

Georgia Coastal Resources – Georgia Coastal Management Program (GCMP)

Ossabaw Island Living Shoreline

Chatham County, Georgia

Funding Source: NA23NOS4730182

USACE-SAS Identification: SAS-2022-00371(same as Hunt Camp Dock project)

1.0 Introduction and Background

GCMP is proposing the construction of a 1,225 linear foot living shoreline at Hunt Camp on Newell Creek, Ossabaw Island, Chatham County, Georgia (31.764847, -81. 144984). GCMP was awarded a NOAA Habitat Restoration Design and Construction Grant (NA23NOS4730182) for the design, construction, and post-construction monitoring for this project. The goals of this project are to reduce erosion and protect at-risk cultural resources using a green alternative to traditional bulkheads and gather valuable post-construction data to guide future living shoreline installation and management.

Newell Creek, Ossabaw Island, Chatham County, Georgia at the project location has a tidal range of 6.92 ft MLW, with a water depth of 3.84 ft. MLW, and a channel width of 245 ft MLW.

2.0 Project Purpose

The purpose of this project is to stabilize 1,225 feet of a highly erosive shoreline and protect cultural resources.

3.0 Proposed Project

The proposed 1,225 linear foot living shoreline construction at Hunt Camp on Newell Creek will impact 1.34 acres (58,613 ft²), 1.00 acres (43,913 ft²) below the CMPA jurisdictional line (JD) and 0.34 acres (14,700 ft²) above the JD. Approximate earthwork for the project is excavation of 404 yd³ and fill of 3,075 yd³ below the JD and 0 yd³ excavation and 1,031 yd³ of fill above the JD. Approximate fill per linear foot is 3.35 yd³/ft. The proposed living shoreline will extend approximately 25 ft (STA 8 + 50) to 45 ft (STA 10 + 0) into Newell Creek from the top of the eroding bank (Attachment A; *Cross Sections*, p. 13 of 13).

All fill material will be taken from a permitted borrow pit onsite located at 31.763630°, -81.144026° (Attachment B). The project team is currently in the process of obtaining approval from the Chatham County Floodplain Management Office for the existing and expanded borrow pit areas to be used for this project.

Construction activities will involve the placement and grading of fill material along the shoreline and into Newell Creek. The project will include continuous toe protection of

broken concrete or rip rap with articulated concrete block slope protection for a full bank coverage elevation of 4.0 to toe of slope and heavy and light duty vegetated control mats will be used on the slope and along top of bank, respectively. 12" coir logs will be placed at new fill boundary. All treatments will extend the entire bank from elevation -4.0 to the upper limit of disturbance. This project will minimize disturbance to uplands adjacent to bank work as valuable cultural resources may be present.

Construction activities will be conducted from an in-water barge during low tide.

Final design plans are attached in this Coastal Marshlands Protection Act authorization request. It is to be noted that the dock at this location has received a Letter of Permission and Revocable License (Attachment C, *LOP20250013*) from CRD and an NWP 3A from USACE Savannah District (SAS 2022-00371-NWP 3A) to modify and relocate the existing dock; the two projects will not interfere with each other.

3.1 Marshlands Component

The marshlands component of this project (below CMPA JD line) will permanently impact 1.34 acres by constructing a 1,225 linear foot living shoreline along an erosive shoreline. This project will excavate approximately 404 yd³ of native material (sediment) within CMPA jurisdiction and place approximately 3,075 yd³ of fill material, sourced from a permitted upland borrow pit onsite. The marshland component will deploy broken concrete or rip rap for toe protection, articulated concrete block and heavy-duty vegetated erosion control mats for slope protection, and light duty vegetated mats and coir logs along the top of bank.

The top of new concrete toe protection shall not protrude above existing creek bank and hinder navigation in the channel; living shoreline will extend 20-40 feet from existing shoreline, based on existing conditions. The toe of slope elevation and distance into channel will vary along the length of the bank; the existing grade is irregular and will be matched at top and bottom

3.2 Upland Component

This project minimizes disturbance to the upland due to the presence of cultural resources along the eroding shoreline, this project will protect those resources from being lost. The upland component will involve no excavation and the placement of approximately 1,031 yd³ of fill material to be used to connect the constructed living shoreline and the existing upland. The average fill per linear foot, for the upland component, is 0.84yd³/ft.

3.3 Marshlands Buffer for Upland Component

CMPA JD line verified by CRD project manager, Deb Barreiro, using VDatum Elevation, on 03/10/2025 (reference JDS20250054). Work will be conducted within the marshlands buffer. This work within the buffer is critical to this project as it will tie in the proposed

living shoreline to the existing upland. A Coastal Marshlands Buffer Variance is requested for this project under GA Rule 391-3-7-.11.

3.4 Stormwater Management Plan of the Upland Component

Culturally significant resources are present along the erosive bank and within the adjacent upland that will limit the use of stormwater BMPs. GA SHPO prohibits the trenching or staking of stormwater BMPs, specifically silt fencing. The upland limit of the project will be lined with 12” coir logs which will prevent sediment from entering the site from the upland and will prevent fill material from entering the upland.

Turbidity curtains will not be utilized for this project. The West Indian manatee (see Section 6.0) has protection under both the Endangered Species Act (ESA) and the Marine Mammal Protections Act (MMPA). Take of any marine mammal is extremely limited under the MMPA. If turbidity curtains are required, turbidity curtains shall only be in the water during times when water temperatures are below 15.5° Celsius (60° Fahrenheit).

3.5 Impervious Surface Calculations of the Upland Component

No impervious surfaces are planned for this project.

4.0 Alternative Analysis

This project will serve as an alternative to a hardened structure, like a bulkhead or rock revetment, and will provide an important ecological and technically sound solution.

5.0 Essential Fish Habitat

This project does occur within essential fish habitat¹. The proposed project will not adversely affect EFH but rather enhance the overall function of the EFH within the project area.

6.0 Threatened and Endangered Species

USFWS’ IPaC identified the following threatened and endangered species: West Indian Manatee (*Trichechus manatus*), Eastern Black Rail (*Laterallus jamaicensis ssp. Jamaicensis*), Piping Plover (*Charadrius melodus*), Rufa Red Knot (*Calidris canutus rufa*), Wood Stork (*Mycteria americana*), Eastern Indigo Snake (*Drymarchon couperi*), Green Sea Turtle (*Chenolia mydas*), Hawksbill Sea Turtle (*Eretmochelys imbricata*), Kemp’s Ridley Sea Turtle (*Lepidochelys kempii*), Monarch Butterfly (*Danaus Plexippus*), and Pondberry (*Lindera melissifolia*). The ‘Not for Consultation’ IPaC resource list is attached (Attachment D), the Official IPaC will be completed through during the USACE’s permit review process for NWP 13, as proposed by project team.

¹ NOAA EFH Mapper

7.0 Commercial Bait Shrimp, Oyster, and Crabbing Areas

There are no commercial or recreational shellfish or oyster activity within the project area.

8.0 Impaired Waters

The subject waterway (Newell Creek) is not listed on the U.S. Environmental Protection Agency 303(d) list for impaired water bodies. Chatham County's state water buffer determination is attached (Attachment E).

9.0 Supplemental Information

The additional information is provided for compliance with Coastal Marshland Protection Act of 1970 Information requirements.

OCGA 12-5-286. Permits to fill, drain, etc., marshlands.

(b) Each application for such permit shall be, properly executed, filed with the department on forms as prescribed by the departments, and shall include:

(1) The name and address of the applicant;

Georgia Department of Natural Resources, Coastal Resources Division –
Georgia Coastal Management Program (GCMP)
1 Conservation Way
Brunswick, GA 31520

(2) A plan or drawing showing the applicant's proposal and the manner or method by which such proposal shall be accomplished. Such plan shall identify the coastal marshlands affected;

See Attachment A for design plans. Construction will take place from a barge in water using sediment derived from an on-site borrow pit. Minimal construction activities will occur on the upland and will not make use of heavy machinery to avoid impacted cultural resources.

(3) A plat of the area in which the proposed work will take place;

See Attachment F

(4) A copy of the deed or other instrument under which the applicant claims title to the property or, if the applicant is not the owner, then a copy of the deed or other instrument under which the owner claims title together with written permission from the owner to carry out the project on his land. In lieu of a deed or other instrument referred to in this paragraph, the committee may accept some other reasonable evidence of ownership of the property in question or other lawful authority to make use of the property. The committee will not adjudicate title disputes concerning the property which is the subject of the application; provided,

however, that the committee may decline to process an application when submitted documents show conflicting deeds;

Ossabaw Island has passed through numerous private ownerships during the 18th, 19th, and 20th centuries before being sold to the State of Georgia. On 10 May 1978, through a gift/sale agreement from the Torrey family and the efforts of Eleanor "Sandy" Torrey West, the State of Georgia purchased the island, with the financial assistance of Mr. Robert W. Woodruff. Additionally at the time of the sale, it was understood by consensus of the State of Georgia, The Nature Conservancy, who assisted with the land acquisition transaction, and the Torrey/West family that Ossabaw Island would be used for specific public purposes and not be used, developed, or programmed for purposes other than those specifically dedicated. On June 15, 1978, following a recommendation by the Board of Natural Resources and as a condition of the sale, Governor George Busbee declared Ossabaw Island as Georgia's first Heritage Preserve through an executive order which in part reads:

"That Ossabaw Island be dedicated as a Heritage Preserve to protect, conserve, and preserve the natural and cultural resources of this Island for the benefit of present and future generations, and that Ossabaw Island shall only be used for natural, scientific, and cultural study, research and education, and environmentally sound preservation, conservation, and management of the Island's ecosystem, under conditions carefully monitored and controlled by the Department of Natural Resources; that construction of a bridge or causeway to provide access from the mainland or any other coastal island would be inconsistent with the uses for which Ossabaw Island is dedicated; and that construction of an airport would be inconsistent with this dedication, except that a grassed, unlighted landing strip may be used for official and emergency purposes in connection with the management of Ossabaw Island. "

It is this executive order which provides a basis for determining appropriate and inappropriate activities on Ossabaw Island. Currently, three entities cooperatively operate to manage Ossabaw Island: The Georgia Department of Natural Resources, Wildlife Resources Division (WRD), The Ossabaw Island Foundation (TOIF), and the West Life Estate (WLE). Pursuant to O.C.G.A. 12-3-32 the DNR has contracted with TOIF to provide the specific services described below. These agreements are periodically reviewed by DNR. WRD has responsibility for management and educational use of the natural, cultural, historic and archaeological resources on publicly owned lands of Ossabaw. TOIF's responsibility is providing the current method of public access for educational purposes. WLE is administered by Eleanor Torrey West. DNR and UGA (University of Georgia, Athens) are also in the process of establishing a formal relationship to facilitate research on Ossabaw.

West Life Estate-- Eleanor Torrey West was willed a life estate in the main house and its associated 24 acres by her mother Nell Ford Torrey in 1959. This area is commonly referred to as the Main House grounds. Mrs. West controls the use of WLE and DNR maintains roads and provides essential services. This is the only area of Ossabaw Island under private control. DNR, TOIF and WLE cooperate to the extent necessary to coordinate activities on the island. The life estate will fully revert to the State of Georgia upon the death of Mrs. West as provided for in the sale and will be managed by DNR, or its agents, as provided for in the Use Agreement between DNR and TOIF.

The Board of Natural Resources has the power and duty to promulgate policies, rules and regulations for the management and use of heritage preserves [O.C.G.A. § 12-3-74(a)(1)] and to provide general supervision and direction in the protection, management, operation, and use of heritage preserves [O.C.G.A. § 12-3-74(a)(4)]. Each heritage preserve is to be put to designated uses and to no other except pursuant to a specific procedure. O.C.G.A. § 12-3-76. The Governor's Executive Order designating Ossabaw Island as a heritage preserve set out two specifically designated uses of the Island: 1. natural, scientific and cultural study, research and education and 2. environmentally sound preservation, conservation and management of the Island's ecosystem. The Executive Order requires that both of these designated uses be carried out under conditions carefully monitored and controlled by the Department of Natural Resources.

(5) A list of all adjoining landowners together with such owners' addresses, provided that if the names or addresses of adjoining landowners cannot be determined, the applicant shall file in lieu thereof a sworn affidavit that a diligent search, including, without limitation, a search of the records of the county tax assessor's office, has been made but that the applicant was not able to ascertain the names or addresses, as the case may be, of adjoining landowners;

There are no adjacent landowners.

(6) A letter from the local governing authority of the political subdivision in which the property is located, stating that the applicant's proposal is not violative of any zoning law;

Chatham County Zoning Approval Letter (See Attachment G)

(7) A nonrefundable application fee to be set by the board in an amount necessary to defray the administrative cost of issuing such permit. Renewal fees shall be equal to application fees, which shall not exceed \$1,000.00 for any one proposal and shall be paid to the department;

(8) A description from the applicant of alternative sites and why they are not feasible and a discussion of why the permit should be granted;

Alternative sites for this project were not considered because the intent of this project is to protect the eroding bank of the project site and protect the valuable cultural resources that are at imminent threat of being lost along the erosive bank.

(9) A statement from the applicant that he has made inquiry to the appropriate authorities that the proposed project is not over a landfill or hazardous waste site and that the site is otherwise suitable for the proposed project;

A review of the Hazardous Site Index (GaEPD) indicates that the subject property does not contain hazardous waste sites or landfills.

(10) A copy of the water quality certification issued by the department if required for the proposed project;

This project is being processed under NWP 13, as proposed by project team, and will receive 401WQC (See Attachment H for NWP 401 Coverage statement) when the USACE permit is issued. USACE SAS Identification number is SAS-2022-00371. This project is being processed under the same USACE number as the dock replacement at this site.

(11) Certification by the applicant of adherence to soil and erosion control responsibilities if required for the proposed project; and

The project will conform to all building, land disturbing, and stormwater management requirements of Chatham County, Georgia.

(12) Such additional information as is required by the committee to properly evaluate the application.

This application has been prepared with consideration for the interests of the general public of the State of Georgia as defined in OCGA 12-5-286(g):

(g) In passing upon the application for permit, the committee shall consider the public interest, which, for purposes of this part, shall be deemed to be the following considerations:

(1) Whether or not unreasonably harmful obstruction to or alteration of the natural flow of navigational water within the affected area will arise as a result of the proposal;

The proposed living shoreline will not alter the natural flow of navigable waters or obstruct public navigation.

(2) Whether or not unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created; and

The proposed living shoreline will not increase erosion, shoaling of channels, or create stagnant areas of water.

(3) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.

The proposed living shoreline will not interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, nor affect water and oxygen supply.

List of Attachments

Attachment A: *Design Plans*

Attachment B: *Borrow Pit Information*

Attachment C: *LOP20250013_Ossabaw Hunt Camp Dock*

Attachment D: *IPaC (Not for Consultation)*

Attachment E: *Chatham County State Waters' Buffer Determination*

Attachment F: *Vicinity Map*

Attachment G: *Chatham County Zoning Approval*

Attachment H: *NWP_401 Coverage Letter*

Attachment I: *Assessment of Affects- Cultural Resources*

Attachment A
Design Plans

THIS PROJECT CONSISTS OF 1,225 LINEAR FEET OF CONSTRUCTION
OF A NEW LIVING SHORELINE.
THE TOTAL IMPACTED AREA FOR THIS PROJECT IS 58,613 SF (1.34 AC).
BELOW JURISDICTION LINE AREA= 43,913 SF (1.00 AC)
TEMPORARY BUFFER IMPACTED AREA= 14,700 SF (0.34 AC)

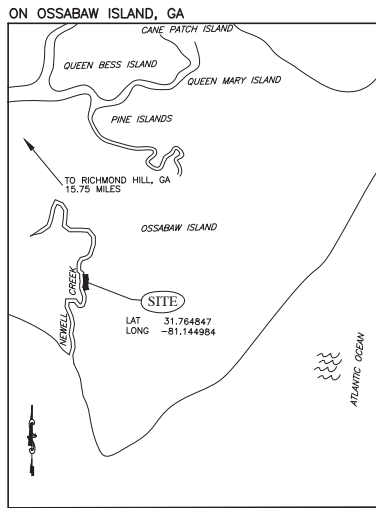
THE PROJECT IS LOCATED ON OSSABAW ISLAND, ADJACENT TO AN EXISTING CONCRETE BOAT RAMP ON NEWELL CREEK.

BELOW JURISDICTION LINE
EXCAVATION: 404 CY
FILL: 3,075 CY

ABOVE JURISDICTION LINE
EXCAVATION: 0 CY
FILL: 1,031 CY

APPROXIMATE FILL PER LINEAR FOOT=(3,075+1,031)/1,225=3.35 CY/LF

PRELIMINARY
6/16/25



VICINITY MAP
NO SCALE

	ARTICULATED CONCRETE		PRESERVE TREE
	BULKHEAD		REMOVE TREE
	COASTAL MARSHLANDS PROTECTION ACT JURISDICTION LINE		OAK TREE
	CONCRETE		PALM TREE
	EROSION CONTROL MAT		CEDAR TREE
	HEAVY DUTY EROSION CONTROL MAT		
	LIGHT DUTY EROSION CONTROL MAT		
	MARSH		
	STATE OF GEORGIA 25' BUFFER LINE		
	WALKWAY/DECK		

TO BE DETERMINED BY BID PROCESS

STATE OF GEORGIA
205 BUTLER ST STE 1252
ATLANTA, GA 30334
CONTACT:
GA DNR, COASTAL RESOURCES DIVISION
ONE CONSERVATION WAY
BRUNSWICK, GA 31520
912-264-7218
JAN.MACKINNON@DNR.GA.GOV

SHEET 1	COVER SHEET
SHEET 2-3	EXISTING CONDITIONS
SHEET 4-7	SITE LAYOUT PLAN
SHEET 8-11	GRADING PLAN
SHEET 12	MISCELLANEOUS DETAILS
SHEET 13	CROSS SECTIONS
SHEET L1-L4	LANDSCAPE PLANS

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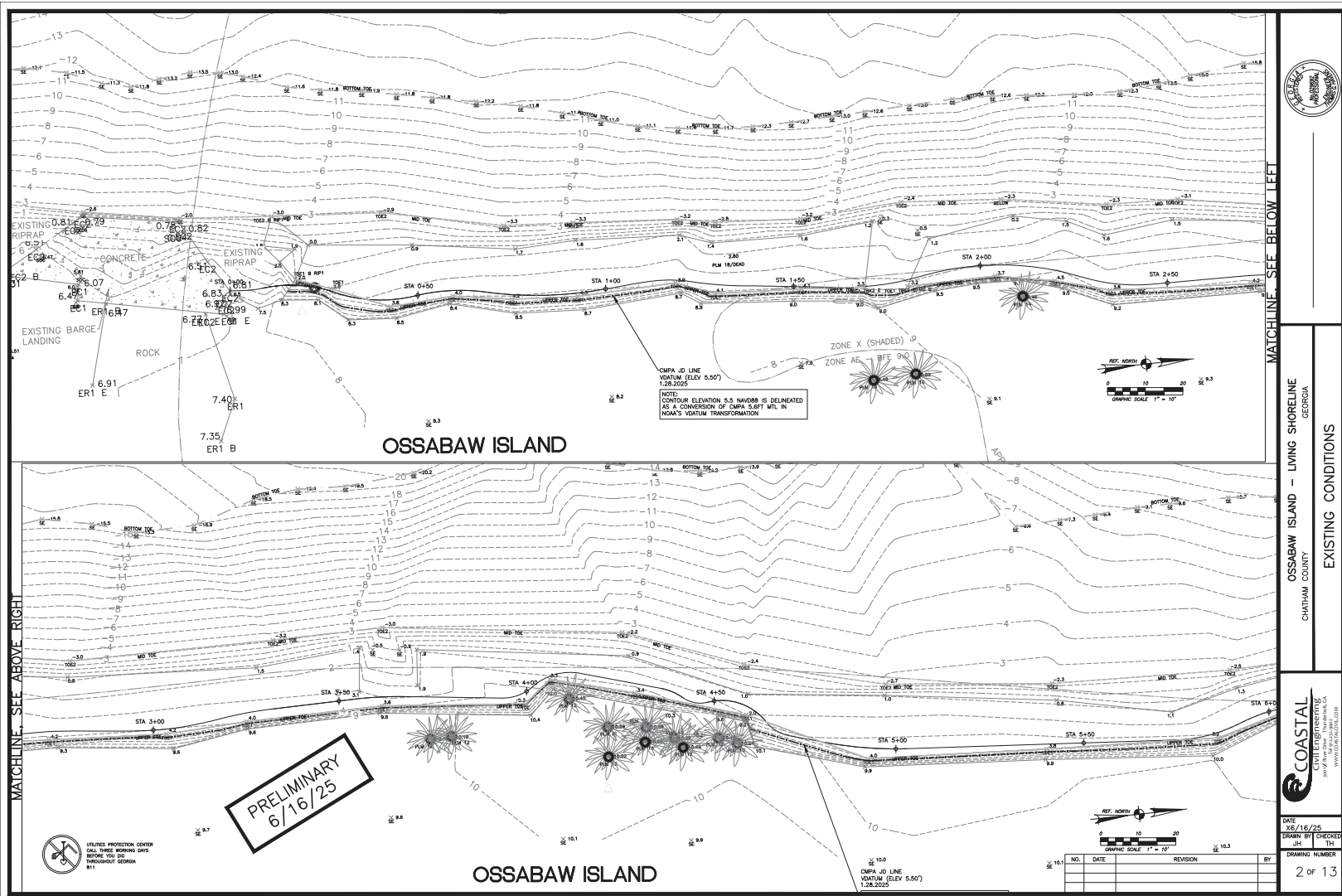
8" SPIKE
ELEVATION=7.89
NAVD88



