

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

**Integrated Feasibility Report and Environmental
Assessment**

Appendix I: NMFS ESA

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



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 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



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. 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

Dear Mr. Bernhart:

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. Alternative 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 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 and as detailed in Appendix H, the Corps has made a no effect determination for the following species: North Atlantic right whale (*Eubalaena glacialis*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), sei whale (*Balaenoptera borealis*) and Oceanic whitetip shark (*Carcharhinus longimanus*). We have also determined that the proposed action may affect, but is not likely to adversely affect following species: Loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), Leatherback Sea Turtle (*Dermochelys coriacea*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), hawksbill sea turtle (*Eretmochelys imbricate*), shortnose sturgeon (*Acipenser brevirostrum*), Atlantic

sturgeon (*Acipenser oxyrinchus*) and Giant manta ray (*Manta birostris*). There is no designated critical habitat 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 your concurrence on our effects determination for listed sea turtles, sturgeon, and the Giant manta ray that may be present in the project area. 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: [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 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

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100 W. Oglethorpe Avenue

Savannah, Georgia 31401-3640

Ph: (912)652-6210



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

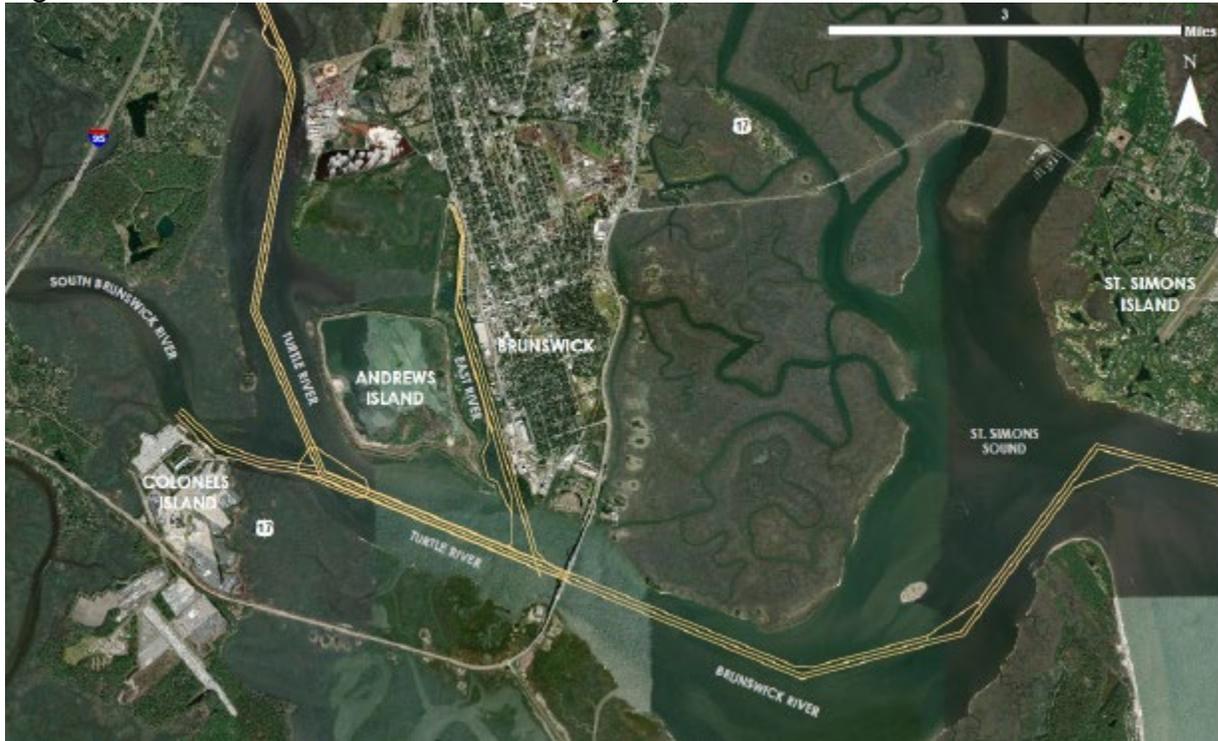


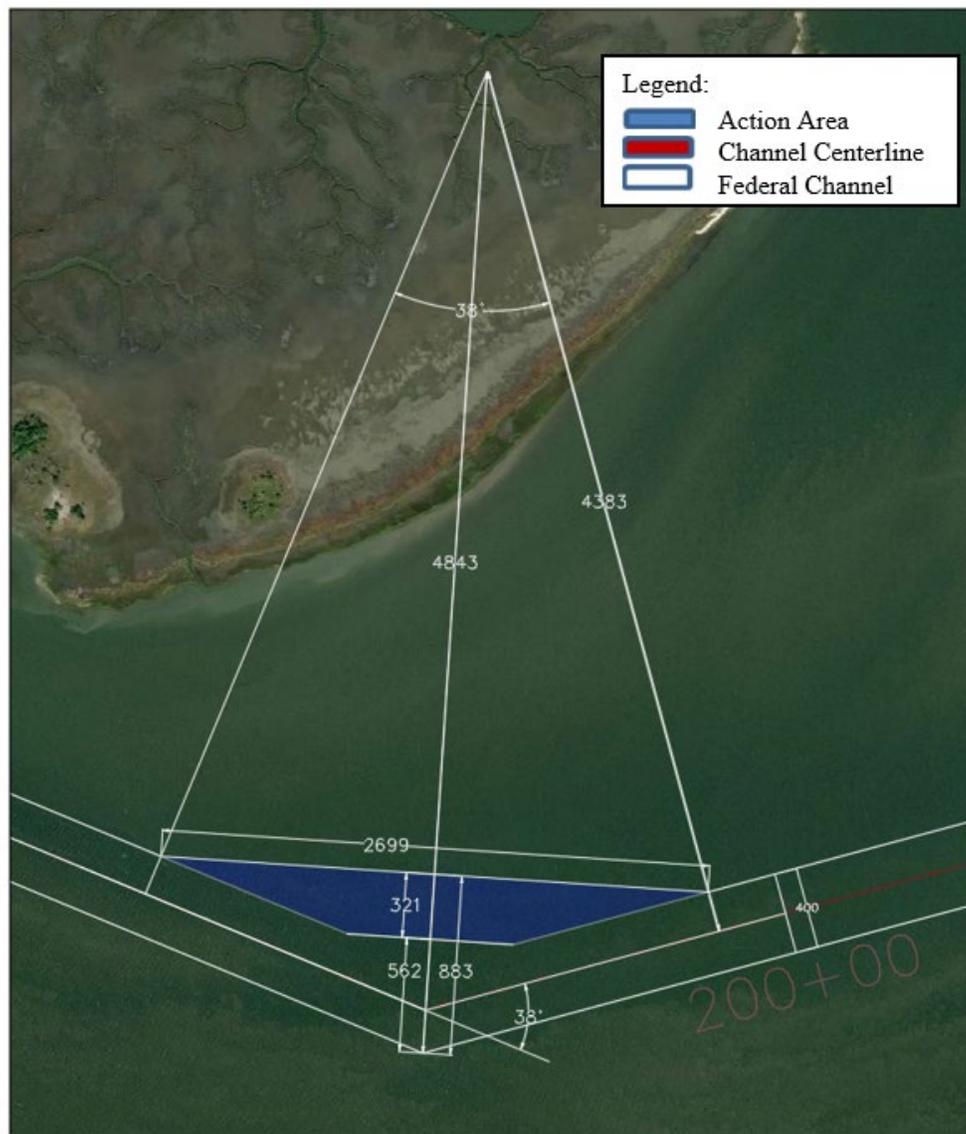
Figure 2. Brunswick Harbor Staging and Disposal Areas



