not be able to determine all reasonably foreseeable affects to coastal uses or resources until a decision is made whether to use material beneficially. We strongly support beneficial use of dredge material and adopted the River and Harbor Development Act (O.C.G.A. 50-9-1 et seq.) into law and the GCMP in 2005. We request that you expand Appendix J (federal consistency determination) to include this law in the Final Environmental Assessment. This Act requires grain size analysis (percent sand, clay and silt) to determine if material can be used beneficially. Materials containing a majority (51%) of sand should be considered for beneficial use. Predominantly sandy material (80% or more) does not typically require contaminant testing prior to BU placement if Tier 1 analysis indicates it is unlikely to contain contaminants. The Act also requires cost estimates (the cost over and above the Federal Standard) for beneficially using suitable material to determine if BU projects are feasible.

If the Corps receives Water Quality Certification prior to determining if material will be used beneficially, or prior to fully describing any proposed beneficial use in detail, we request the Corps submit a supplemental federal consistency determination addressing these deficiencies. If the Corps determines there will not be any beneficial use of dredge material associated with the project prior to or in conjunction with receiving Water Quality Certification, a supplemental federal consistency determination will not be required.

The St. Simons Sound Meeting Area expansion looks like it will encompass the naturally deep hole that was used to place dredge material from the Jekyll Creek section of the Atlantic Intracoastal Waterway (AIWW) in 2019 as a beneficial use project (placement area approximately 800’ x 1,700’ with center at 31.131486 x -81.401328). If this placement site falls into the expanded Federal Project, can it be used for future disposal of Jekyll Creek material and would additional permitting be required (e.g. Section 408) that could delay the project? We request this be addressed in the EA as a potential secondary impact (i.e. time delays for permitting and/or loss of an AIWW disposal site).

The Study mentions the possibility of using marsh thin layer placement (TLP) as a beneficial use for the dredge material removed (ref. Section 4.8 Future Conditions with Alternative 2, p. 91). Georgia partnered with the Corps in 2019 to construct a 5-acre TLP demonstration project on Jekyll Island to beneficially use AIWW dredge material. This is the first time this technique has been used in Georgia in a controlled environment that includes extensive (multi-year) data

collection to evaluate its merits and/or impacts. It has not yet been determined if this is a successful BU approach for Georgia and we do not recommend TLP as a BU at this time.

Andrews Island DCMA has experienced erosion and vegetative saltmarsh loss at the Weir #3 outfall since its installation in 2005 for the last Brunswick Harbor deepening project. Extended use of the outfall during deepening over a period of several months led to the loss of approximately ¼ - ½ acre of Spartina alterniflora. While some corrective action was taken in 2009, including placement of rock along the eroding bank and under the mouth of the outfall, saltmarsh loss continues. This indirect impact was not foreseen during the 2005/2008 deepening, but additional vegetative loss is a reasonably foreseeable coastal impact if dredge material from the Brunswick Harbor modification project is placed in Andrews Island DCMA. We would like to see this potential impact to wetlands acknowledged in the Environmental Assessment Section 4.4 Environmental Consequences of Alternatives – Wetlands. We would also like to see steps taken to mitigate or reduce potential impacts, such as, but not limited to:

- Extend the weir pipe past the vegetated area so source of scour if further from vegetation
- Install a diffuser on the end of the pipe to reduce energy to the surrounding marsh
- Reduce the outflow volume/rate to reduce scour energy when operating the weir
- Place coarse material from the Turning Basin (346,000 cy material available) in the scour hole and on adjacent mudflat to elevation that would support vegetation. This option may have to be combined with one of the options above so that material is not scoured away
- Include language in the dredging contract that pre- and post-surveys of the vegetation surrounding Weir #3 outfall is documented (e.g. via UAV photos) and any loss in vegetation will be rectified by replanting (though there is going to need to be some additional source of sediments – if there is vegetation loss there is also loss in elevation that will need to be corrected)

The Coastal Marshlands Protection Act (O.C.G.A. 12-5-280 et seq.) included as a relevant enforceable policy in the Appendix J Federal Consistency Determination is an important law regulating dredging and other activities in coastal marshlands to ensure that values and functions are not impaired by these activities. The Corps is specifically exempt from obtaining a permit under this law [O.C.G.A. 12-5-295(3)] and Appendix J Section 4.0 Effects of Proposed Project – Required State, Federal, and Local Permits should be updated to reflect that. The Act should remain listed as a relevant enforceable policy even though an actual permit will not be required, since the guiding principles to safeguard the loss of values and functions remains applicable to this project.

Federal agencies are obligated to approve one request for an extension period of 15 days or less [15 CFR 930.41(b)]. We have requested an extension period until such time as the Georgia Water Quality Certification has been obtained, the date of which is not known at this time but could extend until June 8, 2021. Please let us know at your earliest convenience if this is

agreeable. If beneficial use projects are still being entertained at the time the Water Quality Certification is obtained, we will request a phased or supplemental federal consistency determination as developing information becomes available.

We appreciate the opportunity to comment on this proposal and look forward to working with you on the Brunswick Harbor modifications. Please feel free to contact Kelie Moore, Federal Consistency Coordinator, or me if we can be of additional assistance.

Sincerely,

Jill Andrews
Coastal Management Section Manager

JA/km

cc: Stephen Fox, USACE, Stephen.M.Fox@usace.army.mil

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COASTAL RESOURCES DIVISION
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MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

November 3, 2020

Ms. Kim Garvey, Chief
USACE Savannah District Planning Branch
CESAS-PD.SAS@usace.army.mil
Kimberly.L.Garvey@usace.army.mil

RE: CZMA Federal Consistency Determination **Conditional** Concurrence: Brunswick Harbor Modifications Study, Brunswick Harbor, Glynn County, Georgia

Dear Ms. Garvey:

Staff of the Georgia Department of Natural Resources Coastal Resources Division (GADNR/CRD) Georgia Coastal Management Program (GCMP, the Program) have reviewed your June 9, 2020 letter requesting concurrence with the federal consistency determination contained in the June 2020 Brunswick Harbor Modification Study Draft Integrated Feasibility Report and Environmental Assessment and Draft Findings of No Significant Impact (The Study). We appreciate the time extension granted August 4, 2020 based on receipt of the Section 401 Water Quality Certification. The U.S Army Corps of Engineers (USACE), Savannah District (the Corps) is investigating the feasibility of navigation channel improvements in the Brunswick Harbor from St. Simons Sound to the Colonel's Island Terminal to reduce transportation cost inefficiencies experienced by the largest ship type utilizing the harbor.

The Tentatively Selected Plan, Alternative 8, includes dredging 205,000 cubic yards (cy) of material from a 321' x 2,700' (maximum) bend widener; 346,000 cy from a 100'-170' x 1,000' turning basin expansion, and 0 cy from a naturally deep 800' x 10,000' meeting area at St. Simons Sound. Dredge material from the bend widener would first be considered for beneficial use (BU) on Bird Island. Otherwise it will be placed in the Andrews Island Dredge Material Containment Area (DMCA). It is expected that all dredge material from the turning basin expansion will be placed in Andrews Island DMCA. Beneficial use has been considered, but no suitable location has been identified. Additional borings and sediment data will be collected from the area to be modified as part of the feasibility-level engineering design and included in a final report. Sampling and analysis of new work sediments will be conducted to determine the presence

of contaminant levels[1]. New work material will be removed using a hydraulic cutterhead dredge[2]. Future operation and maintenance (O&M) dredging of the modified Brunswick Harbor is incorporated into the proposed activity[3] and may include use of a hopper dredge[4]

The Program **conditionally concurs** that the Brunswick Harbor Modification Study may be revised to be consistent to the maximum extent practicable with the GCMP upon the Corps' inclusion of the conditions described below. Primarily, the March 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (2020 SARBO) disregards long-standing measures aimed at reducing reasonably foreseeable impacts to Georgia's coastal resources and is not consistent with enforceable policies of the Program and the alternative measures described below. The proposed project must be fully consistent with the enforceable policies unless full consistency is prohibited by existing law applicable to the Corps[5]. The Coastal Zone Management Act was intended to cause substantive changes in federal agency decision-making within the context of discretionary powers residing in such agencies[6].

We strongly support BU of uncontaminated dredge material. As such, the State of Georgia adopted the River and Harbor Development Act[7] into law and as an enforceable policy of the GCMP in 2005. We request that you expand the federal consistency determination[8] to include this law in the Final Environmental Assessment (FEA). This Act directs the Department to determine the criteria for BU. Grain size analyses (percent sand, clay and silt) must be conducted to determine if material can be used beneficially, and materials containing a majority (51%) of sand should be considered for BU. The Act also requires cost estimates (the cost over and above the Federal Standard) for beneficially using suitable material to determine if BU projects are feasible. If sediment sampling and analysis determines the material is free of contaminants and the Corps wishes to proceed with a BU placement option, we request the Corps submit a supplemental federal consistency determination that fully describes the BU in detail.

The Study includes marsh thin layer placement (TLP) as a potential BU[9]. Georgia partnered with the Corps in 2019 to construct a 5-acre TLP demonstration project on Jekyll Island to beneficially use dredge material

[1] EPD Water Quality Certification item 3, October 26, 2020
[2] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Section 5.2 Dredging and Dredged Material Management
[3] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Section 4.0 Environmental Consequences of Alternatives
[4] Personal communication, Kim Garvey, October 26, 2020.
[5] 15 CFR 930.32(a)(1)
[6] 15 CFR 930.32(a)(2)
[7] O.C.G.A. 52-9-1
[8] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Appendix J
[9] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Section 4.8 Cultural Resources, Future Condition with Alternative 2

from the Atlantic Intracoastal Waterway (AIWW). This is the first time this technique has been used in Georgia in a controlled environment that includes extensive (multi-year) data collection to evaluate its merits and/or impacts. It has not yet been determined if this is a successful BU approach for Georgia and we do not recommend TLP as a BU option at this time.

The St. Simons Sound Meeting Area expansion appears to encompass the naturally deep hole that was used to place dredge material from the Jekyll Creek section of the AIWW in 2019 as a BU project[10]. If this placement site falls into the expanded Federal Project, can it be used for future disposal of Jekyll Creek material and would additional permitting be required (e.g. Section 408) that could delay the project? We request this be addressed in the FEA as a potential secondary impact (i.e. time delays for permitting and/or loss of an AIWW disposal site).

The Coastal Marshlands Protection Act[11] (CMPA) listed in the Study[12] is an important law regulating dredging and other activities in coastal marshlands and tidal waterbottoms to ensure that values and functions are not impaired by these activities. The Corps is specifically exempt from obtaining a permit under this law[13] and the Study[14] should be updated to reflect that. The Act should remain listed as a relevant enforceable policy even though an actual permit will not be required, since the guiding principles to safeguard the loss of values and functions remains applicable to this project.

Andrews Island Dredged Material Containment Area (DMCA) experienced intertidal erosion and vegetative saltmarsh loss (coastal resources covered under CMPA) at the Weir #3 outfall since its installation in 2005 for the last Brunswick Harbor deepening project. Extended use of the outfall during deepening over a period of several months led to the loss of approximately ¼ - ½ acre of *Spartina alterniflora*. While some corrective action was taken in 2009, including placement of rock along the eroding bank and under the mouth of the outfall, saltmarsh loss continues. This indirect impact was not foreseen during the 2005/2008 deepening, but additional vegetative loss is a reasonably foreseeable coastal impact if dredge material from the Study is placed in Andrews Island DMCA. Pre- and post-construction assessment of the intertidal mudflats and vegetative saltmarsh around the Weir #3 outfall should be conducted to determine if additional loss results from the currently proposed modification project. If post-construction assessment indicates there is a loss in this tidal area steps must be taken to

[10] Placement area approximately 800' x 1,700' with center at 31.131486 x -81.401328
[11] O.C.G.A. 12-5-280 et seq.
[12] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Appendix J, Federal Consistency Determination, Section 4.0 Effects of Proposed Project - Relevant Enforceable Policies
[13] O.C.G.A. 12-5-295(3)
[14] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Appendix J, Federal Consistency Determination, Section 4.0 Effects of Proposed Project – Required State, Federal, and Local Permits

restore the area and to reduce reasonably anticipated future loss from O&M dredging. Such steps may include, but are not limited to:

- Include language in the dredging contract that pre- and post-construction surveys of the saltmarsh vegetation surrounding Weir #3 outfall is documented (e.g. via unmanned aerial vehicle photos) and any loss in vegetation will be rectified by restoring the area to its pre-construction elevation and replanted with *Spartina alternaflora;*
- Place coarse, uncontaminated, material from the Turning Basin (346,000 cy material available) in the scour hole and on adjacent mudflat to an elevation that would support vegetation;
- Extend the weir pipe past the vegetated area so source of scour is further from vegetation;
- Install a diffuser on the end of the pipe to reduce energy to the surrounding marsh; or
- Reduce the outflow volume/rate to reduce scour energy when operating the weir.

The Georgia Endangered Wildlife Act (GEWA) of 1973[15] and Game and Fish Code[16] afford protection to Georgia's threatened and endangered sea turtles through regulation[17]. Green sea turtles are listed as threatened[18] and Loggerhead sea turtles, Leatherback sea turtles, Hawksbill sea turtles, and Kemp's Ridley sea turtles are listed as endangered[19]. Loggerheads were originally listed as threatened in Georgia and their status was upgraded to endangered in 2006 due to significant declines in nesting. Under GEWA, any activities which are intended to harass, capture, kill or otherwise directly cause the death of any protected animal species are prohibited, except as specifically authorized by law or regulation adopted by the Board of Natural Resources[20]. To protect sea turtle species from mortality incidental to otherwise legal activities, sea turtles and their eggs have been defined as Game Animals under the Georgia Game and Fish Code[21]. It is unlawful to hunt game species except in accordance with rules and regulations established by the Board of Natural Resources[22]. Hunting[23] is further defined as pursuing, shooting, killing, taking or capturing wildlife[24]. The Board has not promulgated any rules or regulations defining hunting seasons for sea turtles, which effectively protects them from directed and incidental take. We request that you expand the federal consistency determination[25] to include the Georgia Game and Fish Code in the FEA.

[15] O.C.G.A. 27-3-130
[16] O.C.G.A. 27-1-1, et seq.
[17] Georgia Regulation 391-4-10, Protection of Endangered, Threatened, Rare or Unusual Species
[18] Georgia Regulation 391-4-10-.09(3)(b)
[19] Georgia Regulation 391-4-10-.09(3)(a), (d), (f), and (m), respectively
[20] Georgia Regulation 391-4-10-.06(a)(1)
[21] O.C.G.A. 27-1-2(34)
[22] O.C.G.A. 27-1-3(f)
[23] O.C.G.A. 27-1-2(39)
[24] O.C.G.A. 27-1-2(77)
[25] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Appendix J

Historically, southeastern shipping channels have been maintained by using trailing suction hopper dredges. Hopper dredges have been used for past Brunswick Harbor O&M activities and pose a greater risk of reasonably foreseeable effects to sea turtles than other types of dredges. In 1991, protected species observers were placed on hopper dredges and documented significant sea turtle mortality associated with channel maintenance dredging in the Savannah, Brunswick, and Charleston ship channels. National Marine Fisheries Service (NMFS) determined that the observed level of mortality could jeopardize the continued existence of sea turtles. A Biological Opinion was developed with reasonable and prudent alternatives to unrestricted dredging which included a requirement to dredge during the colder months when sea turtles are known to be less abundant. The winter dredging windows were adjusted several times over the following seven (7) years using sea turtle mortality data collected by observers on dredges.

In 1998 the Corps' South Atlantic Division (SAD) developed a protocol based on negotiation with southeastern state resource agencies that restricted hopper dredging in southeast channels to 15 December-31 March annually. During the same period the Corps', NMFS and other agencies developed protocols to mitigate risk to right whales, including the Early Warning System (EWS) aerial surveys, speed measures for hopper dredges and requirements for dredge observers to report all whale sightings and collisions. For over two decades the Corps' successfully maintained shipping channels for commerce while simultaneously restricting dredging activities to the winter months to protect sea turtles. No lethal or injurious collisions between right whales and hopper dredges or dredge support vessels were confirmed during that time.

In 2009 the Corps conducted a demonstration project to assess the effects of hopper dredging activity on sea turtles in the summer months. Hopper dredging was initiated in the Brunswick ship channel on 1 September and the Savannah channel on 11 September. Sweep trawling was used to disturb turtles in the channel in the hope of reducing sea turtle mortality. Seven loggerhead turtles were taken in 15 days including two large loggerheads that were either large subadults or adults. Loggerhead turtles that nest on Georgia beaches require 30-35 years to reach sexual maturity. The loss of reproductively active loggerhead females is not sustainable for population recovery. The results from the demonstration project showed that summer dredging was not feasible due to high sea turtle capture rates, including mortality of reproductively active loggerhead turtles.

The 2020 SARBO would allow hopper dredging to resume during the summer months. The Tentatively Selected Plan, Alternative 8, allows hopper dredging year around, including during warm water months. Experience in Georgia shows that summer dredging will lead to increased mortality of nesting female loggerhead turtles and other turtles, undermining decades of species recovery efforts. It does not provide adequate biological or logistical justification for not complying with winter dredging windows that have been in effect in Georgia for decades. Currently, the Corps proposes to follow the 2020 SARBO to dredge 7 channels in the warmer months including Brunswick, Savannah, and Kings Bay. The justification for warm

water dredging[26] is to reduce the threat of right whale vessel collisions due to the required use of high-speed survey vessels. This justification has no basis since high-speed offshore survey vessels are not required for channel surveys. Small trailerable vessels launched from inshore boat ramps can be used by the Corps to conduct channel surveys. Larger survey vessels can transit between channels using the AIWW. In particular, the high-speed survey vessel currently used by the Corps in NE Florida and SE Georgia (Florida II) is unsuited for offshore use in seasonal right whale habitat and could instead be transiting the AIWW.

The 2020 SARBO acknowledges that shifting dredging projects to warmer months may increase the risk to sea turtles by hopper dredges and that dredging in warmer months should only be allowed in limited circumstances and after a risk-based assessment is completed[27]. NMFS recommends that to minimize risk of hopper dredging takes of Endangered Species Act (ESA) listed sea turtles, water temperature should be considered, and that completing hopper dredge projects when water temperatures are colder and sea turtles are less abundant, may reduce the risk of take[28]. They further recommend review of species population assessments and recovery plans which can provide additional species information and use of an area[29]. The proposed use of hopper dredges in Georgia during warm water months is not consistent to the maximum extent practicable with Georgia's enforceable policies under GEWA or the Game and Fish Code to protect sea turtles from takes since these 2020 SARBO considerations have not been incorporated.