UTILITIES PROTECTION CENTER
CALL THREE WORKING DAYS
BEFORE YOU DIG
THROUGHOUT GEORGIA
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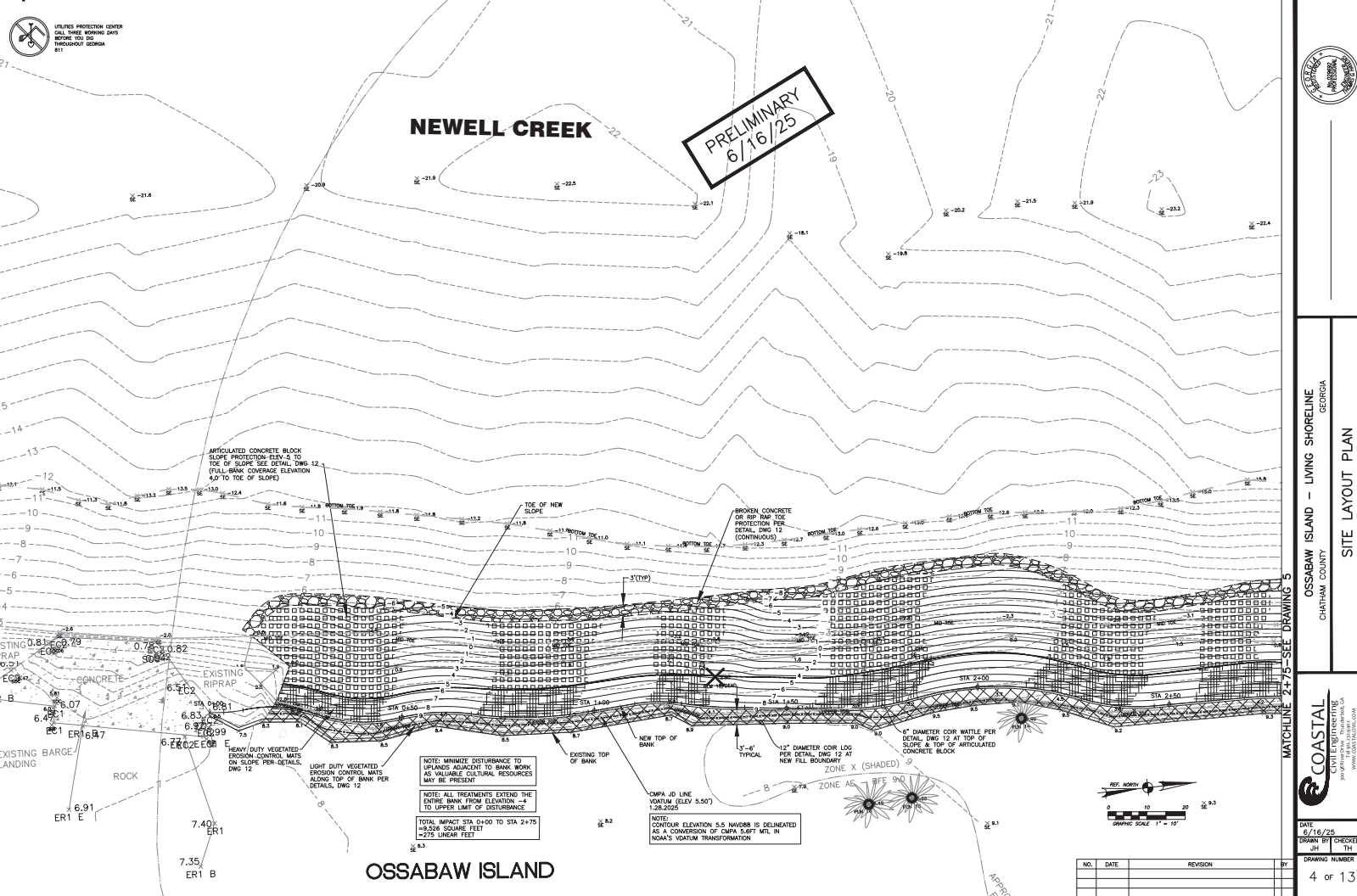
OSABAW ISLAND - LIVING SHORELINE
CHATHAM COUNTY
GEORGIA

EXISTING CONDITIONS



DATE	06/16/25
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PRELIMINARY
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NEWELL CREEK

OSSABAW ISLAND

EXISTING BARGE
LANDING
ER1 E
6.91
7.35
ER1 B

ARTICULATED CONCRETE BLOCK
SLOPE PROTECTION ELEV. 4' TOE
TOE OF SLOPE SEE DETAIL DWG 12
(FULL-BANK CONCRETE ELEVATION
4.0' TO TOE OF SLOPE)

TOE OF NEW
SLOPE

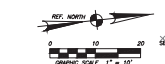
BROKEN CONCRETE
ON RIP RAP TOE
PROTECTION PER
DETAIL DWG 12
(CONTINUOUS)

NOTE: MINIMIZE DISTURBANCE TO
UPLANDS ADJACENT TO BANK WORK
AS VALUABLE CULTURAL RESOURCES
MAY BE PRESENT

NOTE: ALL TREATMENTS EXTEND THE
ENTIRE BANK FROM ELEVATION -4'
TO UPPER LIMIT OF DISTURBANCE

TOTAL IMPACT STA 0+00 TO STA 2+75
= 9,528 SQUARE FEET
= 275 LINEAR FEET

NOTE: CONTOUR ELEVATION 5.5 NAVD83 IS DELINEATED
AS A CONVERSION OF CMAA 5.0 FT MTL IN
NAD83 DATUM TRANSFORMATION



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INC.
WWW.COASTAL-GEORGIA.COM

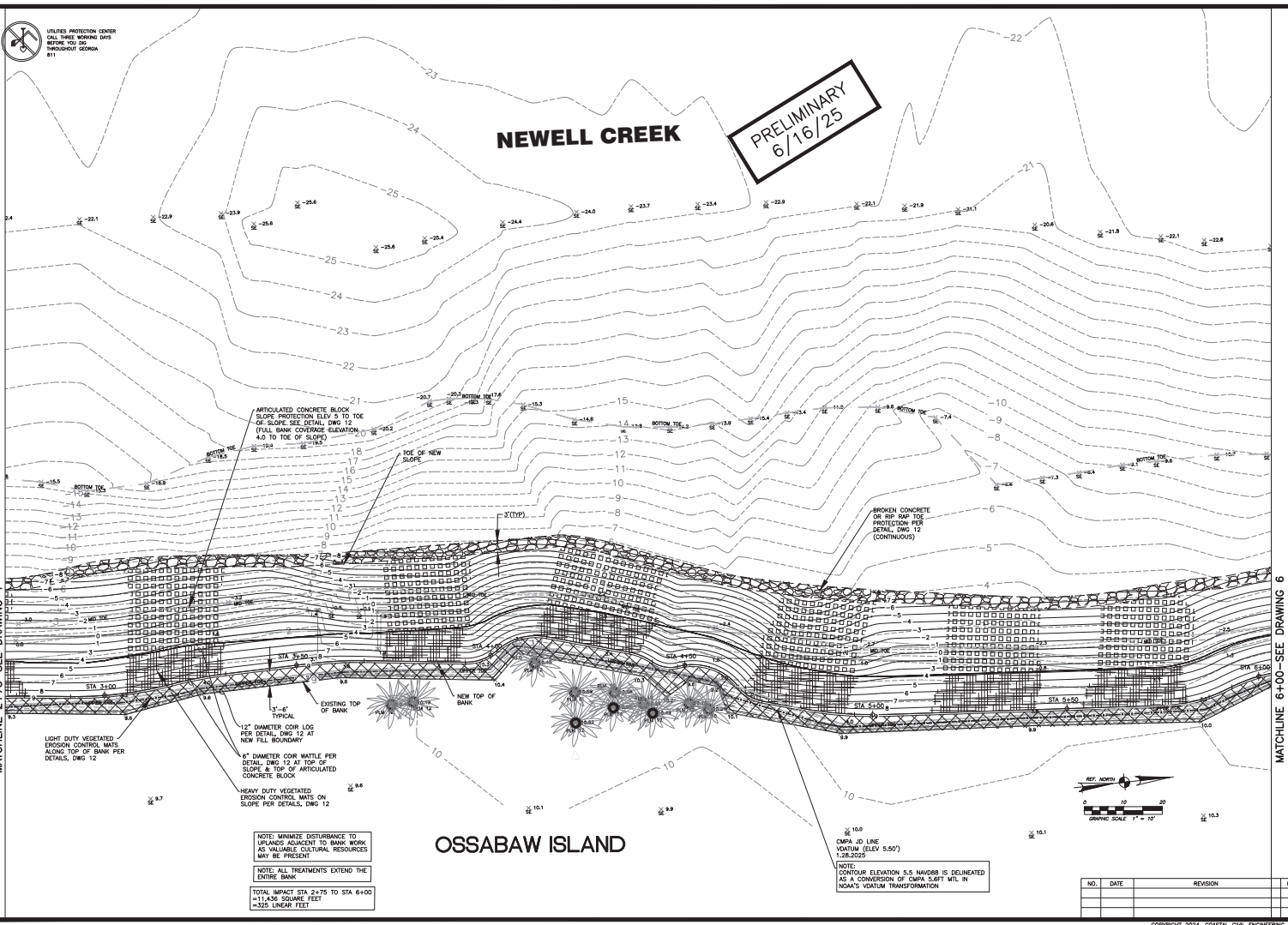
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JH
CHECKED
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DRAWING NUMBER
4 of 13

OSSABAW ISLAND - LIVING SHORELINE
CHATHAM COUNTY
GEORGIA
SITE LAYOUT PLAN
MATCHLINE 2+75 - SEE DRAWING 5

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NEWELL CREEK

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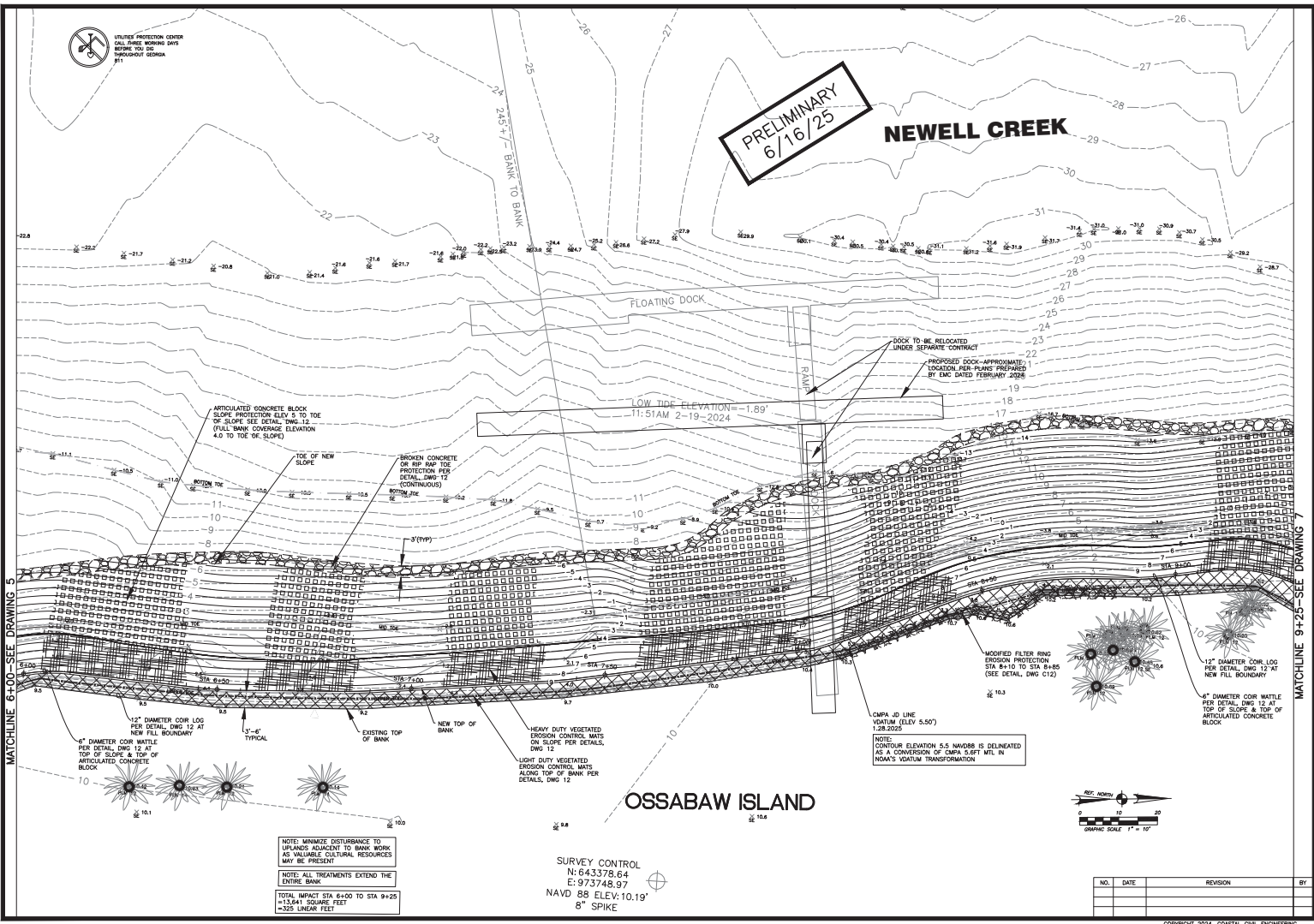
SITE LAYOUT PLAN

COASTAL
Civil Engineering
900 1/2 River Drive Thunderbolt, GA
Tel 910-232-992
WWW.COASTALCIVIL.COM

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5 of 13

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MATCHLINE 6+00-SEE DRAWING 5

MATCHLINE 9+25-SEE DRAWING 7

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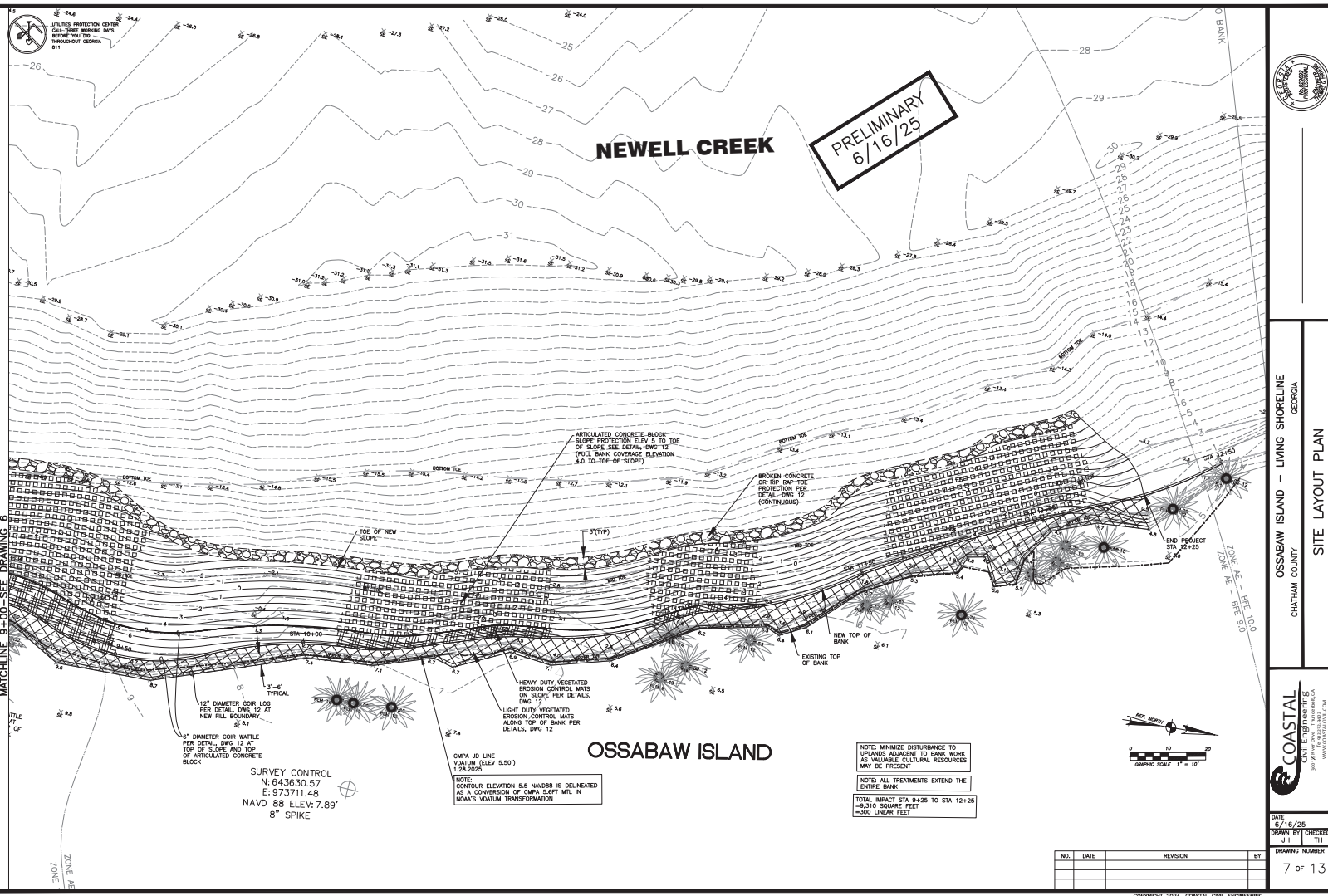
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OSABAW ISLAND - LIVING SHORELINE
CHATHAM COUNTY
GEORGIA

SITE LAYOUT PLAN

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CHATHAM COUNTY
SITE LAYOUT PLAN



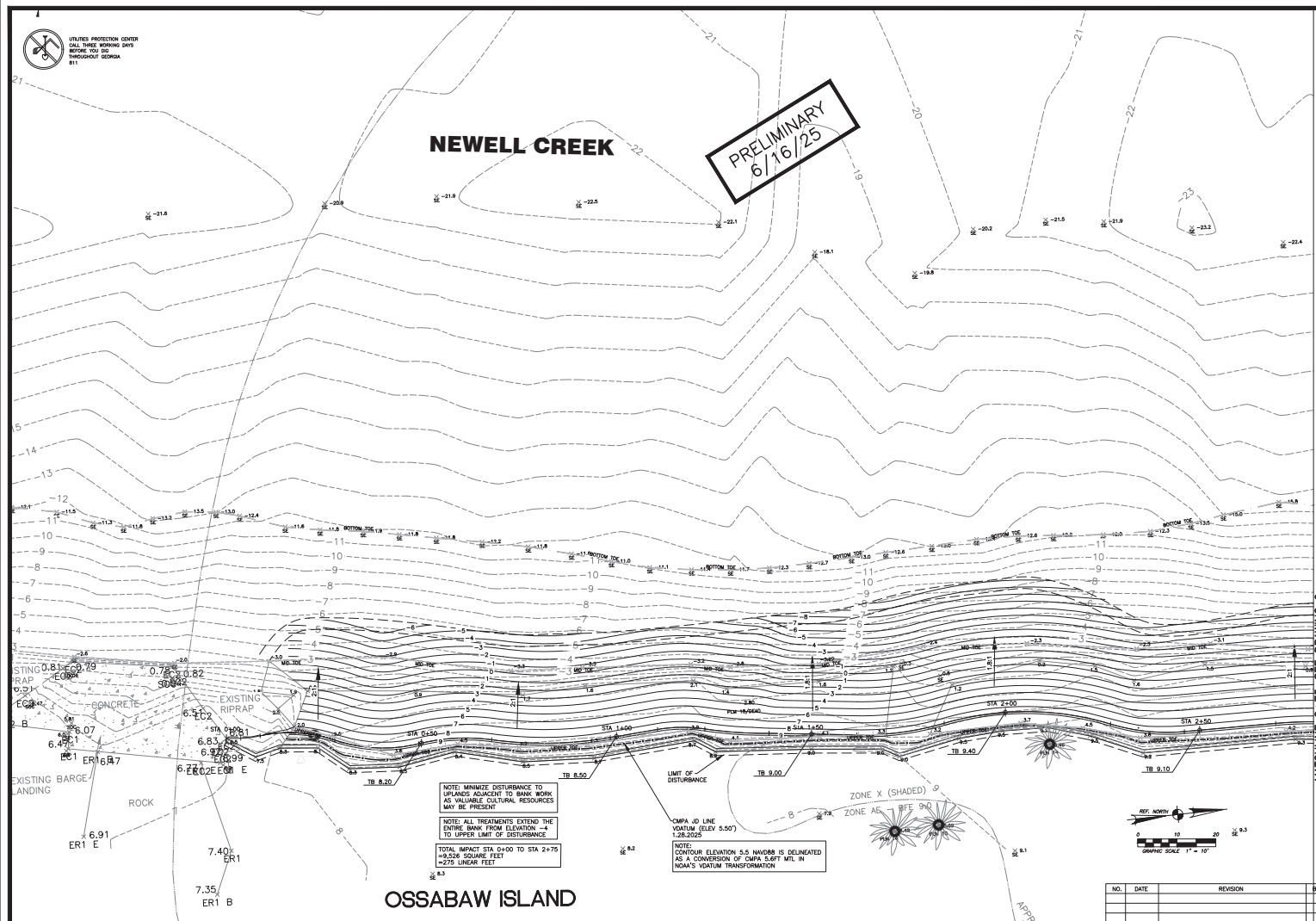
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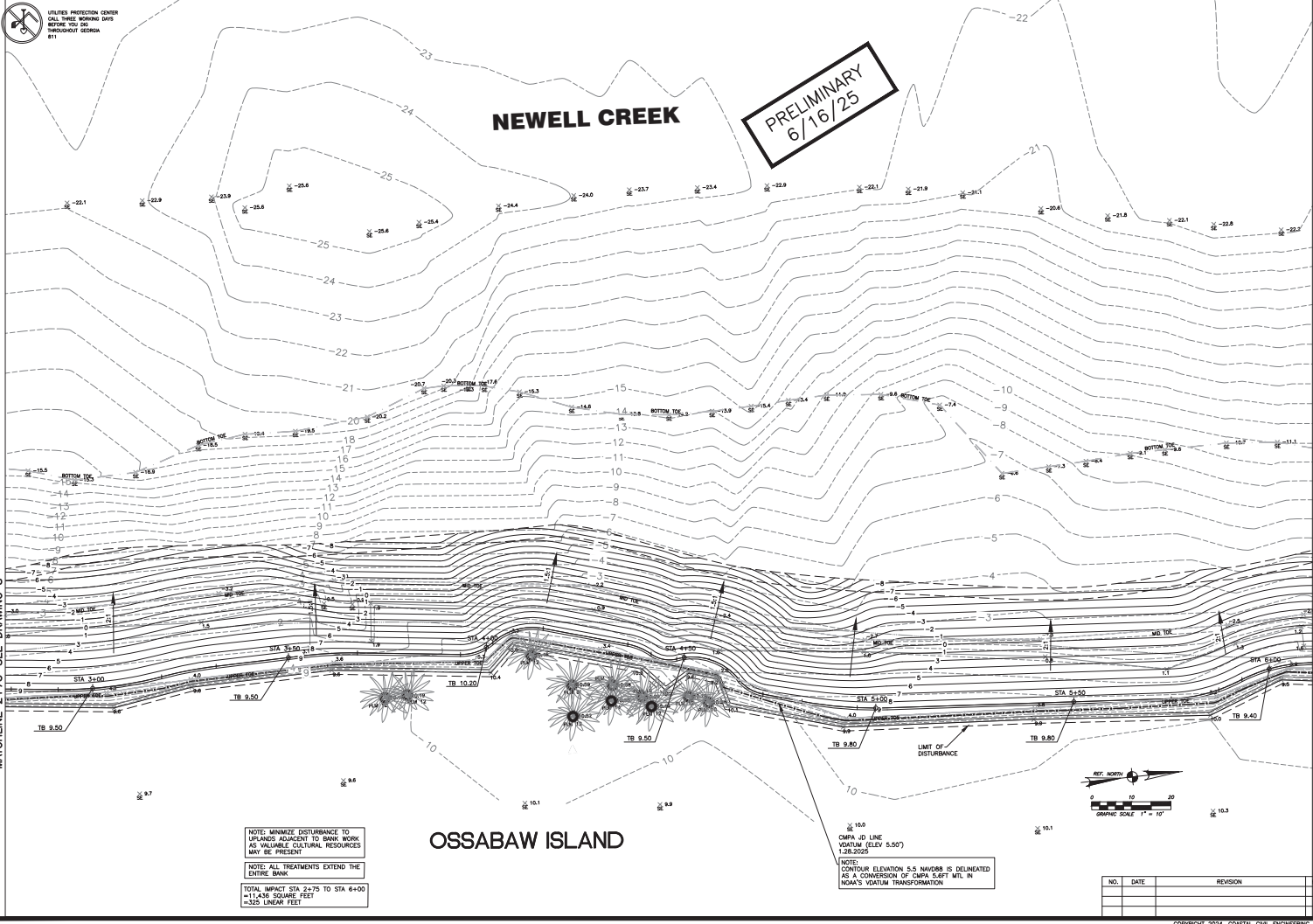


