

**Brunswick Harbor Modification Project  
Jekyll Island Fishing Pier Shoreline Nourishment  
Glynn County, Georgia  
Draft Supplemental Environmental Assessment and Finding of No Significant  
Impact**

**Appendix C**

**Coastal Zone Management Act**

**Federal Consistency Determination for the Georgia Coastal Zone  
Management Program**

**U.S. ARMY CORPS OF ENGINEERS  
SAVANNAH DISTRICT  
100 WEST OGLETHORPE AVENUE  
SAVANNAH, GEORGIA 31401  
January 2024**



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**Brunswick Harbor Modification Project  
Jekyll Island Fishing Pier Shoreline Nourishment  
Glynn County, Georgia  
Draft Supplemental Environmental Assessment and FONSI**

**C.1**

**Correspondence**

**U.S. ARMY CORPS OF ENGINEERS  
SAVANNAH DISTRICT  
100 WEST OGLETHORPE AVENUE  
SAVANNAH, GEORGIA 31401  
January 2024**



## Wright, Summer G CIV USARMY CESAS (USA)

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**From:** Hill, Suzanne CIV USARMY CESAS (USA)  
**Sent:** Thursday, December 21, 2023 2:37 PM  
**To:** Moore, Kelie; Wright, Summer G CIV USARMY CESAS (USA)  
**Cc:** Hedeem, David  
**Subject:** RE: BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum  
**Attachments:** 12\_21\_2023\_jekyll BU Project Description\_update.docx

Kelie-

Summer is on leave so answering on her behalf and attaching the revised project description. We have just added a few more details as Summer notes below now that we have addressed technical comments on the 60% design.

In answer to your question, we have landed on January 30, 2024 as reasonable time frame for the 401. The public comment period is scheduled to conclude on 1/23, so that will give us time to review and share any public comments we receive.

Let me know if you have any questions with the attached. We did include language about potentially needing a 1 ft tolerance on the elevation if we get industry feedback regarding technical feasibility on the .5ft tolerance.

If we don't speak before then- Have a Wonderful Christmas!

Suzy

---

**From:** Moore, Kelie <Kelie.Moore@dnr.ga.gov>  
**Sent:** Thursday, December 21, 2023 9:23 AM  
**To:** Wright, Summer G CIV USARMY CESAS (USA) <Summer.G.Wright@usace.army.mil>  
**Cc:** Hill, Suzanne CIV USARMY CESAS (USA) <Suzanne.Hill@usace.army.mil>; Hedeem, David <david.hedeem@dnr.ga.gov>  
**Subject:** [Non-DoD Source] RE: BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum

Thank you Summer. Yes, please send me the updated project description. I assume you requested a 401 on November 9<sup>th</sup> in addition to the CZM request sent to CRD. Have you received the 401 or know what the general timeframe is? CRD has 60 days for review (until January 9<sup>th</sup>), but we have to get the 401 in hand before we can sign off on CZM.

Kelie Moore  
Federal Consistency Coordinator  
[Coastal Resources Division](#)  
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**From:** Wright, Summer G CIV USARMY CESAS (USA) <[Summer.G.Wright@usace.army.mil](mailto:Summer.G.Wright@usace.army.mil)>  
**Sent:** Wednesday, December 20, 2023 3:19 PM  
**To:** Moore, Kelie <[Kelie.Moore@dnr.ga.gov](mailto:Kelie.Moore@dnr.ga.gov)>  
**Cc:** Hill, Suzanne CIV USARMY CESAS (USA) <[Suzanne.Hill@usace.army.mil](mailto:Suzanne.Hill@usace.army.mil)>  
**Subject:** RE: BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Kelie,

Since sending the addendum to you for the Jekyll Shoreline Nourishment, we have had some minor changes to the project description. Would you like us to send you the revised project description for your review? We had a sentence in the Addendum that you currently are reviewing about most of the material being placed above MHW, but the elevation ranges are approximately 6.5 ft MLLW to 7.5 ft MLLW. MHW is about 7.35 ft MLLW in the Brunswick area.

Also, attached is the updated 60% design with the 7.0 ft MLLW top of elevation berm with +/-0.5 ft tolerance.

Thank you,

Summer Wright  
Biologist, Planning Branch  
USACE, Savannah District  
M: (912)-222-8945

---

**From:** Moore, Kelie <[Kelie.Moore@dnr.ga.gov](mailto:Kelie.Moore@dnr.ga.gov)>  
**Sent:** Thursday, November 9, 2023 2:44 PM  
**To:** Wright, Summer G CIV USARMY CESAS (USA) <[Summer.G.Wright@usace.army.mil](mailto:Summer.G.Wright@usace.army.mil)>  
**Cc:** Hill, Suzanne CIV USARMY CESAS (USA) <[Suzanne.Hill@usace.army.mil](mailto:Suzanne.Hill@usace.army.mil)>  
**Subject:** [Non-DoD Source] RE: BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum

Received. Thank you and have a great weekend.

Kelie Moore  
Federal Consistency Coordinator  
[Coastal Resources Division](#)  
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**From:** Wright, Summer G CIV USARMY CESAS (USA) <[Summer.G.Wright@usace.army.mil](mailto:Summer.G.Wright@usace.army.mil)>  
**Sent:** Thursday, November 9, 2023 1:09 PM  
**To:** Moore, Kelie <[Kelie.Moore@dnr.ga.gov](mailto:Kelie.Moore@dnr.ga.gov)>  
**Cc:** Hill, Suzanne CIV USARMY CESAS (USA) <[Suzanne.Hill@usace.army.mil](mailto:Suzanne.Hill@usace.army.mil)>  
**Subject:** RE: BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum

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Good afternoon Kelie,

Attached is the finalized version of the BHMS and Jekyll Island Shoreline Nourishment CZMA consistency determination addendum for review and concurrence.