The U.S. Army Engineer Research and Development Center (ERDC) tested several shapes of bed-leveling devices in 2012. They determined that devices designed to create a sand wave intended to disturb sea turtles off the channel bottom and away from the bed leveler, and that did not have any structure that could serve as "pinch points" for impinging sea turtles, were most effective at reducing sea turtle injury or mortality[30]. The specific design analyzed in a 2012-2014 Brunswick Harbor Study weighed 40,000 pounds and was 32' long by 4' high. It specifically incorporated an 11.5" strip of steel welded along the bottom length angling approximately 45 degrees forward of the blade and metal plate additions extending two feet on either side of the blade in front of the secondary attachment points, which could potentially serve as "pinch points"[31]. This 'Brunswick Harbor' design is specified as meeting 2020 SARBO criteria[32]. Other designs, including those that may have been tested by ERDC and not found to be effective in reducing turtle interactions, may be used but must only be documented and photographed to monitor the designs used under the 2020 SARBO. Other designs that have not been tested cannot be said to

[26] 2020 SARBO Section 6.1.2
[27] 2020 SARBO Section 2.5.2 Discussions Relating to Project Timing, page 644
[28] 2020 SARBO Appendix J Pre-Construction Risk Assessment, Section 1.D
[29] 2020 SARBO Appendix J Pre-Construction Risk Assessment, Section 1.B
[30] Bed Leveler Evaluation Report, U.S. Army Corps of Engineers, Savannah District, January 2015
[31] USACE Savannah District, Bed Leveler Evaluation Report, January 2015, Section 2.0 Evaluation Procedures and Methods
[32] 2020 SARBO Section 3.4 Bed-Leveling Requirements LEVEL.1, page 532

minimize takes and are therefore not consistent with Georgia's enforceable policies in GEWA and Game and Fish Code.

The results of a recent four-year study funded by the National Oceanic and Atmospheric Administration (NOAA) ESA Section 6 Competitive Grant Program further supports the importance of continued protection of adult female turtles to population recovery[33]. GADNR collaborated with Warnell School of Forest Resources and the United States Geological Survey (USGS) Coop Unit at the University of Georgia, North Carolina Wildlife Commission and South Carolina DNR to develop a Bayesian integrated population model for the Northern Recovery Unit (NRU) loggerhead population (see attached). A matrix population model operating at the level of the NRU linked to a multi-state mark-recapture model using nesting data and genetic date collected for over 30 years by state resource agencies was used to assess population status. Parameters are shared between the model components improving estimation and allowing prediction of the population trajectory into the future. Results from the model show that the NRU loggerhead population was very close to extirpation in the late 1990s, and that the population abundance is currently approximately half to a third of the size it was in the 1960s. A pulse of hatchlings from early nest protection efforts in the 1970s and 1980's and the implementation of Turtle Excluder Devices (TEDs) resulted in recent increases in nesting (last 10 years). The model predicts that a lack of recruitment from low nesting in the early 2000s will result in a plateau in population growth at current levels. If all current management protections stay in place, the population is predicted to remain stable or decline slightly until 2040. At that point, the population is expected to begin increasing toward historic levels. The model is particularly sensitive to adult female mortality and suggests that, at a minimum, protections for reproductive age loggerheads should stay in place over the next 20 years to ensure the population does not decline from current levels. It is reasonably foreseeable that a reduction in the current management protections, such as removing the cold water dredge window in Georgia as suggested by the 2020 SARBO, will result in increased mortality to reproductive age loggerheads that could put the entire NRU recovering loggerhead population at risk. This report was submitted to NOAA October 21, 2020.

In light of this study which contains new information and data that was not available to NMFS during development of the 2020 SARBO, risk assessment factors listed in the 2020 SARBO to be considered for any proposed dredging activity in the South Atlantic Region, and long-standing practices in Georgia to minimize impacts to protected sea turtles, the following alternative measures, which if adopted by the Corps, would allow the Brunswick Harbor Modification and O&M project to proceed in a manner that is consistent to the maximum extent practicable[34]:

- The Corps' shall notify GCMP of any modifications to the proposed activity;

[33] Grant Number NA16NMF4720076: Assessment of the Demographic Recovery Criteria for the Northern Recovery Unit of Loggerhead Turtles (*Caretta caretta)* Using Genetic Mark-Recapture Implementation of High Priority Recovery Actions
[34] 15 CFR 930.43(a)(3)

- All hopper dredging activities shall be restricted to 15 December through 31 March unless prior approval is obtained from GCMP;
- Hopper dredges shall have 100% inflow and outflow screening that is kept functional to the maximum extent practicable. Should inflow screening become inoperable for more than 48 continuous hours, approval must be obtained by GADNR Wildlife Resources Division (GADNR/WRD) to continue operations with only outflow screens;
- Hopper dredge inspection checklists shall be provided to GADNR/WRD prior to commencing dredging;
- Hopper dredges shall have protected species observers onboard to monitor each dredging event as unseasonably warm waters can cause higher than anticipated turtle abundance during the winter months, unless a variance is approved by GADNR/WRD;
- Sea turtle takes shall be reported to GADNR/WRD within 24 hours;
- GADNR/WRD personnel shall be allowed onboard the dredge at least once during each dredging event. Savannah District Corps' personnel shall coordinate access to hopper dredges for GADNR/WRD personnel within a reasonable timeframe of request, not to exceed 3 business days;
- Contact information for Savannah District Corps access coordinators shall be provided to GCMP prior to each dredging event;
- Hopper dredging activities will be halted if sea turtle takes exceed the limits specified by NOAA; and
- Bed leveling equipment may not be used unless it is a 'Brunswick Harbor' design that includes a 45 degree blade across the bottom with no support structures extending beyond the blade, or it is a design that has been tested in waters clear enough to determine if it produces a sand wave in front of the leading face of the g device such that it disturbs sea turtles off the sea/channel floor bottom and is approved by GADNR/WRD.

The 2009 demonstration project showed how dredging in the summer months will lead to an increase in sea turtle mortality, including valuable nesting females. We expect similar results will occur if hopper dredging resumes in the summer months. We recognize the importance of maintaining Georgia's deep-water ports for commerce. However, the Corps has successfully maintained these channels for the last 22 years using winter dredging windows to assist in the recovery of protected species.

The GEWA[35] also affords protection to Georgia's endangered North Atlantic Right Whales through regulation[36]. Any activities which are intended to harass, capture, kill or otherwise directly cause the death of any protected animal species are prohibited, except as specifically authorized by law or regulation adopted by the Board of Natural Resources[37]. Georgia also has a Cooperative Agreement with NMFS under

[35] O.C.G.A. 27-3-130
[36] Georgia Regulation 391-4-10.-09(1)(b)
[37] Georgia Regulation 391-4-10-.06(a)(1)

ESA Section 6, dating back to 1990 and is one of the oldest in existence with NMFS. This agreement extends into Florida and offshore federal waters. The agreement mandates Georgia review federal actions that have the potential to impact right whales and provide comments/and or recommendations aimed at minimizing or eliminating impacts to right whales. The agreement further tasks Georgia with taking management steps to reduce or eliminate injury or mortality to right whales caused by ship collisions and to protect habitats essential to the survival of right whales.

The 2020 SARBO proposes to mitigate right whale collision risk with adaptive measures that require vessels to temporarily reduce their speed when whales are sighted within a specified distance of vessels. Adaptive measures like this are less protective than static seasonal speed reductions because: 1) detection probability from aerial platforms is only approximately 50%[38], 2) survey teams can only fly 2-3 days per week on average because of weather and other constraints, and 3) telemetry data show that individual whales can move 40-60 miles in a day[39]. The following alternative measures, which if adopted by the Corps, would allow the Brunswick Harbor Modification and O&M project to proceed in a manner that is consistent to the maximum extent practicable[40] with Georgia's GEWA:

- Dredges and other project vessels 26 feet in length or greater shall operate at 10 knots or less within the Southeast Seasonal Management Area (SMA) from 15 November to 15 April;
- Dredges and other project vessels 26 feet in length or greater shall operate at 10 knots or less within the Mid-Atlantic SMA from 1 November to 30 April;
- Vessels may operate at speeds greater than 10 knots when necessary to maintain safe steerage and navigation; and
- Automatic Information Systems (AIS) shall be properly installed and operational on all dredges and project vessels 26 feet in length or greater.

The Study for which the federal consistency determination[41] was developed includes the entire limit of the maintained federal channel, extending approximately 11 miles offshore and includes areas outside State of Georgia waters[42]. The GCMP enforceable policies listed above are applicable to all areas of the project. The alternative measures listed above, which if adopted by the Corps to allow the Brunswick Harbor Modification and O&M project to proceed in a manner that is consistent to the maximum extent practicable, would also be applicable to those areas of the proposed project outside of State of Georgia waters. This means that hopper dredges working in the outer harbor channel would be restricted to the colder water dredge window if these alternative measures are adopted by the Corps'.

[38] Hain et al. 1999
[39] Andrews 2015
[40] 15 CFR 930.43(a)(3)
[41] Brunswick Harbor Modifications Study, Glynn County, GA, Draft Integrated Feasibility Report and Environmental Assessment and Draft FONSI, June 2020, Appendix J
[42] 15 CFR 930.33(c)

While more than 90 days have passed since we received your federal consistency determination, the Final Integrated Feasibility Report and other coordinations have not yet been completed. You are urged to modify the proposed project to incorporate the alternative measures outlined and submit a revised federal consistency determination. We welcome continued discussion to resolve these matters so that the project can move forward in an environmentally responsible manner. Please contact Mark Dodd at (912) 506-7260 with GADNR/WRD Wildlife Conservation Program if you have technical questions regarding Georgia wildlife or Kelie Moore at (912) 262-2334 if you have questions.

Sincerely,

Doug Haymans
Director

DH/km

cc: Dr. Jeffrey L. Payne, NOAA OCM Director, Jeff.Payne@noaa.gov
Kerry Kehoe, NOAA OCM Senior Policy Analyst, Kerry.Kehoe@noaa.gov
Jason Lee, GADNR/WRD WCP Director, Jason.Lee@dnr.ga.gov
Mark Dodd, GADNR/WRD WCP Wildlife Biologist, Mark.Dodd@dnr.ga.gov
Kelie Moore, GADNR/CRD Federal Consistency Coordinator, Kelie.Moore@dnr.ga.gov
Steve Wiedl, GADNR/EPD Wetlands Unit Manager, Stephen.Weidl@dnr.ga.gov

From:	Garvey, Kimberly L CIV USARMY CESAS (US)
To:	Haymans, Doug
Cc:	Andrews, Jill; Payne Jeffrey; Kehoe, Kerry; Lee, Jason; Wiedl, Stephen; George, Clay; Burgess, Karl; lindy.betzhold@noaa.gov; Schwindaman, Jeffrey P CIV USARMY CESAS (USA); Moore, Kelie; Bonine, Nicole M CIV USARMY CESAD (USA); Scerno, Deborah H CIV USARMY CESAD (USA); Hope Moorer; Lee Beckmann; Moore, John C CIV USARMY CESAS (USA); Armetta, Robin E CIV USARMY CESAS (USA); Fox, Stephen M CIV USARMY CESAD (USA); Garvey, Kimberly L CIV USARMY CESAS (US); Henshaw, Susan H CIV USARMY CELRE (USA); Dodd, Mark
Subject:	USACE response to CRD"s 11/3/20 draft conditional concurrence on BHMS
Date:	Wednesday, February 10, 2021 10:57:06 AM
Attachments:	BHMS Appendix_J_CZM Consistency Determination 9Feb21.pdf Final Response to CRD CZMA letter 10Feb21.pdf

---

Sir,

Please see attached updated consistency determination and our letter response to your November 3, 2020 draft conditional concurrence.

I apologize it has taken so long to respond and look forward to working together to resolve any outstanding issues.

Thank you,
Kim

Kimberly L. Garvey
Chief, Planning Branch
Savannah District
100 West Oglethorpe Avenue
Savannah, GA 31401
912.667.4010

From:	Moore, Kelie
To:	Garvey, Kimberly L CIV USARMY CESAS (US)
Cc:	Payne Jeffrey; Kehoe, Kerry; Lindy Betzhold - NOAA Affiliate; Robin Leigh; Iannuzzi, Kate; Pearson, Kyle; Lee, Jason; Haymans, Doug; Dodd, Mark; George, Clay; Andrews, Jill; Schwindaman, Jeffrey P CIV USARMY CESAS (USA); Fox, Stephen M CIV USARMY CESAD (USA)
Subject:	[Non-DoD Source] Re: Brunswick Harbor Modification Study: Federal Consistency Review Time Extension Request
Date:	Wednesday, March 31, 2021 3:07:26 PM

Thank you very much Kim.

Kelie Moore
Federal Consistency Coordinator
GaDNR Coastal Resources Division
(912) 262-2334

From: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Sent: Wednesday, March 31, 2021 2:28:31 PM
To: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Cc: Payne Jeffrey <jeff.payne@noaa.gov>; Kehoe, Kerry <kerry.kehoe@noaa.gov>; Lindy Betzhold - NOAA Affiliate <lindy.betzhold@noaa.gov>; Robin Leigh <rleigh@law.ga.gov>; Iannuzzi, Kate <kate.Iannuzzi@dnr.ga.gov>; Pearson, Kyle <Kyle.Pearson@dnr.ga.gov>; Lee, Jason <Jason.Lee@dnr.ga.gov>; Haymans, Doug <Doug.Haymans@dnr.ga.gov>; Dodd, Mark <Mark.Dodd@dnr.ga.gov>; George, Clay <Clay.George@dnr.ga.gov>; Andrews, Jill <Jill.Andrews@dnr.ga.gov>; Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>; Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
Subject: RE: Brunswick Harbor Modification Study: Federal Consistency Review Time Extension Request

Kelie,

Thanks for reaching out. Extension granted.

I am also tracking and getting information together for your request from March 23, 2021 and your two requests from March 30, 2021.

Thank you,
Kim

From: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Sent: Monday, March 29, 2021 12:46 PM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Cc: Payne Jeffrey <jeff.payne@noaa.gov>; Kehoe, Kerry <kerry.kehoe@noaa.gov>; Lindy Betzhold -

NOAA Affiliate <lindy.betzhold@noaa.gov>; Robin Leigh <rleigh@law.ga.gov>; Iannuzzi, Kate <kate.Iannuzzi@dnr.ga.gov>; Pearson, Kyle <Kyle.Pearson@dnr.ga.gov>; Lee, Jason <Jason.Lee@dnr.ga.gov>; Haymans, Doug <Doug.Haymans@dnr.ga.gov>; Dodd, Mark <Mark.Dodd@dnr.ga.gov>; George, Clay <Clay.George@dnr.ga.gov>; Andrews, Jill <Jill.Andrews@dnr.ga.gov>
Subject: [Non-DoD Source] Brunswick Harbor Modification Study: Federal Consistency Review Time Extension Request

Good Afternoon Kim:
Please see attached our request for a 15-day time extension to complete our Coastal Zone Management Act Federal Consistency Determination review.

Kelie Moore
Federal Consistency Coordinator
Coastal Resources Division
(912) 264-7218 | (912) 262-2334
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ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218
COASTALGADNR.ORG

MARK WILLIAMS
COMMISSIONER

DOUG HAYMANS
DIRECTOR

March 29, 2021

Ms. Kim Garvey, USACE SAS Chief of Planning
kimberly.l.garvey@usace.army.mil

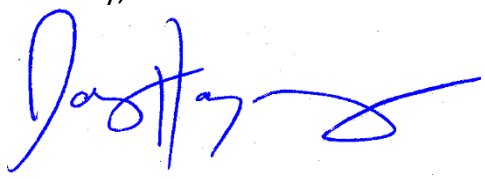
RE: Brunswick Harbor Modification Study CZM Federal Consistency Extension of Time Request

Dear Ms. Garvey,

Staff of the Georgia Coastal Management Program received the updated Brunswick Harbor Modification Study Consistency Determination on February 10, 2021 and began our 60-day review per 15 CFR 930.41. We request a 15-day extension as provided by 15 CFR 930.41(b) to continue our review until April 26, 2021. This extension does not change the date you may take action, which is 90-days after our receipt of the Determination on May 11, 2021 per 15 CFR 41(c).

This does not preclude us from requesting an additional extension prior to April 26, 2021 considering the magnitude and complexity of this project. To date we have received over 1,500 public comments voicing concern of proposed modifications to operation and maintenance of the harbor.

Sincerely,



Doug Haymans
Director

cc: Dr. Jeffrey L. Payne, NOAA OCM Director, Jeff.Payne@noaa.gov
Kerry Kehoe, NOAA OCM Senior Policy Analyst, Kerry.Kehoe@noaa.gov
Lindy Betzhold, Sr. Coastal Management Specialist, Lindy.Betzhold@noaa.gov
Robin Leigh, Environment & Natural Resources Section Chief, Attorney General's Office, RLeigh@law.ga.gov
Kyle Pearson, GADNR Executive Counsel, Kyle.Pearson@gadnr.ga.gov
Jason Lee, GADNR/WRD WCP Director, Jason.Lee@dnr.ga.gov
Mark Dodd, GADNR/WRD WCP Wildlife Biologist, Mark.Dodd@dnr.ga.gov
Kelie Moore, GADNR/CRD Fed. Consistency Coordinator, Kelie.Moore@dnr.ga.gov

HILL, SUZANNE CIV USARMY CENSAS (USA)

From: Hill, Suzanne SAS
Sent: Wednesday, June 23, 2021 4:35 PM
To: Moore, Kelie
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); CESAS-Planning
Subject: Brunswick Harbor Modification Study- draft IFR/EA extended public comment period
Attachments: BHMS_ Public Notice_2021_extension.pdf

Dear Ms. Moore,

Writing to let you know we have received a request to extend the public comment period and we will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thank you,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:55 PM
To: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Dear Ms. Moore,

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft FONSI are available for public review and comment. The documents can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Thank you,

Suzy

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
100 W. OGLETHORPE AVENUE
SAVANNAH, GEORGIA 31401-3604

September 8, 2021

Planning Branch

Mr. Doug Haymans
Georgia Department of Natural Resources
Coastal Resources Division
One Conservation Way, Suite 300
Brunswick, Georgia 31520-8687

Dear Mr. Haymans:

As requested, and in coordination with the U.S. Corps of Engineers, South Atlantic Division (Division), I am providing the approved Pre-Construction Risk Assessment for Maintenance Dredging of Wilmington, Morehead City, Charleston, Savannah, and Brunswick Harbors in Fiscal Year 2022 (Risk Assessment). We share this Risk Assessment to further our discussions with Georgia Department of Natural Resources (DNR) regarding the Savannah District's consistency determination under the Coastal Zone Management Act (CZMA) for maintenance of Brunswick Harbor as described in the Brunswick Harbor Modification Study. The Risk Assessment also addresses maintenance dredging of four other navigation projects because it was generated to support release of the solicitation for the Division's regional dredging contract for the upcoming fiscal year.