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 y³ 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.

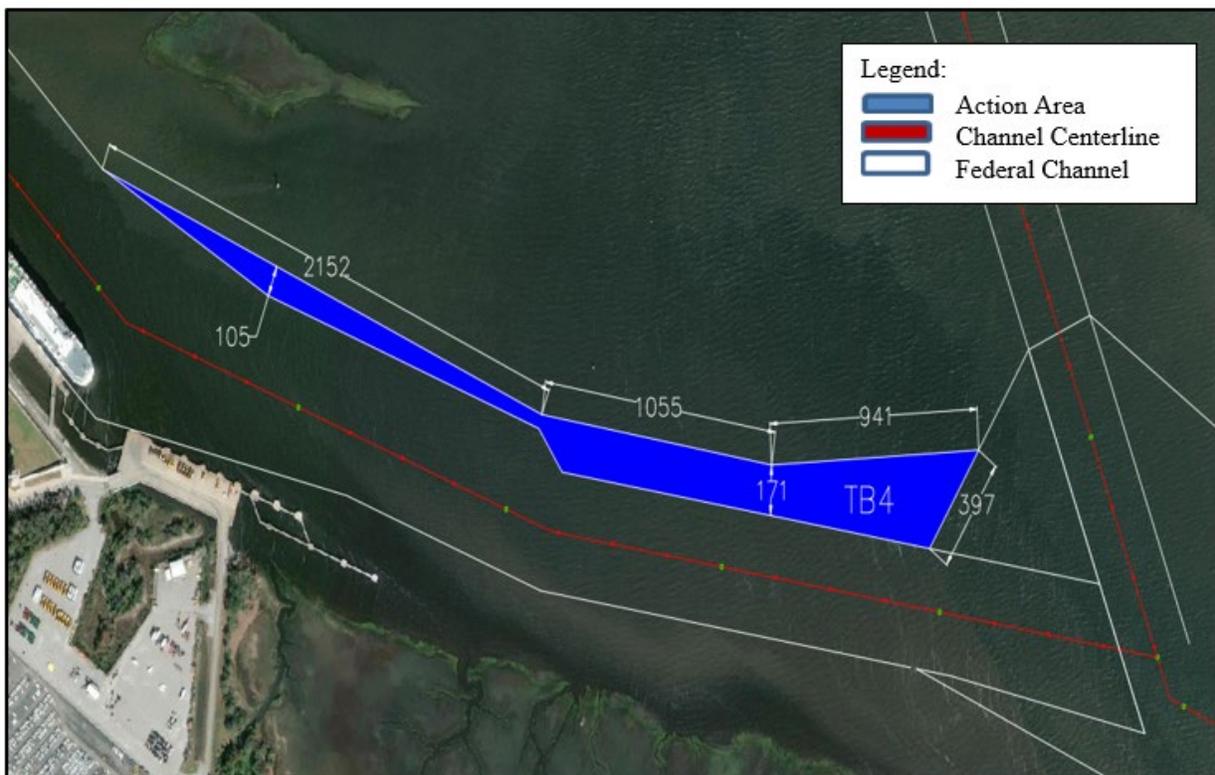
Figure 3. Bend Widener



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.

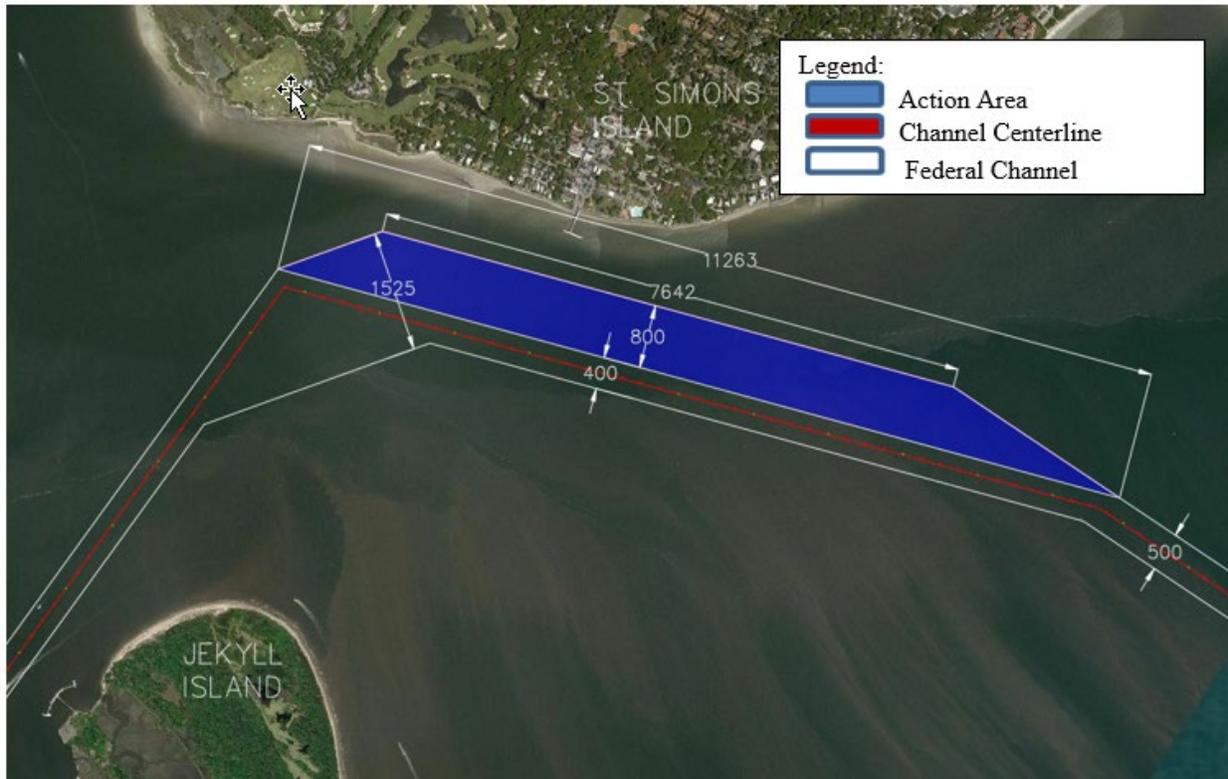
Figure 4. Turning Basin



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.