Thank you!

Summer Wright  
Biologist, Planning Branch  
Savannah District, USACE  
M: (912)-222-8945

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**From:** Moore, Kelie <[Kelie.Moore@dnr.ga.gov](mailto:Kelie.Moore@dnr.ga.gov)>  
**Sent:** Wednesday, November 8, 2023 3:31 PM  
**To:** Wright, Summer G CIV USARMY CESAS (USA) <[Summer.G.Wright@usace.army.mil](mailto:Summer.G.Wright@usace.army.mil)>  
**Cc:** Hill, Suzanne CIV USARMY CESAS (USA) <[Suzanne.Hill@usace.army.mil](mailto:Suzanne.Hill@usace.army.mil)>  
**Subject:** [Non-DoD Source] RE: BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum

This looks ready to go. You mentioned during our 1:00 meeting today that this may go out on public notice January 4<sup>th</sup>. If our 90-day review period commences prior to November 19<sup>th</sup> it is likely that we will request an extension to allow us to review any public comments received through the close of the public comment period (e.g. to February 19<sup>th</sup>). Thanks

Kelie Moore  
Federal Consistency Coordinator  
**Coastal Resources Division**  
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**From:** Wright, Summer G CIV USARMY CESAS (USA) <[Summer.G.Wright@usace.army.mil](mailto:Summer.G.Wright@usace.army.mil)>  
**Sent:** Wednesday, November 8, 2023 8:55 AM  
**To:** Moore, Kelie <[Kelie.Moore@dnr.ga.gov](mailto:Kelie.Moore@dnr.ga.gov)>  
**Cc:** Hill, Suzanne CIV USARMY CESAS (USA) <[Suzanne.Hill@usace.army.mil](mailto:Suzanne.Hill@usace.army.mil)>  
**Subject:** BHMS/Jekyll Island Shoreline Nourishment CZMA Addendum

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Good morning Kelie!

I hope you are doing well! Attached is the draft BHMS and Jekyll Island Shoreline Nourishment CZMA consistency determination addendum. Please review the draft and let us know if we are ready to go ahead and start the 90-day clock for final review and concurrence.

Thank you! Let us know if you have any questions.

Summer Wright  
Biologist, Planning Branch  
Savannah District, USACE  
M: (912)-222-8945

**Brunswick Harbor Modification Project  
Jekyll Island Fishing Pier Shoreline Nourishment  
Glynn County, Georgia  
Draft Supplemental Environmental Assessment and FONSI**

**C.2**

**Federal Consistency Determination for the Georgia Coastal Zone  
Management Program**

**U.S. ARMY CORPS OF ENGINEERS  
SAVANNAH DISTRICT  
100 WEST OGLETHORPE AVENUE  
SAVANNAH, GEORGIA 31401  
January 2024**







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

09 November 2023

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) has prepared the enclosed **consistency determination addendum in accordance with the section 307 of the Coastal Zone Management Act (CZMA)** for the Brunswick Harbor Modification Project (BHMP). This consistency determination is an addendum to the previous conditional determination provided by the GADNR-CRD, provided on April 23, 2021. We are providing an addendum to the project description in the consistency determination to include only the modification, or construction of the BHMP, and beneficial use of dredged material at Jekyll Island.

The Corps has made a decision to conduct an environmental impact statement (EIS) in accordance with the National Environmental Policy Act (NEPA) for the operations and maintenance (O&M) of the Brunswick Harbor Navigation Project (BHNP). Further coordination related to O&M dredging of the BHNP will be conducted concurrent with the development of the EIS.

The 2021 Brunswick Harbor Navigation Project Modifications and Harbor Dredging Operations and Maintenance Integrated Feasibility Report (IFR)/Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) is the NEPA compliance solely for the new work for the BHMP which includes the expansion of the Cedar Hammock bend widener and turning basin, and the meeting area at St. Simons Sound. The FONSI was signed on May 25, 2022. The Corp is preparing a supplemental EA for the beneficial use of dredged material at the Jekyll Island site.

As part of the Brunswick Harbor Modification Project (BHMP) Planning, Engineering, and Design (PED) phase, there was a public notice posted on July 2, 2023, requesting proposals for beneficial use (BU) of the Cedar Hammock bend widener material. The Corps received a proposal from the Jekyll Island Authority (JIA) for shoreline nourishment along the degraded shoreline southwest of the Jekyll Island Fishing Pier. The Corps has determined this BU site has reasonable feasibility to move forward with design and environmental compliance. In review of the proposed site, it may also be feasible future site for maintenance material. Therefore, the review of the

BU site will include both new work material, and potential future placement using maintenance material. The Corps is only seeking concurrence on the use of maintenance material at the BU site at Jekyll Island and is not seeking concurrence for any other O&M dredging activities for the Brunswick Harbor Navigation Channel through this consistency determination addendum.

**The Corps is requesting a consistency review under the Georgia Coastal Management Program for (1) the proposed new work expansion of the Cedar Hammock bend widener and turning basin and the meeting area at St. Simons Sound of the BHMS (see Alternative 8 description under Section 3.8 of the 2021 BHMS IFR/EA) and (2) the shoreline nourishment along the degraded marshland southwest of the Jekyll Island Fishing Pier.**

This work will include the removal of approximately 205,000 cy of material from the bend widener and approximately 346,000 cy of material from the turning basin. The material from the turning basin will be placed into the Andrews Island dredge material containment area (DMCA). As evaluated in the 2022 IFR/EA and FONSI, the material from the Cedar Hammock bend widener would be placed in the Andrews Island DMCA. The Corps is preparing a supplemental EA and concurrent environmental compliance for the use of the material as shoreline nourishment along Jekyll Island. The meeting area at St. Simons Sound does not require the removal of material. If shoreline nourishment using the Cedar Hammock bend widener material does not occur, material will be placed into the approved Andrews Island DMCA.