This Risk Assessment is an implementation document under the 2020 SARBO. It had not been finalized when you first requested it. This release was coordinated within the South Atlantic Division and with counsel for the National Oceanic and Atmospheric Administration (NOAA) because it is an implementation document under the 2020 SARBO.

Any requests for future project Risk Assessments must be addressed on a case-by-case basis because the content and approval of a subsequent Risk Assessment may differ and dictate a different conclusion regarding releasability of portions of the document.

We appreciate your patience in this matter and look forward to continued discussions as we work with the State of Georgia to achieve the mutual objectives of maintaining Georgia's ports for safe and efficient vessel traffic while complying with all applicable laws. Please feel free to contact me with any questions or concerns at (912) 667-4010 or Kimberly.L.Garvey@usace.army.mil.

Kimberly L. Garvey

Kimberly L. Garvey
Chief, Planning Branch

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

CESAD-PDO

15 July 2021

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, Wilmington District, 69 Darlington Avenue, Wilmington, NC 28403

SUBJECT: Pre-Construction Risk Assessment for Regional Harbor Dredging Contract 5.0

1. References.

a. South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (2020 SARBO), Date issued 27 March 2020, Revised 31 July 2020.

b. U.S. Army Corps of Engineers South Atlantic Division, Pre-Construction Risk Assessment for Maintenance Dredging of Wilmington, Morehead City, Charleston, Savannah, and Brunswick Harbors in Fiscal Year 2022, 15 July 2021 (Enclosed).

2. Based on the analysis provided in the referenced pre-construction risk assessment for the Regional Harbor Dredging Contract 5.0, you are approved to implement the recommendations outlined in Section 3 of the assessment.

3. My point of contact for this approval is Nicole Bonine, Environmental Compliance Program Manager, 404-562-5230 or cell 407-309-5052.

MCCALLISTER.LARRY.DWAYNE.[redacted]
Digitally signed by MCCALLISTER.LARRY.DWAYNE.1[redacted]
Date: 2021.07.15 19:57:13 -04'00'

LARRY D. MCCALLISTER, PhD, PE, SES
Director of Programs

Encl

CF:
Commander, Charleston District
Commander, Savannah District
Commander, Jacksonville District

U.S. Army Corps of Engineers South Atlantic Division
Pre-Construction Risk Assessment for Maintenance Dredging of Wilmington, Morehead City, Charleston, Savannah, and Brunswick Harbors in Fiscal Year 2022

15 July 2021

1. PURPOSE AND BACKGROUND. This document provides the Pre-Construction Risk Assessment that the U.S. Army Corps of Engineers (USACE) South Atlantic Division (SAD) completed in accordance with the 2020 South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (2020 SARBO) to inform the decisions on when and how operations and maintenance (O&M) dredging is conducted under the South Atlantic Division Regional Harbor Dredging Contract 5.0 (Regional Dredging Contract). This Regional Dredging Contract will cover O&M dredging in North Carolina (Wilmington and Morehead City Harbors), South Carolina (Charleston Harbor), and Georgia (Savannah and Brunswick Harbors) during Fiscal Year (FY) 2022.

Since this risk-assessment is for maintenance dredging of five projects that historically result in a majority of take by hopper dredging of all projects covered under the 2020 SARBO, this assessment is more detailed and therefore longer than future assessments may be for the same projects or other projects covered under the 2020 SARBO. This assessment references key points in the 2020 SARBO instead of reiterating them and adds regional-specific details needed to make mitigation recommendations.

A. Background – O&M dredging in FY 2022. The FY22 Regional Dredging Contract will provide maintenance dredging for five (5) Federal navigation projects, with a focus primarily on maintenance of the entrance channels (Table 1). Dredging by hopper dredge will be allowed for this work with placement of material in Ocean Dredged Material Disposal Sites (ODMDS).

Table 1. FY 2022 Regional Dredging Contract Project Details

Project Name	Dredging Location	Disposal Location	Estimated Volume (cubic yards)
Morehead City Harbor, North Carolina	Range A (Outer/Inner Entrance) and Cutoff (Inner Entrance)	Morehead City ODMDS	1,600,000
Wilmington Harbor, North Carolina	Baldhead Shoal Channel Reach (Outer/Inner Entrance)	Wilmington Harbor ODMDS	850,000
Charleston Harbor, South Carolina	Charleston Harbor (Outer/Inner Entrance) and Wings	Charleston ODMDS	2,069,000
Savannah Harbor, Georgia	Tybee Knoll Cut Range (Inner Entrance) and Jones Island/Bloody Point Range (Inner/ Outer Entrance)	Savannah ODMDS	475,000 - 575,000
Brunswick Harbor, Georgia	St. Simons Range (Inner/Outer Entrance) and Cedar Hammock Range (Inner Harbor/ Estuary)	Brunswick ODMDS	1,215,000-1,510,000

B. <u>Background – 2020 SARBO and Risk Assessment</u>. Consultation with the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act (ESA) for certain dredging (e.g., for maintenance dredging but not including new construction dredging) was concluded with the issuance of the 2020 SARBO, which replaced the 1997 SARBO. Any consultation or coordination with other agencies, such as the U.S. Fish and Wildlife Service, is independent of the 2020 SARBO.

The 2020 SARBO provides the USACE the flexibility to assess types of project equipment, timing of project completion, and available ways to minimize effects from dredging as long as project actions follow the project design criteria (PDCs). PDCs are the specific criteria indicating how an individual project must be carried out. The flexibility provided by the 2020 SARBO is through the use of a risk assessment and risk management process, which is described in Section 2.9.2 of the 2020 SARBO.

The risk-based decision-making process under the 2020 SARBO is not a significant change from the 1997 SARBO. Under the 1997 SARBO, the USACE retained flexibility to decide when and where projects would occur and the equipment type to be used for a particular project – although this flexibility was within defined seasonal dredging windows that limited hopper dredging to winter months. The dredging windows were set based on a conclusion formed in the 1980s that these windows were the most protective way to reduce the risk of lethal take of sea turtles. This conclusion hinged on the rationale that sea turtles are less prevalent in winter months and therefore are less likely to be encountered during dredging. However, advances in dredging and a better understanding of sea turtle use of areas by location and time of year led to an understanding that seasonal windows are not the only way to be protective of sea turtles. For context, sea turtles tend to migrate to and from areas based on water temperatures, as has been long understood. For loggerheads that temperature threshold is believed to be 17°C, triggering loggerheads to move inshore in spring and further offshore in Fall.[1] The 2020 SARBO formalizes and expands the risk assessment process into a robust risk-based adaptive project-management process which is further informed by coordination with and refinement by the SARBO Team.

A significant change from the 1997 SARBO is that the 2020 SARBO covers more species and designated critical habitat, and it requires risk to be addressed regionally for all covered species. During the development of the 2020 SARBO, the increased number of ESA-listed species in the areas, understanding of species' use of these areas, and identification of interactions that can occur during dredging and material placement activities led to a joint decision by the NMFS, USACE, and Bureau of Ocean Energy Management (BOEM) that an adaptive management strategy without static environmental windows for sea turtles would provide a more comprehensive approach

[1] Arendt, Michael & Segars, Albert & Byrd, Julia & Boynton, Jessica & Whitaker, J. & Parker, Lindsey & Owens, David & Blanvillain, Gaelle & Quattro, Joseph & Roberts, Mark. (2011). Seasonal distribution patterns of juvenile loggerhead sea turtles (Caretta caretta) following capture from a shipping channel in the Northwest Atlantic Ocean. Marine Biology. 159. 10.1007/s00227-011-1829-x.

to protect ESA-listed species and designated critical habitat. As noted in section 2.5.2 on p.643 of the 2020 SARBO,

> Many of the ESA-listed species within the action area have overlapping ranges and habitats, and some protective measures frequently applied to projects for certain ESA-listed species conflict with protection of other listed species or critical habitats in these overlapping areas. The SARBO Team gave extensive consideration to which ESA-listed species could be affected by an activity covered under this Opinion, the probability of exposure based on project timing and anticipated species abundance in an area, and how to maximize protections for all ESA-listed species and designated critical habitat.

The risk-based adaptive project management process is an ongoing, deliberative, internal process that includes a pre-construction assessment step to consider how and when dredging is initiated and completed and to determine minimization measures to reduce risk to species (2020 SARBO). This process requires a continuous evaluation of the risk as dredging occurs and may result in changes before and during the project work. This process then includes a consideration of lessons learned after work is complete, and the SARBO Team (consisting of members of USACE, NMFS, and BOEM) meets monthly and for an annual review to discuss projects proposed to be covered for the upcoming year and associated minimization measures that may reduce the risk of take.

C. <u>Background – Risk Assessment Steps</u>. Appendix J of the 2020 SARBO sets forth NMFS's recommended factors to be considered with initial project planning, including items likely to be relevant to the risk assessment. The major considerations relevant to this risk assessment include the following:

- project details including dredge quantities expected (Section 1 above); duration of dredging; and the need for the dredging given shoaling rates;

- potential risk to ESA-listed species – which includes the species likely to be present (Section 2.A) based on their historic use of each project area, historic take (Section 2.B), and routes of effects from the proposed projects (Section 2.B);

- need for relocation trawling for each dredging project and other minimization measures available (Section 2.D) based on project timing [including risk to sea turtles, North Atlantic right whales, and sturgeon based on water temperature and winter months], equipment options available to reduce take (Section 2.C)

The following provides information for the five dredging projects that addresses these major considerations. It is generally organized as (1) identification of ESA-listed species likely to be present in the project areas; (2) routes of effects; (3) anticipated risk

focusing on sea turtles, sturgeon, and North Atlantic right whales; (4) minimization measures considered; and recommendations for each project.

2. RISK ASSESSMENT

A. Identification of ESA-listed species likely to be present. The effects to ESA-listed species under NMFS jurisdiction were considered in the 2020 SARBO, including setting a lethal and non-lethal take limit for each species from hopper dredging and relocation trawling for all projects covered under the 2020 SARBO. Therefore, USACE must manage the dredging program to ensure that, cumulatively, these projects do not exceed the take limits. Section 6 of the 2020 SARBO outlines NMFS rationale for estimated take and why take numbers may fluctuate by location, time of year, from one year to another, and other factors such as hurricanes. As stated in Section 2.9.2.1,

> Utilizing adaptive management in this manner [that is, under the 1997 SARBO] allowed the USACE to consider the anticipated risk of harm to ESA-listed species in the context of shifting variables (e.g., environmental, financial, regulatory, etc.). Subsequent decisions made regarding project timing and equipment use maximized the ability to complete dredging and material placement projects, while minimizing the risk of incidental take. The USACE has a proven history of using this process to further reduce the likelihood of incidental take and will continue to do so under the 2020 SARBO.

While the 2020 SARBO provides a list of all species that may occur from North Carolina to the Caribbean, Table 2 below lists the species likely to occur in each state where dredging of the five projects will be covered under the RHDC.

Table 2. Effects Determination(s) for Species the Action Agencies and/or NMFS Identify as Potentially Affected by the Proposed Action

			Probability of Occurrence in Action Area by District		
ESA-listed Species	**ESA Listing Status[2]**	**NMFS Determination[3]**	**North Carolina**	**South Carolina**	**Georgia**
Sea Turtles					
Green (North Atlantic [NA] Distinct Population Segment (DPS)	T	LAA	High	High	High
Green (South Atlantic [SA] DPS)	T	LAA	Low	Low	Low
Hawksbill	E	NLAA	Not expected	Not expected	Not expected
Kemp's ridley	E	LAA	Low	Low	Low
Leatherback	E	LAA	Low	Low	Low
Loggerhead (Northwest Atlantic [NWA] DPS)	T	LAA	High	High	High
Fish					
Atlantic sturgeon (Carolina DPS)	E	LAA	High	High	High
Atlantic sturgeon (SA DPS)	E	LAA	Low	Low	Low
Atlantic sturgeon (Gulf of Maine DPS)	T	LAA	Low	Low	Low
Atlantic sturgeon (New York Bight DPS)	E	LAA	Low	Low	Low
Atlantic sturgeon (Chesapeake Bay DPS)	E	LAA	Low	Low	Low
Shortnose sturgeon	E	LAA	Low	Low	Low
Elasmobranchs					
Giant manta ray	T	LAA	Moderate	Moderate	Moderate
Smalltooth sawfish (U.S. DPS)	E	LAA	Not expected	Not expected	Low
Whales					
Blue whale	E	NLAA	Low, ODMDS only	Low, ODMDS only	Low, ODMDS only
Fin whale	E	NLAA	Low, ODMDS only	Low, ODMDS only	Low, ODMDS only
North Atlantic right whale	E	NLAA	Low, Winter Only	Low, Winter Only	Low, Winter Only
Sei whale	E	NLAA	Low, ODMDS only	Low, ODMDS only	Low, ODMDS only
Sperm whale	E	NLAA	Low, ODMDS only	Low, ODMDS only	Low, ODMDS only

[2] E= endangered; T= threatened

[3] NE = no effect, NLAA (may affect, not likely to adversely affect), LAA (may affect, likely to adversely affect).

B. Routes of Effects and the Anticipated Risk to ESA-listed Species by Route of Effect. Based on the routes of effects that are analyzed in the 2020 SARBO, USACE identified the routes of effects that are likely to occur during the dredging of the RHDC projects; these routes of effects are listed below in Section B.1. The routes of effects are then used to determine the potential risk to species that may be present (Section 3), based on adherence to the requirements (PDCs) in the 2020 SARBO.

B.1. Species interactions with dredging and material placement equipment, including entrainment or impingement[4] and the potential for effects from degraded water quality (2020 SARBO Section 3.1.1).

a. Maintenance dredging by hopper dredge. This route of effect was determined to be NLAA for changes in water quality for the species in these areas based on adherence to the PDCs. The 2020 SARBO concluded that sea turtles (green, Kemp's ridley, and loggerhead) and sturgeon (Atlantic and shortnose) may be taken by hopper dredging. Therefore, the risk to these species will be discussed further below. All hopper dredging take since 2010 for each of the projects is listed below in Table 3.

b. Option for bed-leveling. Studies were done in Brunswick Harbor, Georgia to test if bed-leveling harmed sea turtles or sturgeon (see 2020 SARBO Section 3.1.1.6.1). Brunswick was chosen for this study based on the density of sea turtles in the area and the concern of sea turtle brumation (hibernating on the sea floor during cold weather events) leading to their being injured by bed-leveling. During the trials, trawling directly behind the bed-leveler captured and released 38 live sea turtles and two Atlantic sturgeon with no mortalities, thus demonstrating that sea turtles and sturgeon were present during the bed-leveling operations and unharmed by the process. We believe this process is effective at protecting all mobile species without harm. This route of effect was determined to be NLAA based on adherence to the PDCs and does not require additional consideration in the risk-assessment.

c. Water quality changes. Changes in water quality from dredging, bed-leveling, and material placement are described in detail in the 2020 SARBO Section 3.1.4. In summary, turbidity plumes are expected to be localized and settle out quickly and not expected to result in sedimentation that would harm species or habitat in the area. USACE continues to evaluate the risk to habitat both within and adjacent to dredging and placement areas to ensure that significant effects do not occur. For example, USACE is collaborating with the North Carolina Division of Environmental Quality (NCDEQ), and NMFS Protected Resources and Habitat Conservation Division to complete a three-year study to better understand the effects of dredging, water quality changes, and habitat alteration associated with continued maintenance

[4] For this Risk Assessment IAW the 2020 SARBO, entrainment occurs when a species either comes into contact with a suction type dredge (hopper or cutterhead) or is in close enough proximity that they cannot outswim the suction velocity created by the dredge. Impingement occurs when the species is captured by the equipment (e.g., captured in a mechanical dredge) or stuck to the equipment (e.g., entrained by a hopper dredge, but stopped by grating on the draghead that prevents movement into the hopper).

of Wilmington Harbor and Morehead City. At this time, additional consideration in the risk-assessment process is not required.