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>

F/SER31:LW
SERO-2020-03193

Chief, Planning Branch
Savannah District Corps of Engineers
Department of the Army
100 W. Oglethorpe Avenue
Savannah, Georgia 31401

Dear Ms. Garvey:

This letter responds to your request for consultation with us, the National Marine Fisheries Service (NMFS), pursuant to Section 7 of the Endangered Species Act (ESA) for the following action.

Action Agency	SERO Number	Project Type(s)
U.S. Army Corps of Engineers	SERO-2020-03193	Dredging

Consultation History

We received your letter requesting consultation on the proposed Brunswick Harbor Modification Study on November 16, 2020. We requested additional information on January 19, 2021 and March 31, 2021. We received a final response on April 7, 2021 and initiated consultation that day. The project has been assigned a tracking number in our NMFS Environmental Consultation Organizer, SERO-2020-03193. Please refer to this number in any future inquiries regarding this project.

Project Location

Address	Latitude/Longitude	Water body
Glynn County, Georgia	Turning Basin	Brunswick Harbor
	31.133783, -81.535114	
	31.131533, -81.528753	
	31.131006, -81.525425	
	Bend Widener	
	31.106153, -81.455428	
31.105619, -81.446825		
	(North American Datum 1983)	





Brunswick Harbor Staging and Disposal Areas. Image provided by U.S. Army Corps of Engineers.

Existing Site Conditions

The Corps has defined three separate project areas for the Brunswick Harbor Modification Study that include the bend widener, which is located between stations 20+300 to 23+300, the turning basin, which runs along South Brunswick River from stations 0+900 to 5+300, and the St. Simon's meet area that runs from stations -6+800 to 4+300.

Habitats within the project sites 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).

The dredge material at the bend widener consists of poorly graded sands, silty sands, and highly weathered limestone. The dredge material at the turning basin consists of poorly graded sands, clayey sands, sandy clays, highly weathered limestone, and highly plastic clays.

Project Description

The Brunswick Harbor Modification Study 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. The dredging (cutterhead) portion of the project is anticipated to commence on November 1, 2024, and continue for approximately 12 months.

For the proposed action, the cutterhead barge will be positioned in a fixed location. A floating/submerged pipe will extend from the barge directly to an onshore location (Andrews Island Dredged Material Containment Area [DMCA]). The onshore pipe on the discharge end will sit in the staging area at the DMCA. The barge and pipeline will be placed in this fashion for

both dredging locations. 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.

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 cubic yards (y³) of material would be dredged to expand the bend widener. The depth at the existing bend widener is 36 ft. The adjacent areas proposed to be widened will be dredged to the same authorized depth of -36 ft plus 2 ft allowable over-depth. The dredged material is to be disposed of at the Andrews Island DMCA.

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 ft and a length totaling approximately 4,100 ft. The turning basin expansion would require approximately 346,000 y³ of dredge material. The depth at the existing turning basin is 36 ft. The areas proposed to be widened will be dredged to the same authorized depth of -36 ft plus 2 ft allowable over-depth. The dredged material is to be disposed of at the Andrews Island DMCA.

Finally, the Corps will create a meeting area at St. Simon's Sound by relocating the Federal navigation channel. Creation of the meeting area will not require dredging or other in-water work.

Once the proposed project is completed, future maintenance will be completed under the South Atlantic Regional Biological Opinion (2020 SARBO, SERO-2019-03111).

Construction Conditions

- The action agency has agreed to adhere to NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* (2006).
- In order to avoid and minimize any impacts to listed species, all relevant Project Design Criteria (PDC) from the 2020 SARBO will be incorporated.
- 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.
- 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.

Consultation Approach

The 2020 SARBO programmatically analyzes effects from maintenance dredging of authorized federal navigation channels and material placement in the Southeast. However, the 2020 SARBO provides that modification of existing navigation channels (such as the proposed widening of the harbor bend and turning basin here) requires separate Section 7 consultation. Future maintenance dredging and dredged material placement may then be covered under 2020 SARBO.

This consultation accordingly evaluates those portions and effects of the project not analyzed in 2020 SARBO and incorporates the 2020 SARBO by reference for analysis of effects to ESA-listed species and designated critical habitat resulting from future maintenance of the modified channel in Brunswick Harbor. This approach avoids authorization of duplicate takes or impacts to ESA-managed resources already authorized in the 2020 SARBO, while ensuring that consultation on the entire action has been completed as required by ESA Section 7.

Effects Determination(s) for Species the Action Agency or NMFS Believes May Be Affected by the Proposed Action

Species	ESA Listing Status	Action Agency Effect Determination	NMFS Effect Determination
Sea Turtles			
Green (North Atlantic [NA] distinct population segment [DPS])	T	NLAA	NLAA
Green (South Atlantic [SA] DPS)	T	NLAA	NLAA
Kemp’s ridley	E	NLAA	NLAA
Leatherback	E	NLAA	NE
Loggerhead (Northwest Atlantic [NWA] DPS)	T	NLAA	NLAA
Hawksbill	E	NLAA	NE
Fish			
Shortnose sturgeon	E	NLAA	NLAA
Atlantic sturgeon (All DPSs)	T/E ¹	NLAA	NLAA
Giant manta ray	T	NLAA	NLAA

Please note abbreviations used in the immediately preceding table: E = endangered; T = threatened; NE = no effect; NLAA = may affect, not likely to adversely affect.

¹ The New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs are listed as endangered; the Gulf of Maine DPS is listed as threatened.