In accordance with Section 307 (c)(1) of the Federal Coastal Zone Management Act of 1972, as amended, the Corps has determined that the proposed channel modifications of the BHMS and beneficial use of the dredged material is fully consistent with Georgia's Coastal Management Program. Our consistency determination evaluation is enclosed. The proposed activities comply with the enforceable policies of Georgia's approved Coastal Management Program and will be conducted in a manner that is fully consistent with the program and any received authorizations. We are seeking your concurrence on our consistency determination addendum. Please contact Ms. Suzanne Hill by telephone at (912)-423-2324, or by email at [Suzanne.Hill@usace.army.mil](mailto:Suzanne.Hill@usace.army.mil) if you should have any questions or requests for further information.

Encl

Suzanne Hill  
Environmental Team Lead, Planning Branch

**ADDENDUM to the Federal Consistency Determination  
Brunswick Harbor Modification Study and Integrated Draft Feasibility Report and  
Environmental Assessment**

**1.0 INTRODUCTION**

The Federal Coastal Zone Management Act (CZMA), 16 U.S.C. 1451 et seq., as amended, requires each Federal agency activity performed within or outside the coastal zone (including development projects) that affects land or water use, or natural resources of the coastal zone to be carried out in a manner which is fully consistent with the enforceable policies of approved state management programs. A direct Federal activity is defined as any function, including the planning and/or construction of facilities, which is performed by or on behalf of a Federal agency in the exercise of its statutory responsibilities. A Federal development project is a Federal activity involving the planning, construction, modification or removal of public works, facilities or other structures, and the acquisition, use or disposal of land or water resources.

To implement the CZMA and to establish procedures for compliance with its Federal consistency provisions, the US Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), has promulgated regulations which are contained in 15 C.F.R. Part 930. This Consistency Determination is being submitted in compliance with Part 930.30 through 930.44 of those regulations.

The Corps has prepared this addendum to determine if the proposed channel modifications of the Brunswick Harbor Modification Study (BHMS) and the proposed shoreline nourishment along Jekyll Island are fully consistent with the Georgia Coastal Management Program (GCMP).

For purposes of the CZMA, the enforceable policies of the Georgia Coastal Management Plan constitute the approved state program. In accordance with the CZMA, the United States Army Corps of Engineers Savannah District (Corps) has determined that the proposed BHMS channel modifications and the shoreline nourishment would be carried out in a manner which is fully consistent with the enforceable policies of the GCMP.

**2.0 PURPOSE OF ADDENDUM**

The Corps is seeking consistency review with the GCMP for (1) the channel modifications of the BHMS and (2) the shoreline nourishment of the degraded shoreline southwest of the Jekyll Island Fishing Pier using the Cedar Hammock bend widener expansion dredged material and future maintenance dredged material. On February 11, 2021, the Corps provided a consistency determination to the GADNR that evaluated the channel modifications (new work) and the continued operations and maintenance (O&M) of the Brunswick Harbor Navigation Project (BHNP). The Corps has prepared

this addendum to update the project description to include only the new work modifications and Jekyll Island shoreline nourishment using new work material from the BHMP and O&M material from the BHNP. The Corps is only seeking concurrence on the potential future use of maintenance material at the beneficial use (BU) site at Jekyll Island and is not seeking concurrence for any other O&M dredging activities for the Brunswick Harbor Navigation Channel through this consistency determination addendum.

The Corps plans to supplement its NEPA and other environmental compliance documentation, including compliance with CZMA for dredging activities related to continued O&M of the BHNP via an Environmental Impact Statement (EIS).

### **3.0 GCMP Jurisdiction**

The proposed federal action is located within the Coastal Zone of Glynn County, Georgia.

## **4.0 PROJECT DESCRIPTION**

### **BHMS New Work**

The BHMS includes the removal of 205,000 cubic yards of material at the bend widener, 346,000 cubic yards at the turning basin expansion, and the creation of a meeting area at the St. Simons Sound, which does not require material removal. A total of approximately 551,000 cubic yards of dredged material will be removed to construct the project. As evaluated in the 2022 IFR/EA and FONSI the dredged material would be placed in the Andrews Island Dredged Material Containment Area (DMCA). No dredging is needed at St. Simons Sound as it is naturally deep and only requires the addition of the area into the Federal navigation channel.

Upon project commencement, dredging activities (cutterhead) are anticipated to continue for approximately 12 months. Upon construction completion, O&M dredging (all dredge types) would occur annually as needed based on shoaling rates; except for O&M dredging using hopper dredges, which will occur within December 15 and March 31. The average shoaling rate for the turning basin and bend widener is expected to be approximately 14,900 cubic yards per year and 2,000 cubic yards per year, respectively. 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.

With implementation of the proposed project, the anticipated O&M annual average of dredged material removed from the Brunswick Harbor in the bend widener and turning basin would increase from approximately 390,000 cubic yards to approximately 406,900 cubic yards. It is anticipated that the shoaling rates in both the inner harbor reach and the outer harbor or entrance channel would not change from the proposed project and would on average continue to be 400,000 cubic yards and 1,414,000 cubic yards respectively on an annual basis. O&M practices will not change with the approximate 16,900 cy dredging increase and the placement of O&M material within the shoreline nourishment site. A future EIS will cover the O&M dredging practices of the Brunswick Harbor and will receive separate future coordination with the GADNR under the CZMA.