OSSABAW ISLAND - LIVING SHORELINE
HATHAM COUNTY GEORGIA

COASTAL
Civil Engineering
3001 Z River Drive • Thurston, GA
Tel: 910-237-9492
WWW.COASTALCIVIL.COM

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NEWELL CREEK

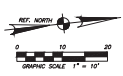
OSSABAW ISLAND

NOTE: MINIMIZE DISTURBANCE TO
UPLANDS ADJACENT TO BANK WORK
AS VALUABLE CULTURAL RESOURCES
MAY BE PRESENT

NOTE: ALL TREATMENTS EXTEND THE
ENTIRE BANK

TOTAL IMPACT STA 2+75 TO STA 6+00
=11,436 SQUARE FEET
=325 LINEAR FEET

NOTE:
CONTOUR ELEVATION 5.5 NAVD83 IS DELINEATED
AS A CONVERSION OF CMAA 5.6FT MSL IN
NGAATS VANTUM TRANSFORMATION



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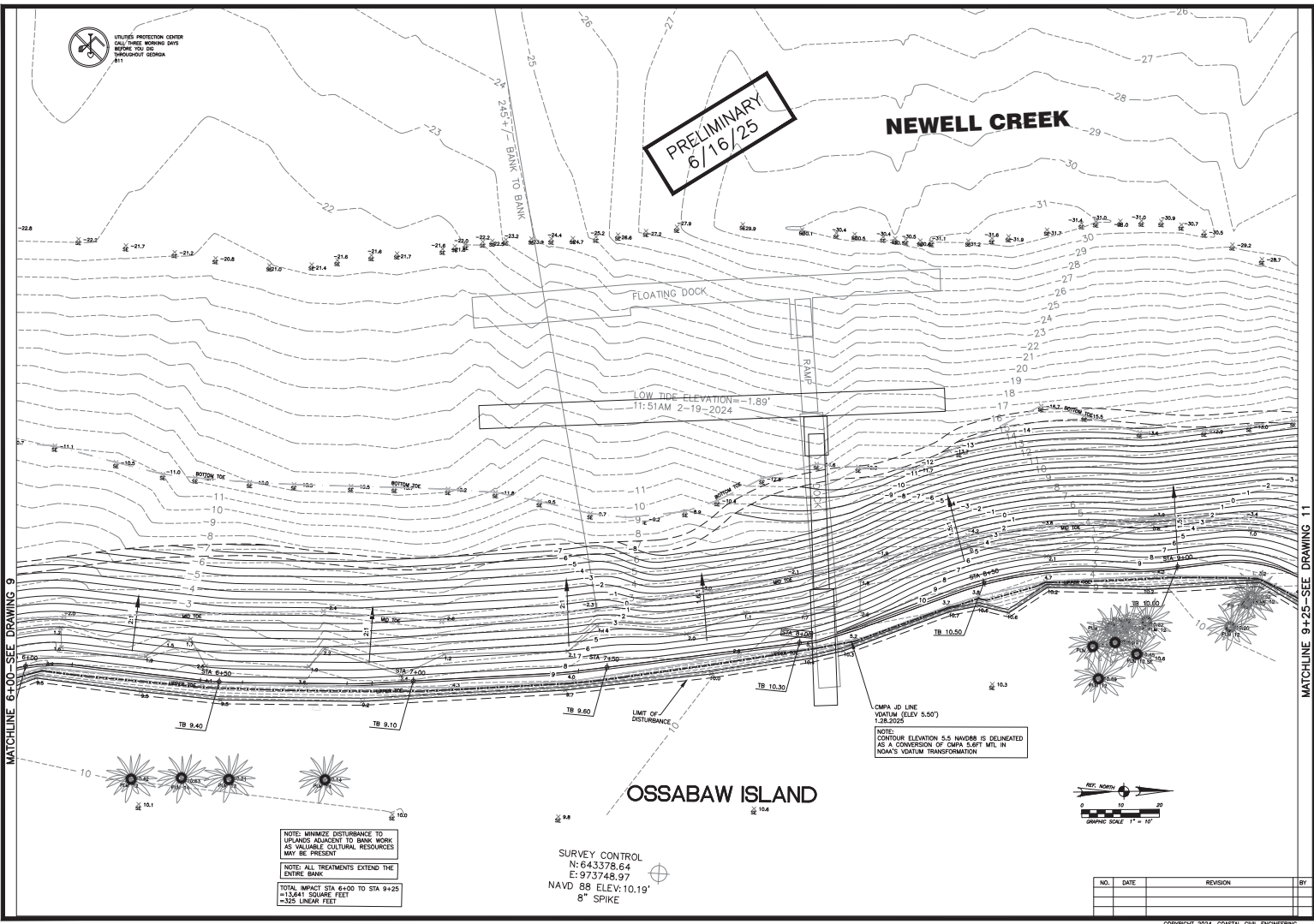


OSSABAW ISLAND - LIVING SHORELINE
GEORGIA
CHATHAM COUNTY
GRADING PLAN

J. COASTAL
CIVIL ENGINEERING, INC.
1000 W. BAYVIEW BLVD.
SUITE 100
JACKSONVILLE, FL 32218
WWW.JCOASTAL.COM

DATE: 6/16/25
DESIGN BY: JH
CHECKED BY: TH

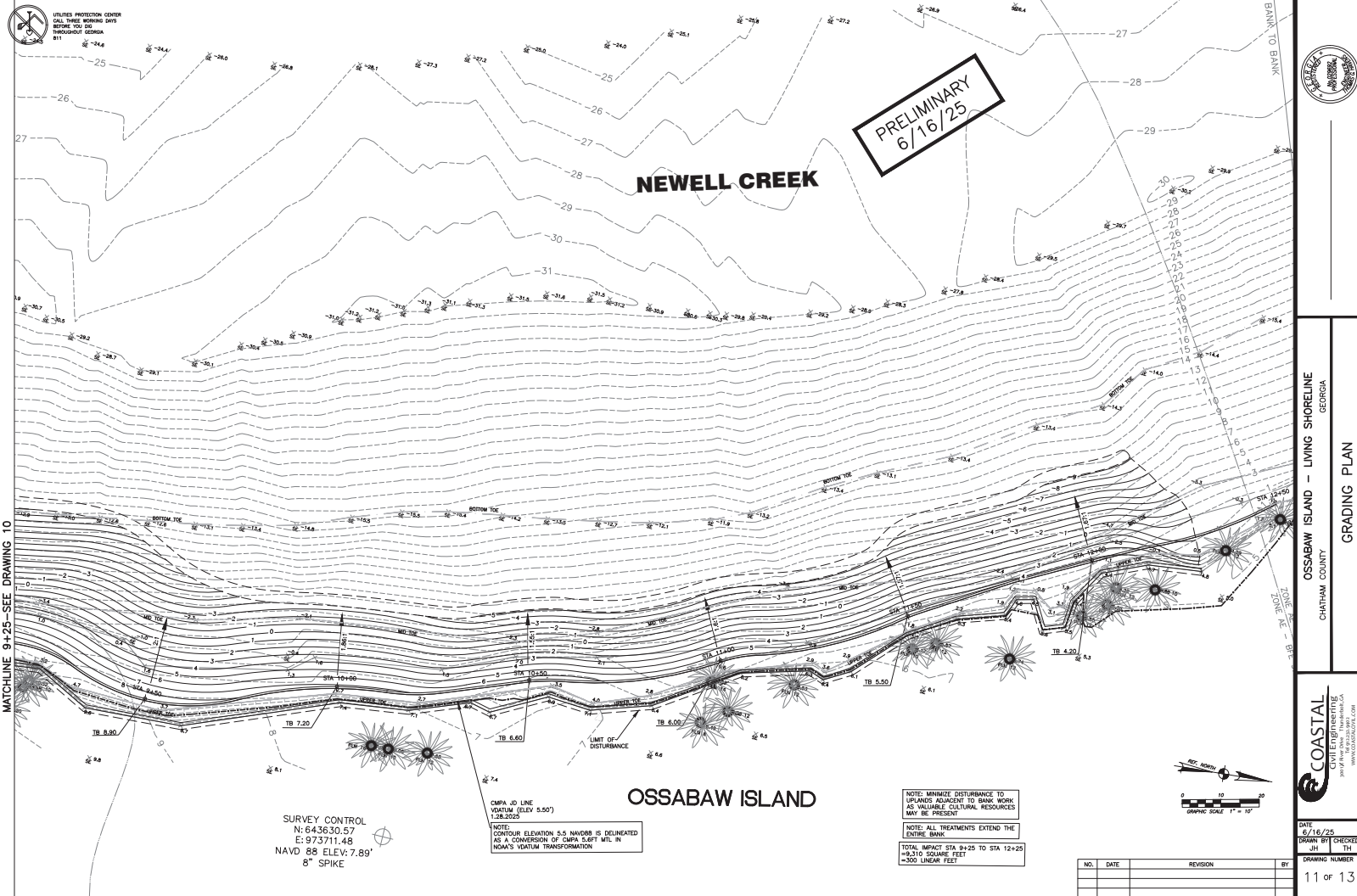
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OSSABAW ISLAND - LIVING SHORELINE
CHATTAHOOCHEE COUNTY

GRADING PLAN

COASTAL CIVIL ENGINEERING
3000 W. STATE STREET, SUITE 100
MARIETTA, GA 30060
WWW.COASTALCIVIL.COM



MATCHLINE 9+25-SEE DRAWING 10



OSSEAW ISLAND - LIVING SHORELINE
GEORGIA
CHATHAM COUNTY



DATE: 6/16/25
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DRAWING NUMBER: 11 of 13

PRELIMINARY
6/16/25

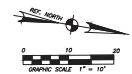
NEWELL CREEK

OSSEAW ISLAND

SURVEY CONTROL
N: 643630.57
E: 973711.48
NAVD 88 ELEV: 7.89'
8\"/>

CPWA 10 LINE
VDATUM (ELEV 5.50')
1.28.2025
NOTE:
CONTOUR ELEVATION 5.5 NAVD88 IS DELINEATED
AS A CONVERSION OF CPWA 5.0FT MSL IN
NOAA'S VDATUM TRANSFORMATION

NOTE: MINIMIZE DISTURBANCE TO
UPLANDS ADJACENT TO BANK WORK
AS VALUABLE CULTURAL RESOURCES
MAY BE PRESENT
NOTE: ALL TREATMENTS EXTEND THE
ENTIRE BANK
TOTAL IMPACT STA 9+25 TO STA 12+25
= 6,110 SQUARE FEET
= 300 LINEAR FEET



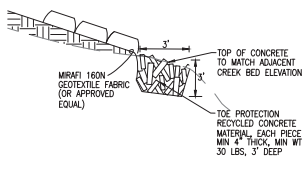
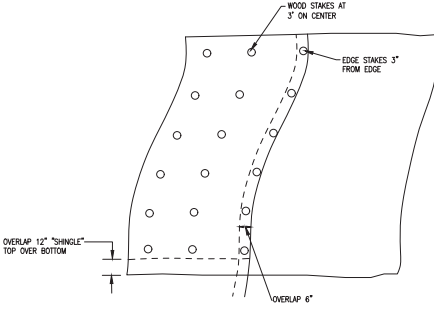
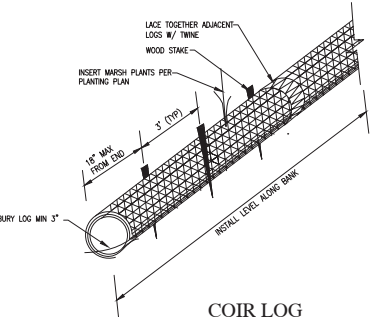
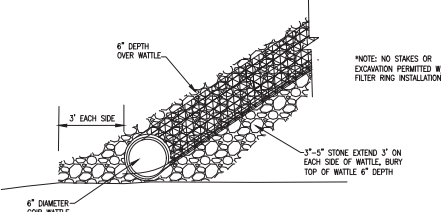
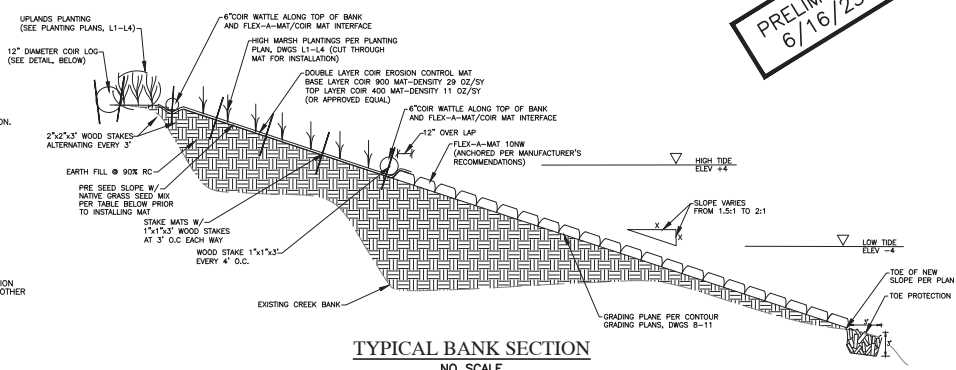
NO.	DATE	REVISION	BY

COPYRIGHT 2024, COASTAL CIVIL ENGINEERING

GENERAL NOTES

- 1. THE TOE OF SLOPE ELEVATION WILL VARY ALONG THE LENGTH OF THE BANK. THE EXISTING GRADE IS IRREGULAR AND WILL BE MATCHED AT TOP AND BOTTOM.
- 2. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING ALL UTILITY COMPANIES HAVING UTILITIES WITHIN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL HAVE THE UTILITIES FIELD LOCATED AND COORDINATE WITH UTILITY COMPANIES TO HAVE THEM RELOCATED AND/OR ADAPTED FOR THE TIE-INS. IN ADDITION, CONTRACTOR IS REQUIRED TO CONTACT THE UTILITIES PROTECTION CENTER OF GEORGIA AT 1-800-282-7411 PRIOR TO ANY CLEARING OR EXCAVATION.
- 3. ALL VEGETATION (UNLESS OTHERWISE NOTED), ORGANICS AND UNSUITABLE BEARING SOILS SHALL BE STRIPPED FROM THE SURFACE WITHIN THE LIVING SHORELINE FOOTPRINT AND DISPOSED OF LEGALLY OFFSITE. ANY TEMPORARY STOCKPILES SHALL BE LOCATED ADJACENT TO THE CONSTRUCTION AREA, SEEDED AND SURROUNDED BY Silt FENCES. NOTE THAT THE MAXIMUM SIZE OF THE AREA TO BE STRIPPED CAN BE NO LARGER THAN WHAT CAN BE STABILIZED IN ONE DAY.
- 4. ALL VEGETATION, ROOT SYSTEMS, TOPSOIL, REFUSE AND OTHER DELETERIOUS, NON-SOIL MATERIAL, AND CLEAN TOPSOIL MAY BE STOCKPILED AND REUSED LATER IN LANDSCAPED AREAS.
- 5. THE CONTRACTOR SHALL LEAVE THE SITE IN A CLEAN AND NEAT CONDITION. ALL DEBRIS, VEGETATION WHICH HAS BEEN REMOVED, LUMBER, CONCRETE, AND WASTE FROM DEMOLITION ETC., WHICH IS NOT TO BE REUSED, SHALL BE REMOVED FROM THE SITE AND PROPERLY DISCARDED.
- 6. CONTRACTOR SHALL PROTECT ALL ADJACENT LANDS, UTILITIES, AND STRUCTURES FROM DAMAGE DURING CONSTRUCTION. ANY AREAS DISTURBED BEYOND THE LIVING SHORELINE SHALL BE RETURNED TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION.
- 7. FILL MATERIAL SHALL BE FROM OSSABAW ISLAND BORROW ISLAND AS SPECIFIED BY GADR.
- 8. MAX CUT OR FILL SLOPES SHALL BE 1.5:1 (H:V), EXCEPTING TRANSITION AREAS AT ENDS OF PROJECT.
- 9. EQUIPMENT, MATERIALS AND CONSTRUCTION VEHICLES SHALL BE PLACED IN AREAS DESIGNATED BY THE OWNER. CONSTRUCTION AND STORAGE AREAS SHALL BE KEPT NEAT AND CLEAN. TREE SAVE AREAS SHALL NOT BE USED FOR STORAGE OR PARKING.
- 10. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PROMPTLY UPON DISCOVERY. ANY CONFLICT OR DISCREPANCIES DISCOVERED WITHIN THE CONSTRUCTION PLANS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR CLARIFICATION.
- 11. LIMIT THE LENGTH OF EXISTING STREAM BANK THAT IS EXCAVATED TO PROPOSED GRADE TO THAT WHICH CAN BE STABILIZED IN ONE DAYS WORK (8 HRS.)
- 12. TIDAL FLUCTUATION AVERAGES 8.2 FEET.
- 13. ANY BARGES LEFT IN THE CREEK ADJACENT TO THE PROJECT SITE SHALL BE LIT TO BE VISIBLE AT NIGHT WHEN APPROACHED FROM ANY DIRECTION.
- 14. TOP OF NEW CONCRETE TOE PROTECTION SHALL NOT PROTRUDE ABOVE EXISTING CREEK BANK AND HINDER NAVIGATION IN THE CHANNEL. RECYCLED CONCRETE SHALL NOT CONTAIN ANY FOREIGN MATERIALS, INCLUDING REBAR, WIRE, OR OTHER METALS, NOR ANY HAZARDOUS CHEMICALS THAT COULD BE DETRIMENTAL TO MARINE LIFE.