Critical Habitat

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

Analysis of Potential Routes of Effects to Species

Effects to ESA-listed species identified in the table above include the risk of direct physical impact from construction equipment, vessels, or materials. We believe the risk of physical injury is extremely unlikely to occur due to the species' expected avoidance of construction activities and ability to move away from the project site and into adjacent suitable habitat, if disturbed. NMFS has previously determined in dredging regional Biological Opinions that, while oceangoing hopper-type dredges may lethally entrain ESA-listed species, non-hopper-type dredging methods, such as the cutterhead dredge proposed in this project, are slower and generally unlikely to overtake or adversely affect them (NMFS 2020b). The 2020 SARBO determined that Atlantic and shortnose sturgeon may be entrained in cutterhead dredges in rivers where sturgeon are expected to live and spawn ("sturgeon rivers"), as identified in 2020 SARBO Appendix E. The South Brunswick River is not a sturgeon river listed in Appendix E of 2020 SARBO, and, while we expect that transient sturgeon may be present within the action area, we do not believe that sturgeon would aggregate or spawn in the action area. We therefore believe sturgeon entrainment in a cutterhead dredge during the modification of Brunswick Harbor is extremely unlikely to occur. Additionally, implementation of the construction conditions consisting of conservation measures and best management practices will further reduce the risk to listed species.

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 protective 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 may be adversely affected by their inability to access the project area during the proposed harbor modification and future maintenance dredging. ESA-listed species may temporarily lose access to the immediate 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. As noted above, we do not believe that sturgeon use the South Brunswick River for spawning. It also does not support submerged aquatic vegetation. ESA-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. The proposed harbor modification would last

approximately 12 months, after which the site conditions are expected to return to background levels and animals will be able to return.

Based on the proposed action, generally dredging-generated turbidity plumes are limited to an area only a few hundred feet to a few thousand feet and most turbidity settles out quickly once dredging is complete. Suspended solids (either measured as turbidity or total suspended solids) can be carried to adjacent locations and result in sedimentation that can cover or bury nearby non-mobile species and habitat such as prey items. The distance suspended solids can travel outside of the project footprint can vary dramatically depending on the density of the suspended solids (generally referred to as the percent of fines in the material) and local hydrographic patterns, such as the local tides and currents. The velocity of water movement in the area can affect the time that suspended solids remain in the area. For example, riverine environments with an outgoing tide will flush away turbidity quicker than areas with less current such as an estuary with limited tidal flushing. In rivers, the currents also act to compress the turbidity plume as it moves downstream and settles, reducing the overall area/volume affected by it. Higher velocity currents may spread suspended solids to a larger area than if they were to settle out closer to the dredge or material placement footprint. Burton (1993) measured elevated total suspended solid concentrations up to 3,000 ft away from dredge sites in the Delaware River. We anticipate elevated total suspended solid concentrations could travel this distance in rivers within the action area. The suspension of solids in the water can also cause other water quality concerns such as changes in the amount of available DO and temperature.

Cutterhead dredging removes sediment by suction and, as required by the 2020 SARBO, Appendix E Sturgeon PDCs, is not operated until the dredging cutterhead is embedded in the sediment. While they may create a small turbidity plume localized around the dredging head, this plume is expected to be localized and changes in dissolved oxygen (DO) and water temperature would also be expected to be minimal. A recent study (USACE 2019) measuring changes in DO around a cutterhead dredge in the Savannah River noted that the greatest change in DO occurred in the bottom third of the water column where the cutterhead was working. Changes in DO in the bottom of the water column were most notable within 50 meters (m) downstream of the dredge and returned to background levels within 100 m of the dredge with all changes occurring directly downstream and did not extend the width of the river. USACE (2019) measured DO both up and downstream of the cutterhead dredge over multiple days, in multiple locations, using continuous monitoring and handheld equipment. The greatest change measured was from continuous monitoring that showed an average of 0.4 milligrams per liter (mg/L) drop 50 m downstream of the dredge in the bottom of the water column. Specifically, the downstream DO average was 2.7 mg/L (minimum = 1.9, maximum = 3.1) and the upstream average DO was 3.1 mg/L (minimum = 2.3, maximum = 3.3). This minor drop in DO is likely due to the suction nature of cutterhead dredges, which minimize the turbidity plume. Cutterhead dredges also pump water from near the water's surface to the cutterhead blade to assist with dredging. This action draws in at least some water from the surface that is expected to be more oxygen rich and moves it to the sea floor where DO levels are typically lower. USACE (2019) also reported that the cutterhead dredge "Hampton Roads" pumped 480-700 gallons per minute of water from 0.7 m depth down to the cutterhead operating at the bottom of the river. Because of the very small area where cutterhead dredging is removing sediment once embedded in the sediment, turbidity generated and the area of lower DO is localized and returns to normal quickly

in riverine environments due to the water flow and is expected to have an insignificant effect to sturgeon in rivers, outside of seasonal aggregation areas, even during times of poor water quality.

As described above, future maintenance dredging will be conducted in a manner consistent with 2020 SARBO. USACE indicates that maintenance dredging would occur annually as needed. We do not expect effects to the species that may result from the proposed Brunswick Harbor Modification Study in combination with the future maintenance dredging and placement covered under 2020 SARBO to result in effects beyond those identified in 2020 SARBO and this consultation.

Conclusion

Because all potential effects to listed species from the Brunswick Harbor Modification Study were found to be extremely unlikely to occur, insignificant, or beneficial, we conclude that the Brunswick Harbor Modification Study is not likely to adversely affect listed species under NMFS's purview. This concludes your consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action. NMFS's findings on the project's potential effects are based on the project description in this response. Any changes to the proposed action may negate the findings of this consultation and may require reinitiation of consultation with NMFS.

NMFS recommends the USACE consider contacting the University of Delaware – College of Earth, Ocean, and Environment regarding their Real-Time Sturgeon Predictive modeling. The potential expansion of this existing model may provide USACE with insight into when sturgeon interactions with dredge equipment are more probable. This increased awareness may allow the USACE to more effectively deploy relocation trawlers or alter their dredge plans to reduce impacts to sturgeon.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Laura Wright, Consultation Biologist, at (727) 209-5977, or by email at laura.wright@noaa.gov.

Sincerely,

David Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514-22.f.3

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- USACE. 2019. Savannah River Harbor cutterhead dredging dissolved oxygen draft project report: Monitoring the effects of hydraulic-cutterhead dredging on dissolved oxygen in the Savannah River Harbor. U.S. Department of Defense, Army Corps of Engineers, Engineer Research and Development Center.