### **Jekyll Island Shoreline Nourishment**

The purpose of the proposed action is to increase BU opportunities for the Savannah District dredging operations, optimize capacity for the DMCA's, provide environmental benefits, and support USACE's national effort to have 70% of dredged material be used for BU purposes by the year 2030. The Savannah District is planning for the placement of dredged material from the new work dredged material of the BHMP as well as the future O&M of the BHNP that incorporates BU principles. BU of dredged material can restore and enhance habitat for a variety of aquatic and terrestrial species, improve eroded riverine and ocean facing shorelines, and increase recreational opportunities. Using dredged sediment beneficially is an important component of USACE's dredged material management strategy, which aims to environmentally and economically utilize sediment to create and preserve environmental habitat, benefit local communities, provide coastal storm risk management benefits, and reduce the input of dredged material into DMCA's, which brings value to the nation. Section 125 of the Water Resources Development Act (WRDA) of 2020 requires the Assistant Secretary of the Army, Civil Works (ASA(CW)) to maximize the beneficial use of dredged material obtained from construction or O&M of the Corps of Engineers (Corps) water resource development projects.

After completion of the 2022 IFR/EA, the Corps issued new guidance related to section 125 of 2020 WRDA. Consistent with that guidance, the Corps posted a 30-day public notice requesting proposals for beneficial use sites using the BHMP dredged material. In response to the public notice, Jekyll Island Authority (JIA) submitted a site for shoreline nourishment along the northwest end of Jekyll Island. Corps in its preliminary analysis of the JIA proposal has determined that the site is feasible and is therefore pursuing environmental compliance for the site.

The Corps proposes to establish the BU placement, shoreline nourishment, as described below (Figure 1). The purpose of the shoreline nourishment is to restore

historically existing shoreline, and stabilize and prevent further erosion from coastal impacts, including storm events, tidal extremes, wind-driven wave energy, and sea level rise. The need for the proposed action is due to the erosion of the shoreline that has been observed and quantified using historical aerial imagery and has been identified as an area of concern by the JIA. This erosion is causing loss of saltmarsh, and the wake and tidal action is threatening the Clam Creek Road and recreational areas located on the northern portion of Jekyll Island. The proposed action alternative is to directly place approximately 205,000 cy of primarily sandy dredged material from the Cedar Hammock Bend Widener expansion onto the degraded shoreline southwest of the Jekyll Island Fishing Pier. This location is on the northern leeward side of Jekyll Island. Initial placement will occur during construction of the bend widener under the BHMP. This site will not receive any hardened structure after sediment placement completion; therefore, material is expected to erode over time from natural forces. Future maintenance of this site will be required to restore lost sediment within the original design template. Future maintenance will utilize O&M material from the BHNP.

For initial placement, hydraulic cutterhead will be the means of placing the dredged sediment into the proposed shoreline nourishment site. Pipeline will be moved around to achieve design elevation, with the use of heavy machinery to create even grade and design contours if needed. Future O&M placement may be done with either cutterhead pipeline or hopper dredge. Material will be primarily placed above the mean highwater mark (MHW) within the placement template. Adjacent to the inflow/outflow points of a tidal creek within the placement template, two buffer areas will be set at lower elevations to ensure continued tidal fluxes. The material will be placed in shallow areas that were historically intertidal and sandy mudflat habitat that has been degraded due to loss of elevation from tidal and wave-driven erosional forces (Figures 2 and 3). Returning sediment along actively degrading subtidal to intertidal zones in this area will restore the historic shoreline footprint. Placement of sediment in this area will provide valuable protection and attenuate wave energy along the adjacent shoreline. This will provide additional foraging/nesting habitat for shorebirds. The additional substrate may also encourage natural recruitment of vegetation from the adjacent marsh, allowing for further stabilization of the existing topographic landscape. The proposed action will use new work dredged material from the BHMP for initial placement. Future placements to restore lost material from the template, O&M dredged material from the BHNP will be used. The anticipated start date for this action is expected to occur in late 2024 to early 2025, depending on contract award for the BHMP. Shoreline nourishment will require future maintenance placements due to no hardened structure. At a minimum, USACE will implement placement of the O&M material at the site every 3-5 years, depending on suitable material available and the rate of erosion based on information gathered from bathymetric and aerial monitoring efforts.