PRELIMINARY
6/16/25



TOE PROTECTION
NO SCALE

NO.	DATE	REVISION	BY

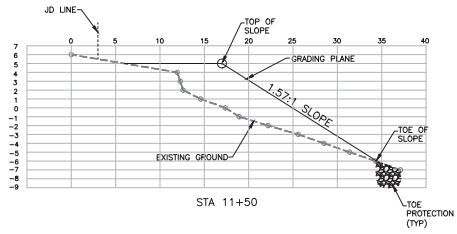
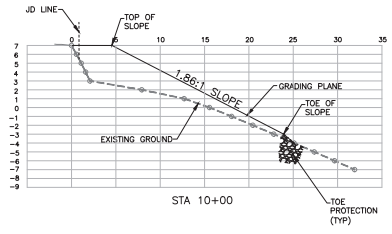
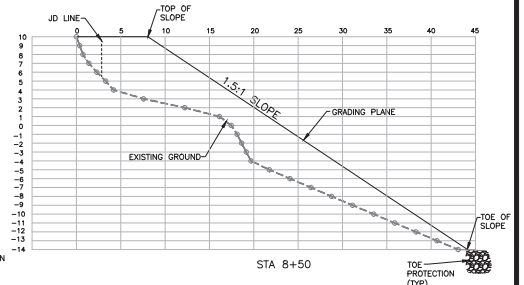
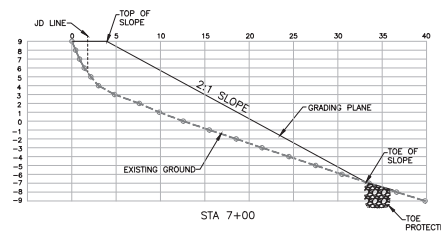
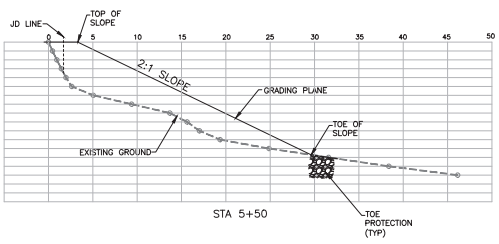
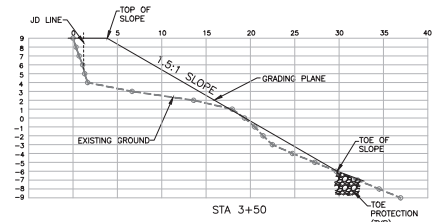
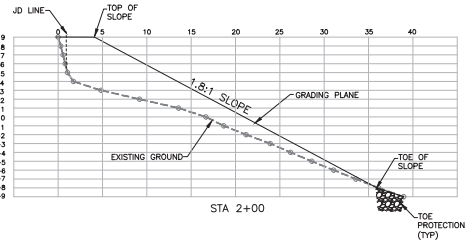
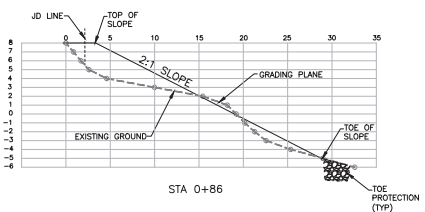
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OSSABAW ISLAND - LIVING SHORELINE
CHATHAM COUNTY
GEORGIA
MISCELLANEOUS DETAILS



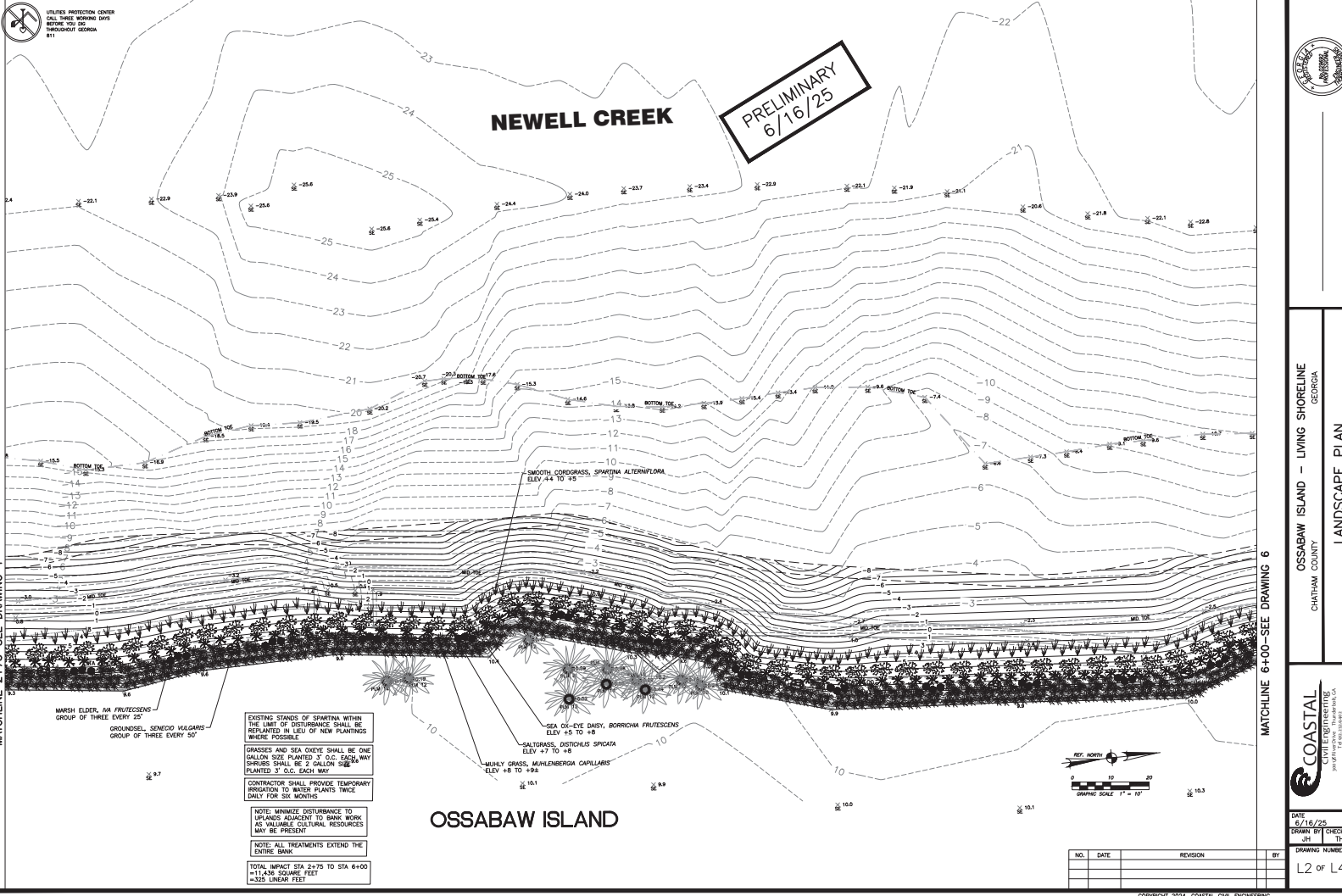
DATE	6/16/25
DRAWN BY	JH
CHECKED BY	TH
DRAWING NUMBER	12 of 13



PRELIMINARY
6/16/25

H 1"=5'
V 1"=5'

NO.	DATE	REVISION	BY



UTILITIES PROTECTION CENTER
CALL THREE WORKING DAYS
BEFORE YOU DIG
THROUGHOUT GEORGIA
811

PRELIMINARY
6/16/25

NEWELL CREEK

OSSABAW ISLAND

EXISTING STANDS OF SPARTINA WITHIN
THE LIMIT OF DISTURBANCE SHALL BE
REPLANTED IN LIEU OF NEW PLANTINGS
WHERE POSSIBLE.

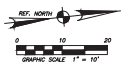
GRASSES AND SEA OXLEYE SHALL BE ONE
GALLON SIZE PLANTED 3' O.C. EACH WAY
SHRUBS SHALL BE 3 GALLON SIZE
PLANTED 3' O.C. EACH WAY.

CONTRACTOR SHALL PROVIDE TEMPORARY
IRRIGATION TO WATER PLANTS TWICE
DAILY FOR SIX MONTHS.

NOTE: MINIMIZE DISTURBANCE TO
UPLANDS ADJACENT TO BANK WORK
AS VALUABLE CULTURAL RESOURCES
MAY BE PRESENT.

NOTE: ALL TREATMENTS EXTEND THE
ENTIRE BANK.

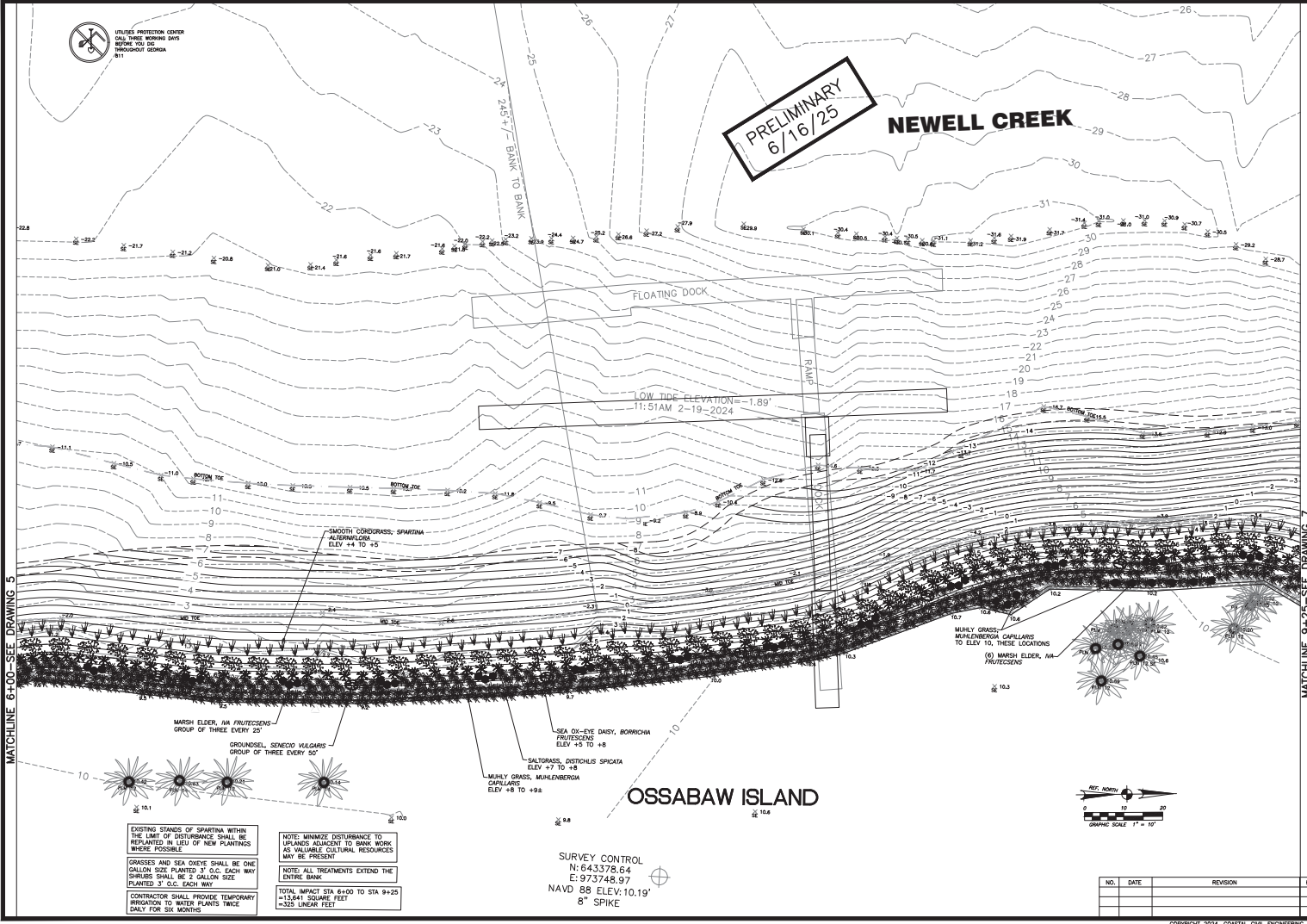
TOTAL IMPACT STA 2+75 TO STA 6+00
=11,430 SQUARE FEET
=325 LINEAR FEET



OSSABAW ISLAND - LIVING SHORELINE
GEORGIA
CHATTAHOOCHIE COUNTY
LANDSCAPE PLAN



DATE
6/16/25
DESIGN BY
JH
CHECKED
TH
DRAWING NUMBER
L2 of L4



MATCHLINE 6+00-SEE DRAWING 5

MATCHLINE 9+25-SEE DRAWING 7

DATE
6/16/25

DESIGNED BY
JH

CHECKED BY
TH

DRAWING NUMBER
L3 of L4

OSABAW ISLAND - LIVING SHORELINE
CHATHAM COUNTY
GEORGIA

SITE LAYOUT PLAN

COASTAL
CIVIL ENGINEERING
INC.
WWW.COASTALCIVIL.COM

DATE
6/16/25

DESIGNED BY
JH

CHECKED BY
TH

DRAWING NUMBER
L3 of L4

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Attachment B

Borrow Pit Information



WALTER RABON
COMMISSIONER

ANGIE JOHNSON
DIRECTOR

Georgia Department of Natural Resources Cultural Resource Review Form

I. General Information

A. Project Name: Expansion of the South End Borrow Pit on Ossabaw Island

B. Project Address: Ossabaw Island - 31°45'45.21"N 81° 8'40.97"W

City: N/A County: Chatham

C. Who owns the project parcel? Georgia Department of Natural Resources, Wildlife Resources Division

D. Is there a Federal Agency involved with permitting or funding? ☐ Yes ☒ No

E. Is there a likelihood of Federal funding or permitting in the future? ☐ Yes ☒ No

F. Federal Agency Involved: N/A

G. Federal Agency's Involvement: N/A

☐ Funding whole or part

☐ License/Permit

☐ Direct/Is performing the action.

☐ Unknown

☐ Other, please explain: [Click or tap here to enter text.](#)

H. Contact Information:

Project or Site Manager: David Mixon

Address: 1 Conservation Way

City/State/Zip: Brunswick, GA 31520

Phone: (912) 264-7218

Email: david.mixon@dnr.ga.gov

Construction and Engineering Manager: Joel Griffin
Address: 2 Martin Luther King Dr. Suite 1352 East Tower
City/State/Zip: Atlanta, GA 30334
Phone: (912) 381-2511 Email: joel.griffin@dnr.ga.gov

II. Project Information

A. Project Description and Plans This should include a detailed scope of work, including any actions to be taken in relation to the project, such as all aspects of new construction, replacement/repair, demolition, ground disturbance, and all ancillary work (temporary roads, staging areas, etc.), as applicable. Attach additional pages if necessary. If a detailed scope of work is not available yet, please explain and include all preliminary information:

Significant ecological and cultural resources are being lost to erosion due to an increase in storm events, wave frequency, and tidal inundation on Ossabaw Island. A coalition of partners are collaborating to design, construct, and monitor a living shoreline project at this site to restore functional estuarine habitat and protect natural shoreline ecosystems while preserving unique cultural and archeological resources that are currently being impacted by erosion. Because there is not an option to grade back into the upland to slope the shoreline, sediment will be used on top of the bank to create the slope. Sediment sources are very limited, and the goal is to limit time, distance, and thus the expense of sediment transport. Expanding the South End borrow pit would make it possible to acquire enough sediment for the construction of the living shoreline without needing an external source. For more information, the full project description of the Ossabaw Living Shoreline Project is attached.

B. Land Disturbing Activity This should include a detailed description of all horizontal and vertical ground disturbance, such as haul roads, cut or fill areas, excavations, landscaping activities, ditching, utility burial, grading, water tower construction, etc., as applicable. Be sure to include the total depth of potential disturbance:

The approximate footprint of the current borrow pit is 0.3 acres. The proposed project will expand the borrow pit by about 0.25 acres at six feet deep to provide 3,915 cubic yards of sediment needed for the living shoreline.

D. Has this identical project or a related project been previously submitted for review? ☒ YES ☐ NO

*If yes, please enclose a copy of the previous response

We have spoken to Rachel Black and David Mixon and they do not have a copy of the review form for the original clearance.

F. Is this review request in order to satisfy an application requirement, such as for a grant? ☒ YES ☐ NO

*If yes, are project plans/scope of work available yet? YES ☒ NO ☐

*If yes, please enclose a copy of the project plans/scope of work

See project description above and plans attached.

III. Site Information

A. Describe what currently exists on the property today (i.e. buildings, parking lot, house, barn, outbuildings, woods, grass, garden, etc.):

The site is a previously used borrow pit, where the proposed action is to expand what is currently there. The property includes sediment and existing grass that may have filled in the surrounding area.

IV. Required Materials (Submittal Checklist)

- ☒ Complete Environmental Review Form
 - Include all contact information.
- ☒ Map indicating:
 - Precise location of the project (USGS topographic map preferred: <http://www.digital-topo-maps.com/>)
 - In urban areas, please also include a city map that shows more detail.
 - Boundaries of the APE as noted in section II above.
- ☒ Detailed project plans, including (if applicable and available):
 - Site plans (before and after).
 - Project plans.
 - Elevations.
- ☒ High-resolution color photographs (2 photos per page) illustrating:
 - The project area
 - Any adjacent properties that are within the project area, with clear views of buildings or structures, if applicable.
 - If the project entails the alteration of existing historic structures, please provide detail photographs of existing conditions of sites, buildings, and interior areas/materials to be impacted.
- ☐ Photo key (map or project plans can be used) indicating:
 - Location of all photographs by photo number.
 - Direction of view for all photographs.

For questions regarding this form, please contact aimee.bouzigard@dnr.ga.gov, matthew.sanford@dnr.ga.gov, or rachel.black@dnr.ga.gov with questions.

When completed, please send this form along with supporting material to the appropriate contact above or as directed by the GOSP Program.



Figure 1. Southward Perspective of the South End Borrow Pit on Ossabaw Island.



Figure 2. Eastward Perspective of the South End Borrow Pit on Ossabaw Island.



Figure 3. Northward Perspective of the South End Borrow Pit on Ossabaw Island.





Map of the Ossabaw Borrow Pit Site. The red outlined polygon denotes the current borrow pit. The blue outlined polygon denotes the proposed expansion.

Attachment C

LOP20250013_Ossabaw Hunt Camp Dock



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

February 19, 2025

David Freedman
Freedman Engineering Group
1000 Whitlock Avenue, Suite 320, #218
Marietta, GA 30064

Re: Letter of Permission (LOP) and Revocable License (RL), Maintenance of Hunt Camp Dock located within Coastal Marshlands Protection Act (CMPA) Jurisdiction, Ossabaw Island, Newell Creek, Chatham County, Georgia (SAS 2022-00371-NWP 3A).

Dear Mr. Freedman:

This Letter of Permission (LOP) is a reissuance of LOP20240031 to maintain the existing structure known as Hunt Camp Dock located on Newell Creek, Ossabaw Island, Chatham County. The scope of work authorized April 18, 2024 has not changed. The project will begin no sooner than fifteen (15) days from the receipt of this letter and be completed within six (6) months.

The State of Georgia acquired Ossabaw Island in 1978. The existing dock structure has historically served as one of two access points to the State-owned island for hunters, as well as employees of the Georgia Department of Natural Resources (GA DNR). The existing dock needs repair and poses a safety hazard. The dock will be maintained in the existing location but reduced in size and relocated approximately 24ft. landward due to a shift in the channel of Newell Creek.

The existing facility includes a 6ft. x 70ft. (420sq.ft.) fixed walkway. A 4ft. x 40ft. (160sq.ft.) gangway lands on a 6ft. x 10ft. (60sq.ft.) float that provides access to a 6ft. x 120ft. (720sq.ft.) floating dock. Total impacts for the existing structure are 1,360sq.ft. The replaced dock will consist of a 6ft. x 30ft. (180sq.ft.) fixed walkway that will lead to a 3ft. x 30ft. (90sq.ft.) gangway to land on a 6ft. x 10ft. (60sq.ft.) float that will provide access to a 6ft. x 120ft. (720sq.ft.) floating dock. Total impacts for the replaced structure are 1,050sq.ft. The facility will extend approximately 40ft. into Newell Creek at a point where the waterway is approximately 245ft. at Mean Low Water (MLW).

The Department authorizes the maintenance of the existing structures as depicted in the attached description and drawings. No unauthorized equipment, materials, or debris may be placed in, disposed of, or stored in jurisdictional areas. All material removed must be disposed of at an appropriate upland disposal area. Any visible alterations in marsh topography will be restored immediately using low-impact hand tools. Any damage to the marsh vegetation that has not recovered naturally during the next growing season will be repaired by a method acceptable to the Department.

Please find enclosed a fully executed Revocable License (RL) for the project described above. This license serves as an authorization to utilize state owned tidal water bottoms for your project. Any change in the use, location, dimensions, or configuration of the approved project, without prior notification and approval from this office could result in revocation of this permission and in the required removal of the related structures.

This authorization does not relieve you from obtaining any other required federal, state, or local permits. Tidal water bottoms and marshlands of coastal Georgia are public trust lands controlled by the State, except for such lands where a validated Crown Grant or State Grant exists. Please contact Deb Barreiro at 912.266.3695 should you require more information or assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jill Andrews", is positioned above the typed name.