Table 3. Historic Observed Take from Hopper Dredging in Brunswick

Fiscal Year	Dredging Dates	Atlantic Sturgeon	Green	Kemp's Ridley	Leatherback	Loggerhead	Total Turtles
	Wilmington						
2010	2/9/10-4/5/10	0	0	0	0	0	0
2011	12/16/10-4/21/11	0	0	0	0	0	0
2012	12/10/12-12/29/12	0	0	0	0	0	0
2013	Not Dredged	0	0	0	0	0	0
2014	2/6/14-3/17/14	-	-	-	-	-	-
2015	1/11/15-1/24/15	0	0	0	0	0	0
2016	3/16/16-3/31/16	0	0	0	0	0	0
2017	10/1816-1/4/17	1	3	0	0	2	5
2018	3/25/18-4/10/18	0	0	0	0	0	0
2019	3/22-4/19/19	1	0	2	0	1	4
2020	4/2/20-4/8/20	0	1	0	1	0	2
	Morehead						
2010	Not Dredged	-	-	-	-	-	-
2011	Not Dredged	-	-	-	-	-	-
2012	1/13/12-2/25/12	0	0	0	0	0	0
2013	1/18-1/29	0	0	0	0	0	0
2014	Not Dredged	-	-	-	-	-	-
2015	Not Dredged	-	-	-	-	-	-
2016	Not Dredged	-	-	-	-	-	-
2017	Not Dredged	-	-	-	-	-	-
2018	3/8/18-4/15/18	0	0	0	0	0	0
2019	2/28/19-4/11/19	0	3	0	0	1	4
2020	5/29/20-7/30/20	0	0	0	0	2	2
	Charleston						
2010	2/26/10 – 3/17/10	0	0	0	0	0	0
2011	Not Dredged	-	-	-	-	-	-
2012	2/29/12 – 3/17/12	1	1	0	0	0	1
2013	Not Dredged	-	-	-	-	-	-
2014	1/8/14 – 2/19/14	0	0	0	0	0	0
2015	Not Dredged	-	-	-	-	-	-
2016	4/7/16 – 4/22/16	1	0	5	0	4	9
2017	2/4/17 – 2/17/17	1	0	0	0	0	0
2018	3/3/18 – 3/9/18	0	0	0	0	0	0
2019	Post 45 Deepening[5]	3	3	0	0	0	3
2020	Post 45 Deepening	3	1	2	0	2	5
	Savannah						
2010	3/5/10-3/29/10	0	0	0	0	0	0
2011	2/25/11-3/7/11	0	0	0	0	0	0
2012	3/18/12-3/30/12	0	1	0	0	1	2
2013	12/30/12-1/7/13	0	0	0	0	0	0
2014	12/31/13-1/22/14	0	0	0	0	0	0
2015	2/19/15-3/30/15	1	0	0	0	3	3
2016	12/26/15-1/13/16	0	0	0	0	1	1

[5] Post 45 dredging is covered under a separate NMFS biological opinion, not the 2020 SARBO.

2017	12/9/16-1/6/17	1	1	0	0	1	2
2018	3/15/18-3/24/18	0	0	0	0	0	0
2019	2/2/19-2/28/19	2	0	0	0	0	0
2020	1/24-20-2/16/20	2	1	0	0	0	1
	Brunswick						
2010	1/26/10-3/5/10	0	0	0	0	0	0
2011	1/15/11-2/24/11	0	0	0	0	0	0
2012	1/267/12-2/7/12 & 3/22/12-3/22/12[6]	0	1	5	0	3	9
2013	1/8/13-116/13	0	0	0	0	0	0
2014	1/24/14 - 3/13/14	0	0	0	0	2	2
2015	1/20/15 - 2/14/15	1	0	0	0	0	0
2016	1/14/16-2/12/16	0	0	0	0	0	0
2017	1/7/17 - 3/29/17	1	1	4	0	4	9
2018	12/30/17 - 3/15/18	6	0	2	0	0	2
2019	1/8/19 - 2/2/19	0	1	0	0	0	1
2020	1/10/20 - 2/20/20	4	2	1	0	2	5

B.2. Potential entanglement with equipment (2020 SARBO Section 3.1.2). This route of effect was determined to be NLAA based on adherence to the PDCs and does not require additional consideration in this risk assessment.

B.3. Impacts caused by capture via relocation (2020 SARBO Section 3.1.3).

a. Relocation trawling. The 2020 SARBO concluded that sea turtles (green, Kemp's ridley, leatherback, and loggerhead), sturgeon (Atlantic and shortnose), giant manta ray, and smalltooth sawfish may be captured by relocation trawling. Therefore, the risk to these species will be discussed further below.

b. Monitoring for and handling of ESA-listed species during hopper dredging and trawling. Protected Species Observers (PSOs) are required on all hopper dredges to monitor for take. Any captured non-ESA-listed species are recorded as bycatch. USACE is working on improvements to the digital program that tracks take (i.e., the Operations and Dredging Endangered Species System - ODESS), including improved tracking of bycatch to better understand effects to all species, which includes those of concern to other agencies. This route of effect was evaluated in the 2020 SARBO and does not require additional analysis in this risk assessment, based on adherence to the PDCs. Relocation trawling captures that occurred within the SARBO action area from 1997 to 2019 are provided in Table 13 of the 2020 SARBO. Table 4 below provides information from surveys completed in FY20 and FY21. Closed net/capture relocation trawling in these areas was limited between 2010 and 2018 due to a change in NMFS' approach to authorizing this activity. The 1997 SARBO did not include relocation trawling as an activity since the handling of species was covered under a separate authorization process (that is, a Section 10 permit). Later, NMFS decided handling of ESA-listed species as part of a project

[6] Had three takes in one day and the project was stopped

should be authorized as part of a biological opinion, as it is in the 2020 SARBO.

Table 4. Capture Relocation Trawling Data within the Action Area

Location	Start Date	End Date	Atlantic Sturgeon	Green Sea Turtle	Kemp's Ridley Sea Turtles	Leatherback Sea Turtles	Loggerhead Sea Turtle	Total Turtles	Total
Brunswick, Georgia	2/9/20	2/19/20	0	1	0	0	0	0	1
Bogue Bank/ Post-Florence Renourishment, North Carolina	2/21/21	4/26/21	12	0	4	0	10	14	16
King's Bay	3/15/21	3/24/21	31	1	4	0	8	12	43
Oak Island, North Carolina	5/1/21	5/22/21	0	0	19	0	15	34	34
Morehead, North Carolina	5/27/21	6/15/21	0	0	3	0	6	9	9
All Reports (FY 1997-2019)			297	53	91	25	358	527	824

B.4. Potential for a species to be struck by a vessel (2020 SARBO Section 3.1.4). Vessel strikes may occur during dredging or during the transportation of materials between dredging and material placement locations. This route of effect was determined to be NLAA based on adherence to the PDCs for all species; however, emphasis was placed on the risk of vessel strike to the North Atlantic right whale (NARW). The 2020 SARBO includes a North Atlantic right whale conservation plan to address this issue (Appendix F). NARWs typically inhabit coastal waters along coastal Georgia and North Florida each winter during calving season, often remaining close to shore. They also inhabit coastal waters in North and South Carolina while transiting to and from calving areas. According to the NOAA species directory website, each fall, some right whales travel more than 1,000 miles from North Atlantic feeding grounds to the shallow, coastal waters of South Carolina, Georgia, and northeastern Florida. These waters in the southern U.S. are the only known calving area for the species. These whales migrate to the winter calving areas each winter and remain near the surface with their new calves, making them susceptible to vessel strikes. The migration to and from calving areas follows a typical pattern but can vary. This offshore location, which is considered critical habitat for calving, is between the Brunswick federal navigation channel and the offshore placement area (ODMDS). NARW are found along the coast and within the action area for the entrance channel, ODMDS and transiting areas.

This endangered species is of particular concern to NMFS due to its critically low population numbers, low calving rates including no calves born in 2018, and an unusual mortality event where 49 individuals of an estimated population of 368 died within a few years. This approximately 10% loss of population is a significant setback to the recovery of the population, especially since there was also a decrease in calves during a similar timeframe (https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-

north-atlantic-right-whale-unusual-mortality-event). Therefore, the risk to NARW will be discussed further below.

B.5. How species interact with the placement of material (2020 SARBO Section 3.1.5). Placement of dredged material in uplands or ODMDS. This route of effect was determined to be NLAA for the species in these areas based on adherence to the PDCs and does not require additional consideration in the risk assessment.

B.6. The potential for blocked access by construction activities (2020 SARBO Section 3.1.6). This route of effect was determined to be NLAA based on adherence to the PDCs and does not require additional consideration in the risk-assessment.

B.7. Habitat alteration for activities covered under this Opinion (2020 SARBO Section 3.1.7). Activities covered are maintenance and are not expected to directly alter sensitive habitat. Placement is limited to ODMDS so alteration of habitat around the dredging sites is limited. The 2020 SARBO also considers the recurring loss of benthic resources within project areas such as foraging resources for sturgeon in maintained channels that are assumed to apply to other species as well. This route of effect was determined to be NLAA based on adherence to the PDCs for species and habitat in the areas covered under the RHDC. As discussed for water quality in 3.1 above, USACE continues to evaluate this risk.

B.8. Sound generated by activates covered under this Opinion (2020 SARBO Section 3.1.8). Geophysical (G&G) surveys. This route of effect was determined to be NLAA based on adherence to the PDCs and does not require additional consideration in the risk assessment.

C. Summary of Effects Anticipated. Table 5 below provides a summary of the level of risk anticipated at the projects covered under the RHDC with a short summary of the rationale. The rationale for sea turtles, sturgeon, and NARW are further discussed in the following sections.

Table 5. Summary of Risk to ESA-Listed Species under the 2020 SARBO.
(Risk is color coded: red is high, yellow is moderate, and green is low.)

Species	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Whales (Blue, Fin, Sei, Sperm)	These whale species are deep water pelagic species not expected to be to be found within areas where activity would occur. The likelihood of encounter is very low. No reported encounters with dredging or related activities.											
NARW	Calf off this area in winter months. One reported encounter with hopper dredge and highly susceptible to vessel strikes.				Not expected to be present; migrate north during these months.							
Sea turtles	Sea turtles present year-round. Entrainment: Hopper dredging and trawling frequently result in encounters with higher numbers in Brunswick than Savannah. Loggerheads nest in the area May to mid-August. Infrequent nests from leatherback, green, and Kemp's ridley. Medium risk because probability of encounters is high, but loss of individuals limited by 2020 SARBO has low risk to species survival or recovery at all population levels evaluated in 2020 SARBO.											
Oceanic Whitetip shark	This shark is a deep-water pelagic species. The likelihood of encounter is very low and the risk to this species from the routes of effects identified is low, as described in the 2020 SARBO.											
Giant manta ray	Based on observations, giant manta ray may be present year-round with higher likelihood in warmer months as they migrate up the Atlantic coast in summer months. No reported encounters with hopper dredges and rare encounters with relocation trawling. Therefore, the likelihood of encounter is low and the risk to this species from the routes of effects identified is low, as described in the 2020 SARBO. Non-lethal capture by relocation trawling (take) is provided in the 2020 SARBO.											
Smalltooth sawfish	Observations north of Florida are rare and typically limited to Georgia. No reported encounters with hopper dredges and rare encounters with relocation trawling. Therefore, the likelihood of encounter is very low and the risk to this species from the routes of effects identified is low, as described in the 2020 SARBO. Non-lethal capture by relocation trawling (take) is provided in the 2020 SARBO.											
Atlantic Sturgeon	Frequent encounters by hopper and trawler in winter months, but risk of take changing survivability or recover of species based on take limits in 2020 SARBO is low.											
Shortnose Sturgeon	Shortnose sturgeon typically stay in spawning rivers year-round and there are no records of hopper dredging take of this species in these project areas. Therefore, the likelihood of encounter is very low and the risk to this species from the routes of effects identified is low, as described in the 2020 SARBO.											

C.1. Sea Turtles. As stated in Section B.1, sea turtles are at risk of take by hopper dredging by entrainment (green, Kemp's ridley, hawksbill, and loggerhead) and capture by relocation trawling (green, Kemp's ridley, hawksbill, leatherback, and loggerhead). Also, take limits are provided in the 2020 SARBO for each turtle species.

C.1.1. Sea Turtle Data. Loggerhead sea turtles are the most frequently encountered species in North Carolina, South Carolina, and Georgia, followed by green and Kemp's ridley sea turtles. Sea turtle nesting throughout the area is summarized in Table 6 below showing that loggerhead sea turtles also nest in much higher numbers than the other sea turtle species in this area.

Table 6. Sea Turtle Nesting

Sea Turtle Nesting	North Carolina	South Carolina	Georgia	Florida
Estimated annual nesting timeframe	1 MAY- 31 OCT (2020 First nest= 3 May, Last nest= 31 OCT)	1 MAY- 31 AUG (2020 First nest= 1 May, Last nest= 23 AUG)	1 MAY- 31 AUG (2020 First nest=26 APR, Last nest= 25 AUG)	1 MAY- 31 AUG (2020 First nest= 23 FEB, Last nest= 25 SEP)
Green	1 MAY- 31 OCT (44 nests in 2020)	Very limited (Only 3 nests in 2020)	Very limited (Only 6 nests in 2020)	1 MAY- 1 OCT (181 nests in 2020)
Kemp's Ridley	Very limited (Only 8 nests in 2020)	Very limited (Only 1 nest in 2020)	Very limited (Only 1 nest in 2020)	Very limited (Only 1 nest in 2020)
Leatherback	Very limited (2 nests in 2018)	Very limited (Only 1 nest in 2020)	Very limited (1 nests in 2017)	15 FEB- 1 OCT (43 nests in 2020)
Loggerhead	1 MAY- 31 OCT (1,335 nests in 2020)	1 MAY- 31 AUG (5,550 nests in 2020)	15 MAY- 31 AUG (2,786 nests in 2020)	1 MAY - 1 OCT (2,601 nests in 2020)
Hawksbill	Very limited (2 nests in 2016)	No nesting	No nesting	No nesting

Loggerhead sea turtles also are the sea turtle most frequently taken by hopper dredging in the southeast (from North Carolina to the Florida Keys) resulting in the highest allowed take under the 2020 SARBO (107 loggerheads per three-year period, which is approximately 35 per year). Table 36 of the 2020 SARBO lists total hopper dredging takes from 1997-2018 by species covered under the 1997 SARBO, with loggerhead sea turtles accounting for 53% of all lethal take (183 loggerhead), followed by an almost even number of green and Kemp's ridley sea turtles each making up approximately 18% of observed lethal take (53 green and 54 Kemp's ridley). According to Table 12 in the 2020 SARBO, the maximum number of sea turtles taken in a single fiscal year (green, Kemp's ridley, loggerheads, and those unable to be identified by species) was 66 total turtles. This was an anomaly with the average take per year since 1997 being 16 and the lowest year was only a total of five sea turtles. Only three of the twenty-one years reviewed in Table 12 reported over 25 total sea turtles taken by hopper dredging.

USACE has and will continue to closely monitor all take (lethal and non-lethal) and adjust dredging operations or cease dredging as deemed appropriate based on multiple considerations. USACE would not allow a single project to use all take allowed under the SARBO for a single species or combination of species since it must manage all USACE navigation covered under the 2020 SARBO. Table 36 in the 2020 SARBO lists the minimum, maximum, and average take by species from hopper dredging. For example, the maximum number of observed lethal loggerhead sea turtle take was 18 in one year with an average of nine observed lethal loggerhead lethal take per year for all projects covered under SARBO. The largest annual take of loggerhead sea turtles occurring on a single project under SARBO was six turtles, demonstrating USACE's commitment to managing the level of take and ceasing work when the risk is deemed too high, as described below.

a. The total take for a project does not tell the whole story of adaptive management used by the USACE to minimize take of ESA-listed species. For example, Brunswick Harbor is adaptively managed and often work is stopped early as a result of sea turtle takes occurring during historic winter dredging windows. Information for FY07-09 are provided below for historic context, but this adaptive management continued through all subsequent years. In FY07, hopper dredging in Brunswick Harbor was adjusted multiple times to reduce take. Dredging began on December 20, 2006 and the first turtle take did not occur until December 26, 2006, when a loggerhead was taken (and water temperatures were 16°C, below the 17°C threshold when loggerhead sea turtles tend to shift locations based on water temperature, discussed in Section 1.B), along with one Atlantic sturgeon prior to that species being listed under the ESA. After two Kemp's Ridley sea turtles were taken on December 29th, (with a 14.5°C water temperature), work was stopped until relocation trawling could begin. Relocation trawling began on December 30th and continued until dredging ceased on January 11, 2007, when another Kemp's Ridley was taken (15°C). After dredging had been completed on another project (Savannah), relocation trawling began again in Brunswick on March 15th, with dredging recommencing on March 20th. After two loggerhead sea turtles were taken in one load on March 24th (18.3°C water temperature), the dredging work was ended.

   In FY08, a pre-construction risk-assessment for Brunswick led to the decision to start relocation on January 14, 2008, trawling prior to starting to dredge on January 19th based on lessons learned during FY07, discussed above. Only two sea turtles were relocated before dredging began [and 10 Atlantic sturgeon prior to this species being listed under the ESA] and no other turtles were captured so the trawling stopped on January 27, 2008 (10.7°C water temperature). A loggerhead was taken on February 13, 2008 (13.3°C) and then two other turtles (loggerhead and Kemp's ridley) in a single load on February 26th (16°C water temperature) resulting in stopping work to reassess risk. It was decided that work could not continue unless relocation trawling was reinstituted. Eight turtles were relocated between February 28 and March 6, 2008 and, on March 6th, a Kemp's and a loggerhead were taken in the same load (16.1°C water temperature) and work was terminated for the year.

In FY12, Brunswick Harbor was no longer able to use capture/relocation trawling due to changes in NMFS' opinion on how to authorize this activity (discussed in Section 2.B.3). Instead, non-capture/sweep trawling was initiated on January 25, 2012 prior to commencing work and continued until February 7, 2012. During that time, six turtles were taken - one loggerhead, one green, and four Kemp's ridley sea turtles (15-15.2°C water temperatures). Two of the four Kemp's ridley were caught in consecutive loads on February 7, 2012 and work was suspended. After dredging was completed on another project (Savannah), sweep trawling began again in Brunswick on March 21, 2012. In the first day of dredging with non-capture trawling restarted, three turtle takes occurred in the same load on March 22, 2012 (two loggerheads and one Kemp's ridley) and the dredging work was terminated.

b. Tampa Bay. Maintenance hopper dredging that started on November 30, 2018, and resulted in six sea turtle takes in four days. Though this was the beginning of the project, the risk of take was deemed too high and the project was delayed until May. The costs associated with delaying this project and remobilizing months later cost approximately $2 million.

c. Charleston (Post 45, not covered under SARBO) deepening resulted in five sea turtles in 24 hours and work was stopped. These takes occurred near the end of the project (cleanup phase) and the remaining material was moved by bed-leveling to reduce further take. For context, over $1.4 million has been spent on this project for relocation trawling resulting in the relocation of 71 animals (i.e., 33 Atlantic sturgeon and 38 sea turtles).

Given that sea turtle populations are large and the 2020 SARBO allows only limited take of any covered turtle species, the impact to any species of sea turtle from dredging under the 2020 SARBO would not affect sea turtle population status or recovery, as analyzed and concluded in the 2020 SARBO.

Throughout the risk-assessment process, USACE will continue to evaluate the risk of hopper dredging take based on an evolving understanding of how green, Kemp's ridley, and loggerhead turtles use project areas by time of year and in response to factors such as cold-snaps, hurricanes, and prevalence of foraging resources. Understanding species abundance and how the species is using and moving within the area aids in understanding the risk from actions such as hopper dredging.