NMFS ESA Biological Evaluation

The U.S. Army Corps of Engineers (Corps) is requesting informal consultation pursuant to Section 7 of the Endangered Species Act and the Marine Mammal Protection Act for the Brunswick Harbor Modification Study (BHMS). The project area is located within the lower Brunswick River, which includes the inner channels through St. Simon's Sound, Brunswick River, South Brunswick River, and Turtle River, in the City of Brunswick, Glynn County, Georgia. The BHMS evaluated 9 alternatives to increase efficiency of operation at Brunswick Harbor. The study focus is 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. The recommended plan, Alternative 8, is a combination of the bend widener, turning basin expansion, and meeting area at St. Simon's Sound. Alternative 8 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. At this time the dredged material would be placed in the Andrews Island Dredged Material Containment Area. Beneficial use of a portion of material from the bend widener is being considered for placement on the existing Bird Island to address erosion concerns. A Public Notice was also sent to all the parties on the Corps' Regulatory mailing list in Georgia for the project area, available at: <https://www.sas.usace.army.mil/Missions/Regulatory/Public-Notices/>.

The Corps has determined that the proposed project may affect but is not likely to adversely affect (NLAA) federally-listed species and no adverse effects to their designated critical habitat (DCH), 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), the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. § 1361-1407) and the consultation procedures at 50 C.F.R. Part 402.

Pursuant to our request for informal consultation, the Corps is 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 designated critical habitat DCH that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or DCH.

1. PROPOSED ACTION

a. Description of the proposed action:

Upon receipt of the Chiefs report (final milestone) scheduled for March 11, 2022, in cooperation with the Georgia Ports Authority, the Corps proposes to implement the proposed project activities described in the recommended plan that include the removal of material at the bend widener and turning basin, and an extension of the federal channel footprint at the meeting area at St. Simons Sound. A total of approximately 551,000 cubic yards of dredged material will be removed to construct the project. Upon project commencement, dredging activities are anticipated to continue for approximately 12 months. Once constructed,

maintenance dredging would be an ongoing process and is currently estimated every 12 months per section/run of river.

Specifically, the proposed dredging operation includes the exclusive use of a cutterhead dredge. The activities described in the recommended plan would expand the Cedar Hammock Range bend widener by a maximum width of 321 feet and a length of approximately 2,700 feet. Approximately 205,000 cubic yards of material would need to be dredged to expand the bend widener, as shown in Figure 1. In addition, the recommended plan would include expanding the existing turning basin at the Colonel's Island facility 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 2. Since the meeting area at St. Simons Sound is a naturally deep channel, no dredge activity is anticipated, as shown in Figure 3. The meeting area would be expanded by a maximum width of 800 feet on the north side of the existing 400 foot-wide federal channel and at a length of approximately 2,700 feet. The total amount of material to be dredged will be approximately 551,000 cubic yards. For the Turning basin, the limits of disturbance are 18.7 acres and for the bend widener, limits of disturbance total 16.2 acres. Both of these numbers include a 3:1 tie-in side slope to the existing slope.