Jill Andrews
Chief, Coastal Management Section

Enclosures: LOP20240031, Federal Consistency Certification Statement, Project Description,
Plans, Revocable License, Memorandum of Agreement

cc: Katherine.L.Cummins@usace.army.mil
Marcus Lotson, Chatham County Building and Safety

LOP20250013

Attachment D

IPac (Not for Consultation)

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Chatham County, Georgia



Local office

Georgia Ecological Services Field Office

☎ (706) 613-9493

📅 (706) 613-6059

✉ gaes_assistance@fws.gov

355 East Hancock Avenue

Room 320

Athens, GA 30601-2523

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
West Indian Manatee <i>Trichechus manatus</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4469	Threatened Marine mammal

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover <i>Charadrius melodus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened
Rufa Red Knot <i>Calidris canutus rufa</i> Wherever found There is proposed critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/1864	Threatened

Wood Stork *Mycteria americana*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8477>

Reptiles

NAME

STATUS

Eastern Indigo Snake *Drymarchon couperi*

Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/646>Green Sea Turtle *Chelonia mydas*

Threatened

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/6199>Hawksbill Sea Turtle *Eretmochelys imbricata*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/3656>Kemp's Ridley Sea Turtle *Lepidochelys kempii*

Endangered

Wherever found

There is **proposed** critical habitat for this species.<https://ecos.fws.gov/ecp/species/5523>Southern Hognose Snake *Heterodon simus*

Proposed Threatened

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3248>

Insects

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.<https://ecos.fws.gov/ecp/species/9743>

Flowering Plants

NAME

STATUS

Pondberry *Lindera melissifolia*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/1279>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME

TYPE

Rufa Red Knot *Calidris canutus rufa*

Proposed

<https://ecos.fws.gov/ecp/species/1864#crithab>

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

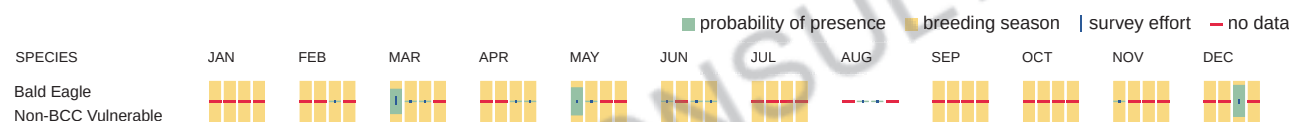
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles document](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
American Oystercatcher <i>Haematopus palliatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

Black Skimmer *Rynchops niger*

Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5234>

Chimney Swift *Chaetura pelagica*

Breeds Mar 15 to Aug 25

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Least Tern *Sternula antillarum antillarum*

Breeds Apr 25 to Sep 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Marbled Godwit *Limosa fedoa*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Ruddy Turnstone *Arenaria interpres morinella*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Saltmarsh Sparrow *Ammospiza caudacuta*

Breeds May 15 to Sep 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9719>

Semipalmated Sandpiper *Calidris pusilla*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Whimbrel *Numenius phaeopus hudsonicus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Willet *Tringa semipalmata*

Breeds Apr 20 to Aug 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wilson's Plover *Charadrius wilsonia*

Breeds Apr 1 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

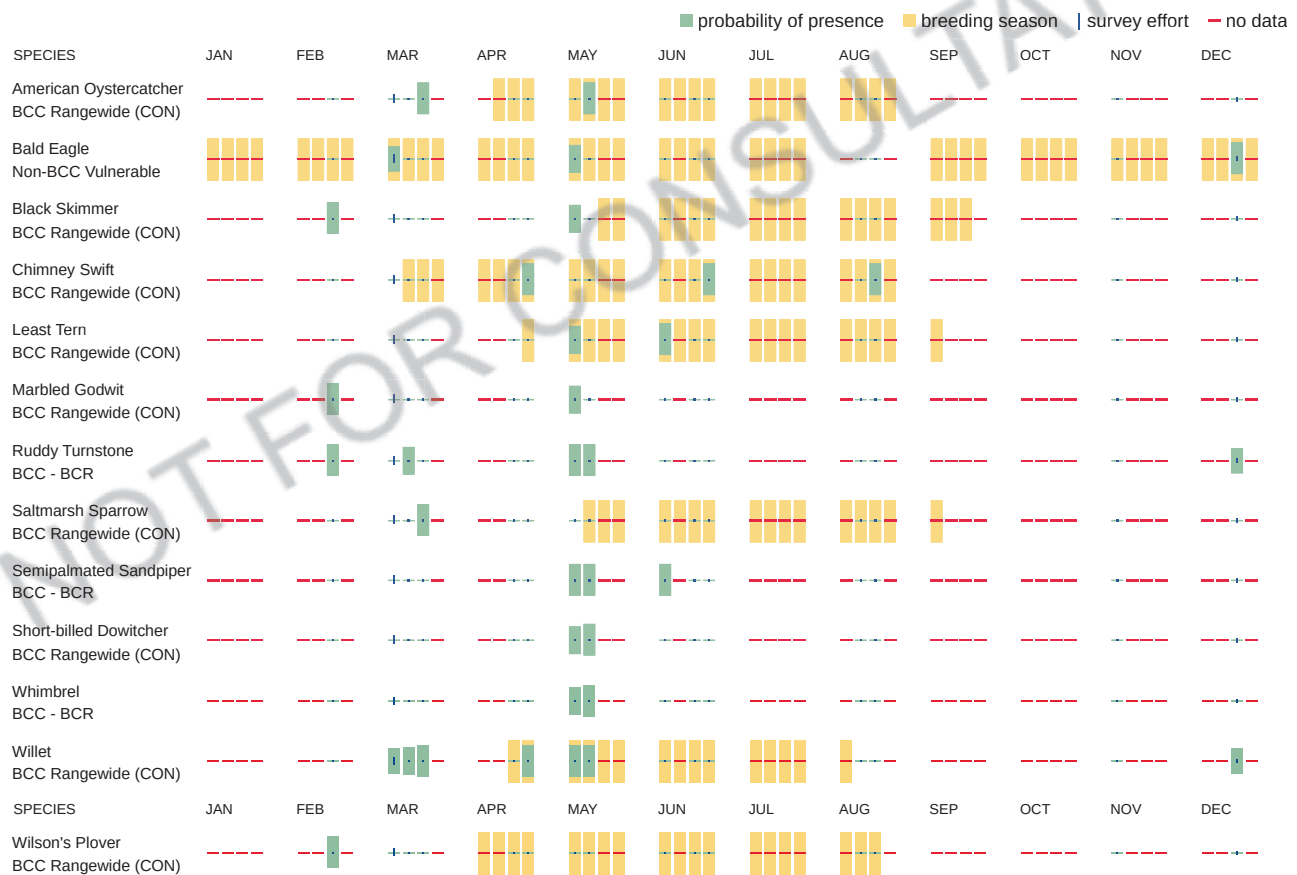
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the [Probability of Presence Summary](#). [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location?". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Marine mammals

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walrus, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The [Endangered Species Act](#) (ESA) of 1973.
2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

West Indian Manatee *Trichechus manatus*
<https://ecos.fws.gov/ecp/species/4469>

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

This location overlaps the following CBRS unit(s):

Otherwise Protected Area (OPA)

*OPAs are denoted with a "P" at the end of the unit number. The only prohibition within OPAs is on Federal flood insurance. **CBRA consultation is not required for projects within OPAs.** However, agencies providing disaster assistance that is contingent upon a requirement to purchase flood insurance after the fact are advised to disclose the OPA designation and information on the restrictions on Federal flood insurance to the recipient prior to the commitments of funds.*

[GA-02P - FI 11/16/1991](#)

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE
DEEPWATER

[E1UBL](#)

ESTUARINE AND MARINE
WETLAND

[E2EM1N](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercidic worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local

government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment E
State Waters Buffer Determination
Chatham Co.



CHATHAM COUNTY DEPARTMENT OF ENGINEERING

124 Bull Street, Room 430
P.O. Box 8161
Savannah, Georgia 31412-8161

Suzanne V. Cooler, P.E.
County Engineer

912-652-7800

Nathaniel Panther, P.E.
Assistant County Engineer

1st November 2025

Mr. James Long
Via email: james.long1@dnr.ga.gov

Subject: State Waters and Buffer Determination
Ossabaw Island Living Shoreline, PIN: 10457 01001

Mr. Long,

During a site visit conducted on 25th August 2025, Chatham County Department of Engineering determined that State Waters are located adjacent to the above referenced project area. Pursuant to §24-804-3-(p)-(iv) of the Chatham County Code, the disturbance shown on the attached exhibit provided by you is considered a Minor Disturbance therefore no State Waters Buffer is required.

Appropriate soil erosion control Best Management Practices (BMPs) are still required on the site during land disturbing activities (LDA) to prevent sediment from leaving the site or entering State Waters. There may be other buffers or setbacks located on the subject property in accordance with the Chatham County Zoning Ordinance.

This letter does not relieve you of the responsibility of obtaining other local, state, or federal permits or other authorizations pertaining to the site and any current or future land disturbing activity. This State Waters and Buffer determination is valid for 1 year from the date of the State of Georgia approved Coastal Marshlands Jurisdictional Determination for the site listed above.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Jefferson T. Kirkland
Environmental Program Manager
jtkirkland@chathamcounty.org

cc: Building Safety and Regulatory Services, Chatham County
Development Services, Department of Engineering, Chatham County
Chatham County – Savannah Metropolitan Planning Commission

Attachments: 17 pages

Attachment F
Vicinity Map

Attachment E

Project Vicinity Map

Ossabaw Island is owned and managed by the Georgia DNR; a plat is not available.



Attachment G

Zoning Letter – Chatham Co.



CHATHAM COUNTY DEPARTMENT OF BUILDING SAFETY AND REGULATORY SERVICES

1117 EISENHOWER DRIVE, SAVANNAH, GA 31406
P.O. Box 8161, Savannah, GA, 31412-8161
912 201 4300 — Fax 912 201 4301

November 13, 2025

James Long

RE: Ossabaw Island Living Shoreline Project

Dear Mr. Long,

Chatham County does not approve or deny shoreline restoration in State waters. However, the improvement plans for the Ossabaw Island Living Shoreline, do not represent a violation of the Chatham County Zoning Ordinance.

If there are questions, I can be reached at 912 201 4315.

Sincerely,

A handwritten signature in black ink, appearing to read "Marcus Lotson", is written over a horizontal line.

Marcus Lotson, Office of Zoning Administration
Assistant Director, Building Safety and Regulatory Services.

Attachment H
NWP 401 Coverage



Richard E. Dunn, Director

EPD Director's Office

2 Martin Luther King, Jr. Drive
Suite 1456, East Tower
Atlanta, Georgia 30334
404-656-4713

December 15, 2020

Colonel Daniel Hibner
Commander
U.S. Army Corps of Engineers
Savannah District
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3640

Re: Water Quality Certification
2020 Reauthorization of Nationwide Permits
Statewide

Dear Colonel Hibner:

In accordance with Section 401 of the Federal Clean Water Act, 33 U.S.C. § 1341, the State of Georgia has evaluated the 2020 Nationwide Permits submitted by the U.S. Army Corps of Engineers, an applicant for a federal permit or license related to proposed activity in, on, or adjacent to the waters of the State of Georgia.

The State has examined the information regarding the 2020 Nationwide Permits provided to it by Corps Savannah District Regulatory Program. In accordance with that information, the State of Georgia issues this Section 401 certification to U.S. Army Corps of Engineers. This Section 401 water quality certification is subject to the following terms and conditions:

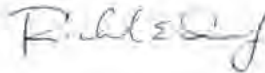
1. To assure compliance with State water quality standards, the relevant Nationwide Permit applicant shall conduct all activities in a manner that will assure water quality adequate or necessary to protect and maintain designated uses. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2),(6),(9),(15); Ga. Comp. R. and Regs. 391-3-6-.03(2)(i), (ii).
 - a. To prevent or avoid degradation of water quality downstream, the relevant Nationwide Permit applicant shall install in-water Best Management Practices (BMPs) to the extent practical and feasible, to minimize total suspended solids (TSS) and sedimentation for any work conducted within a state water or within the delineated boundaries of wetlands. 33 U.S.C. § 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); O.C.G.A. §§ 12-7-6 to 7; Ga. Comp. R. and Regs. 391-3-6-.03(5).
 - b. In order to prevent or avoid violations of state water quality standards, the relevant Nationwide Permit applicant must ensure that any fill placed in state waters must be clean fill that is free of solid waste, toxic, or hazardous contaminants. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-5-23(c)(2), (6), (9), (15); O.C.G.A. § 12-5-29(a); Ga. Comp. R. and Regs. 391-3-6-.03(5), (6), (11), (14)-(16).

2. To ensure that other pertinent and appropriate State permissions are obtained, for bank stabilization projects conducted under NWP 13 or NWP 54, particularly those that involve work in state buffers, Nationwide Permit applicants should consult Georgia EPD's Streambank and Shoreline Stabilization Guidance, available at <https://epd.georgia.gov/watershed-protection-branch/erosion-and-sedimentation> and, as necessary, apply for and abide by the terms of any applicable Georgia stream buffer variance. 33 U.S.C. §§ 1311; 1313(a)-(d); O.C.G.A. § 12-7-6; Ga. Comp. R. and Regs. 391-3-7-.05.

This certification does not waive any other permit or other legal requirement applicable to this project or relieve the applicant of any obligation or responsibility for complying with the provisions of any other federal, state, or local laws, ordinances, or regulations.

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

Sincerely,



Richard E. Dunn, Director
Environmental Protection Division

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

Attachment I

Living Shoreline AOE (9CH155)

GaDNR – State Parks and Historic Sites

Office of the State Archeologist

Assessment of Effects for Site 9CH155 for the Proposed Living Shoreline

Ossabaw Island, Chatham County, Georgia

Prepared for:

**Georgia Department of Natural Resources
Office of the State Archaeologist
State Parks and Historic Sites Division
Stockbridge, GA 30281**

Prepared by:

**Southern Research, Historic Preservation Consultants, Inc.
P.O. Box 1630
Pine Mountain, GA 31822**



**Diana Valk, RPA
Author**



**Scot J. Keith, RPA
Principal Investigator**



July 2, 2025

Introduction

The Georgia Department of Natural Resources (GDNR) is proposing to construct a living shoreline to stabilize the archaeological deposits of site 9CH155 on Ossabaw Island in Chatham County, Georgia (Figure 1, see Appendix A). The archaeological deposits at this site have been determined to be eligible for inclusion within the National Register of Historic Places (NRHP) but are being continually exposed and eroded by the action of Newell Creek upon the western bank of the island. A living shoreline is proposed along the length of site 9CH155 to prevent further erosion and loss of deposits. The proposed activity is subject to review by the Savannah District of the United States Army Corps of Engineers (USACE), and an Assessment of Effects (AOE) is required to detail the effect(s) that the proposed living shoreline will have on this NRHP-eligible site.



Figure 1. Location of Site 9CH155 (Basemap: ESRI World Topo 2023)

Data for this work was provided by State Archaeologist Rachel Black of the Office of the State Archaeologist of the Georgia Department of Natural Resources; Amanda Roberts Thompson and Brandon Ritchison of the University of Georgia; and Dan Elliott of the LAMAR Institute. The online version of Georgia's official Archaeological Site File, *Georgia's Natural, Archaeological, and Historic Resources Geographic Information System* (GNAHRGIS) was also consulted as needed for project data.

Project Summary

The following project summary was compiled using information and plans provided by the GDNR Coastal Management Program:

The State of Georgia is proposing to scale up the knowledge of living shorelines along Georgia's high energy coastline. Significant ecological and cultural resources are being lost on Ossabaw Island to erosion due to an increase in storm events, wave frequency, and tidal inundation. A coalition of state, federal, and private partners are collaborating to design, construct, and monitor a living shoreline project at this site. The goal of this project is to restore functional estuarine habitat and protect natural shoreline ecosystems while preserving unique cultural and archeological resources that are currently being impacted by erosion.

Living shorelines are constructed coastal features that make use of natural material and native plantings to protect a shoreline from wave and flood damage as well as providing essential habitat to commercially important fisheries species and wildlife. These softer approaches are an alternative to hardened solutions like bulkheads and rock revetments and can provide an important, cost-effective solution. Living shorelines provide absorption of wave and flood energy, as well as a temporary place for floodwaters. In addition, they provide other important benefits such as the preservation of aquatic habitat, the potential to improve water quality through the addition of living organisms, and the resilience of the structure over time as organisms grow and move as sea levels shift over time.

Living shorelines have been successfully implemented in coastal states to abate the threats of coastal erosion and have been documented to provide an increase in valuable estuarine habitat. The proposed living shoreline project on Ossabaw Island will allow for natural shoreline migration in the face of sea level rise, while providing essential habitat to fisheries and wildlife. This novel approach to adaptation will be beneficial to land managers and fishermen and will provide educational experiences to those that visit the site.

Specific objectives of the project begin with the design of a living shoreline at Ossabaw Island's Hunt Camp dock on Newell Creek with consideration of cultural resources and climate related hazards, such as sea level rise projections. Success of the living shoreline installation for biological and physical stability will be assessed through biannual monitoring events over the course of two years. Educating practitioners and the public about the use of nature-based solutions for shoreline management is a significant part of this project. Outreach events which will include the Ossabaw Public Day Tours will specifically target underserved communities to educate them about resilient shorelines in their region.

The proposed project will cover 1,225 feet of erosional bank (see Appendix A). Fill will be added to the top of the bank and additional sediment will be packed into the bank to create the intended slopes while not disturbing the cultural resources. At the top of the slope a 12" diameter coir log, stabilized by stakes, will run the length of the bank. Upland vegetation will be planted along the west side of the coir log. Light-duty and heavy-duty vegetated erosion control mats will be used to

cover the fill from the top of the bank to elevation 5. These mats will be planted with native grass seed and high marsh plantings. From elevation 5 to the slope toe articulated concrete blocks (Flex-a-mat) will cover the fill. Finally broken concrete or rip rap will be used as toe protection.

The outcomes of this project will be three-pronged: environmental, management/policy, and societal. The environmental outcomes will be an improved fisheries habitat and sustainable water quality with measures of success based on pre- and post-construction monitoring data of oyster reefs, vegetation, and bank stability. The management and policy outcomes will be a new applied knowledge of shoreline management along high energy environments and better decision-making tools for shoreline management permitting. Outreach events held throughout the project timeline, a workshop for practitioners, and the archaeological survey for cultural resources will serve as societal outcomes through education and outreach.

Site 9CH155 Background

Previous Archaeological Investigations of 9CH155

While Ossabaw Island was the subject of early archaeological investigations and observations (see Brown 1873; Holmes 1891; Moore 1897), the first documented modern investigation of the island occurred in 1972 and 1973 by archaeologist Pat Garrow of Shorter College, who was carrying out a survey of the island. At the site which was later to be recorded with the state of Georgia as 9CH155, Garrow excavated historic era trash pits situated along the bluff and tested other portions. While he focused on the historic component, he also encountered Native American artifacts. Diagnostic Native American pottery types found during Garrow's work include Deptford Simple Stamped, Brewton Hill Complicated Stamped, Wilmington-St. Catherines Cord Marked, Savannah Check Stamped, and Savannah Fine Cord Marked. The location of Garrow's excavations are unknown. Because Garrow could not continue the survey project beyond 1973, Chester DePratter continued the investigation.

In 1974, DePratter visited all the sites recorded by Garrow, and also recorded an additional sixty sites, documenting a total of 158 sites on Ossabaw Island. He found the exact limit of 9CH155 difficult to determine, but shell artifacts covered an area 600 by 1000 feet and a shell midden was visible along the 1000-foot long stretch of bluff fronting Newell Creek. He also noted the extensive and rapid erosion of the bluff into the creek, with the accompanying exposure and loss of the site's features and deposits into the creek. He does not report if he excavated at the site, but states that an additional six sherds, one flint flake, and assorted 19th century material were found during his 1974 survey. In addition to the diagnostic pottery collected by Garrow, DePratter identified Deptford Check Stamped and Irene Complicated Stamped pottery at the site (DePratter 1974). In 1978, DePratter and Marilyn Pennington recorded the site with the state site file under the site name of "South End Field". Temporal components listed on the site form include Early Woodland, Middle Woodland, Late Woodland, Middle Mississippian, Late Mississippian, 16th Century, and 19th Century (DePratter and Pennington 1978).

Charles Pearson, an archaeology graduate student at the University of Georgia, wrote his master's thesis based on analysis of Irene phase settlement of Ossabaw Island. Using DePratter's data, he conducted additional survey and mapping of the Irene phase sites on the island, which included 9CH155, but it does not appear he conducted excavations of the site. He reports 13 Irene Complicated Stamped sherds from the site, along with small numbers of Irene Burnished Plain, Savannah Check Stamped, and Savannah Cord Marked pottery (Pearson 1976).

In 1996, Ossabaw Island was listed on the National Register of Historic Places, with 9CH155 being one of the contributing resources to the island's significance under the area of Archaeology (Thomas et al. 1996).

Due to human burials observed eroding from bank into Newell Creek in the summer of 2001, archaeologists with the Historic Preservation Division of the Georgia Department of Natural Resources visited the site to mitigate the damage by recovering the remaining skeletal material and associated artifacts. Analysis of the material indicates that it consists of four Native American individuals. Archaeologists with the GDNR consulted with the Georgia Council on American Indian Concerns regarding reburial of the remains, and agreed upon reburial at site 9CH158 (Middle Place) to the north of 9CH155 (Bedell 2001a, 2001b; Office of the State Archaeologist 2002, 2004).

In order to monitor and address the continual and severe erosion of the site, DNR archaeologists began a program of visiting the site and conducting limited excavations (Figure 2). A Cartesian grid was established which would double as a Cartesian grid for excavations and a line for measuring the ongoing erosion of the bluff. A metal rod, the datum, assigned the arbitrary coordinates of 1000N 1000E was driven flush into the ground at Latitude 31.76433 N, Longitude -81.14482 W. A baseline parallel to the bluff, with a magnetic bearing of 008°, was established along 995E. Shovel testing and limited excavations were conducted along the bluff area in 2002 and 2003 by DNR archaeologists with help from Boy Scouts. This work identified a Late Archaic component, concentrated in the northwestern portion of the site, with most of these artifacts found at the base of the bluff after eroding out. An eroding brick foundation was documented along the bluff, thought to be a waterfront building dating to the early to middle 19th century. They also indicate that a 20th century building on the site had to be relocated due to the shoreline erosion, and suggest that other buildings likely were present along the bluff (Office of the State Archaeologist 2002, 2003). Diagnostic pottery types listed on the updated state site form from the 2001 DNR investigation include St. Simons Punctate, Deptford Linear Check Stamped, Wilmington Brushed, Savannah Bold Check Stamped, Savannah Fine Cord Marked, Altamaha Cross Simple Stamped, and Irene Burnished.

In 2008, Dan Elliott of the LAMAR Institute conducted an excavation at 9CH155 to recover the remains of a burial that was eroding from the bluff, several meters north of the existing dock, as well as to conduct Ground Penetrating Radar (GPR) of the portion of the site along the bluff and an interior area. Additionally, because of extremely low tides at the time Elliott was able to conduct a "grab sample" surface collection along mudflats not normally exposed. A 2x2-meter test unit was excavated to recover the burial, situated with the western edge formed by the bluff edge. The burial feature consisted of a crematorium pit containing a small quantity of human remains, wood charcoal, and several Native American pottery sherds. Based on a radiocarbon date from charred wood at the base of the burial pit, the burial dates circa A.D. 1340. The GPR data contained numerous soil anomalies, and displayed two concentrations of anomalies, one corresponding to the area with eroding burials and the other to an area along the bluff where there is a concentration of historic artifacts. Many of the anomalies were interpreted as potential cultural features, including possible Native American pits, burials, and a possible structure, as well as a historic well or privy (Elliott 2009).