C.1.2. Sea turtle ability to avoid interactions with dredging by time of year. USACE agrees with NMFS determinations in the 2020 SARBO that limiting work to winter months, as was required under the 1997 SARBO, is not the only or even most effective way to reduce risk to sea turtles. Much knowledge has been gained since the decision was made to try to protect sea turtles by restricting hopper dredging to winter months. Because most take occurs when the dragheads are not firmly embedded in the sediment, USACE has worked to find ways to reduce this risk by adding draghead deflector shields that create a sand wave to move turtles away from the draghead, requiring that draghead pumps are disengaged when not actively dredging, or switching

to bed-leveling during clean-up phase when hills and valleys left by hopper dredging make it harder to keep dragheads embedded. In addition, USACE closely monitors dredging using the National Dredging Quality Management Program (DQM), which is a USACE-Dredging Industry partnership for automated monitoring of dredge activities to provide quality near-real-time data such as monitoring the draghead depths, the velocity of material entering the dragheads, when pumps are engaged and disengaged, and related dredging information to ensure that the 2020 SARBO PDCs are being followed. In addition, closed net relocation trawling, now covered under the 2020 SARBO, has been proven to reduce risk of take during hopper dredging by providing a way to safely move sea turtles out of the project area to avoid hopper dredging interactions.

Since most hopper dredging take of sea turtles is loggerhead sea turtles, USACE considered if species areas are known to have higher density or life cycle importance and if that information could be used to further reduce the risk of take by hopper dredging during dredging at these five RHDC projects. NMFS identified key life-cycle areas for loggerhead sea turtles with the designation of critical habitat for this species in 2014 (79 FR 39855). Of note are nesting beaches (nearshore reproductive habitat), breeding areas, and migratory pathways. Waters off the outer banks of North Carolina have been identified as a constricted migratory pathway for loggerhead sea turtles migrating to northern foraging grounds in summer months and back in the fall and an overwintering sites south of Cape Hatteras. Both of these key areas demonstrate abundance of sea turtles in waters off the North Carolina coast but are located east of the outer banks and therefore do not overlap with Wilmington or Morehead City Harbors. Between FY13-20 (a readily available data set), only approximately 10% of all sea turtle takes in waters from North Carolina to the Florida Keys occurred in Wilmington and Morehead City hopper dredging project.

Another area of importance identified in the loggerhead critical habitat designation were the waters off the central east coast of Florida that are identified as breeding areas. Even though the east coast of Florida has the largest loggerhead nesting population, only 14% of all sea turtle takes from North Carolina to the Florida Keys occurred on the east coast of Florida south of Kings Bay.

Unfortunately, from FY13-20, almost 60% of all sea turtle takes for all turtle species and also almost 60% of all loggerhead sea turtle takes from North Carolina to the Florida Keys occurred at just three project locations adjacent to each other (Savannah Harbor, Brunswick Harbor, and Kings Bay). While the percent of take by project or region provides some information, it does not consider the number of projects, frequency of projects, or length of time to complete a project. It is concerning to USACE that the most significant number and percent of lethal hopper dredging takes are limited to such a small area of projects covered under 2020 SARBO (i.e., Savannah Harbor, Brunswick Harbor, and Kings Bay). Hopper dredging in these areas has been generally limited to historic winter dredging windows as a way to minimize take. However, USACE concludes that moving hopper dredging to warm summer months may be more protective of sea turtles. A study released in 2020 used genetics to determine that the majority (84.4%) of female loggerhead sea turtles nesting in North Carolina, South

Carolina and Georgia migrate north to foraging areas north of North Carolina after nesting each summer[7]. However, not all turtles migrate, leaving a smaller resident population that moves shorter distances to forage and overwinter. The 2020 study also concluded that these turtles then migrate back south to wintering areas from Cape Hatteras, North Carolina to West Palm Beach in Florida, "where they can enter warmer waters adjacent to the Gulf Stream while minimizing the migratory distance, time and energy required to return to their northern foraging sites when water temperatures rise in the spring." Due to the greatest number of hopper dredging lethal take of sea turtles being concentrated in this south Georgia/ Northern Florida area, it seems that this area may have a higher number of wintering sea turtles that are too cold to easily avoid interactions with hopper dredging. Some sea turtle experts believe that summer hopper dredging may have the lowest risk to sea turtles, even if abundance is high in the area. In the summer, turtles are warmer and can more easily avoid interactions and may be using areas outside of channels as they disperse throughout the region. Since the majority of loggerhead sea turtles migrate to northern foraging grounds, the density of turtles in the summer (post-nesting) may actually be lower.

To date, the only hopper dredging completed outside of the historic dredging windows was Brunswick and Savannah in September 2009 (Fall) as part of a pilot study. The 2009 dredging resulted in six loggerhead sea turtle takes for the combined project during a time that water temperatures were ~27°C, which some biologists conclude demonstrated excess lethal take and that dredging during this time of year was unsuccessful. For comparison, Brunswick and/or Savannah Harbors have been frequently dredged with less take; however, six sea turtle takes occurred in FY12 in Brunswick (discussed above) and six sea turtle takes in FY20 in Brunswick and Savannah combined when water temperatures were ≤15°C. Therefore, limiting to winter timeframes with colder water is not a completely effective way to reduce risk.

Warm waters and/ or high sea turtle density in an area does not necessarily equate to higher or unacceptable hopper dredging take. For example, multiple hopper dredging projects have occurred in recent years during time periods when waters were warm and sea turtle abundance in the area was known to be high. Yet, these projects were able to be successfully completed with a low level of lethal take per project.

- Bogue Banks. Hopper dredging from February 21, 2021 – April 6, 2021 resulted in three sea turtle takes (two Kemp's ridley and one loggerhead) while 24 sea turtles (10 Kemp's ridley and 14 loggerheads) were relocated. In addition, 17 Atlantic sturgeon were relocated. Dredging in FY21 was the third phase of this project. Dredging from March 8, 2019 – April 24, 2019 did not have any lethal hopper dredging take. Dredging from February 6, 2020 – April 29, 2020 dredged 2,270,000 cubic yards of material with only 3 lethal sea turtle takes (one Kemp's ridley and two

[7] Pfaller JB, Pajuelo M, Vander Zanden HB, Andrews KM, Dodd MG, Godfrey MH, et al. (2020) Identifying patterns in oraging-area origins in breeding aggregations of migratory species: Loggerhead turtles in the Northwest Atlantic. PLoS ONE 15(4): e0231325. https://doi.org/10.1371/journal.pone.0231325).

loggerheads). Relocation trawling was conducted in both FY19 and FY20 and relocated sea turtles and Atlantic sturgeon (a combined total of eight Kemp's ridley, 14 loggerheads, six green sea turtles, and 17 Atlantic sturgeon). No Atlantic sturgeon were taken in any of the three years of hopper dredging.

- Wilmington. Hopper dredging from May 24, 2021 to June 27, 2021 did not result in any sea turtle take, even without relocation trawling.

- Morehead City. Hopper dredging from May 29, 2020 – July 30, 2020 resulted in two loggerhead sea turtle takes. Hopper dredging again during the summer of 2021 (May 30, 2021 – June 14, 2021) resulted in two loggerhead and one green sea turtle takes with nine sea turtles relocated (six loggerhead and three Kemp's ridley).

- Oak Island. Hopper dredging from May 6, 2021 – May 22, 2021 resulted in only one loggerhead lethal take while 34 turtles were relocated (19 Kemp's ridley and 15 loggerhead sea turtles) and 12 Atlantic sturgeon.

Since hopper dredging outside of winter months has been less common in this area, take information for a large project in the Northern Gulf is provided for comparison. The Mississippi Coastal Improvements Program work was completed over multiple years and included all seasons, including warm water months with a clear abundance of sea turtles present based on the high numbers relocated, as described below.

- Phase I (SER-2012-09304). Hopper dredging from November 2017 to January 2019 resulted in no sea turtle take and one Gulf sturgeon take while 395 sea turtles were relocated (280 Kemp's ridley, 108 loggerhead, six green, and one leatherback) and two Gulf sturgeon.

- Phases 3 and 4 (SERO-2018-00260, SER-2018-19667). Hopper dredging for Phases 3 and 4 from July to December 2020 resulted in no sea turtle take and one Gulf sturgeon take while 33 sea turtles were relocated (26 Kemp's ridley, six loggerheads, and one leatherback) and two Gulf sturgeon.

C.1.3. Spring and Fall. SARBO discusses that sea turtle take in summer (JUL-SEP) may be lower, but spring and fall may be higher when sea turtles are migrating, based on a study released by the USACE (Dickerson, D. D., and coauthors. 2007. *Effectiveness of relocation trawling during hopper dredging for reducing incidental take of sea turtles. U.S. Army Corps of Engineers, Engineer Research and Development Center Research Initiatives and Central Dredging Association, Lake Buena Vista, FL.*). Some turtle experts conclude that spring may be the worst time for dredging because northern migrations begin and turtles may be moving into coastal waters in these areas. Of the data from FY13 to FY20 that was reviewed for hopper dredging projects from North Carolina to the Florida Keys, almost 60% of sea turtle takes occurred in March, which lends support to the conclusion that spring is not the optimal time for hopper dredging. However, with projects historically limited to winter hopper dredging windows, March also represented the month in which dredging had to

be complete, and there may have been a disproportionate number of project areas that had hills and valleys created by hopper dredging (cleanup phase) that caused the greatest risk of take if the draghead could not remain embedded in the sediment. With bed-leveling allowed under the 2020 SARBO, this risk is reduced.

USACE will continue to monitor take by area and time of year and work with turtle experts to better understand these movement patterns to determine if adjusting the timing for maintenance dredging can reduce the risk of take.

C.1.4. Additional loggerhead sea turtle information. Given that loggerhead sea turtles are taken in higher numbers than other sea turtle species, additional analysis is provided below for this species. This threatened species was divided into nine Distinct Population Segments (DPS) in 2011, with all loggerhead sea turtles in the United States along the Atlantic Coast and Gulf of Mexico in the Northwest Atlantic DPS (76 FR 58868, published on September 22, 2011). While the loggerhead sea turtle Recovery Plan identified smaller nesting populations based on genetics, it classified loggerhead sea turtles in the study area as part of the Northern Recovery Unit spanning from the Florida /Georgia border north through southern Virginia. Therefore, loggerhead sea turtle take occurring at a single project or across all five RHDC projects would have the same effect to the Northwest Atlantic DPS and/or the Northern Recovery Unit (NRU). Even if 35 loggerhead sea turtles were taken under the 2020 SARBO at a specific project or within a specific state, it would not change the status of the loggerhead sea turtle population or recovery.

The loggerhead take limit for the 2020 SARBO is relatively low for the amount of work and covered when compared to individual project consultations completed by NMFS. NMFS recently completed a biological opinion on the shrimp fishery and concluded that 2,150 lethal loggerhead sea turtle takes per 5-year period, (approximately 430 per year) would not change the recovery or result in jeopardy of the species even in the context of that loss combined with all other actions resulting in take of loggerhead sea turtles, including those covered under the 2020 SARBO[8].

According to the status of the species section in a recent NMFS biological opinion[8], loggerhead sea turtles in the NRU

> are showing improved nesting numbers and a departure from the declining trend. Georgia nesting has rebounded to show the first statistically significant increasing trend since comprehensive nesting surveys began in 1989 (Mark Dodd, GADNR press release, http://www.georgiawildlife.com/node/3139). South Carolina and North Carolina nesting have also begun to shift away from the past declining

[8] NMFS Reinitiation of Endangered Species Act (ESA) Section 7 Consultation on the Implementation of the Sea Turtle Conservation Regulations under the ESA and the Authorization of the Southeast U.S. Shrimp Fisheries in Federal Waters under the Magnuson-Stevens Fishery Management and Conservation Act (MSFMCA), NMFS Tracking Number SERO-2021-00087

trend. Loggerhead nesting in Georgia, South Carolina, and North Carolina all broke records in 2015 and then topped those records again in 2016. Nesting in 2017 and 2018 declined relative to 2016, back to levels seen in 2013 to 2015, but then bounced back in 2019, breaking records for each of the three states and the overall recovery unit.

In addition, the total NWA DPS loggerhead population estimates vary, but range from 30,000 to 1,000,000 of just female loggerhead sea turtles, according to Section 4.1.1.5 of the 2020 SARBO.

According to the NMFS website at https://www.fisheries.noaa.gov/species/loggerhead-turtle, "In the United States, the Northwest Atlantic Ocean DPS of loggerhead turtle nests primarily along the Atlantic coast of Florida, South Carolina, Georgia, and North Carolina and along the Florida and Alabama coasts in the Gulf of Mexico. Total estimated nesting in the United States is more than 100,000 nests per year." Sea turtle nesting data for the study area is available at www.seaturtle.org and summarized in Table 6 above.

The annual allowed take for all activities in the South Atlantic under the 2020 SARBO remains the same for loggerhead sea turtles as it was under the 1997 SARBO. Specifically, the 1997 SARBO evaluated the loss of 35 loggerhead sea turtles annually (observed lethal take). The 1997 SARBO did not account for take that was unobserved take as that was not common practice at that time. The 2020 SARBO evaluated loggerhead sea turtle take including 107 observed lethal takes plus 107 unobserved lethal takes per three consecutive year period to account for annual variation as is common in NMFS-issued biological opinions. For context, 107 observed lethal takes per three years is an average of 35.6 observed lethal takes per year, which is the same as the 1997 SARBO.

C.2. Sturgeon. Atlantic sturgeon inhabit coastal, estuarine, and riverine environments on the Atlantic coast. Five separate DPSs of Atlantic sturgeon were listed in 2012, and the project areas are located within the South Atlantic DPS (77 FR 5880 and 77 FR 5914, Publication Date February 6, 2012). Atlantic sturgeon commonly occur in the project areas. Adults migrate into spawning rivers, designated as critical habitat, in the spring and likely fall. Shortnose sturgeon, unlike Atlantic sturgeon, tend to spend relatively little time in the ocean, according to the NOAA species directory website. When they do enter marine waters, they generally stay close to shore. In the spring, adults move far upstream and away from saltwater to spawn. USACE will continue to monitor take by area and time of year and work with sturgeon experts to better understand these movement patterns to determine if adjusting timing can reduce the risk of take.

Of the data from FY13-20 reviewed for hopper dredging projects from North Carolina to the Florida Keys, almost 75% of Atlantic sturgeon lethal take occurred at the same three projects with high turtle takes (i.e., Savannah Harbor, Brunswick Harbor, and Kings Bay). Many projects have resulted in an almost equal number of Atlantic sturgeon take

relative to take of all species of sea turtles, as shown in Table 7 below.

Table 7. Historic Observed Take from Hopper Dredging of Sea Turtles Compared to Atlantic Sturgeon

Fiscal Year	Dredging Location	Dredging Dates	Atlantic Sturgeon	Total- All Turtle Species
2012	Charleston	2/29/12 – 3/17/12	1	1
2017	Charleston	2/4/17 – 2/17/17	1	0
2019	Charleston- Post 45 Deepening[9]	12/10/18-4/14/19	3	3
2020	Charleston- Post 45 Deepening[10]	12/25/19-3/27/20	3	5
2021	Charleston- Post 45 Deepening[11]	11/27/20-5/5/21	7	10
2019	Savannah	2/2/19-2/28/19	2	0
2020	Savannah	1/24-20-2/16/20	2	1
2015	Brunswick	1/20/15 - 2/14/15	1	0
2018	Brunswick	12/30/17 - 3/15/18	6	2
2020	Brunswick	1/10/20 - 2/20/20	4	5

In addition, relocation trawling during winter months has resulted in the relocation of high numbers of Atlantic sturgeon in some areas, including 79 Atlantic sturgeon relocations in Brunswick Harbor between January 18 to March 18, 2018. In Savannah Harbor, 41 Atlantic sturgeon were relocated between November 30, 2017 to April 1, 2018. Similarly, the three years combined for Charleston Deepening listed in Table 7 above included relocation of a total of 20 sea turtles for all species combined, but included relocation of 33 Atlantic sturgeon. While minimal mortality was associated with these relocation efforts, it is stressful to the sturgeon and may result in decreased ability to weather other stresses. In general, the number of sturgeon in many entrance channels is much larger in the winter than it is during the summer. The current theory is that the sturgeon are staging in these areas to go up nearby spawning rivers in the spring. While our understanding of the seasonal timing of sturgeon staging and annual migrations into spawning rivers is still developing, USACE will continue to monitor captures and work with sturgeon experts to understand how to reduce risk to this species.

C.3. North Atlantic Right Whales. NARW typically inhabit coastal waters along coastal Georgia and northern Florida each winter, often close to shore. According to the NOAA species directory website, each fall, some right whales travel more than 1,000 miles from North Atlantic feeding grounds to their only known calving grounds in the southeast; the majority of calving occurs in the shallow, coastal waters off Georgia and northeastern Florida. These whales remain near the surface with their new calves and are hard to spot in the water making them susceptible to vessel strikes, which is one of the leading causes of death for this species. In fact, both NARW deaths that occurred in 2021 occurred in the area covered by the 2020 SARBO - with one death caused by a vessel strike in St. Augustine, Florida and the other death off Myrtle Beach, South Carolina from a long-term entanglement. Entanglement is the other leading

[9] Post 45 dredging is covered under a separate NMFS biological opinion, not the 2020 SARBO.
[10] Post 45 dredging is covered under a separate NMFS biological opinion, not the 2020 SARBO.
[11] Post 45 dredging is covered under a separate NMFS biological opinion, not the 2020 SARBO.

cause of death for this species and the reason the 2020 SARBO requires all lines associated with work on a project to be non-entangling.

The coastal waters from Cape Fear, North Carolina southward to Cape Canaveral Florida are designated as critical habitat for calving and encompasses the federal navigation channels that are six meters or deeper, offshore placement area (ODMDS), and all areas in between that are transited by dredging and support vessels. None of the actions covered under the 2020 SARBO affect the NARW critical habitat essential features.

This endangered species is of particular concern to NMFS due to its critically low population numbers (estimated at only 368 remaining), low annual calving rates including no calves born in 2018, and an unusual mortality event where 49 individuals have died since 2017 equating to an estimated 10% population loss. This population loss and low birth rates is considered a significant setback to the recovery of the population as summarized in the image below (https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2021-north-atlantic-right-whale-unusual-mortality-event).