Figure 1. Bend Widener

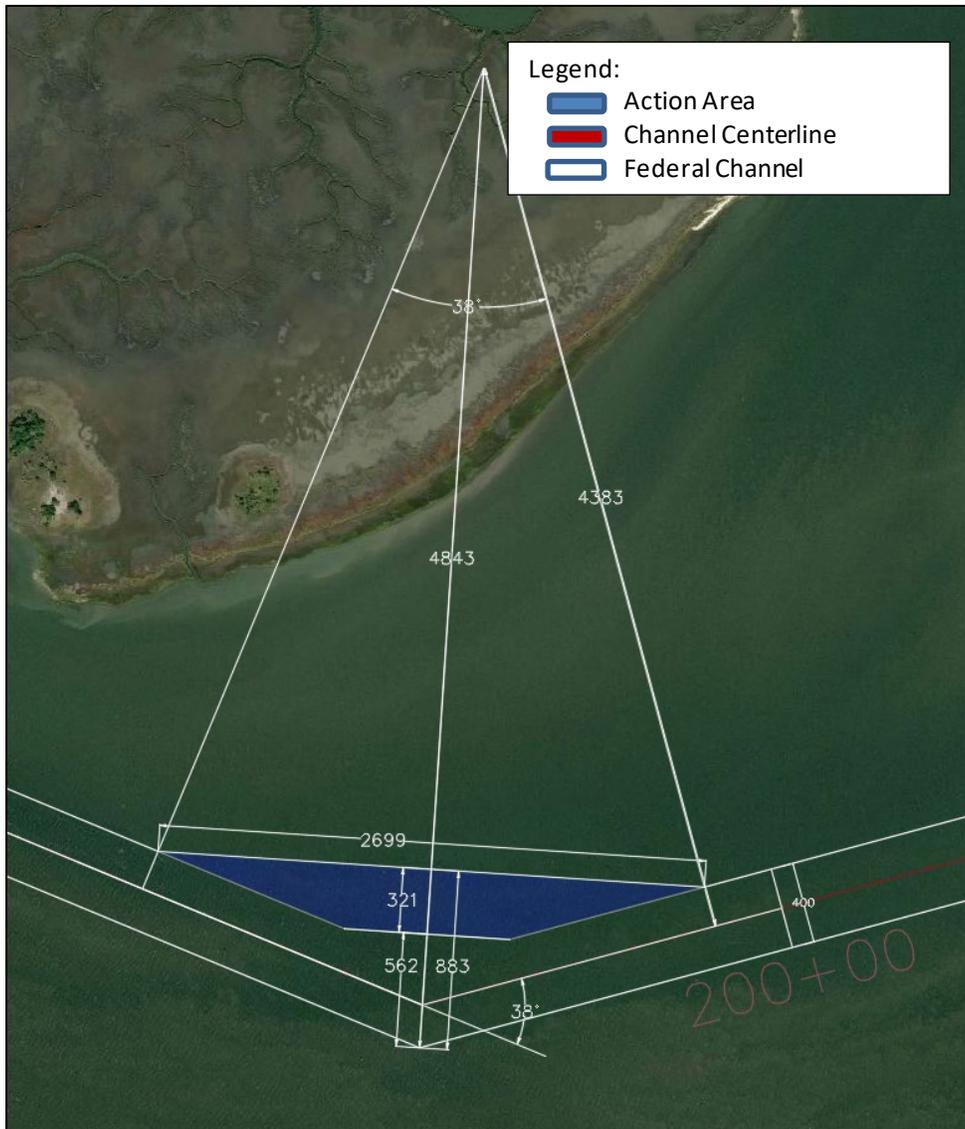


Figure 2. Turning Basin

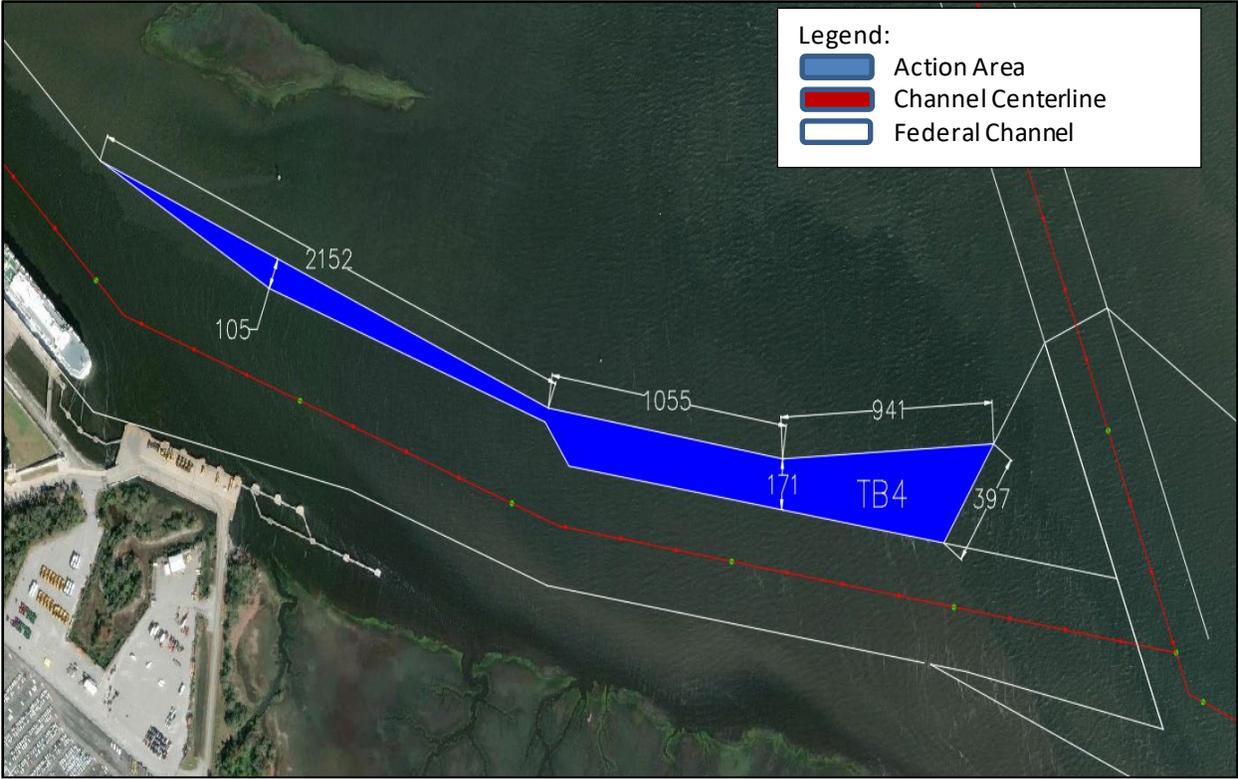
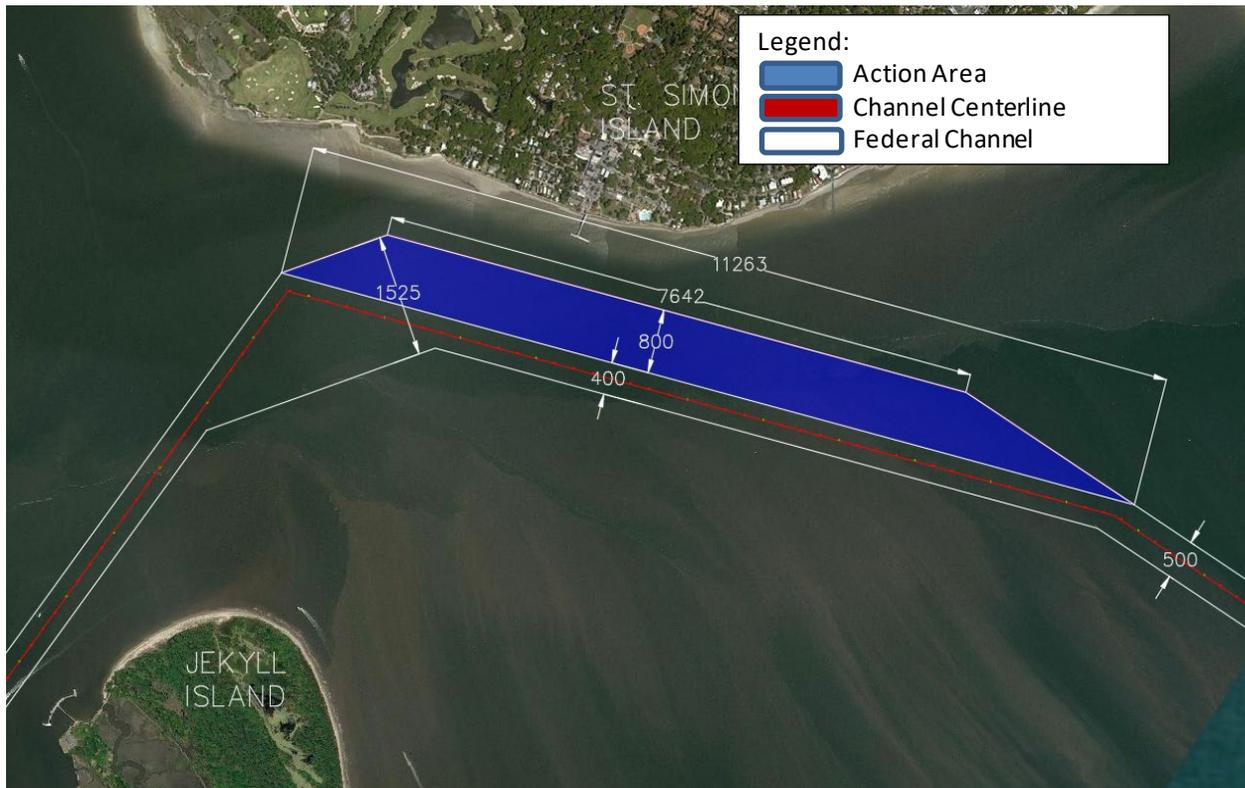


Figure 3. St. Simons Meeting Area



The dredge material at the bend widener consists of poorly graded sands, silty sands, and highly weathered limestone, and at the turning basin expansion, it consists of poorly graded sands, clayey sands, sandy clays, highly weathered limestone, and highly plastic clays. The proposed surface is to be dredged to the authorized depth of -36' + 2' Allowable Over Depth. The dredged material is to be disposed of at the Andrews Island Dredged Material Containment Area (DMCA). The Corps anticipates that project construction will last for approximately one year. Upon project commencement, dredging activities are anticipated to continue for approximately 12 months. Once constructed, maintenance dredging would be an ongoing process and is currently estimated every 12 months per section/run of river. There will be no time of year restrictions as the proposed dredging activity is exclusively being accomplished through cutterhead dredging and is not located in a sturgeon river as defined in the South Atlantic Regional Biological Opinion for Dredging and Material Placement Activities in the Southeast United States (SARBO 2020). All cutterhead PDCs mandated in the SARBO 2020 will be followed. As such, the Corps has made a May Affect Not Likely to Adversely Affect (MANLAA, or NLAA) for listed threatened or endangered species, or designated critical habitat, in the project area.