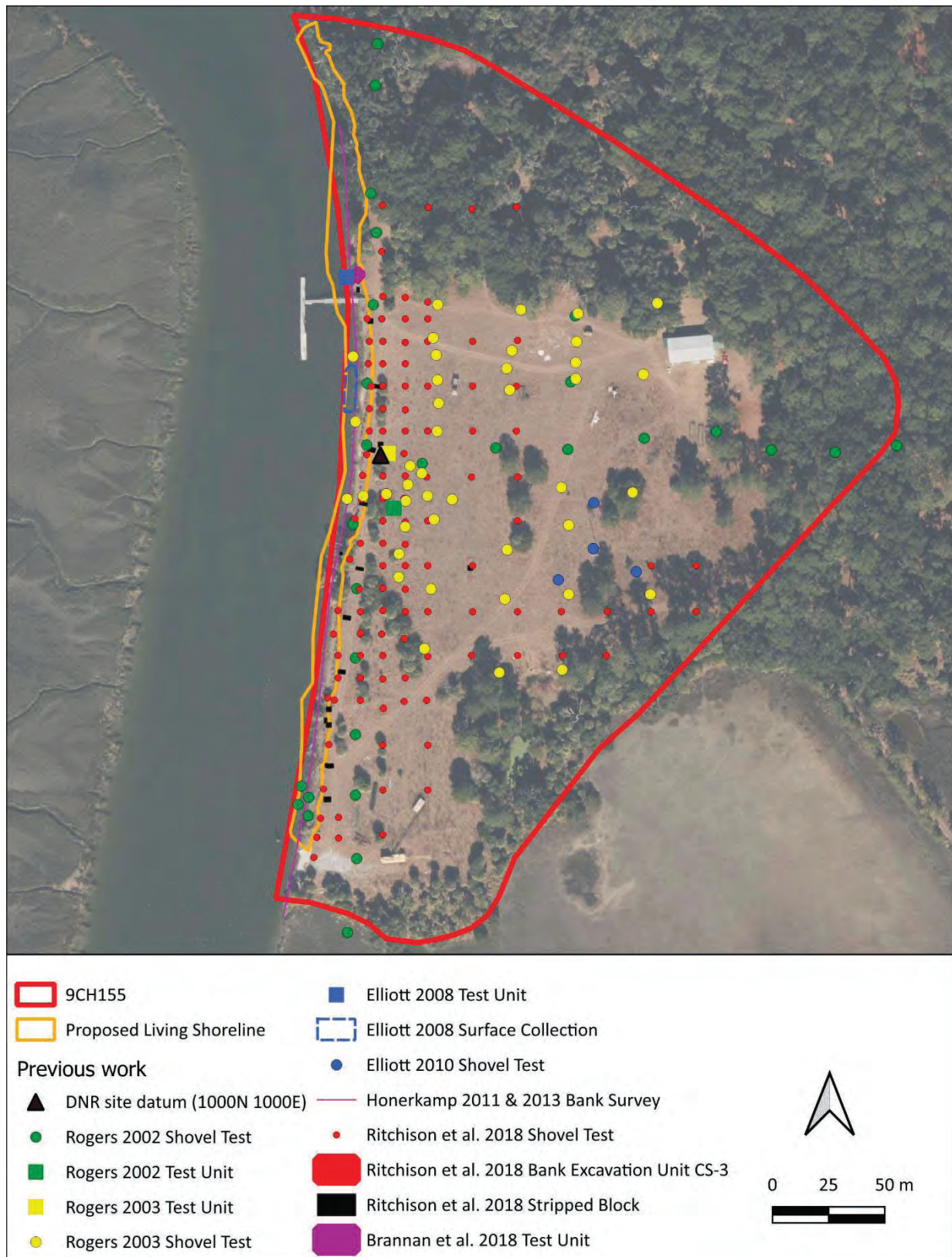


Figure 2. Previous work within 9CH155 (Basemap: Bing Satellite 2004).

In 2010, Elliott returned to 9CH155 to conduct a survey for a proposed telecommunications tower located approximately 370' east of the bluff. The survey consisted of four shovel tests, one where the proposed tower was to be placed and each of the other three at the three guy wire locations. Two of the shovel tests were negative and two were positive. The first positive test contained a small sand-tempered plain sherd, a sand-tempered residual sherd, and a hand-blown olive green bottle base, as well as oyster shell; and the second contained a small number of oyster shells (Elliott 2010).

In 2011 and 2013, Nicholas Honerkamp from the University of Tennessee at Chattanooga conducted archaeological field school investigations of the site. In 2011, the group initially surveyed the surface of the eroding bluff from the existing dock south to the marsh. They identified historic and Native American features in the bluff face, as well as two possible burial features, documenting eight features eroding away. Late Woodland Wilmington Heavy Cord Marked and Late Archaic St. Simons Plain pottery were identified during the survey, while a dark green glass bottle neck, likely dating to the 19th century, was observed in one of the features (Honerkamp 2011a). They then visually surveyed the eroding bluff north of the dock. A number of features were recorded in this area, including a historic pit, a likely Native American pit, and a large historic lime burning pit (Honerkamp 2011b). In 2013, Honerkamp returned to the site, finding that all the features identified in the 2011 survey had eroded away and that more features were exposed in the eroding riverbank. The team surveyed the riverbank from the dock south to the marsh. They had time to record 15 features exposed in the bank, consisting of postholes and pits, including a large pit that may have been used for processing indigo in the 18th century, while they noted 15 additional postholes and 11 pits. Of those they recorded, most were believed to be historic in origin due to the presence of brick, nails, and/or glass in their exposed fill. Recovered artifacts included an embossed copper lid made by French wine firm in operation from 1829-1847; architectural debris such as cut nails, patinated window glass, and tabby mortar; a brass apparel buckle; late 18th – late 19th century ceramics; and a Late Archaic period St. Simon's Plain sherd. As in the 2011 report, Honerkamp stressed the need to address the rapid erosion of the site with some form of bank stabilization and a program of archaeological mitigation to salvage the significant site prior to its loss (Honerkamp 2013).

In 2014, 2016, 2017, and 2018, excavations at the site were undertaken by the University of Georgia (UGA) under the direction of Dr. Victor Thompson, in conjunction with the DNR. Work included shovel testing, test units, mechanical scraping, and GPR. The 2014 work was conducted to mitigate the effect on the site from the proposed construction of a new barge landing and the possibility of creating a living shoreline to slow erosion of the site. They found that 18th and 19th century deposits were concentrated near the bluff, potentially representing the remains of slave and overseer housing and related structures. Reanalysis of artifacts recovered by Garrow in the early 1970s indicate that the Spanish olive jar was misidentified and instead represents North Devon Gravel Ware dating between the late 17th and middle 18th centuries. The authors suggest that the burial area may represent a low mound which has been plowed down or simply a cemetery, and that it likely dates to the Savannah and Irene phases. Remote sensing resulted in several anomalies that may represent burials. The authors also note the lack of large shellfish deposits from the Late Archaic component, contrary to other Late Archaic sites on Georgia's barrier islands, leading them to postulate that the site may date to the Terminal Late Archaic time frame (post 3800 calendar years before present). They summarize the nature of the archaeological record at the site in consisting of an approximately 25-centimeter-thick plow zone that contains mixed cultural and temporal artifacts overlying undisturbed matrix that contains Native American artifacts and numerous cultural features, including historic era features. Similar to Honerkamp (2013), the authors note how quickly the site is eroding away, with features observed in the bank one season gone by the next season (Ritchison et al. 2018). Data from this work (and

others) was used by one of the UGA investigators, Amanda Roberts Thompson, as the basis of her PhD dissertation, which focuses on the site functioning as a plantation between 1849 and 1861 (Roberts Thompson 2020).

In 2018, with help from DNR archaeologists, Stefan Brannan of New South Associates oversaw the salvage excavation recovery of a burial which was eroding from the bank north of the existing dock. A 2x2-meter test unit was excavated to recover the burial. While numerous historic artifacts dating to the early to middle 19th century were found in the test unit, based on associated artifacts with the burial, the decedent is believed to have been a Native American female in her 30s who was alive sometime during the Late Woodland – Early Mississippian time frame. She is believed to have died of unknown causes. A separate feature was identified directly beside (east of) this individual that may represent another burial; because it was inland from the bank by approximately a meter, it was decided to leave this feature *in situ* for mitigation at a future date (Brannan et al. 2018).

Deposits in Area of Proposed Living Shoreline

All past archaeological work has investigated parts of the proposed living shoreline. These investigations reveal that although there is disturbance within the plow zone, intact features and deposits are present (Figures 3 and 4). Both Elliott and Honerkamp have examined archaeology visible on the surface of the site within the proposed living shoreline. In 2008, Elliott was able to conduct a surface collection on mudflats along the bluff. A total of 194 artifacts were collected, most of them historic. Historic artifacts included machine cut nails, a brass button, a porcelain button, pearlware, whiteware, salt-glazed stoneware, ironstone, and 11 clay pipe fragments, one of which had a maker's mark associated with Robert Tippitt dating to the 18th century. Native American artifacts included two Stallings plain, six Savannah check stamped, three grit/sand tempered rectangular complicated stamped, one sand tempered cordmarked, and three unidentified grit/sand tempered sherds. Elliott states that although the surface artifacts are out of context, they do provide important clues about the site occupation. If artifacts are not collected or recorded archaeologically, the potential information is lost (Elliott 2009). The pedestrian surveys conducted by Nicholas Honerkamp ran almost the entire length of the proposed living shoreline and focused on what was clearly visible eroding from the bank. These surveys documented numerous features, both historic and Native American. The features exhibited well-defined profiles and although they were disturbed by erosion there was little evidence of other disturbances (see Figure 2 (Honerkamp 2011a) and Figures 6 and 7 (Honerkamp 2013) in Appendix II). Honerkamp's work highlights the fragility of the archaeology at the site because features identified in 2011 had disappeared just two years later (Honerkamp 2011a, 2011b, 2013).

Excavations by the DNR, Dan Elliott, and UGA provide information about the potential for deposits and features that are not currently visible in the bank. Portions of these excavations overlap with the proposed living shoreline. Eleven shovel tests excavated during the archaeological investigations carried out by the DNR in 2001-2002 and 2002-2003 are located throughout the proposed living shoreline. Shovel tests were approximately 35 centimeters in diameter and excavated to sterile sand approximately 80 cmbs. From the 2001-2002 field season, shovel tests 5, 6, and 20 are located within the proposed living shoreline, as well as four close-interval shovel tests excavated in preparation for the construction of a barge landing. According to the artifact catalog ST 5 contained ten artifacts, predominately historic, including whiteware, gun parts, and cut nails. ST 6 contained nine artifacts including bone, a grog tempered sherd, a core, and undecorated and decorated pearlware. ST 20 contained three artifacts including a Deptford cord marked sherd, a Deptford check stamped sherd, and an unidentified rim sherd.

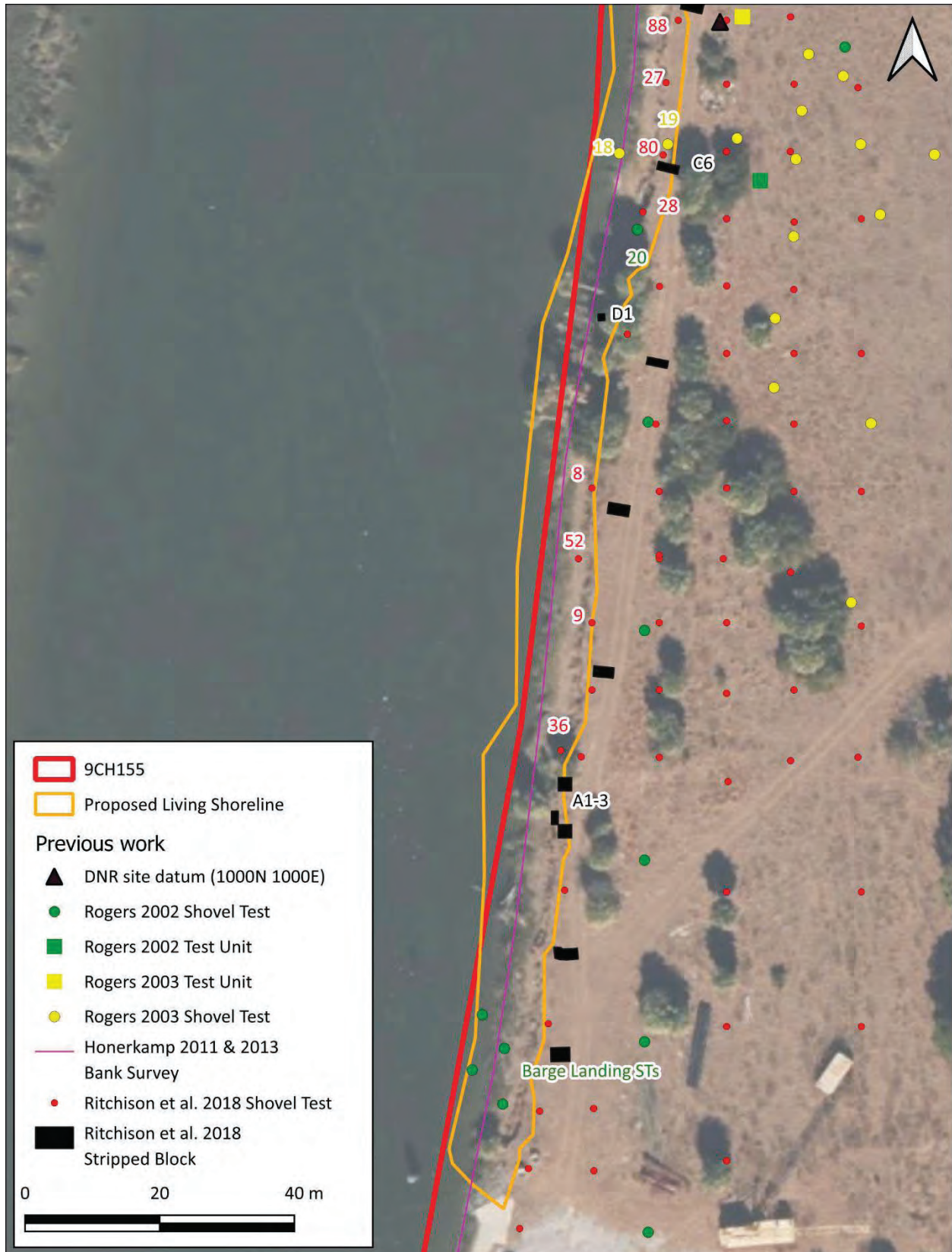


Figure 3. Previous work within the southern half of 9CH155 that falls within the proposed living shoreline (Basemap: Bing Satellite 2024).

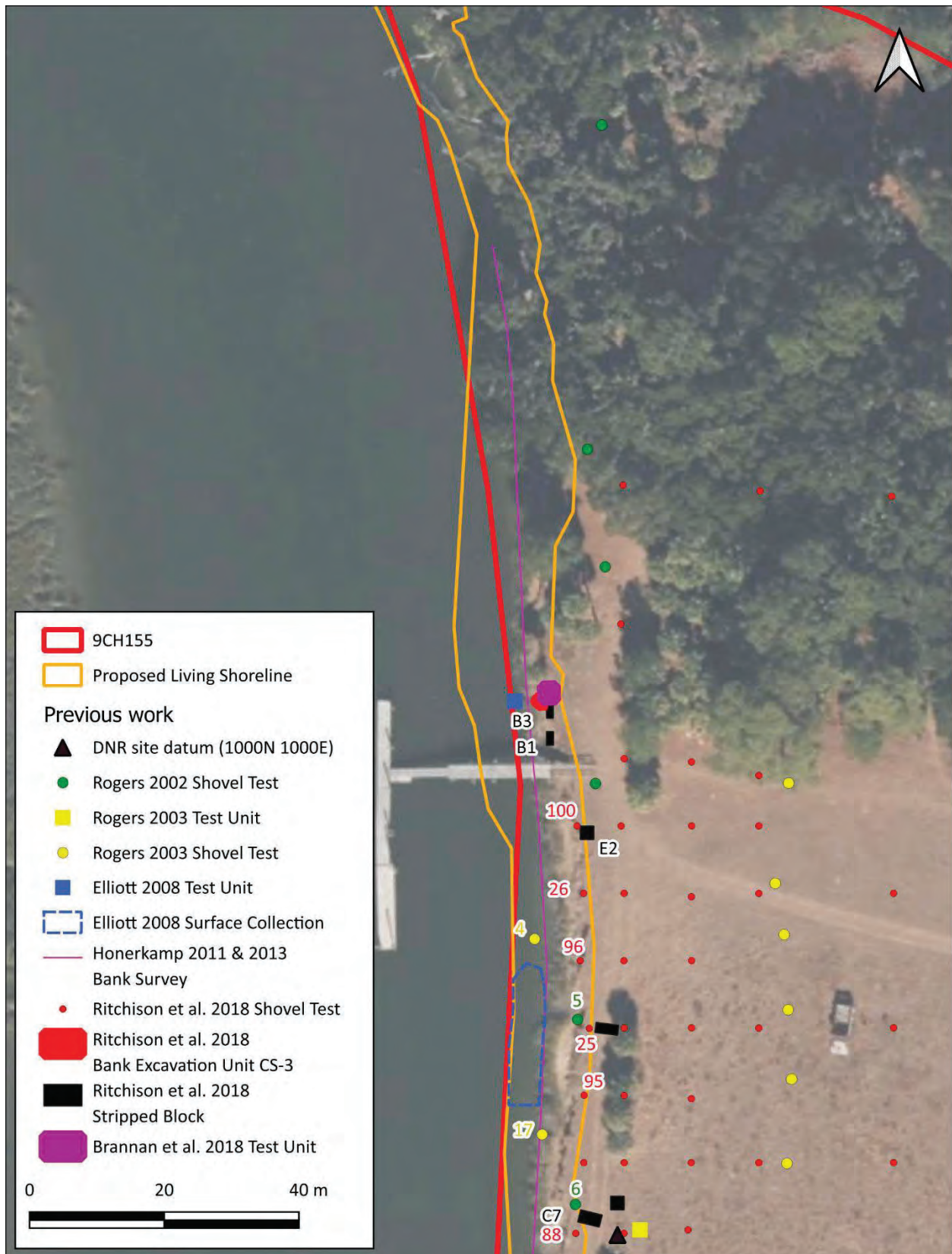


Figure 4. Previous work within the northern half of 9CH155 that falls within the proposed living shoreline (Basemap: Bing Satellite 2024)

The four shovel tests excavated for the barge landing were negative (Office of the State Archaeologist 2002). From the 2002-2003 field season, Shovel Tests 4 and 17-19 fall within the proposed living shoreline. ST 4 contained five shells and a stoneware fragment. ST 17 contained 21 historic and Native American artifacts including whiteware, cut nails, bottle glass, a Deptford sherd, and a residual sherd. ST 18 contained one Savannah sherd and ST 19 one plain Native American sherd and one residual sherd (Office of the State Archaeologist 2003).

In 2008, Dan Elliott excavated Test Unit 08-1. This test unit falls within the proposed living shoreline just north of the dock. The test unit measured 2x2 meters and was excavated in 10-centimeter levels to a depth of 96 cmbs. It was initially excavated in order to recover a burial (Burial 1). A total of 523 artifacts were collected in the process. Historic artifacts were concentrated in the upper levels and included wrought iron nails, tobacco pipe fragments, a brass button, pearlware, creamware, tabby, and brick fragments. Native American artifacts included Savannah, Irene incised, Wilmington Heavy Cord Marked, Walthour Tool Impressed, and Stallings type sherds as well as a shell bead, petrified wood, and several non-diagnostic sherds. In addition to the artifacts, the unit revealed intact historic and Native American features. Burial 1 was first visible in the base of Level 2 and extended down to Level 7 (60-70 cmbs) where cremated human bones were recovered. In its base the feature measured 1.2 m north – south and 75 cm east-west. Analysis revealed that Burial 1 was an unusual type of crematorium pit and it is possible that similar pits could exist in the area. (Elliott 2009).

In 2014, UGA excavated shovel tests, test units, and stripped blocks. Thirteen of the shovel tests fall within the proposed living shoreline (ST 8, 9, 25-28, 36, 52, 80, 88, 95, 96, and 100). Shovel test pits were square and 50x50 centimeters in size, with 20-centimeter-thick excavation levels. Some shovel tests showed clear stratification between historic and Native American artifacts including ST 8 and 9. ST 8 contained 85 artifacts as well as brick and charcoal fragments. These artifacts were collected from Levels 1, 2, and 3 which correspond to 0-20, 20-40, and 40-60 cmbs. Both Native American and historic artifacts were recovered from Levels 1 and 2, but Level 3 contained only Native American artifacts. Historic artifacts included olive green and aqua bottle glass, salt-glazed stoneware, a pipe stem fragment, five sherds of refined earthenware, a fragment of lead glazed earthenware, a fragment of hand-painted pearlware, and cut nails. Native American artifacts included a sherd of grit tempered complicated stamped ceramic, three sherds of St. Catherine's plain, a sherd of Irene Complicated Stamped, 14 residual sherds, and a possible shell tool. ST 9 contained 60 artifacts which were collected from Levels 1-5. Historic artifacts were limited to Levels 1 and 2 and included olive green and aqua glass, coarse and refined earthenware, pearlware, stoneware, Banded Annularware, a pipe stem fragment, lead shot, and cut nails. Native American artifacts were collected from Levels 1-5 and included a coastal plain chert lithic, a Savannah/Irene check stamped sherd, an Irene stamped sherd, an incised sand tempered sherd, and five residual sherds. Additionally, a large flat-bottomed pit was identified in the profile of ST 9 extending from approximately 35 cmbs to 80 cmbs. ST 95 only contained historic artifacts and all came from Levels 1 and 2. A total of 39 artifacts were recovered plus 167 fragments of brick. Artifacts included aqua and olive green glass, Annularware, a cut nail, a clay pipe fragment with a makers mark from 1830-1861, and refined earthenware (Ritchison et al. 2018; Roberts Thompson 2020).

In shovel tests 25-28, 36, 52, 80, 88, 96, and 100 historic and Native American artifacts were mixed throughout suggesting that Native American deposits in the area might have been disturbed. However, features were present in ST 25 and ST 36. A small conical pit was visible in the profile of ST 25. The pit ran from 20-43 cmbs and is suspected to be historic in origin. A total of 87 artifacts were collected from Levels 1 and 2. Only charcoal was recovered from Level 3. The artifact assemblage was dominated by historic artifacts including olive green bottle glass, a pipe

stem fragment, pearlware, Annularware, refined earthenware, salt-glazed stoneware, and cut nails. Native American artifacts were limited to two Irene Stamped sherds and 17 residual sherds. Shovel Test 36 contained a brick and tabby feature on its surface. The shovel test was excavated to a depth of 25 cmbs to expose the brick and tabby feature. A total of 124 historic artifacts plus 348 fragments of tabby were collected. Artifacts included aqua, amber, olive green, and clear glass, two milk glass buttons, Delftware, refined and coarse earthenware, porcelain, lead, cut nails, oyster, periwinkle, and *Mercenaria* shells. Based on the artifact catalog, Native American and historic artifacts were mixed within Levels 1 and 2 of shovel tests 52, 88, 96, and 100. However, there is no information about deeper levels, so the integrity of layers below Level 2 is unknown (Ritchison et al. 2018; Roberts Thompson 2020).