As noted in Section 3.1.4.1.4 of the 2020 SARBO,

> We [NMFS] believe that the risk of a vessel strike occurring during a project analyzed under this Opinion is very low,[fn omitted] since we are only aware of 2 reported interactions with vessels related to dredging, worldwide with North Atlantic or the closely related South Atlantic right whales despite decades of dredging both within the action area and

> globally. ***However, the consequences of potential take of a North Atlantic right whale to the small population of the species is high.*** While we do not normally discuss the status of a species when evaluating effects to a species if the effects from the action are not likely to adversely affect the species, the risk of vessel strikes and potential outcome of a strike to a North Atlantic right whale is unique due to the critical status of the population of this species. (emphasis added)

Also in Section 4.1.4.1.4, NMFS stated it was aware of two reports of a hopper dredge collision with a right whale. "One report occurred in South Africa in 1984 involving a Southern right whale and the other report occurred in Brunswick Harbor (within the action area) in 2005, though the report is contested by the USACE."

The conclusions made by NMFS in the 2020 SARBO are predicated on USACE shifting the majority of dredging for which vessels must transit through NARW calving areas to times when they are not present. As stated in the vessel strike analysis conclusion for NARW in Section 3.1.4.1.4,

> Because there are so few North Atlantic right whales, and much of the vessel traffic associated with the proposed action will take place outside of areas and times when North Atlantic right whales may be present, the likelihood of collisions is already very rare. We believe that the implementation of these additional protective measures in the PDCs further reduces the possibility of a vessel strike. When the rarity of occurrence is combined with the requirements of the *North Atlantic Right Whale Conservation Plan*, we believe a vessel strike is extremely unlikely to occur.

SARBO Section 6.1.1, lists the navigation channels that USACE had proposed to be dredged in warmer months and were analyzed by NMFS (that is, Brunswick Harbor, Savannah Harbor, Charleston Harbor, Wilmington Harbor Entrance/Inner Ocean Bar, Morehead City, and Manteo Entrance Channel). NMFS noted in Section 6.1.1 that any additional locations will be evaluated using the risk-based assessment process.

Under the North Atlantic Right Whale Conservation Plan (2020 SARBO Appendix F), USACE committed to reducing vessel traffic when and where NARW may be found. Specifically, Avoidance Measure NARW.1 states, "Hopper dredging and projects requiring survey vessels over 33-ft in length will be scheduled, to the maximum extent practicable, outside of North Atlantic right whale migration and calving season to avoid impacts to North Atlantic right whales, including reproducing females and newborn calves." USACE also committed to expanding the aerial surveys used to locate NARW in the southeast. Historically, NARW aerial surveys were limited to Georgia and Northern Florida, which were co-funded by USACE, NMFS, U.S. Navy, and the U.S. Coast Guard. These surveys are used as part of the Early Warning System to alert vessels of their presence to reduce the risk of vessel strikes. The survey area expanded after completion of the 2020 SARBO to include North and South Carolina at

the cost of approximately $1.5 million covered solely by USACE demonstrating USACE commitment to NARW conservation. This expanded aerial survey area expands the area where whale alerts are provided to mariners to reduce vessel strikes and provides valuable information on NARW use of this area to researchers. In FY20, the Early Warning System supported by USACE was able to locate NARWs, alert vessel pilots, and alert researchers so that temporary tags could be applied to short-term movement as part of ongoing research. USACE also helped to locate a deceased entangled NARW (named Cottontail) multiple times for researchers to study.

D. Minimization Measures/ Options Considered. Dredging of all five projects under the RHDC will adhere to all applicable PDCs in the 2020 SARBO; project timing, equipment use, and minimization measures are considered using the risk-assessment process. As outlined in this document, the primary species at risk of hopper dredging take from dredging of the five projects under the RHDC are sea turtles, Atlantic sturgeon, and NARW. Even after decisions are made based on this risk-assessment, USACE SAD will continue to work with Districts up to the commencement of work on these projects and throughout the dredging process to adaptively manage risk based on best-available information. USACE SAD also retains the ability to cease dredging if risk is determined to be too high during dredging operations.

D.1. Project Timing. The risk-assessment considerations for NARW and Atlantic sturgeon discussed in Sections C.2 and C.3 lead USACE to conclude that dredging outside of the historic dredging windows that were in the 1997 SARBO significantly reduces the risk to both NARW and sturgeon.

For NARW, adherence to the North Atlantic Right Whale Conservation Plan (2020 SARBO, Appendix F) ensures USACE vessels over 33 feet in length have reduced speeds to 10 knots when NARW are identified to be within 38 nautical miles. However, even with this Conservation Plan, the consequence of a potential vessel strike is greater than if dredging was done outside of the calving season because a NARW may be present that has not been spotted by an observer on a vessel or in a plane under the Early Warning System. This is the reason that USACE committed to expanding aerial surveys and moving as much work as is practicable outside of calving season as part of the Conservation Plan after numerous discussions with NMFS about NARW protection in light of its critically endangered status and population decline. Since the population status of NARW is so low, the consequence of a potential vessel strike makes the risk of working during calving season extremely high. The low population numbers (approximately 368 individuals total) of this species cannot sustain the species at its current rate of recent high death rates (49 dead since 2017 equaling almost 10% population loss) and low birth rates (only 41 calves born since 2017), meaning that more individuals have died than have been born since 2017. This population trend is in stark contrast to the other species covered by the 2020 SARBO and is the reason that no take (lethal or nonlethal) is authorized for NARW under the 2020 SARBO. For example, Table 6 lists 12,272 loggerhead sea turtle nests in 2020 within the SARBO action area.

For sea turtles, some individuals predict that working outside of historic dredging windows may slightly increase risk because more sea turtles may be more prevalent in the project areas in the spring, summer or fall when water temperatures are warmer. However, warmer water and higher densities of sea turtles will not necessarily result in higher take by hopper dredging, as discussed in Section 2.C.1 above. Hopper dredging has been successfully conducted in areas when sea turtle abundance was high and did not result in sea turtle take by hopper dredging. The 2020 SARBO offers the flexibility to continue to adjust project timing, equipment options, and minimization measures covered under SARBO to adjust work on projects to continue to try to reduce risk to all species based on an increased understanding of species and risk. Continued research increases the understanding of species' use of areas, risk from projects, and how these continue to change based on factors such as extreme weather events, like hurricanes, and climate change. Research during the past several decades has lead some turtle experts to conclude it may be in the best interest of turtles to move dredging outside historic dredging windows.

For Atlantic sturgeon, the high numbers encountered in many of these channels during historic dredging windows has led biologists to question whether hopper dredging in areas where sturgeon are likely staging prior to a spawning run is a the best time for activities like dredging. Though large numbers have been successfully relocated during winter months, especially in Brunswick Harbor, the long-term effects of these relocations is still not well understood. Moving work outside of historic winter months will also benefit this species by reducing the number of those captured by relocation trawling. Also, changing the timing of dredging will reduce lethal take because sturgeon move into rivers for spawning in spring and likely fall, thus reducing the likelihood of encounter.

Availability of dredging equipment is also a consideration. In past years, dredging in these project areas has been cut short or the channels were not maintained when hopper dredges had to be diverted to nationally higher priority projects, such as the annual maintenance dredging in the high-shoaling Mississippi River that typically occurs from February to April. Working outside of the winter months is also beneficial to the species considered in this assessment.

D.2. Equipment Choice. USACE also considered the use of cutterhead dredge, mechanical dredging, or limiting material placement to uplands to reduce risk to NARW. These options were determined to be cost prohibitive and would not be practicable for carrying out the necessary routine O&M of these critical Federal navigation projects.

Another equipment choice that can reduce risk of species entrainment from hopper dredging (e.g., sea turtles and sturgeon) is to utilize bed-levelers, as discussed in Section B.1.b above. USACE plans to continue to use this option to the maximum extent practicable for all projects.

USACE will also continue to work with species experts and industry to find ways to further reduce risk. If innovative equipment or equipment modifications are deemed

appropriate to try to reduce species risk, these changes will be coordinated with NMFS through the "Alternative Project Implementation and Programmatic Modification through the Superseding Process of Review," which is outlined in Section 2.9.5 of the 2020 SARBO.

D.3. Relocation trawling. Relocation trawling remains a viable option to reduce the risk of hopper dredging take of sea turtles and sturgeon. However, relocating during summer months may encounter gravid (i.e., pregnant, carrying eggs) female sea turtles, and stress and exertion from relocation increases risk (e.g., nonlethal reproductive loss), as analyzed in SARBO Section 6.1.4.1.2 and therefore may result in unobserved take. Therefore, the duration of relocation trawling will be based on a balance of stressors inflicted upon sea turtles during relocation versus risk of lethal entrainment from hopper dredging (i.e., will depend upon number of adult female sea turtles captured versus the number of those entrained).

3. RECOMMENDATIONS FOR THE RHDC PROJECTS. USACE plans to issue a solicitation for a regional dredging contract to perform maintenance dredging at the five project locations listed in Section 1. So long as work is performed in compliance with any restrictions set by USACE (e.g., earliest start date for work, latest completion date, and use of certain mitigation measures), the exact timing for performing work will be left to the discretion of the company awarded the Regional Dredging Contract. It is assumed that a hopper dredge will be used by the company awarded the contract; however, hopper dredge is not required, and the company may use other options, including cutterhead or mechanical dredging. Use of other options is not expected based on past experience and limitations of these equipment types to complete work in these environments. USACE will continue to use the risk-based adaptive management process to evaluate and adjust recommended minimization measures, such as relocation trawling and bed-leveling, before and during dredging. USACE will retain the right to stop work on any project whenever the risk to ESA-listed species is deemed too high, as USACE has done for decades and is discussed earlier in this document.

An accurate and timely reporting is essential to risk-assessment and the adaptive process applied by USACE. Reporting requirements are important and consequently should be included as contract requirements. For example, hopper dredging and relocation trawling reports completed by the Protected Species Observer need to be provided to NMFS after every encounter with an ESA-listed species according to the 2020 SARBO PDCs. Reporting of hopper dredging take is currently entered in ODESS and relocation trawling reports are handwritten. Once ODESS is upgraded to Version 2, all data will be entered in the new hopper and trawling phone or tablet application. In addition, weekly reports should be provided in a digital, manipulatable Excel spreadsheet (e.g., not a scanned PDF) that provide all information required in the 2020 SARBO including species type, measurements taken, and confirmation if a tag was applied and genetic sample taken when required. This spreadsheet will provide a total count by species of all ESA-listed species captured. An end of project summary report is also required that includes the complete spreadsheet of ESA-listed species captured and a digital scanned copy of all handwritten reports (e.g., load, tow, daily report), if

applicable. All bycatch will be recorded indicating if bycatch occurred, species observed, and estimated numbers of species captured. Emphasis will be placed on tracking bycatch for species provided by USACE.

Based on the risk assessment in Section 2 above, the following is recommended for the dredging of these projects.

A. Wilmington and Morehead City Harbors. It is recommended that dredging be initiated on or after March 1st, which is a month later than the initiation of work under last year's contract. The risk assessment supports USACE moving outside of historic winter dredging windows. Since dredging is required annually for these two projects, the timing of the work needed to maintain the navigability of the Federal channels cannot be changed dramatically from year to year. Relocation trawling should be included in the contract as an optional line item so that it is a measure that USACE, at its discretion, can determine if or when use of relocation trawling begins and ends. The determination regarding relocation trawling will be based on best available information at the time, including hopper dredging take and relocation trawling captures that may be occurring at other projects in the area. Application of these considerations is consistent with past projects that were successfully performed within the past years (as discussed in Section 2). Also, the use of bed-levelers should continue to the maximum extent practicable.

B. Charleston, Savannah, and Brunswick Harbors. The risk assessment supports USACE moving outside of historic winter dredging windows to dredge these projects. Dredging within the prior windows does not reduce risk to the fullest extent for Atlantic sturgeon, NARWs, and likely sea turtles. However, dredging should be performed between 15 December and 31 March during FY22 because this timeframe is currently dictated by environmental compliance requirements that are being addressed and the ongoing litigation involving maintenance dredging of Brunswick Harbor. Relocation trawling should be included in the contract as an optional line item to provide discretion to USACE to require its use as needed, and the use of bed-levelers should continue to the maximum extent practicable. Once current sources of restrictions are resolved, USACE should update and apply the risk-based assessment and process, as required by the SARBO, to determine the timing, equipment, and mitigation measures for conducting maintenance dredging at these three projects and minimizing the risk of takes.

2021.07.15
14:17:36 -04'00'

John D. Ferguson, P.E.
Chief, Operations and Regulatory Division
South Atlantic Division

GADNR-WRD Correspondence

From:	Garrison, Rusty
To:	Moore, Kelie; Richards, Mary E CIV USARMY CESAS (USA)
Cc:	Dayan, Nathan S CIV USARMY CESAS (US); Henshaw, Susan H CIV USARMY CELRE (US); Lee, Jason; Ambrose, Jon
Subject:	[Non-DoD Source] RE: Cooperating Agency Request for the Brunswick Harbor Modification Study
Date:	Tuesday, May 28, 2019 9:30:04 AM

Good morning Kelie,

The WRD point of contact will be Jason Lee. He is copied on this email. Let me know if you need anything else.

Thanks,

Rusty

-----Original Message-----
From: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Sent: Tuesday, May 28, 2019 8:42 AM
To: Richards, Mary E CIV USARMY CESAS (USA) <Mary.E.Richards@usace.army.mil>
Cc: Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Garrison, Rusty <Rusty.Garrison@dnr.ga.gov>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: RE: Cooperating Agency Request for the Brunswick Harbor Modification Study
Importance: High

DNR will be a cooperating agency and I will serve as CRD's point of contact. Please let me know who the WRD point of contact is once it is determined. Thank you.

Kelie Moore
Federal Consistency Coordinator
Coastal Resources Division
(912) 264-7218 | (912) 262-2334
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GEORGIA DEPARTMENT OF NATURAL RESOURCES

-----Original Message-----
From: Richards, Mary E CIV USARMY CESAS (USA) [mailto:Mary.E.Richards@usace.army.mil]
Sent: Thursday, May 23, 2019 11:39 AM
To: Moore, Kelie <Kelie.Moore@dnr.ga.gov>; Garrison, Rusty <Rusty.Garrison@dnr.ga.gov>
Cc: Dayan, Nathan S CIV USARMY CESAS (US) <Nathan.S.Dayan@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (US) <Susan.Henshaw@usace.army.mil>
Subject: Cooperating Agency Request for the Brunswick Harbor Modification Study

Dear Ms. Moore and Mr. Garrison,

The U.S. Army Corps of Engineers, Savannah District (Corps) intends to prepare an environmental assessment for the Brunswick Harbor Modification Study (BHMS). This study will investigate two areas in the Brunswick inner harbor navigation channel which have been identified by the Brunswick Harbor pilots as problems for commercial

vessel maneuverability. The first area of concern is in the vicinity of Coast Guard buoy 24 at the intersection of the Cedar Hammock Range and the Brunswick Harbor Range. The second area of concern is the South Brunswick River Turning Basin at the convergence of the South Brunswick River and the Turtle River.

Pursuant to Sections 1501.6 and 1508.5, of the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) of 1969, the Corps requests the participation of the Georgia Department of Natural Resources as a cooperating agency in providing assistance in preparing the environmental assessment for the BHMS.

This request is being made to the following Federal agencies: U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, and Georgia Department of Natural Resources. The purpose of this request is to formalize, via designation as a Cooperating Agency, the continuing coordination and active participation by your agency, and these other agencies, in the BHMS.

If you require further information, please contact me at (912) 652-5020, or via E-Mail at mary.e.richards@usace.army.mil.

Sincerely,

Mary E. Richards
U.S. Army Corps of Engineers
Biologist-Planning Branch
100 W. Oglethorpe Avenue
Savannah, GA 31401
(912) 652-5020

From: Fox, Stephen M CIV USARMY CESAD (USA)
To: Rusty.Garrison@dnr.ga.gov
Cc: Tim.Barrett@dnr.ga.gov; Garvey, Kimberly L CIV USARMY CESAS (US)
Subject: Brunswick Harbor Modification Study- GADNR WRD- NEPA
Date: Tuesday, June 9, 2020 8:05:00 AM
Attachments: BHMS_ Public Notice.pdf
BHMS GA WRD NEPA letter.pdf

Dear Mr. Garrison:

The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) and draft Finding of No Significant Impact (FONSI) to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.

Attached is our signed official letter from Savannah District to GADNR-WRD with regards to the IFR/EA and FONSI, as well as a copy of the signed public notice. A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.

Please don't hesitate to reach out if you have any questions or concerns!

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

HILL, SUZANNE CIV USARMY CENSAS (USA)

From: Hill, Suzanne SAS
Sent: Wednesday, June 23, 2021 4:35 PM
To: Moore, Kelie
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); CESAS-Planning
Subject: Brunswick Harbor Modification Study- draft IFR/EA extended public comment period
Attachments: BHMS_ Public Notice_2021_extension.pdf

Dear Ms. Moore,

Writing to let you know we have received a request to extend the public comment period and we will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thank you,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:55 PM
To: Moore, Kelie <Kelie.Moore@dnr.ga.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Dear Ms. Moore,

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft FONSI are available for public review and comment. The documents can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Thank you,

Suzy

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324

GADNR-EPD Correspondence

From: Fox, Stephen M CIV USARMY CESAD (USA)
To: Wiedl, Stephen
Cc: smith, bradley; Garvey, Kimberly L CIV USARMY CESAS (US)
Subject: Brunswick Harbor Modification Study- GADNR EPD-Section 401 WQC
Date: Tuesday, June 9, 2020 7:58:00 AM
Attachments: BHMS_ Public Notice.pdf
BHMS GA EPD NEPA letter.pdf

Dear Mr. Wiedl:

The US Army Corps of Engineers, Savannah District (Corps), is pleased to announce the release of a draft Integrated Feasibility Report/Environmental Assessment (IFR/EA) and draft Finding of No Significant Impact (FONSI) to evaluate measures that would increase transportation cost efficiencies in the deep draft Federal navigation channel at Brunswick Harbor, Glynn County, Georgia.