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 (SARBA June 2017). For the proposed action, the barge will be positioned in a fixed location to where floating/submerged pipe goes from the barge and directly to an onshore location on the dredge disposal area. The barge and pipeline will be placed in this fashion for both locations that dredge activity will occur.

b. Description of the project purpose:

The purpose of the BHMS is to improve marine vessel transport efficiency, maintain vessel and pilot/crew safety and contribute to National Economic Development in an environmentally acceptable and sustainable manner. The Corps will continue to follow the SARBO 2020 for long term operation and maintenance of Brunswick Harbor.

c. Description of minimization measures:

In order to minimize impacts to T&E species, critical habitats, and marine mammals, project design, implementation, and maintenance will include all relevant PDCs from the SARBO 2020. Additionally, the BHMS proposes to use the cutterhead dredge method, minimizing turbidity by piping away the sediments without having to bring them up through the water column in a bucket or transport them to an offshore location. Cutterhead dredges are known to have less direct impacts to listed species than other dredge types. Other dredge methods were analyzed and would be too costly to endangered species such as sea turtles and sturgeon, which would require additional monitoring and higher cost for the work.

2. ACTION AREA

For the purposes of this consultation, the Corps has defined the action area within the lower Brunswick River, which includes the inner channels through St. Simon's Sound, Brunswick River, South Brunswick River, and Turtle River, as shown in Figure 4. The action area starts before 0 river miles from St. Simons Sound.

Figure 4. Proposed Selected Plan- Alternative 8



3. AFFECTED SPECIES/HABITAT

Habitats within and adjacent to 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. Simon's Sound. As a result, the salinity levels tend to be approximately 25 parts per thousand (ppt), depending on tide stage. The St. Simon's Sound tide range is approximately 6.5 feet, and the water in the harbor is well-mixed with a relatively uniform salinity. There is no designated critical habitat for listed species in the project footprint.

Project activities have the potential to affect the listed species as shown in Table 1 below. Table 2 provides the species use of the action area.

Table 1: 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	43 FR 3280/July 28, 1978	October 1991	NLAA
Loggerhead sea turtle	T	43 FR 3280/July 28, 1978	December 26, 1991	NLAA
Leatherback sea turtle	E	35 FR 5961/ June 2, 1970	1992	NLAA
Shortnose sturgeon	E	32 FR 4001/ March 11, 1967	December 1998	NLAA
Atlantic sturgeon (All DPSs) ¹	T/E	77 FR 5914/ February 6, 2012	N/A	NLAA
Giant Manta Ray	T	83 FR 2916 January 22, 2018	December 4, 2019	NLAA
Oceanic White Tip Shark	T	83 FR 4153 January 30, 2018	September 6, 2018	NE
North Atlantic right whale	E	35 FR 18319/ December 2, 1970	June 2005	NE
Blue whale	E	35 FR 18319/ December 2,	July 1998	NE

		1970		
Fin whale	E	35 FR 18319/ December 2, 1970	August 2010	NE
Sei whale	E	35 FR 18319/ December 2, 1970	December 2011	NE
Sperm whale	E	35 FR 18319/ December 2, 1970	December 2010	NE

Table 2: Species use of the Action Area

Species	Species Use of the Action Area and/or DCH Description
Green sea turtle	Very few adult green sea turtles are found in Georgia, however, when they do occur in the action area, they can occur in proximity to the St. Simons Island and Jekyll Island beach areas and in and around St. Simons Sound. Juveniles are common throughout the estuaries that are adjacent to the action area year-round but are more abundant March through November. It is presumed that adults may occur in this area primarily for nesting, dispersal, or migration and it is presumed that the presence of juveniles in the project area may be for foraging, dispersal, or migration.
Loggerhead sea turtle	Loggerheads are the most common nesting species during the season along coastal Georgia. Adult loggerheads are common in and around the ship channel from Cedar Hammock Reach to the ocean and can commonly occur in proximity to the St. Simons Island and Jekyll Island beach areas during the nesting season. Juvenile loggerheads are common throughout the estuaries that are adjacent to the action area year-round but are more abundant in March through November. The abundance of juveniles is much higher than adults and occur primarily for foraging.
Leatherback sea turtle	Leatherback sea turtles occur in the Caribbean, Atlantic, and Gulf of Mexico. The Atlantic coast of Florida is one of the main nesting areas in the continental United States. They spend most of their lives in the ocean, but females leave the water to lay eggs. Leatherbacks are not anticipated to be found within the action area but may occur offshore from the action area while in route to nesting beaches in Florida and the Caribbean.
Kemp's ridley sea turtle	Kemp's ridley sea turtles are the least common turtle species found in Georgia, however, when they do occur in the action

	<p>area, they can occur in proximity to the St. Simons Island and Jekyll Island beach areas and in and around St. Simons Sound. Juveniles can occur throughout the estuaries that are adjacent to the action area year-round but are more abundant March through November. It is presumed that adults may occur in this area primarily for nesting, dispersal, or migration and it is presumed that the presence of juveniles in the project area may be for foraging, dispersal, or migration.</p>
<p>Hawksbill sea turtle</p>	<p>Hawksbill sea turtles typically inhabit inshore reef and hard bottom areas where they forage primarily on encrusting sponges. Due to the project sites proximity to the ocean and hard bottom areas, it is possible hawksbill sea turtles may be in or near the action area however, due to their rare distribution, encounters with Hawksbill sea turtle near the project area is not anticipated.</p>
<p>Shortnose and Atlantic sturgeon</p>	<p>Shortnose and Atlantic sturgeon typically inhabit hard bottom substrate (e.g., rock, cobble, gravel, limestone, boulder, etc.) in low salinity waters; waters with a gradual downstream salinity gradient and soft substrate (e.g., sand, mud); (3) water of appropriate depth and absent physical barriers to passage; and (4) water quality conditions in the bottom meter of the water column, with acceptable temperature and oxygen values. The project area does not reliably consist of rock, cobble, gravel, limestone, boulder but overall consists of poorly graded sands, clayey sands, sandy clays, highly weathered limestone and highly plastic clays sand. Life stages present may include both Juvenile and Adult stages. Both species may be present year-round at various developmental stages and may be present when the dredging occurs. Since this area is not considered critical habitat, it is also not considered preferred habitat for successful reproduction and recruitment. It is presumed that their presence in the project area is for either foraging, dispersal, or migration to and from critical habitat.</p>
<p>North Atlantic right whale</p>	<p>Northern right whales typically inhabit offshore waters along coastal Georgia each winter during the calving season. This offshore location near the project area is considered critical habitat for calving (NOAA). Although critical habitat is near the project area, there are no known confirmed sightings of a right whale in St. Simons Sound. From an environmental review perspective, the Georgia Department of Natural Resources-Coastal Resource Division (GADNR CRD) considers the right whale habitat as stopping at the shoreline and/or the COLREGS lines (which are the lines on charts that delineate where the ocean starts and inshore waters end) (Clay George-</p>