In addition to the shovel tests discussed above, seven test units excavated by UGA fall within the proposed living shoreline (A1, A2, A3, B1, B3, D1, and E2). The units were excavated in 10-centimeter levels. Test Pits A1, A2, and A3 were grouped in the south end of the site immediately along the bluff. All three test pits contained historic and Native American artifacts in association with one another, but features were present below Level 3. Features included a historic pit and five post holes or post molds in Test Unit A1, two undated pits and a post mold in A2, and one pit in A3.

B1 and B3 measured 1x2 meters and were situated north of the boat dock to investigate a slight topographic rise, where GPR had shown anomalies and it was hypothesized a burial mound might exist. Test Unit B1 was fully excavated, but B3 could not be excavated because the soil was too soft. Although excavation of B1 did not reveal evidence of a burial mound, it did contain intact Native American layers. Test Unit B1 was excavated in six 10-centimeter levels and contained 762 artifacts, including human bone. Historic artifacts were only found in the top three levels, suggesting that Native American layers were undisturbed below 30cmbs. Two pit features and one indeterminate feature were identified, all within Level 3 or 4.

Test Unit D1 was placed in the central portion of the shore near historic brick and mortar fragments. It was excavated in arbitrary levels and 291 artifacts were collected. All artifacts were recovered within the plow zone, so excavation ceased approximately 45 cmbs (Ritchison et al. 2018). A brick feature was uncovered and left pedestaled in Level 1. This feature is potentially related to historic tenant farming or a house located on the site in 1975. Test Unit E-2 was excavated next to STP 70 to investigate large pieces of tabby found in the shovel test. All artifacts were located in the plow zone, but several posthole features and two privy features were uncovered in Level 3 and below (Roberts Thompson 2020).

Some features exposed in the creek bank profile were identified as collection surfaces. They were profiled and partially or completely excavated. CS-3 was located in the bluff edge west of Test Unit B-3. It contained two features, one of which was presumed to be a burial feature because of the presence of human bones. Excavation indicated that the feature was not intact and had been disturbed by tree roots and past plowing (Ritchison et al. 2018).

Finally, a series of machine-stripped excavation blocks were placed along the access road on the western bank of Newell Creek. Eight blocks were stripped and two of these fall within the proposed living shoreline (C6 and C7). Stripping block C-6 revealed 5.5m² of area after the plow zone was removed. Three features, all Native American, were revealed. Feature 1 was a Native American feature of unknown utility. Its upper portions had been disturbed by historic activity, but lower portions included unbroken shells. Two St. Simons Plain sherds, brick fragments, and bone were also collected from this feature. Features 2 and 3 were both concentrations of Late Archaic pot sherds, but neither was associated with a distinct feature fill. The sherds in Feature 3 were St.

Simons Plain. Stripping Block C-7 exposed 8.3m² of land. Eight features of cultural origin were revealed. All features were historic in nature including a fire pit, a disposal pit, and post molds (Ritchison et al. 2018).

Excavation of Test Unit 1 by New South Associates in 2017 was also located within the proposed living shoreline north of the dock. Features were identified during the fieldwork and dates were assigned based on artifact association. Feature 1 was a small oval pit likely Native American in date. Feature 2 is a human burial found in the base of Feature 3. Both features likely date to the Late Woodland – Early Mississippian. Feature 4 is a possible burial feature. It was not fully excavated and future mitigation was recommended (Brannan et al. 2018).

The shoreline has also been subjected to GPR first by Elliott and later by UGA. Elliott's work in Blocks A, B, and D and UGA's Grid 4 cover parts of the proposed living shoreline area (see Figure 5). As part of the work he conducted in 2008, Elliott carried out a GPR survey along the bluff edge to examine areas that were in danger of bank erosion. Blocks A and D from Elliott's GPR survey are combined and presented in two images, one illustrating anomalies less than 1 meter below the surface and the other at greater than 1 meter below the surface (see Figure 6) Block B falls fully within Block A and was collected using a more powerful 800 mHz antenna. The results are depicted in four images representing upper, intermediate, and lower levels of the block (see Figure 19 (Elliott 2009) in Appendix II). The GPR results from the three blocks show that anomalies in the upper layers occur at a greater frequency south of the dock, whereas at lower levels they occur more frequently north of the dock. Elliott believes this suggests that historic activity was concentrated in the southern part of the site and Native American occupations were concentrated in the northern part. Elliott assigned a research priority, five being the highest, to each GPR anomaly based on its significance and its distance from the eroding bluff. Using these criteria, Elliott assigned category five to 31 features within Blocks A, B, and D and recommended they be given immediate attention for their proper management (See Table 2 (Elliott 2009) in Appendix II).

The GPR survey in Grid 4 by UGA was conducted to evaluate the potential for burial remains in the area (see Figure 7). The results of the survey identified nine anomalies that were considered possible burial pits (see Figures 2.3 (Ritchison et al. 2018) in Appendix II). Excavation within Grid 4 of Test Unit B1 (discussed above) confirmed the presence of human bone and the potential for intact Native American deposits.

Summary of 9CH155

The archaeological deposits found at 9CH155 represent approximately 4,000 years of nearly-continuous occupation of the site, from the Late Archaic period through the 19th and into the 20th century. The NRHP-listed site covers an area nearly 17 acres in size, extending 1,350 feet north-south and 990 feet east-west (Elliott 2009). The site consists of an approximately 25-centimeter-thick plow zone of sand in which artifacts from all occupations are mixed together, overlying deep sands containing artifacts to at least one meter in depth. Numerous cultural features from the various site occupations have been recorded through excavation and the inspection of the continually-eroding creek bank. Both historic and Native American era features have been recorded at the site, including postholes, pits of various sizes, and Native American human burials. The site is rapidly eroding into Newell Creek due to the hydrological forces of the creek and tidal fluctuation. In DePratter's 1974 report on the site, he relays that Eleanor Torrey West, the only resident on the island at the time of the excavations who had mapped the location of archaeological sites on the island, told him that approximately 100 feet of the site had fallen into

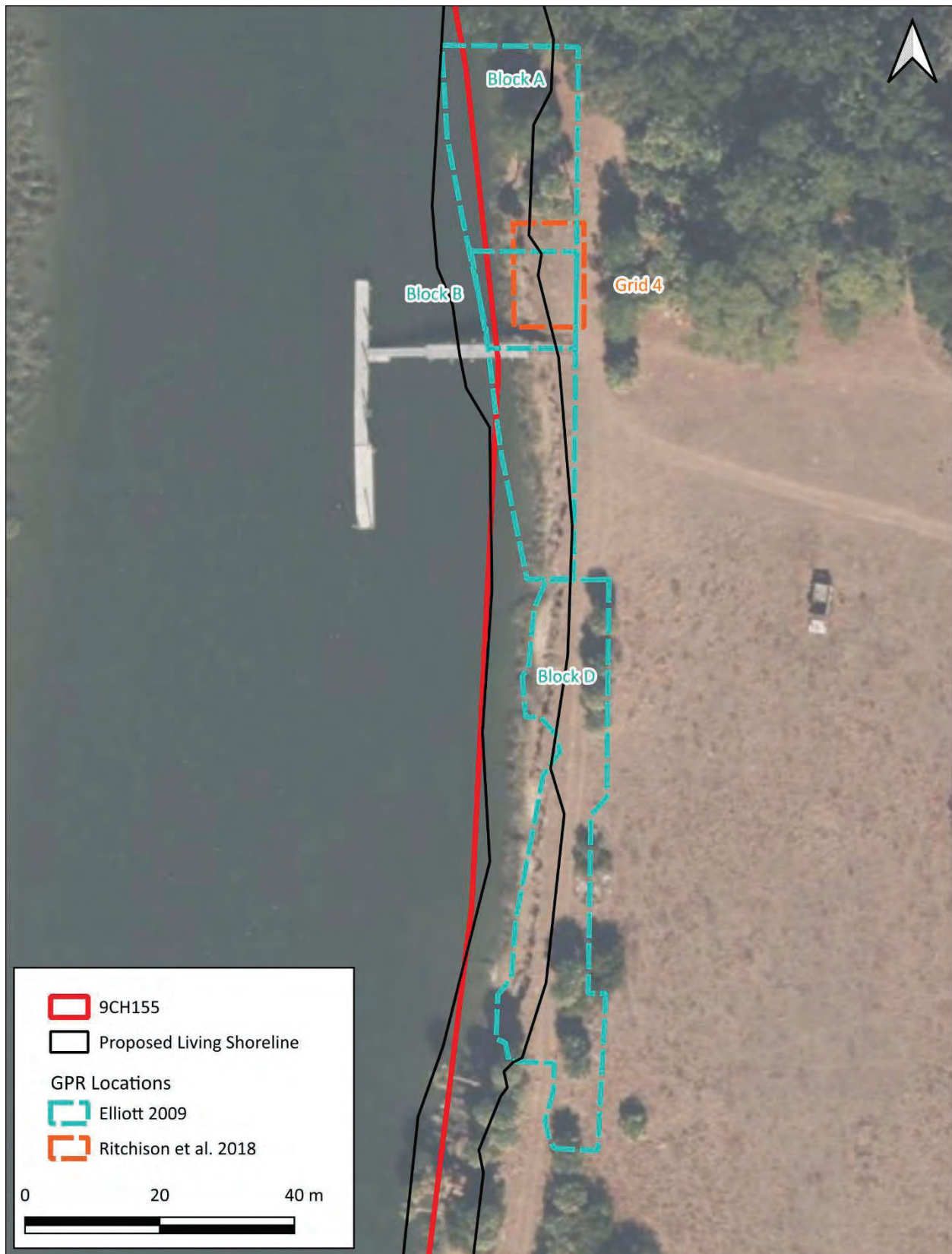


Figure 5. Approximate location of GPR survey blocks. (Basemap: Bing Satellite 2024)



Figure 6. GPR Blocks A, B, and D showing Research Priority 5 anomalies. (Basemaps: Figures 20 and 21, Elliott 2009)

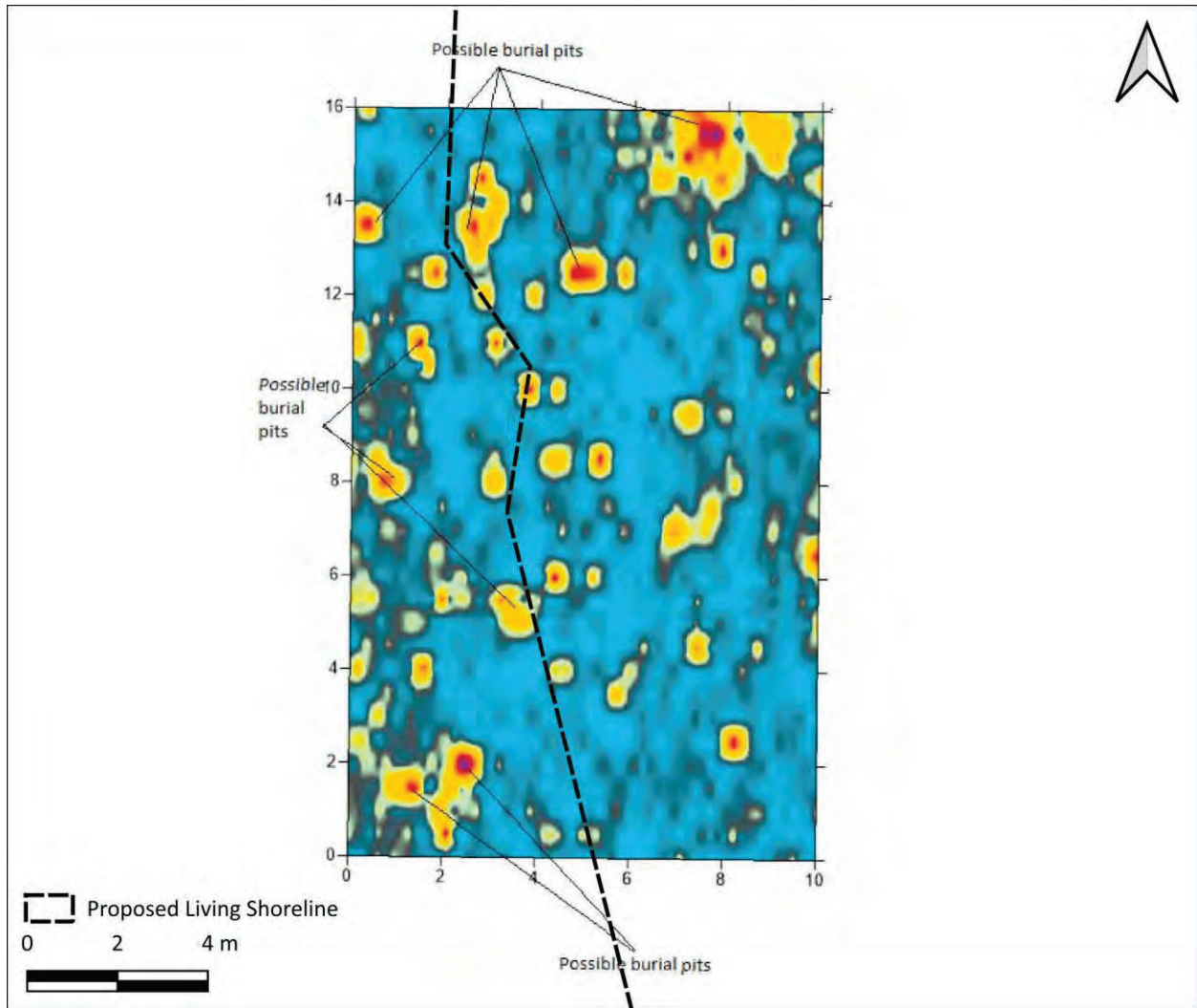


Figure 7. Slice 3 from GPR Grid 4, showing possible burial pits (Basemap: Figure 2.4 from Ritchison et al. 2018).

the creek since she first observed the site in the late 1920s. Since that time, the erosion has continued, with an average of 60 centimeters per year lost; all archaeologists and researchers who have conducted work at the site have emphasized the critical importance of stabilizing the bank and mitigating the loss of its significant deposits, which include human burials (Brannan et al. 2018; DePratter 1974; Elliott 2009, 2010; Honerkamp 2011b, 2013; Office of the State Archaeologist 2002, 2003; Ritchison 2015; Ritchison et al. 2018; Roberts Thompson 2020; Robinson et al. 2010).

Assessment of Effects

Proposed Living Shoreline Plans

The design plans cover 1,225 feet of erosional bank (see Appendix A). They call for adding fill to the top of the bank and "packing" the bank with additional sediment to create the intended slopes while not disturbing the cultural resources. The fill material will be from Ossabaw Island as specified by GDNr. At the top of the slope a 12" diameter coir log, stabilized by stakes, will run the length of the bank. Stakes will not be driven in the area where burials have been identified in

the past. Upland vegetation will be planted along the west side of the coir log. Light-duty and heavy-duty vegetated erosion control mats will be used to cover the fill from the top of the bank to elevation 5. These mats will be planted with native grass seed and high marsh plantings. From elevation 5 to the toe of the slope articulated concrete blocks (Flex-a-mat) will cover the fill. Finally, broken concrete or rip rap will be used as toe protection. All treatments will extend the entire bank. The existing grade is irregular and will be matched at top and bottom. Maximum cut or fill slopes shall be 1.5:1, excepting transition areas at the end of the project.

Existing vegetation within the living shoreline footprint will be removed using hand tools to loosen the roots and rhizomes. They will then be stored in small pools located upland to await being planted after construction. The maximum size of the area to be stripped can be no larger than what can be stabilized in one day.

All debris, vegetation which has been removed, lumber, concrete, and waste from demolition which is not to be reused shall be removed from the site and properly discarded. Disturbance of uplands adjacent to the bank work will be kept to a minimum to protect cultural resources.

Equipment and materials will be delivered to the site on a barge via the boat ramp on the south side of the project area, an area that is currently used by DNR to offload materials and equipment. Upland staging areas and stockpile areas for material and equipment will be surrounded by a silt fence. Their location will be determined with the contractor prior to starting work.

Evaluation of Effects

Based on the available information, the construction of the proposed living shoreline could have an adverse effect upon the NRHP-listed archaeological deposits at 9CH155. Cultural features from the long history of site use and occupation, including Native American human burials, are known to be present below the plow zone and anomalies appear in the GPR data within and immediately around the proposed living shoreline. However, construction of the living shoreline involves ground disturbance that is largely limited to the plow zone and therefore will not adversely impact intact deposits of 9CH155. Additionally, the project will help to both stabilize the rapidly eroding site and prevent looting of the site from the shoreline. That said, there are some aspects of construction that could have adverse effects on features eroding from the bluff and shallow historic features. These aspects and other components of the proposed living shoreline project are discussed below.

- Using hand tools to remove existing vegetation from the proposed living shoreline area will disturb the ground on the eroding bluff and could have an adverse effect on archaeological deposits situated below existing vegetation.
 - Adding fill to 1,225 feet of erosional bank and “packing” the bank with additional sediment to create the intended slopes will have no effect on the intact deposits of the site.
 - The placement of vegetated erosion control mats and articulated concrete blocks on the filled bank and rip rap along the toe of the slope will have no effect upon intact deposits of the site.
 - The stabilization of the coir log at the top of the bank involves driving stakes into the ground, an action that will impact six inches around each stake. This action will impact
-

the site within the plow zone and could have adverse effects on intact shallow historic features.

- Vegetation will be planted into fill on the west side of the coir log and on the slope covered by erosion control mats. This action will have no effect upon intact deposits of the site.
- The installation of the silt fence around stockpiled vegetation and materials will involve stakes being driven into the ground, an action that will impact six inches around each stake. This action will impact the site within the plow zone and could have adverse effects on intact shallow historic features.
- The delivery of equipment and materials by barge to the boat ramp on the south side of the project area will have no impact on the site.

Recommendations

Overall, the construction of the living shoreline will serve to stabilize and protect the site. There is no impact associated with most of the construction activities. There are two ground disturbing actions that have the potential to cause adverse effects. Removal of vegetation from the bluff edge could disturb exposed features and driving stakes into the ground can cause adverse effects to shallow historic features.

As documented during previous surveys and excavations, there are historic and Native American features, including human burials, visible in the bluff. When completed the living shoreline project will help preserve these features, but during construction the removal of vegetation from the bluff could damage them. If vegetation must be removed, it is recommended that any features under the vegetation be mitigated, with one or more Archaeologists present at the time of vegetation removal to record any impacted features.

Previous archaeological investigations have demonstrated that much of the plow zone is disturbed but some shallow historic features have been identified such as the brick feature found in Test Unit D1 during excavations by UGA (see Figure 4.23 (Ritchison et al. 2018) in Appendix II). It is recommended that prior to placing the stakes for stabilization of the coir logs at the top of the bank and when erecting a silt fence around stockpiled vegetation or materials, each stake location is probed, with a small-diameter probe such as a pin flag, to ascertain whether a possible historic surface or impassible feature is located within the plow zone. If a feature is identified, the proposed stake location can be adjusted so as not to impact the feature.

Human remains have been documented eroding from the bluff north of the dock within the proposed living shoreline. If human remains are encountered in the area of impact, work should cease immediately, and the permit applicant should consult further with the Savannah District of the U.S. Army Corps of Engineers and the State Archaeologist. All methods, including reporting, should follow the *Georgia Standards and Guidelines for Archaeological Investigations* (Georgia Council of Professional Archaeologists 2019).

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Appendix II

Referenced Figures and Tables from Cited Reports

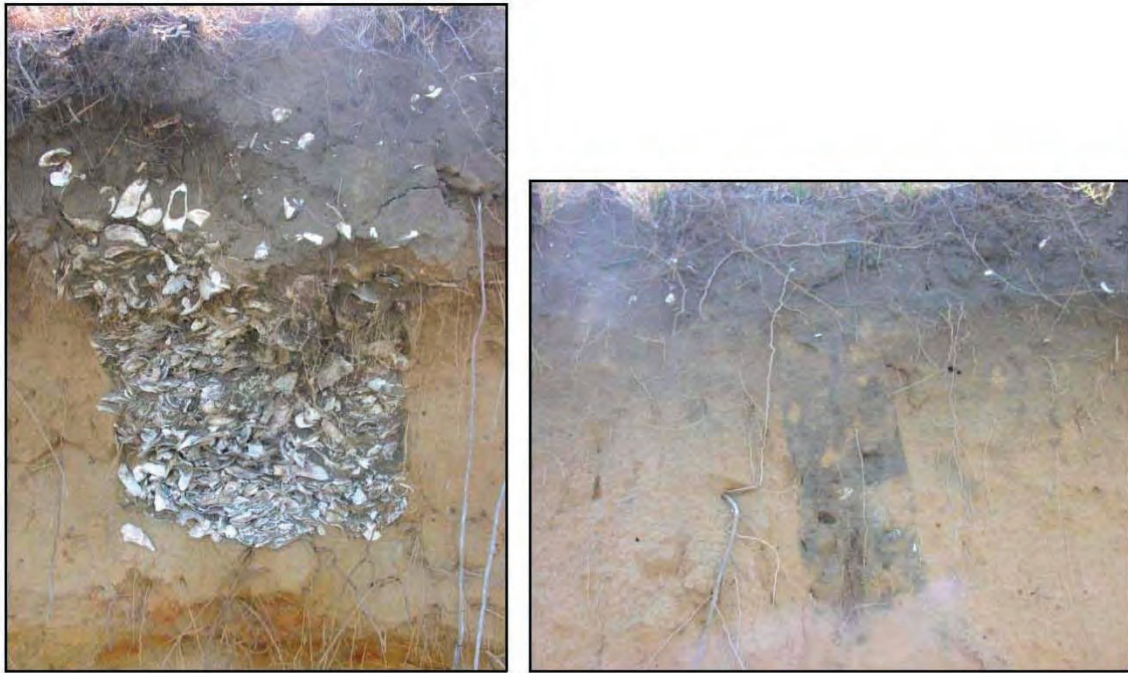


Figure 2. Shell Filled Historic Pit (left) and Historic Posthole (right).