Attached is our signed official letter from Savannah District to GADNR-EPD with regards to the IFR/EA and FONSI, as well as a copy of the signed public notice. A link to the document is included in each of the letters. We would appreciate any comments you may have pursuant to the National Environmental Policy Act (NEPA), and instructions for submitting comments and Points of Contact are in included in each respective letter. The comment period will begin on June 9, 2020 and extend for 30 calendar days.

Please feel free to contact me if you have any questions.

Regards,
Steve

Stephen M. Fox
Biologist- Planning Branch
US Army Corps of Engineers, Savannah District
100 W. Oglethorpe Avenue
Savannah, Georgia 31401-3640
Ph: (912)652-6210

From:	Wiedl, Stephen
To:	Richards, Mary E CIV USARMY CESAS (USA); Garvey, Kimberly L CIV USARMY CESAS (US); Planning Branch Calendar
Cc:	Armetta, Robin E CIV USARMY CESAS (USA); Smith, Bradley; Zeng, Wei; Potter, Amy; Booth, Elizabeth
Subject:	[Non-DoD Source] 401 WQC Requirement and GaEPD Comments per Brunswick Harbor Modification and Study
Date:	Saturday, July 11, 2020 12:35:07 AM
Attachments:	o2020 06 09_No SAS Number_BS_USACE Planning Notice - Brunswick Harbor Modifications, Glynn Co. KLG.pdf

To:

Mary Richards and Kimberly Garvey
Savannah District Corps of Engineers
Planning Branch

This message comprises Georgia EPD Wetlands/401 Unit's response to inquiries made last month by Savannah USACE Planning Branch's Mary Richards regarding the possible need for a new 401 Water Quality Certification (WQC) for the upcoming Brunswick Harbor Modifications (BHM) project. This project was posted by a USACE Planning Notice as of June 9, 2020 and this message by association comprises comments for that USACE Planning Notice.

The original Brunswick Harbor deepening project had a 401 WQC issued more than 22 years ago as of March 24, 1998. We have held in-house discussions with EPD's Risk Assessment Unit and Watershed Monitoring and Planning Program and also discussions with Environmental Protection Agency Region IV staff on this current harbor modification topic. Based on these discussions and before a determination whether a new 401 WQC would be required for this project or whether the 1998 vintage 401 WQC would be sufficient to embrace the newly conceived Brunswick Harbor Modifications, we request that information be provided to EPD regarding dissolved oxygen profile data in the project vicinity as to support the assertion of minimal, temporary water quality effects cited on pages 89-90 of the USACE June 2020 Draft Integrated Feasibility Report & Environmental Assessment and Draft FONSI. We also request information on the characteristics of the sediments to be dredged at the specific new project footprints (the Turning Basin and the Bend Widener).

The following sampling scheme as provided by EPD's Risk Assessment Unit should be executed to determine the quality of the sediments which will be removed by dredging during the BHM project:

12 core samples from the Turning Basin and 15 core samples from the Bend Widener area should be obtained. The core samples should be driven to 6 inches below the project dredging depth.

To determine the impact of sediment disposition at Andrews Island, both sediment samples and elutriate from those samples should be obtained from above the project depth. Sediment samples taken from 6" below the project depth will determine the quality of the sediments after dredging operations. If sediment is to be beneficially reused (i.e., placed on Bird Island or other marshy area), a toxicity bioassay for benthic organisms should be conducted using sediment samples of the dredged material above the project depth.

Sediment samples may be composited to reduce the number of samples to analyzed. Samples in a composite should represent sediments taken from approximately the same depth and from the

same geographic area within the dredging area.

- Composites should be comprised of no more than three samples.
- Core material above the project depth will be composited.
- Core material below the project depth (additional six inches) will be composited separately.
- Cores from areas known or suspected to consist of impacted sediments (e.g. outfall or spill areas) are not to be composited with cores from other areas.

All composited sediment samples, and sediment elutriate from the project depth samples should be analyzed for metals (including Mercury), organochlorine pesticides, PCBs, and PAHs.

We thank you for your coordination on this project and for providing the requested water quality and sediment sampling information as would allow EPD to determine whether the 401 WQC from the previous 1998 harbor deepening will be sufficient for this new Brunswick Harbor Modification project or whether a new 401 WQC would be in order.

Stephen C. Wiedl, PWS
Manager – Wetlands Unit
Georgia Environmental Protection Division
7 Martin Luther King, Jr. Drive, Suite 450
Atlanta, GA 30334

404-452-5060
Stephen.Wiedl@dnr.ga.gov

From: Holliman, Daniel
To: Richards, Mary E CIV USARMY CESAS (USA)
Cc: Martin, Molly; Kajumba, Ntale; Calli, Rosemary
Subject: [Non-DoD Source] Brunswick Harbor Modification Study - Sediment Testing Data
Date: Monday, January 27, 2020 8:35:03 AM

Mary,

You made a request for us to weigh in on the use of sediment data from geo borings (analyzed in 1997) and appropriateness for use in the current Brunswick Harbor Modification Study (BHMS). As discussed in our December 11th call, the EPA has concerns with using the historical sediment data for the current project. It is our understanding that sediment data was collected in 1997 (33 years ago) and the boring was not collected from the actual dredge footprint, therefore, we are requesting the Corps to provide a Tier 1 analysis that could provide reasonable assurance that the conditions have not likely changed since the last testing. This would include a compilation and analysis of information pertaining to potential sources and/or changes in sources of contaminants which may have been introduced to the dredge material.

Information in a Tier 1 analysis should include new industrial uses, discontinued industrial uses, any new NPDES permits, chemical/oil/pesticide spills, releases from Superfund sites or other hazardous waste sites, or any other available information describing the source of the material to be dredged which would be relevant to the identification of any additions of potential contaminants of concern.

Consideration of Tier 1 results would inform the if further evaluation in higher tiers is appropriate.

Let me know if you would like to have an additional call to discuss.

Thanks,
Dan

Dan Holliman
NEPA Section | Strategic Programs Office
USEPA Region 4 | Office of the Regional Administrator
61 Forsyth Street SW | Atlanta, GA 30303

tel 404.562.9531 | holliman.daniel@epa.gov

From: Garvey, Kimberly L CIV USARMY CESAS (US)
To: Schwindaman, Jeffrey P CIV USARMY CESAS (USA)
Cc: Martin.Molly@epa.gov; amy.potter@dnr.ga.gov
Subject: FW: Brunswick Harbor Modifications Study - Sediment Characterization
Date: Wednesday, July 29, 2020 10:56:00 AM
Attachments: image003.png
image004.png
image005.jpg
image006.jpg
image001.png
image002.png
image007.png

Jeff,

Please call Molly if you have any questions about below.

Thanks,
Kim

From: Martin, Molly <Martin.Molly@epa.gov>
Sent: Wednesday, July 29, 2020 10:53 AM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Cc: amy.potter@dnr.ga.gov; Holliman, Daniel <Holliman.Daniel@epa.gov>
Subject: [Non-DoD Source] RE: Brunswick Harbor Modifications Study - Sediment Characterization

Kim,

No I did not receive this communication. Thanks for looping me in.

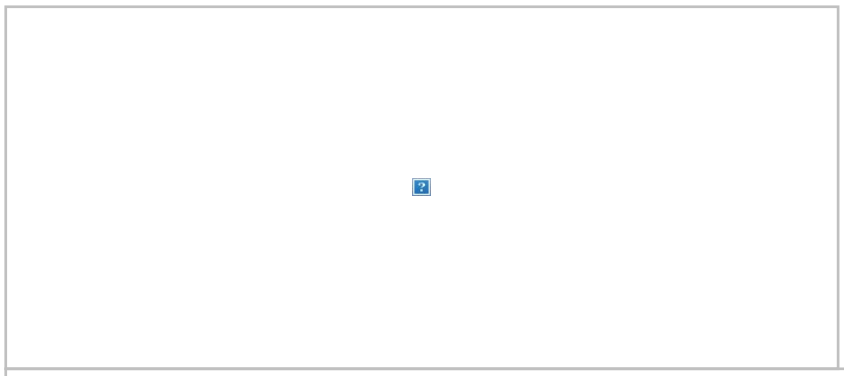
Several things I'd like to flag. I have recently gone through 2 of these evaluations where I was not invited to review the SAP/QAP these were the things overlooked.

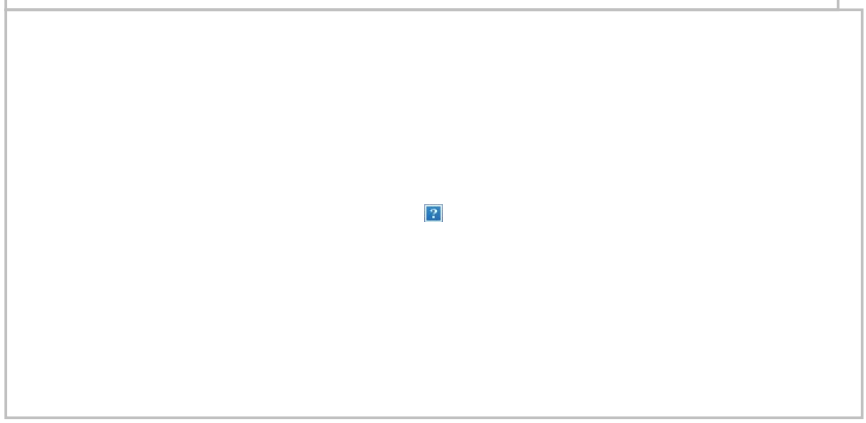
Disposal site water: To perform elutriate analysis , you will also need to collect disposal site water which is needed for dilution calculations. See ITM excerpt below.

Defining RLs and non-detects: Reporting limits for elutriates have come back above those that were outlined in the SAP and were also above water quality criteria. Ensure all RLs are below decision making criteria and make sure the laboratory accounts for salinity, dilutions, etc to be made for elutriate sample. It s essential to define how situations will be handled if the proposed RL is not met and how any no-detects will be handled, specifically if the RL is above the criteria. See ITM excerpt below. Additionally, 9.2 of the ITM provides discussion on target detection limits.

Let me know if you have any further questions.

Thanks again!





Molly Martin

U.S. EPA, Region 4
Oceans, Streams, and Wetlands Protection Branch
61 Forsyth Street, Atlanta, GA 30303
E-mail: Martin.Molly@epa.gov
tel: (404) 562-9405

From: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Sent: Wednesday, July 29, 2020 8:14 AM
To: Martin, Molly <Martin.Molly@epa.gov>
Subject: FW: Brunswick Harbor Modifications Study - Sediment Characterization

Did you get a copy of this?

From: Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>
Sent: Tuesday, July 28, 2020 6:06 PM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (USA) <Susan.Henshaw@usace.army.mil>
Subject: FW: Brunswick Harbor Modifications Study - Sediment Characterization

See below - I see this as a decent compromise. Will update the SOW tomorrow and get the train back on the tracks.

From: Potter, Amy <Amy.Potter@dnr.ga.gov>
Sent: Tuesday, July 28, 2020 6:00 PM
To: Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>
Cc: Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>; Smith, Bradley <Bradley.Smith@dnr.ga.gov>
Subject: [Non-DoD Source] RE: Brunswick Harbor Modifications Study - Sediment Characterization

Hi Jeff:

Stephen and I have conferred in-house and find the proposed sediment assessment approach discussed in your email below to be adequate for the purposes of evaluating the upper two (2) feet of sediment in the two areas of the BHMS. Please add elutriate and surface water samples as discussed in your email below to the SOW. Compositing of borings for elutriate analysis is acceptable as discussed below; however, the borings that are composited together need to be in adjacent areas.

Thanks for working with us! Call me if you have any questions.

Amy M. Potter
Manager
Risk Assessment Program
Land Protection Branch
404-657-8658

From: Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>
Sent: Tuesday, July 28, 2020 4:03 PM
To: Potter, Amy <Amy.Potter@dnr.ga.gov>
Cc: Smith, Bradley <Bradley.Smith@dnr.ga.gov>; Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>
Subject: RE: Brunswick Harbor Modifications Study - Sediment Characterization

[please view in HTML]

Amy, thanks for reviewing.

- Apologies for the maps being a little confusing. There are 15 borings proposed at the turning basin and 5 at the bend widener (see below). The proposed borings are purple/black and are located within the dredging footprint. Borings from previous investigations are in white/black and can be disregarded for this discussion.

- Agree, references to soil samples are incorrect. These are sediment samples.

- We were proposing 1 environmental sediment sample from the upper 2 ft of each boring location (total of 20). If elutriate samples were added to the SOW, I'd propose we composited up to three borings for each elutriate sample (as was suggested previously), which would be a grand total of:

-20 sediment samples (1 at each boring location)
-7 elutriate samples (5 from the turning basin, 2 from the bend widener)
-2 surface water samples (Needed to compare with elutriate results, 1 from the turning basin, 1 from the bend widener)

Would this be an acceptable approach?

Thanks,

Jeff

Jeff Schwindaman, P.G.
Project Manager, Civil Works
US Army Corps of Engineers, Savannah District
(912) 652-5099 (o)
(912) 547-0896 (m)
jeffrey.p.schwindaman@usace.army.mil

From: Potter, Amy <Amy.Potter@dnr.ga.gov>
Sent: Tuesday, July 28, 2020 3:35 PM
To: Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>
Cc: Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>; Smith, Bradley <Bradley.Smith@dnr.ga.gov>
Subject: [Non-DoD Source] RE: Brunswick Harbor Modifications Study - Sediment Characterization

Hi Jeff:

I've looked at the SOW and had a couple of questions.

From what I can tell, there are 10 samples in the turning basin and 10 samples in the bend widener. Is that correct?

The samples are called soil samples. Wouldn't it be more accurate to call them "sediment" samples?

The "soil" samples appear to be outside of the dredging footprint. It that correct? Is there a reason why?

It does not appear that elutriate samples are planned. Can the SOW be modified to include elutriate samples?

Amy M. Potter
Manager
Risk Assessment Program
Land Protection Branch
404-657-8658

From: Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>
Sent: Tuesday, July 28, 2020 11:14 AM
To: Potter, Amy <Amy.Potter@dnr.ga.gov>
Subject: RE: Brunswick Harbor Modifications Study - Sediment Characterization

Hi Amy,

Have you had a chance to review the SOW for BHMS? The sediment testing portion is just a few paragraphs. I'd be happy to discuss with you and answer any questions. I'm available any time today and can be reached at 912-547-0896.

Thank you!

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Sent: Monday, July 20, 2020 5:07 PM
To: Smith, Bradley <Bradley.Smith@dnr.ga.gov>; Potter, Amy <Amy.Potter@dnr.ga.gov>; Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>; Martin, Molly <Martin.Molly@epa.gov>
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; McIntosh, Margarett G (Mackie) CIV USARMY CESAS (USA) <Margarett.G.Mcintosh@usace.army.mil>; Henshaw, Susan H CIV USARMY CELRE (USA) <Susan.Henshaw@usace.army.mil>; Lopes, J M CIV USARMY CESAS (USA) <Jared.M.Lopes@usace.army.mil>; Fox, Stephen M CIV USARMY CESAD (USA) <Stephen.M.Fox@usace.army.mil>
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Please keep in mind, these are performance-based instructions for the contractor and not a specific workplan. Task 1 of the scope of work involves the contractor providing the Corps with a specific workplan which we will review.

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- The list of analytes were developed based on discussion with EPA.

- It was understood that any potential beneficial use project may require additional project-specific testing, but that the proposed testing would be helpful to assess whether or not beneficial use options warranted further consideration.

Please let me know if you have any questions. We appreciate your timely turnaround on this review given our own time constraints with executing the contract action.

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From:	Garvey, Kimberly L CIV USARMY CESAS (US)
To:	Lopes, J M CIV USARMY CESAS (USA); Henshaw, Susan H CIV USARMY CELRE (USA); Fox, Stephen M CIV USARMY CESAD (USA); Richards, Mary E CIV USARMY CESAS (USA)
Cc:	Armetta, Robin E CIV USARMY CESAS (USA)
Subject:	FW: 401 WQC request for the USACE Brunswick Harbor Modification Study
Date:	Tuesday, August 25, 2020 3:51:14 PM
Attachments:	Andrews Island WQ Data 17-20.xlsx 1998 BRN Harbor Deepening 404(b)(1).pdf Non-DoD Source 401 WQC Requirement and GaEPD Comments per Brunswick Harbor Modification and Study.msg BRN WQC.pdf FW Brunswick Harbor Modifications Study - Sediment Characterization.msg BHMS Appendix K 404b1 evaluation.pdf Brunswick Harbor EPA EPD 401 Discussion Notes.docx BHMS 401 WQ application letter 25Aug20.pdf

---

s/a

From: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Sent: Tuesday, August 25, 2020 3:49 PM
To: Richard.dunn@dnr.ga.gov
Cc: Holliman, Daniel <Holliman.Daniel@epa.gov>; Stephen Wiedl (stephen.wiedl@dnr.ga.gov) <stephen.wiedl@dnr.ga.gov>; Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>; Hope Moorer (GPA) <hmoorer@gaports.com>; Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>
Subject: 401 WQC request for the USACE Brunswick Harbor Modification Study

Director Dunn,

Please find attached the Corps request for 401 WQC for effluent from Andrews Island DCMA near Brunswick Harbor, GA.

Attached, you will also find the following

1. 1998 WQC and 404(b)(1) that supported it.
2. July 11, 2020 comments from your staff on EA.
3. Meeting notes from our July 20,2020 pre-meeting with your staff.
4. Email between Corps, EPD, and EPA approving testing plan.
5. Spreadsheet with recent WQ data collected at the outfall during routine O&M.
6. New 404(b)(1).

Kimberly L. Garvey
Chief, Planning Branch
Savannah District
100 West Oglethorpe Avenue
Savannah, GA 31401
912-652-5968

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

EPD Director's Office
2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

Oct 26, 2020

Ms. Kimberly Garvey
Chief, Planning Branch
U.S. Army Corps of Engineers
Savannah District
100 West Oglethorpe Avenue
Savannah, Georgia 41401-3604

Re: Water Quality Certification
Andrews Island Effluent Related to
Brunswick Harbor Dredging
Brunswick River Coastal Watershed
Glynn County

Dear Ms. Garvey:

In accordance with Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341, the State of Georgia has evaluated the Brunswick Harbor Modification Study Dredging project as an addition to the regular Operations and Maintenance dredging submitted by the U.S. Army Corps of Engineers, Savannah District (Corps), Planning Branch related to proposed activity in, on, or adjacent to the waters of the State of Georgia.