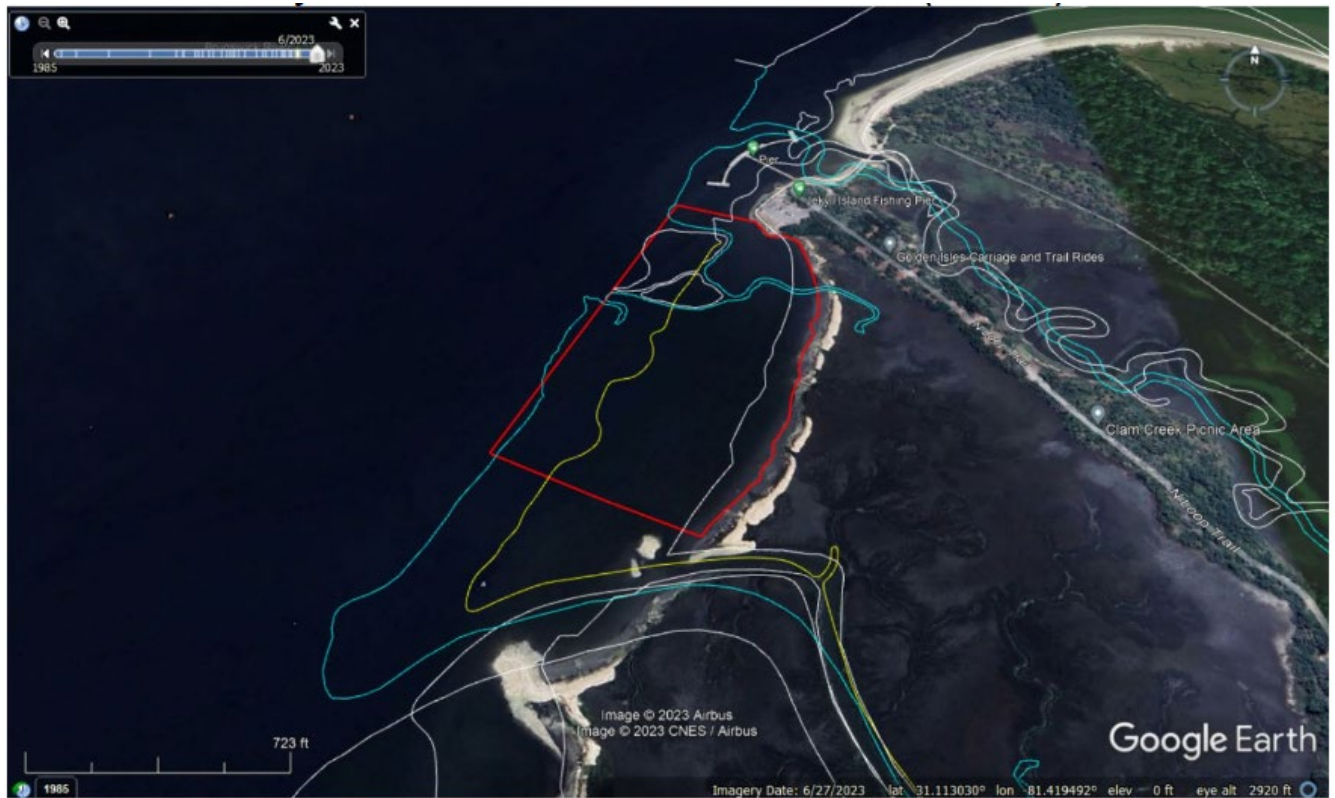


Figure 1. Proposed Beneficial Use Location.



**Figure 2. 1988 aerial imagery of the proposed placement location. The proposed placement polygon is in red. The blue line is historical shoreline from 1855, and the yellow is historical shoreline from 1933 (GADNR).**





**Figure 3. June 2023 aerial imagery of the current shoreline with comparisons to the proposed placement and the historical shorelines (blue-1855, yellow-1933).**

### **Project Area Considerations**

There are two small tidal creeks within the adjacent saltmarsh that provide tidal inundation and flushing of the saltmarsh. Figures 4 and 5 provide visuals of the northern most tidal creek adjacent to the placement area. These tidal creeks are affected by ebb/flood tides and precipitation. During precipitation events, downstream flows tend to be highest out of the tidal creeks. The mouths of the tidal creeks are approximately 5 ft wide with mostly shell rake and sandy material deposited from the Brunswick River.



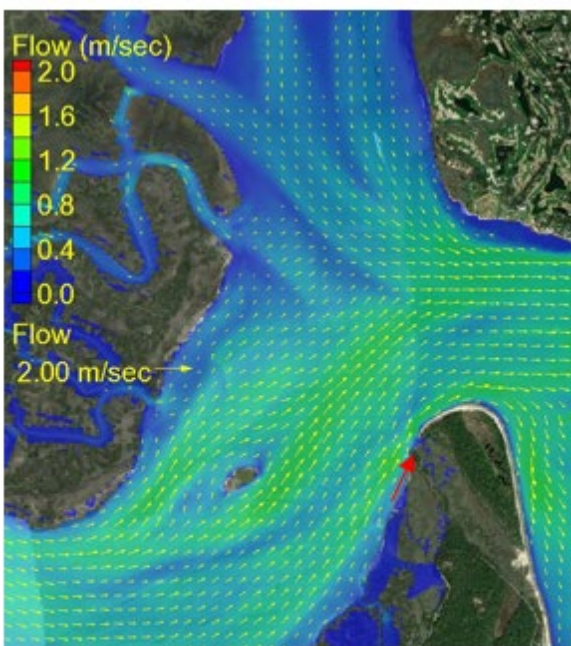
**Figure 4. Mouth of the tidal creek facing the Brunswick River at low tide.**



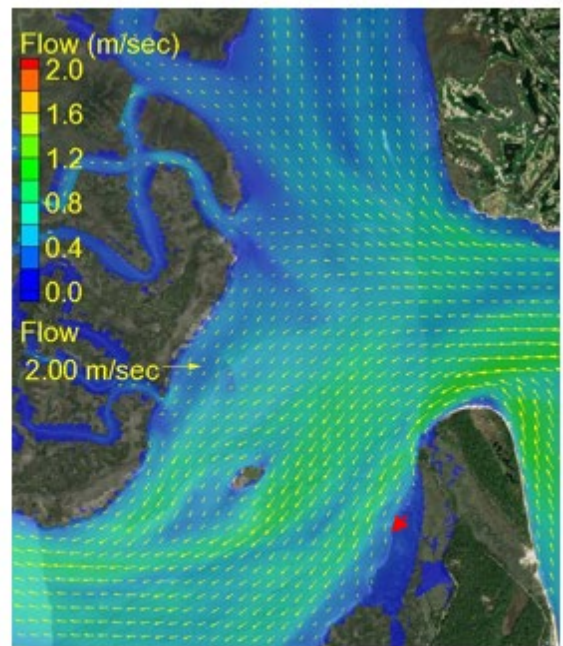
**Figure 5. Northern most tidal creek adjacent to the placement area.**