	GADNR CRD). Therefore, sounds and any other waters west of the COLREGS lines in Georgia are free of right whales.
Blue whale	In the Atlantic Ocean, their range extends from the subtropics to the Greenland Sea and are typically an offshore, deep water species. The project action area, which is limited to areas in the South Brunswick River and Turtle River and St. Simons Sound, does not include blue whale habitat.
Fin whale	Fin whales are found in deep, offshore waters of all major oceans, primarily in temperate to polar latitudes. They are less common in the tropics (NOAA FW). The project action area, which is limited to areas in the South Brunswick River and Turtle River and St. Simons Sound, does not include fin whale habitat.
Sei whale	Sei whales have a wide distribution and live in subtropical, temperate and subpolar waters around the world and are typically an offshore, deep water species. The project action area, which is limited to areas in the South Brunswick River and Turtle River and St. Simons Sound, does not include sei whale habitat.
Sperm whale	Sperm whales inhabit all of the world's oceans. Their distribution is dependent on their food source and suitable conditions for breeding and varies with the sex and age composition of the group. Sperm whale are typically an offshore, deep water species. The project action area, which is limited to areas in the South Brunswick River and Turtle River and St. Simons Sound, does not include sperm whale habitat.
Oceanic Whitetip Shark	The oceanic whitetip shark is found throughout the world in tropical and sub-tropical waters. Oceanic whitetip sharks are also not discussed in detail in this assessment as they are unlikely to be within the vicinity of the coastal action area since they are typically offshore species, residing in deep water, and the activities proposed by the Corps are coastal in nature.
Giant Manta Ray	The Giant Manta Ray is found throughout the world in tropical and sub-tropical waters. Giant manta rays are also not discussed in detail in this assessment as they are unlikely to be within the vicinity of the coastal action area since they are typically offshore species, residing in deep water, and only occasionally frequent productive coastlines to feed, as the activities proposed by the Corps are coastal in nature.

4. ROUTE(S) OF EFFECT TO SPECIES:

The project is anticipated to commence on November 1, 2024, and continue for approximately 12 months. The following effects are being considered for this project:

- Inadvertent vessel strikes - Vessel strikes can injure several whale species. The BHMS project dredge activity will remain landward of the COLREGS line. The proposed project will not increase cargo vessel traffic, and therefore, the project action area does not include shipping lanes or the federal navigation project extending offshore in the Atlantic Ocean. As a result, the proposed project will have no effect on whales or Oceanic Whitetip Shark. Therefore, impacts to listed species from vessel strikes are considered discountable and insignificant.
 - Dredging - The following federally listed species may occur in the project area: loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), Leatherback sea turtle (*Dermochelys coriacea*), Kemp's ridley sea turtle (*Lepidochelys kempii*), hawksbill sea turtle (*Eretmochelys imbricate*), shortnose sturgeon (*Acipenser brevirostrum*), and Atlantic sturgeon (*Acipenser oxyrinchus*) and Giant Manta Ray (*Manta birostris*). The following federally listed species are not expected to be present in the project area: North Atlantic right whale (*Eubalaena glacialis*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*) and sei whale (*Balaenoptera borealis*), sperm whale (*Physeter macrocephalus*) and Oceanic white tip shark (*Carcharhinus longimanus*). However, with implementation of the Project Design Criteria in the National Marine Fisheries Service SARBO 2020, including the use of cutterhead dredges which are known to have less direct impacts to listed species than other dredge types, the Corps has determined that the proposed actions may affect but is not likely to adversely affect listed species that may occur in the project area and a no effect determination for listed species not expected to be present in the project area.
 - Water Quality - The project proposes to use the cutterhead dredge, minimizing turbidity by piping away the sediments without having to bring them up through the water column in a bucket or transport them to an offshore location. 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. Any limited impacts to Water Quality would be temporary and minimal, and project impacts are considered discountable and insignificant.
 - Noise - noise impacts from the proposed activity will be insignificant and aside from occasional horn alerts from passing ships at the meeting area at St. Simons, the typical maritime activities from large vessels will remain as they are. The above Alternatives also assumes O&M dredging would occur within the Federal navigation channel at authorized depths (-36 MLLW + 2' Allowable Over Depth) as normally scheduled on an annual maintenance basis to continue to accommodate open channels for vessel navigation.
-

5. ROUTES OF EFFECT TO CRITICAL HABITAT

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

6. DETERMINATION:

The Corps has reviewed the proposed project for its impacts to federally listed species and DCH. The Corps has determined that the proposed actions may affect but is not likely to adversely affect the following federally listed species: loggerhead sea turtle (*Caretta caretta*), green sea turtle (*Chelonia mydas*), Leatherback sea turtle (*Dermochelys coriacea*), Kemp's ridley sea turtle (*Lepidochelys kempii*), hawksbill sea turtle (*Eretmochelys imbricate*), Giant Manta ray (*Manta birostris*), shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*Acipenser oxyrinchus*).

The Corps has also determined that the proposed actions will have no effect the following federally listed species: North Atlantic right whale (*Eubalaena glacialis*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*) and sei whale (*Balaenoptera borealis*), sperm whale (*Physeter macrocephalus*) and Oceanic white tip shark (*Carcharhinus longimanus*). Additionally, the Corps has concluded the project will not affect any DCH. This analysis was prepared based on the best scientific and commercial data available.

The Corps is requesting National Marine Fisheries Service's (NMFS) written concurrence with the NLAA determinations. The Corps appreciates your cooperation in completing this informal Section 7 consultation by concurring with the Corps' effect determination(s) in a timely manner.

Literature Cited

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