The State has examined the information regarding the project provided to it by the Corps Planning Branch. In accordance with that information, the State of Georgia issues this Section 401 certification to the U.S. Army Corps of Engineers, Savannah District for resulting effluent from Andrews Island. This Section 401 water quality certification is subject to the following terms and conditions:

1. The applicant shall conduct all activities in a manner that will assure water quality adequate or necessary to protect and maintain designated uses. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03(2)(b)(i), (ii).

    a. The applicant shall install in-water Best Management Practices (BMPs) to the extent practical and feasible, to minimize total suspended solids (TSS) and sedimentation for any work conducted within a state water or within the delineated boundaries of wetlands. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); O.C.G.A. §§ 12-7-6 to 7; Ga. Comp. R. and Regs. 391-3-6-.03(5).
    b. The applicant must ensure that any fill placed in state water must be clean fill that is free of solid waste, toxic, or hazardous contaminants. 33 U.S.C. §§

1311; 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); Ga. Comp. R. and Regs. 391-3-6-.03(5), (6), (11), (14)-(16).

2. Modifications to this Project may require an amendment to these conditions. Accordingly, the applicant must notify the Georgia Environmental Protection Division of any modifications to the proposed activity including, but not limited to, modifications to the construction or operation of any facility, or any new, updated, or modified applications for federal permits or licenses for the Project. 33 U.S.C. §§ 1311-1313; O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03.

3. Before commencement of the new work dredging, the applicant will conduct sampling and analysis of channel bottom sediments at the footprints of the project's Turning Basin and Bend Widener dredging zones. This sampling and analysis is intended to determine the presence of any regulated constituents for which there are in-stream water quality standards, maximum contaminant levels, or EPA advisory levels and, therefore, the release of which may cause or contribute to a violation of state water quality standards. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); Ga. Comp. R. and Regs. 391-3-6-.03. This sediment sampling and assessment will be performed according to details contained in the July 11, 2020 E-mail project comments from EPD's Stephen Wiedl to the Corps' Mary Richards and Kimberly Garvey and in sediment characterization E-mails exchanged July 28, 2020 between EPD's Amy Potter and the Corps' Jeff Schwindaman. *See* Attached correspondence, incorporated herein by reference. In particular, such sampling shall include:

    a. Fifteen (15) sediment borings will be taken at the Turning Basin and five (5) sediment borings will be taken at the Bend Widener. These sediment borings will be sampled as the upper two (2) feet of channel bottom substrate.
    b. Five (5) sediment elutriate samples from the Turning Basin and two (2) sediment elutriate samples from the Bend Widener will be processed. Each elutriate sample will be processed as a composite of no more than three adjacent sediment boring sample points.
    c. One surface water sample from the Turning Basin and one surface water sample from the Bend Widener will be taken.

    Sediment samples and sediment elutriate samples will be analyzed for RCRA metals suite, organochlorine pesticides, polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs). Reporting on chemical analyses of these sediment and elutriate samples will be submitted to EPD Wetlands Unit Brunswick agent Bradley Smith at Bradley.Smith@dnr.ga.gov and to EPD Risk Assessment Unit Manager Amy Potter at Amy.Potter@dnr.ga.gov before the beginning of the Brunswick Harbor Modification dredging and no later than 365 days from the date of this certification.

4. Once the project's harbor dredging begins, with its associated placement of dredge slurry material into and sediment dewatering discharge from the Andrews Island Dredged Material Containment Area (DMCA), the applicant will perform monthly water quality sampling of discharge waters at the project's DMCA outlet weir. The approach of this construction-phase monitoring will be based on results of the elutriate sampling conducted according to Condition 3 above, such that, in addition to the water quality monitoring for temperature, dissolved oxygen, specific conductance, salinity, pH and turbidity already practiced at the Andrews Island site, DMCA weir water quality testing will be performed only for any particular contaminant which may have been discovered to exceed State water quality standards in the elutriate test waters which were analyzed as part of initial sediment boring elutriate sampling. 33 U.S.C. §§ 1311-1313; O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03.

5. In the event that DMCA weir discharge monitoring as cited in Condition 4 above shows exceedance of State water quality standards, this certification will be subject to re-assessment and modification as appropriate to assure that discharges from the project's existing Andrews Island DMCA will comply with State water quality standards. 33 U.S.C. §§ 1311-1313; O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03. As necessary and appropriate following review of DMCA weir operational-phase water quality monitoring results, such potential modifications may address factors such as: alternate approaches for handling and disposal of dredge sediments; ambient monitoring in waters receiving effluent discharge from the Andrews Island DMCA; approaches for placement of sediment or manipulation of effluent flows at the Andrews Island DMCA; assessments, including modeling, of aqueous phase constituents discharged from Andrews Island DMCA with focus on dilution effects and assimilative capacity within adjacent receiving waters.

The Georgia Environmental Protection Division may invalidate or revoke this certification for failure to comply with any of these terms or conditions. This certification does not waive any other permit or other legal requirement applicable to this project or relieve the applicant of any obligation or responsibility for complying with the provisions of any other federal, state, or local laws, ordinances, or regulations.

It is your responsibility to submit this certification to the appropriate federal agency. If you have any questions regarding this certification, please contact Stephen Wiedl at Stephen.Wiedl@dnr.ga.gov/404-651-8459.

Sincerely,

Richard E. Dunn, Director
Environmental Protection Division

Attachments: S. Wiedl/EPD 7-11-20 E-mail to M. Richards & K. Garvey/Corps
J. Schwindaman/Corps and A. Potter/EPD 7-28-20 E-mails

cc: Mr. Eric Somerville, EPA
Mr. Bill Wikoff, FWS
Ms. Kelie Moore, CRD

Attachment 1

From: Wiedl, Stephen

Sent: Saturday, July 11, 2020 12:34 AM

To: Richards, Mary E. SAS; Kimberly L SAS Garvey; CESAS-PD.SAS@usace.army.mil

Cc: Armetta, Robin E CIV USARMY CESAS (US); Smith, Bradley; Zeng, Wei; Potter, Amy; Booth, Elizabeth

Subject:401 WQC Requirement and GaEPD Comments per Brunswick Harbor Modification and Study

Attachments: o2020 06 09_No SAS Number_BS_USACE Planning Notice - Brunswick Harbor Modifications, Glynn Co. KLG.pdf

To:

Mary Richards and Kimberly Garvey

Savannah District Corps of Engineers

Planning Branch

This message comprises Georgia EPD Wetlands/401 Unit's response to inquiries made last month by Savannah USACE Planning Branch's Mary Richards regarding the possible need for a new 401 Water Quality Certification (WQC) for the upcoming Brunswick Harbor Modifications (BHM) project. This project was posted by a USACE Planning Notice as of June 9, 2020 and this message by association comprises comments for that USACE Planning Notice.

The original Brunswick Harbor deepening project had a 401 WQC issued more than 22 years ago as of March 24, 1998. We have held in-house discussions with EPD's Risk Assessment Unit and Watershed Monitoring and Planning Program and also discussions with Environmental Protection Agency Region IV staff on this current harbor modification topic. Based on these discussions and before a determination whether a new 401 WQC would be required for this project or whether the 1998 vintage 401 WQC would be sufficient to embrace the newly conceived Brunswick Harbor Modifications, we request that information be provided to EPD regarding dissolved oxygen profile data in the project vicinity as to

support the assertion of minimal, temporary water quality effects cited on pages 89-90 of the USACE June 2020 Draft Integrated Feasibility Report & Environmental Assessment and Draft FONSI. We also request information on the characteristics of the sediments to be dredged at the specific new project footprints (the Turning Basin and the Bend Widener).

The following sampling scheme as provided by EPD's Risk Assessment Unit should be executed to determine the quality of the sediments which will be removed by dredging during the BHM project:

12 core samples from the Turning Basin and 15 core samples from the Bend Widener area should be obtained. The core samples should be driven to 6 inches below the project dredging depth.

To determine the impact of sediment disposition at Andrews Island, both sediment samples and elutriate from those samples should be obtained from above the project depth. Sediment samples taken from 6" below the project depth will determine the quality of the sediments after dredging operations. If sediment is to be beneficially reused (i.e., placed on Bird Island or other marshy area), a toxicity bioassay for benthic organisms should be conducted using sediment samples of the dredged material above the project depth.

Sediment samples may be composited to reduce the number of samples to analyzed. Samples in a composite should represent sediments taken from approximately the same depth and from the same geographic area within the dredging area.

* Composites should be comprised of no more than three samples.
* Core material above the project depth will be composited.
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* Cores from areas known or suspected to consist of impacted sediments (e.g. outfall or spill areas) are not to be composited with cores from other areas.

All composited sediment samples, and sediment elutriate from the project depth samples should be analyzed for metals (including Mercury), organochlorine pesticides, PCBs, and PAHs.

We thank you for your coordination on this project and for providing the requested water quality and sediment sampling information as would allow EPD to determine whether the 401 WQC from the previous 1998 harbor deepening will be sufficient for this new Brunswick Harbor Modification project or whether a new 401 WQC would be in order.

Stephen C. Wiedl, PWS
Manager – Wetlands Unit
Georgia Environmental Protection Division
7 Martin Luther King, Jr. Drive, Suite 450
Atlanta, GA 30334

404-452-5060
Stephen.Wiedl@dnr.ga.gov

Attachment 2

From: Schwindaman, Jeffrey P CIV USARMY CESAS (USA) <Jeffrey.P.Schwindaman@usace.army.mil>

Sent: Tuesday, July 28, 2020 4:03 PM

To: Potter, Amy

Cc: Smith, Bradley; Wiedl, Stephen

Subject: RE: Brunswick Harbor Modifications Study - Sediment Characterization

[please view in HTML]

Amy, thanks for reviewing.

- Apologies for the maps being a little confusing. There are 15 borings proposed at the turning basin and 5 at the bend widener (see below). The proposed borings are purple/black and are located within the dredging footprint. Borings from previous investigations are in white/black and can be disregarded for this discussion.

- Agree, references to soil samples are incorrect. These are sediment samples.

- We were proposing 1 environmental sediment sample from the upper 2 ft of each boring location (total of 20). If elutriate samples were added to the SOW, I'd propose we composited up to three borings for each elutriate sample (as was suggested previously), which would be a grand total of:

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Risk Assessment Program

Land Protection Branch

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US Army Corps of Engineers, Savannah District
(912) 652-5099 (o)
(912) 547-0896 (m)
jeffrey.p.schwindaman@usace.army.mil

From:	Wiedl, Stephen
To:	Richards, Mary E CIV USARMY CESAS (USA); Garvey, Kimberly L CIV USARMY CESAS (US); Planning Branch Calendar
Cc:	Armetta, Robin E CIV USARMY CESAS (USA); Smith, Bradley; Zeng, Wei; Potter, Amy; Booth, Elizabeth
Subject:	[Non-DoD Source] 401 WQC Requirement and GaEPD Comments per Brunswick Harbor Modification and Study
Date:	Saturday, July 11, 2020 12:35:07 AM
Attachments:	o2020 06 09_No SAS Number_BS_USACE Planning Notice - Brunswick Harbor Modifications, Glynn Co. KLG.pdf

To:

Mary Richards and Kimberly Garvey
Savannah District Corps of Engineers
Planning Branch

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Manager – Wetlands Unit
Georgia Environmental Protection Division
7 Martin Luther King, Jr. Drive, Suite 450
Atlanta, GA 30334

404-452-5060
Stephen.Wiedl@dnr.ga.gov

From:	Garvey, Kimberly L CIV USARMY CESAS (US)
To:	Fox, Stephen M CIV USARMY CESAD (USA)
Cc:	Henshaw, Susan H CIV USARMY CELRE (USA); Lopes, J M CIV USARMY CESAS (USA); Schwindaman, Jeffrey P CIV USARMY CESAS (USA)
Subject:	FW: Brunswick- Habor
Date:	Thursday, January 21, 2021 10:50:47 AM

For the file.

From: 401-R4notices <401-R4notices@epa.gov>
Sent: Thursday, January 21, 2021 10:48 AM
To: Patterson, Nawanna <nawanna.patterson@dnr.ga.gov>; Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; GAES_Assistance@fws.gov; Moore, Kelie <Kelie.Moore@dnr.ga.gov>; Somerville, Eric <Somerville.Eric@epa.gov>
Cc: Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>; Calli, Rosemary <Calli.Rosemary@epa.gov>
Subject: [Non-DoD Source] RE: Brunswick- Habor

Thank you for your recent notification regarding receipt of a Section 401 certification for the Brunswick Harbor project. We do not find that the subject project may impact a neighboring jurisdiction; therefore, EPA will not be exercising discretionary authority under CWA Section 401(a)(2) to issue a "may affect" determination for this project.

Sincerely,
Diana M. Woods, Scientist
Wetlands and Streams Regulatory Section
U.S. EPA, Region 4

From: Patterson, Nawanna [mailto:nawanna.patterson@dnr.ga.gov]
Sent: Tuesday, October 27, 2020 9:15 AM
To: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; GAES_Assistance@fws.gov; Moore, Kelie <Kelie.Moore@dnr.ga.gov>; Somerville, Eric <Somerville.Eric@epa.gov>
Cc: Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>
Subject: [Non-DoD Source] Brunswick- Habor

Please see attachment

EPD Logo_FINAL-COLOR

Nawanna L. Patterson
Administrative Assistant 2

GA EPD Watershed Protection Branch
2 Martin Luther King, Jr. Drive, Suite 1362 East
Atlanta, Georgia 30334
Email: nawanna.patterson@dnr.ga.gov
Phone: 404-656-2750
Blockedhttp://epd.georgia.gov
Blockedhttp://epd.georgia.gov/watershed-protection-branch

From:	Schwindaman, Jeffrey P CIV USARMY CESAS (USA)
To:	Potter, Amy; Wiedl, Stephen; Smith, Bradley
Cc:	Martin, Molly; Holliman, Daniel; Garvey, Kimberly L CIV USARMY CESAS (US); Chirpich, Michael C CIV USARMY CESAS (USA); Richards, Mary E CIV USARMY CESAS (USA); Henshaw, Susan H CIV USARMY CELRE (USA)
Subject:	Brunswick Harbor Modification Study - Environmental Results
Date:	Thursday, February 25, 2021 11:23:15 AM
Attachments:	Tetratech-Brunswick Harbor Mod Study Env Site Investigation Report - Draft 2-16-21 part 1 of 2.pdf Brunswick Harbor Modification, Glynn Co. 401 WQC Signed 10-26-2020.pdf

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All,

Attached are the environmental results for the Brunswick Harbor Modification Study as per the sampling plan that we had discussed last summer, and section 3 of the Water Quality Certification dated 26 Oct 2020.

Based on these results, we do not anticipate that the placement of these materials in the Dredged Material Containment Area (DMCA) at Andrews Island will result in any release which may cause or contribute to a violation of state water quality standards.

Please feel free to review and let us know if you have any questions or concerns.

Please note: Part 2 of 2 of the environmental report consists of the analytical lab reports and can be provided via FTP large file transfer upon request.

Thanks,

Jeff

Jeff Schwindaman, P.G.
Project Manager, Civil Works
US Army Corps of Engineers, Savannah District
(912) 652-5099 (o)
(912) 547-0896 (m)
jeffrey.p.schwindaman@usace.army.mil

HILL, SUZANNE CIV USARMY CENSAS (USA)

From: Hill, Suzanne SAS
Sent: Wednesday, June 23, 2021 4:37 PM
To: Smith, Bradley; Wiedl, Stephen; Amy.Potter@dnr.ga.gov
Cc: Garvey, Kimberly L CIV USARMY CESAS (US); CESAS-Planning
Subject: Brunswick Harbor Modification Study- draft IFR/EA extended public comment period.
Attachments: BHMS_ Public Notice_2021_extension.pdf

Steve, Bradley, and Amy,

Writing to let you know we have received a request to extend the public comment period and we will be extending the close date. The revised close date is July 21, 2021.

Please let me know if you have any questions.

Thank you,

Suzy

From: Hill, Suzanne SAS <Suzanne.Hill@usace.army.mil>
Sent: Monday, June 21, 2021 2:58 PM
To: Smith, Bradley <Bradley.Smith@dnr.ga.gov>; Wiedl, Stephen <Stephen.Wiedl@dnr.ga.gov>; Amy.Potter@dnr.ga.gov
Cc: Garvey, Kimberly L CIV USARMY CESAS (US) <Kimberly.L.Garvey@usace.army.mil>; CESAS-Planning <CESAS-Planning@usace.army.mil>
Subject: Brunswick Harbor Modification Study- draft IFR/EA 15-day comment period

Steve, Bradley, and Amy,

The U.S. Army Corps of Engineers, Savannah District, is providing notice of the availability of the updated draft Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) for the Brunswick Harbor Modification Study (BHMS) for comment. The comment period for the draft IFR/EA closes on July 6, 2021.

The Corps had provided a 30-day public comment period on the draft IFR/EA beginning on June 9, 2020. Since the conclusion of June 2020 public comment period, the Corps has updated the analysis in the IFR/EA to provide clarity related to the operations and maintenance (O&M) of the federal navigation channel and selected Alternative 8 as the recommended plan. The O&M analysis in the draft IFR/EA has been updated to include additional analysis and information regarding the Corps' compliance with the 2020 South Atlantic Regional Biological Opinion for the Dredging and Material Placement Activities in the Southeast U.S. (2020 SARBO).

The IFR/EA and Draft FONSI are available for public review and comment. The documents can be downloaded from the Corps website at: https://www.sas.usace.army.mil/About/Divisions-and-Offices/Planning-Division/Plans-and-Reports/

The public notice for the release of the updated draft IFR/EA has been attached and provides additional background information. Please provide any written comments by the closing date of July 6, 2021 to: CESAS-Planning@usace.army.mil.

Please don't hesitate to reach out with any questions or if you need copies of the draft IFR/EA and appendices. Questions can be directed either to Kim Garvey at (912)652-5968 or to myself at (912) 423-2324. You may also email any questions to CESAS-Planning@usace.army.mil.

Thank you,

Suzy

Suzanne Hill
NEPA Team Lead
USACE Savannah District, Planning Branch
Ph. 912.423.2324