There may be short term minor impacts to flows of the two small tidal creeks in the adjacent saltmarsh due to the potential for placement material moving into the creeks during flood currents. However, it is expected that any placement material deposited during flood currents will be removed from the creeks during a precipitation event coupled with an ebb tide when downstream flows are high enough to remove the deposited material through critical shear stress. According to a 2023 ERDC report (Piercy et al., 2023), coarser grained material tends to settle closer to the discharge point compared with finer-grained material which dissipates further from the placement discharge point. Therefore, since the placement material will consist of mostly sandy material from the new work and O&M dredging, it is expected that the material will mound close to the placement discharge point. The placement site also has sufficient tidal energy, so tidal creeks are expected to reform quickly (Piercy et al., 2023). Sediment transport modeling was also completed by USACE Engineer Research Development Center (ERDC). GenCade is a numerical model that calculates shoreline change, wave-induced longshore sediment transport, and morphology. Ebb-tidal flows and flood tidal flows were simulated using the Coastal Modeling System (CMS-Flow) numerical model. Based on this modeling effort, the general pattern of flow in the proposed action area is north to south along the shoreline (Figure 6). The flow along the area appears to be up to 0.4 m/sec during the ebb and tidal flow simulations. The general sediment transport is shown with red arrows. It is expected that most of the

material placed will remain in the template, but there may be some minor turbidity plumes generated during placement. The direction will be dependent on the tidal flows at time of construction. According to the modeling, the longshore transport south of the Jekyll Island Pier, which is primarily affected by daily tidal currents (both flood and ebb currents), is directed more southward. The cross-shore transport is also significant to cause shoreline erosion and deposit sediment away from the shoreline. Therefore, turbidity plumes are expected to primarily move southward with some moving cross-shore, but this is also dependent upon tidal flows (flood and ebb conditions). Therefore, it is expected that most material will drift parallel to the shoreline and avoid the tidal creeks. It is expected that the material placed will erode slowly over time.



(1) An ebb tidal flow simulated by CMS-flow



(2) A flood tidal flow simulated by CMS-flow

Figure 6. (1) Red arrow is estimated turbidity plume direction during ebb tide. (2) Red arrow is estimated turbidity plume direction during flood tide. Further detail of flow is depicted by the yellow arrows from the GenCade modeling results.

## **5.0 EFFECTS OF PROPOSED PROJECT**

Relevant Enforceable Policies:

### Shore Protection Act (O.C.G.A. 2-5-230)

The Corps recognizes that “the coastal sand dunes, beaches, sandbars, and shoals comprise a vital natural resource system, known as the sand-sharing system,” and recognizes the vital need to protect the sand-sharing system.

Shoreline nourishment will ultimately be beneficial to the sand-sharing system of Jekyll Island and the Brunswick River. The Corps will not pursue a permit under the Shore Protection Act (SPA) for placement activities before construction begins. Under CMPA 12-5-295(3), material placement by federal agencies is exempt from the permit requirement.

### The River and Harbor Development Act (O.C.G.A. 52-9-1 et seq)

The River and Harbor Development Act states that:

"there shall be no net loss of sand from the state's coastal barrier beaches resulting from dredging activities to deepen or maintain navigation channels within tidal inlets, as well as the entrances to harbors and rivers."

The proposed action is not expected to result in a net loss of sand from the states coastal barrier beaches. The proposed action along Jekyll Island will result in sediment being placed within “the system.” Therefore, restoration efforts within the study area will not result in a loss of sand to these barrier beaches as a result of the construction efforts.

### Coastal Marshlands Protection Act– O.C.G.A. 12-5-280, 12-5-282(3), 12-5-286(a) & 12-5-295(3)

This law does not apply to the Corps due to our “responsibility of keeping the rivers and harbors of this state open for navigation... including areas for utilization for spoilage designated by such agencies” [O.C.G.A. 12-5-295(3)]. Furthermore, there will be no placement of dredged material in marshes.

### Georgia Endangered Wildlife Act (GEWA) – O.C.G.A. 27-3-130

The implementing rule for the GEWA, Rule 391-4-10 protection of endangered, threatened, rare, or unusual species is applicable to this project, and the Corps is fully

consistent. Specifically, there are four Prohibited Acts detailed in Rule 391-4-10.06. These acts are:

1. Any activities which are intended to harass, capture, kill, or otherwise directly cause death of any protected animal species are prohibited, except as specifically authorized by law or by regulation as adopted by the Board of Natural Resources.
2. The sale or purchase of any protected animal species or parts thereof is prohibited and the possession of any such species or parts thereof is prohibited unless the possession is authorized by a scientific collecting, wildlife exhibition, or other permit or license issued by the Department.
3. The destruction of the habitat of any protected animal species on public lands is prohibited.
4. The authorization to take certain nongame animal species set forth in O.C.G.A. Section 27-1-28 shall not apply to any protected species whether on public or private land.

Regarding Prohibited Act 1, the proposed action is not “intended” to harass, capture, kill, or otherwise directly cause death of any protected animal species. The Endangered Species Act (ESA) is incorporated by reference in this GA Rule. National Marine Fisheries Service (NMFS) ESA consultation was completed on May 24, 2021 for the BHMS. The Corps is coordinating a biological assessment for shoreline nourishment using the new work bend widener material and future O&M material with the NMFS. The Corps has made a may affect, not likely to adversely affect determination for Atlantic and shortnose sturgeon, giant manta rays, and loggerhead, Kemp’s Ridley, and green sea turtles. The Corps has made a no effect determination for Hawk’s Bill and leatherback sea turtles.

U.S. Fish and Wildlife Service (USFWS) ESA consultation was completed on May 20, 2020 for the BHMS. The Corps is coordinating a biological assessment for shoreline nourishment with the USFWS. The Corps has made a may affect, not likely to adversely affect for eastern black rail, wood stork, West Indian manatee, loggerhead, Kemp’s Ridley, and green sea turtles.

The Corps will also be adhering to all standard manatee conditions put forth by the FWS.

Prohibited Act 2 does not apply to this project.

Prohibited Act 3 also does not apply as there is no “destruction” of habitat proposed. The proposed shoreline nourishment would act as an erosional buffer to the existing adjacent marsh habitat. There may be temporary impacts to benthic habitat but is expected to recover due to the placement being unconfined.

Prohibited Act 4 references TITLE 27 - GAME AND FISH, CHAPTER 1 – GENERAL PROVISIONS, § 27-1-28 - Taking of nongame species indicates that “(a) Except as otherwise provided by law, rule, or regulation, it shall be unlawful to hunt, trap, fish, take, possess, or transport any nongame species of wildlife, except that the following species may be taken by any method except those specifically prohibited by law or regulation:”

The Corps activities are specifically authorized by the ESA. The ESA is incorporated by reference in this GA Rule. Therefore, the Corps proposed activity is fully consistent with this part because restricted activities have been authorized by law and in accordance with completed Section 7 consultation.

#### Georgia Environmental Policy Act – O.C.G.A. 12-16-1

“The Georgia Environmental Policy Act (GEPA) requires that all State agencies and activities prepare an Environmental Impact Report as part of the decision-making process.”

A FONSI/EA was completed 25 May 2022 for the BHMS. The Corps is currently drafting the supplemental EA for the shoreline nourishment action southwest of the Jekyll Island Fishing Pier.

#### Georgia Erosion and Sedimentation Act – O.C.G.A. 12-7-1

“One provision of the Erosion and Sedimentation Act requires that land-disturbing activities shall not be conducted within 25 feet of the banks of any State waters unless a variance is granted (O.C.G.A 12-7-6-(15)).”

The proposed action does not require placement within 25 feet of any banks; therefore, the Corps is fully consistent with this Act.

#### Georgia Water Quality Control Act – O.C.G.A. 12-5-20

“This Act makes it unlawful for any person to dispose of sewage, industrial wastes, or other wastes, or to withdraw, divert, or impound any surface waters of the State without a permit.”

A Spill Pollution Prevention Plan would be developed and implemented prior to the start of any placement activities. Therefore, the proposed action is consistent with the Georgia Water Quality Control Act. The BHMS new work dredging and creation of a meeting area has a 401 water quality certification (WQC) that was provided by GAEPD

on October 26, 2020. We are currently coordinating a new 401 WQC request for the Jekyll Island shoreline nourishment.

### Georgia Administrative Procedures Act – O.C.G.A. 50-16-61

This Act establishes permit requirements for use of state-owned tidal water bottoms. GA DNR CRD is responsible for issuing revocable licenses.

The proposed actions will not include the construction or addition of any permanent stabilization measures, such as rock. Therefore, revocable licenses will not be needed for the proposed action and the action is consistent with the Georgia Administrative Procedures Act.

### **Conclusion**

The proposed project will have localized, minor adverse impacts on coastal resources. These impacts are primarily associated with temporary turbidity plumes that may occur during placement and immediately following the placement activities. It is anticipated that these turbidity plumes will quickly disperse in the coastal environment. The proposed action will have beneficial impacts to coastal uses by improving shoreline for shore protection and habitat protection purposes. In accordance with Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972, as amended, the Corps has determined that the proposed action is fully consistent with the enforceable policies of Georgia's approved coastal management program. This determination is based on the review of the proposed project's conformance with the enforceable policies of the state's coastal program.

### **Conformity**

This application is submitted to ensure conformity with NOAA's Federal Consistency provisions (15 CFR 930), under which federal agencies must determine if their proposed project directly affects Georgia's coastal zone. Georgia's coastal zone includes Glynn County.

### **Actions to Reduce Impacts**

## **6.0 SEDIMENT QUALITY**

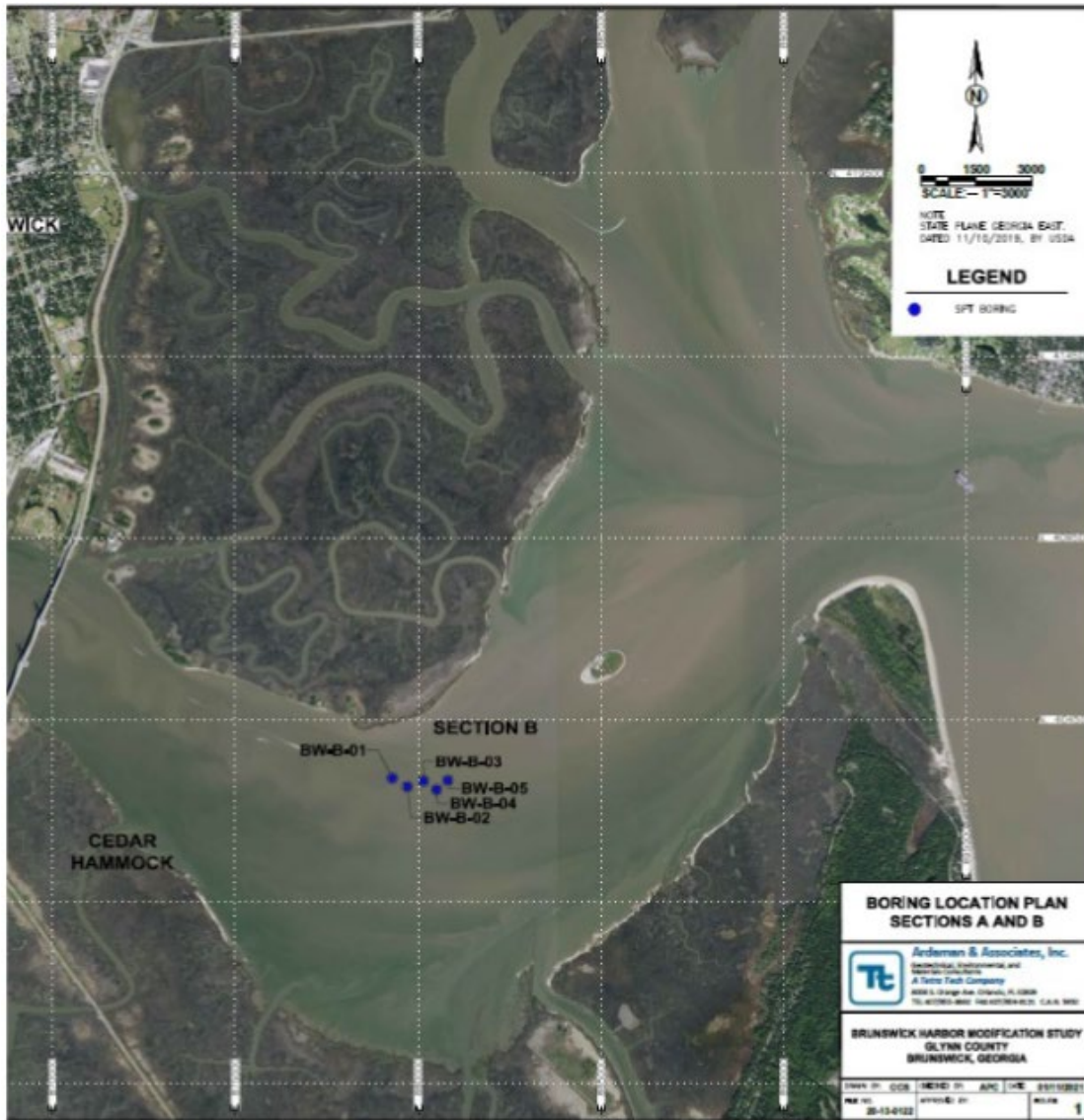
Sediment testing was completed between November 3 to November 8, 2020, by Tetrattech Ardaman & Associates, Inc. for the BHMS (Tetrattech, 2021). Five geotechnical borings were collected from the Cedar Hammock bend widener expansion area and evaluated for sediment and chemical characteristics (Figure 6). The dredge material at the bend widener consists of poorly graded sands, silty sands, and highly



weathered limestone (Table 2). The d50 is 0.25mm. There were no levels of concern in the bend widener expansion areas for dioxins and furans, RCRA-8 metals, PCBs, and PAHs. The March 2021 report with the full results is available upon request.

**Table 1. Percent fines of the bend widener geotechnical borings.**

<b>Boring</b>	<b>Percent Fines</b>
BW-01	82
BW-02	71
BW-03	8
BW-04	6
BW-05	8



**Figure 6. Location of the 2021 BHMP geotechnical borings in the Cedar Hammock bend widener expansion.**

### 6.1 Beach Erosion

The proposed action, situated in the nearshore, adjacent shoreline region of the Brunswick River side of Jekyll Island, a coastal barrier beach in Georgia, is not expected to result in a net loss of sand from the states coastal barrier beaches. Activities associated with the proposed action will not cause erosion to occur on the beaches. Placement in the shoreline area may reduce erosion along the adjacent salt marsh. Therefore, the proposed beneficial use action will not result in a loss of sand to

these barrier beaches as a result of the construction efforts.

## **6.2 Groundwater**

Placement activities will not impact the groundwater aquifer.

## **7.0 CONCLUSIONS**

the Corps is requesting concurrence on our consistency determination addendum from the GADNR-CRD for only (1) the channel modifications (expansion of the bend widener and turning basin, and creation of the meeting area in the St. Simons Sound) of the BHMS; and (2) the shoreline nourishment of the degraded shoreline southwest of the Jekyll Island Fishing Pier using the bend widener expansion material and future O&M material. In accordance with the CZMA, the Corps has determined that the channel modifications of the BHMS and the shoreline nourishment activities would be carried out in a manner which is fully consistent with the enforceable policies of the GCMP. This determination applies to the proposed action and the effects of the proposed action on the land or water uses or natural resources of the coastal zone.

## **8.0 REFERENCES**

Ardaman & Associates, Inc. 2021. Environmental Site Investigation Report for the Design Services in Support of the Brunswick Harbor Modification Study, Glynn County, Georgia. W912HN-17-D-0005.

Piercy, Candice, Timothy Welp, and Ram Mohan. 2023. *Guidelines for how to approach thin layer placement projects*. ERDC/EL SR-23-4.  
<https://dx.doi.org/10.21079/11681/47724>.

USACE. 2022. Brunswick Harbor Navigation Project Modifications and Harbor Dredging Operations and Maintenance, Glynn County, Georgia. FINAL Integrated Feasibility Report and Environmental Assessment and Finding of No Significant Impact.