(Honerkamp 2011a)



Figure 6. Feature 7 Posthole and Feature 8 Posthole (with bottles and copper lid).



Figure 7. Feature 9 Posthole/Postmold and Feature 10 Pit.

(Honerkamp 2013)

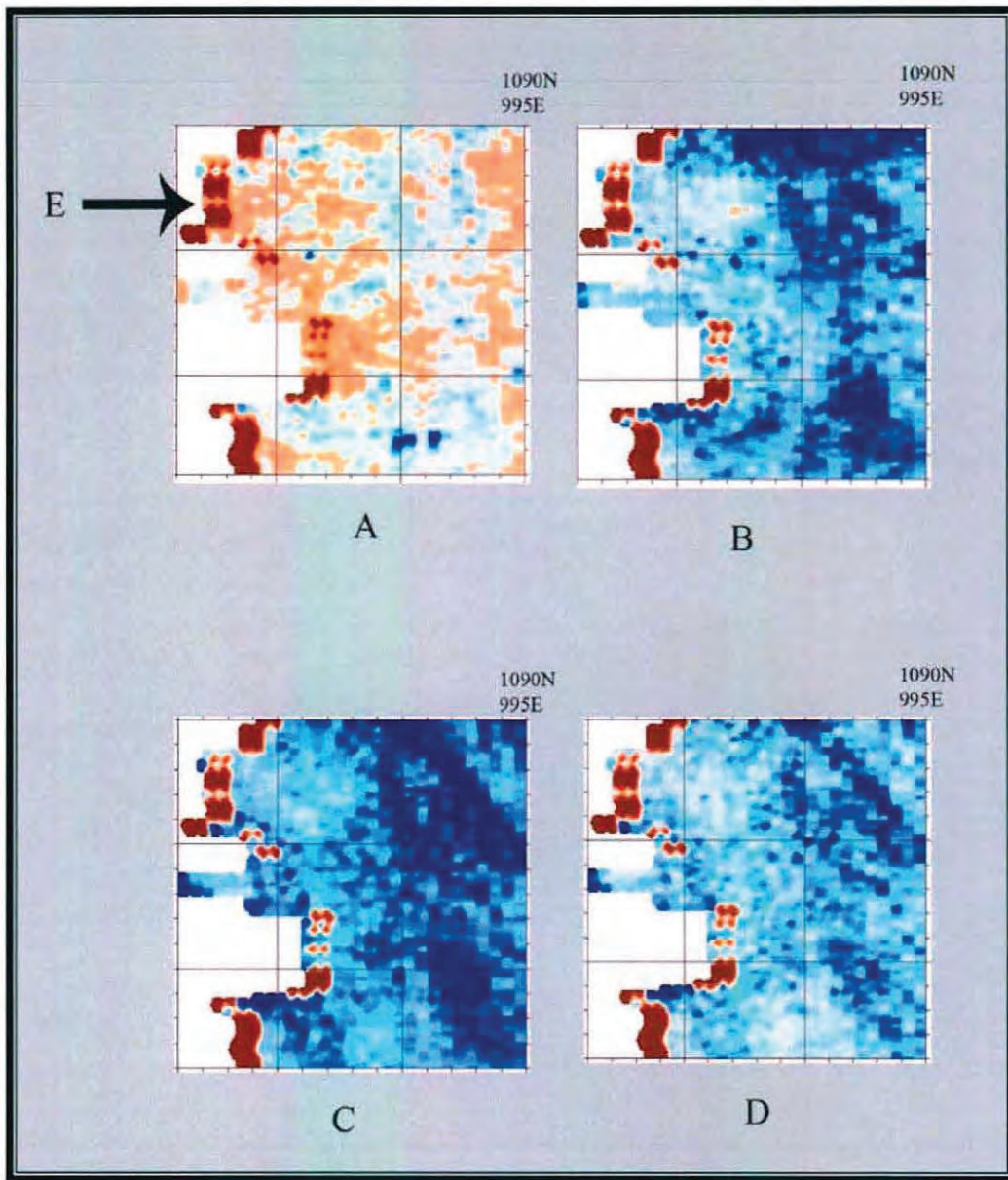


Figure 19. Four Aerial Views of GPR Block B, 9CH155.

(Elliott 2009)

Table 2. Priority 5 GPR Anomalies, 9CH155.

Anomaly	North	East	Block	Strata	Comments
54	1119	985	A	Lower	Possible feature cluster within possible structure
55	1118	982	A	Lower	Possible feature cluster within possible structure
38	1117	983	A	Lower	Possible feature
56	1117	986	A	Lower	Possible feature cluster within possible structure
41	1113	983	A	Lower	Possible feature within arc, possible structure
47	1107	982	A	Lower	Possible feature
5	1105	978	A	Upper	Possible feature
49	1104	987	A	Lower	Possible feature
7	1101	980	A	Upper	Possible feature
51	1101	980	A	Lower	Possible feature, same as 7 in upper
8	1089	984	A	Upper	Possible feature
73	1088	984	B	Upper	Possible feature
74	1085	986	B	Upper	Possible feature
76	1080	989	B	Upper	Possible feature
81	1080	995	B	Upper	Possible feature
14	1064	990	A	Upper	Possible feature
18	1041	998	D	Upper	Possible feature
20	1033	994	D	Upper	Possible feature
82	1032	992	D	Upper	Possible feature
25	1027	998	D	Upper	Possible feature
24	1025	993	D	Upper	Possible feature
27	1023	991	D	Upper	Possible feature
26	1022	998	D	Upper	Possible feature
29	1010	990	D	Upper	Possible feature
83	1005	991	D	Upper	Possible feature
61	999	990	D	Lower	Possible feature
65	991	990	D	Lower	Possible feature
67	988	988	D	Lower	Possible feature
84	982	985	D	Lower	Possible feature, historic well or privy
32	978	993	D	Upper	Possible feature
70	977	994	D	Lower	Possible feature

(Elliott 2009)

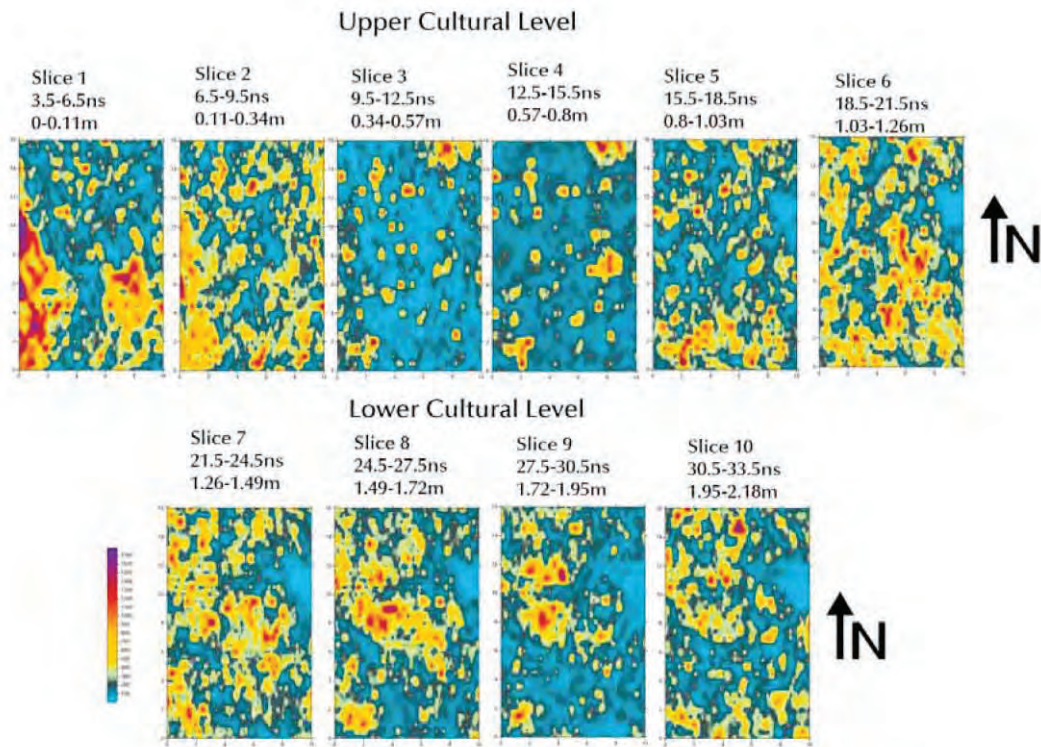


Figure 2.3 Amplitude Time Slice Map of Grid 4 in the Burial Area of South End

(Ritchison et al. 2018)



Figure 4.23 Unit D-1 Closing Photograph

(Ritchison et al. 2018)

Appendix III
9CH155 State Site Form

GEORGIA ARCHAEOLOGICAL SITE FORM

1990

Official Site Number: 9CH155 (REVISIT)

Revisit

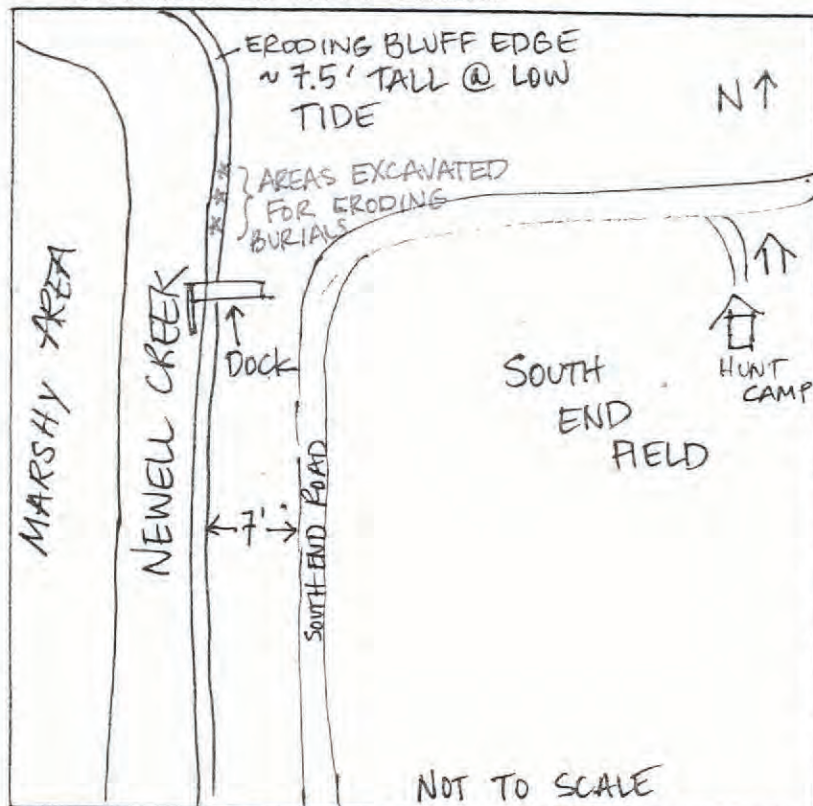
Official State

Site No. 9CH155

Institutional Site Number: _____ Site Name: SOUTH END
 County: CHATHAM Map Name: OAK LEVEL USGS or USNOAA
 UTM Zone: 17 UTM East: 486400 986246 UTM North: 3510100 3514041
 Owner: SANDY WEST/DNR Address: _____
 Site Length: 190 meters Width: 300 meters Elevation: + - _____ meters
 Orientation: 1. N-S 2. E-W 3. NE-SW 4. NW-SE 5. Round 6. Unknown
 Kind of Investigation: 1. Survey 2. Testing 3. Excavation 4. Documentary
 5. Hearsay 6. Unknown 7. Amateur
 Standing Architecture: 1. Present 2. Absent
 Site Nature: 1. Plowzone 2. Subsurface 3. Both 4. Only Surface Known
 5. Unknown 6. Underwater
 Midden: 1. Present 2. Absent 3. Unknown Features: 1. Present 2. Absent 3. Unknown
 Percent Disturbance: 1. None 2. Greater than 50 3. Less than 50 4. Unknown
 Type of Site (Mill, Mound, Quarry, Lithic Scatter, etc.): PREHISTORIC INDIAN CEMETERY
SHELL MIDDEN, ARTIFACT SCATTER,
 Topography (Ridge, Terrace, etc.): _____

Current Vegetation (Woods, Pasture, etc.): OPEN FIELD W/ scattered palm trees

Additional Information: SITE REPORTED BY DePRATTER IN 1978, BUT ORIGINALLY
SURVEYED BY PAT GARROW IN 1972. THIS SITE IS ERODING AT A VERY RAPID
PACE. HPD IS DEVISING A MONITORING PLAN AT THIS TIME. HISTORIC ARTIFACTS
WERE ALSO RECOVERED AT THIS SITE, BUT ALL COMPONENTS HAVE BEEN PREVIOUSLY
REPORTED TO SITE FILES.



SKETCH MAP

(Include sites, roads, streams, landmarks)



OFFICIAL MAP

(Xerox of proper map)

State Site Number: 9CH155 Institutional Site Number: _____

Public Status: 1. National Historic Landmark 2. National Natural Landmark
3. Georgia Register 4. Georgia Historic Trust 5. HABS 6. HAER

National Register Standing: 1. Determined Eligible 2. Recommended Ineligible
3. Recommended Eligible 4. Nominated 5. Listed 6. Unknown 7. Removed
*ENTIRE ISLAND IS LISTED IN NATIONAL REGISTER, THIS SITE IS CONTRIBUTING

National Register Level of Significance: 1. Local 2. State 3. National

Preservation State (Select up to Two): 1. Undisturbed 2. Cultivated 3. Eroded
4. Submerged 5. Lake Flooded 6. Vandalized 7. Destroyed 8. Redeposited
9. Graded 10. Razed

Preservation Prospects: 1. Safe 2. Endangered by: river bank erosion
Georgia Archaeological Site File 3. Unknown Georgia Archaeological Site File

Report No. 2181 RECORD OF INVESTIGATIONS Report No. 5063, 7612, 7613

Supervisor: DAVE CRASS Affiliation: HPD/DNR Date: 8/14/01

Report Title: OSSABAW ISLAND SKELETAL RECOVERY

Other Reports: _____

Artifacts Collected: DEPTFORD LINEAR CHECK STAMP, FIBER TEMPERED PUNCTATE,
savannah fine cord-marked, Irene burnished, savannah bold check stamp,
Wilmington brushed, Altamaha cross simple-stamp, savannah comp stamp,
quartz hammerstone, polished mammal bone pin, coastal plain tool

Location of Collections: will be curated @ West Ga. College

Location of Field Notes: 156 Trinity Ave. Atlanta, GA

Private Collections: _____

Name: _____ Address: _____

CULTURAL AFFINITY

Cultural Periods: LATE ARCHAIC, MID WOODLAND, LATE WOODLAND, MID mississippian
LATE MISSISSIPPIAN, HISTORIC INDIAN

Phases: ST. SIMONS, DEPTFORD, WILMINGTON, ST.CATHERINES, SAVANNAH,
ALTAMAHA, IRENE

FORM PREPARATION AND REVISION

Date	Name	Institutional Affiliation
<u>10/31/01</u>	<u>JENN BEDELL</u>	<u>DNR/HPD</u>
_____	_____	_____
_____	_____	_____

D

GEORGIA ARCHAEOLOGICAL SITE FORM

1990

Official Site Number: 9CH155 (REVISIT)

Official State

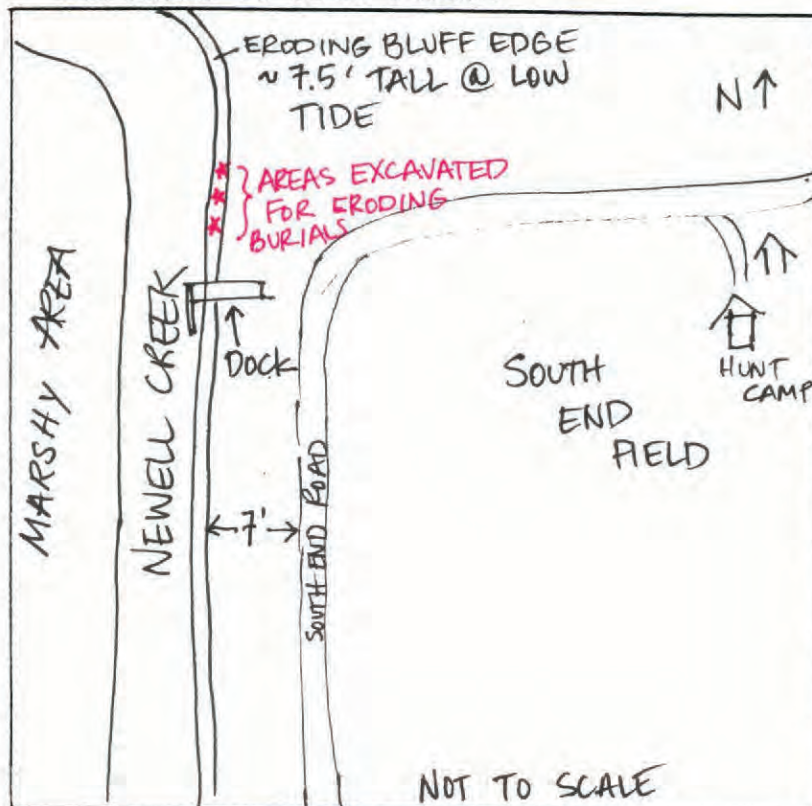
Site No. 9CH155

Revisit

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 5. Hearsay 6. Unknown 7. Amateur
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 Site Nature: 1. Plowzone 2. Subsurface 3. Both 4. Only Surface Known
 5. Unknown 6. Underwater
 Midden: 1. Present 2. Absent 3. Unknown Features: 1. Present 2. Absent 3. Unknown
 Percent Disturbance: 1. None 2. Greater than 50 3. Less than 50 4. Unknown
 Type of Site (Mill, Mound, Quarry, Lithic Scatter, etc.): PREHISTORIC INDIAN CEMETERY
 SHELL MIDDEN, ARTIFACT SCATTER,
 Topography (Ridge, Terrace, etc.): _____

Current Vegetation (Woods, Pasture, etc.): OPEN FIELD W/ scattered palm trees
 ^ grassy

Additional Information: SITE REPORTED BY DePRATTER IN 1978, BUT ORIGINALLY
 SURVEYED BY PAT GARROW IN 1972. THIS SITE IS ERODING AT A VERY RAPID
 PACE. HPD IS DEVISING A MONITORING PLAN AT THIS TIME. HISTORIC ARTIFACTS
 WERE ALSO RECOVERED AT THIS SITE, BUT ALL COMPONENTS HAVE BEEN PREVIOUSLY
 REPORTED TO SITE FILES.



SKETCH MAP

(Include sites, roads, streams, landmarks)



OFFICIAL MAP

(Xerox of proper map)

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3. Georgia Register 4. Georgia Historic Trust 5. HABS 6. HAER

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3. Recommended Eligible 4. Nominated 5. Listed 6. Unknown 7. Removed

*ENTIRE ISLAND IS LISTED IN NATIONAL REGISTER, THIS SITE IS CONTRIBUTING

National Register Level of Significance: 1. Local 2. State 3. National

Preservation State (Select up to Two): 1. Undisturbed 2. Cultivated 3. Eroded
4. Submerged 5. Lake Flooded 6. Vandalized 7. Destroyed 8. Redeposited
9. Graded 10. Razed

Preservation Prospects: 1. Safe 2. Endangered by: river bank erosion
3. Unknown

Georgia Archaeological
Site File

RECORD OF INVESTIGATIONS Report No. 5063

Supervisor: DAVE CRASS Affiliation: HPD/DNR Date: 8/14/01
Report Title: OSSABAW ISLAND SKELETAL RECOVERY

Other Reports: _____

Artifacts Collected: DEPTFORD LINEAR CHECK STAMP, FIBER TEMPERED PUNCTATE,
savannah fine cord-marked, Irene burnished, savannah bold check stamp,
Wilmington brushed, Altamaha cross simple-stamp, savannah comp stamp,
quartz hammerstone, polished mammal bone pin, coastal plain tool

Location of Collections: will be curated @ West Ga. College

Location of Field Notes: 156 Trinity Ave. Atlanta, GA

Private Collections: _____

Name: _____ Address: _____

CULTURAL AFFINITY

Cultural Periods: LATE ARCHAIC, MID WOODLAND, LATE WOODLAND, MID mississippian
LATE MISSISSIPPIAN, HISTORIC INDIAN

Phases: ST. SIMONS, DEPTFORD, WILMINGTON, ST.CATHERINES, SAVANNAH,
ALTAMAHA, IRENE

FORM PREPARATION AND REVISION

Date	Name	Institutional Affiliation
<u>10/31/01</u>	<u>JENN BEDELL</u>	<u>DNR/HPD</u>
_____	_____	_____
_____	_____	_____

Official State

Site No.

9CH-155

GEORGIA ARCHAEOLOGICAL SURVEY

OSSABAW

State Site No.* 9-CH-155

Site Name SOUTH END FIELD

Instit. Site No. 9-CH-155

Site Photos

Location (County CHATHAM

Lat.

Long.

UTM References

A 1 7

4 8 6 4 0 8

3 5 1 4 0 0 0

B

ZONE

EASTING

NORTHING

ZONE

EASTING

NORTHING

C

D

SIZE: 600' (182m) X 1000' (303m)

Owner STATE OF GEORGIA

Address

Description (Acreage; Site Elevation, above sea level 5' 10'; Soil Type[s]; Present

Condition and Use; Intrusions; Topography; Vegetation; Erosion, Etc.) SIZE: 303 m. N-S x 200 m. E-W

This

is

Ossabaw's

large site located in South End Field adjacent to Newell Creek. Although scattered shell is present over an area six hundred by one thousand feet, the exact limits of the site are hard to determine. A shell midden six inches to one foot thick appears along the entire one thousand feet of eroding bluff on the western edge of the site. Part of this may be due to long years of plowing which may have spread the shell over an area larger than the site originally occupied.

Pits and postmolds containing both prehistoric and historic material are present in the eroding bluff profile. Erosion is a problem, since almost twenty feet of the site along the entire western edge have eroded away in only two years. New features are constantly appearing in the profile, and then, within only a few weeks, they are washed into the creek.

There are no visible midden heaps or mounds present in the field, but if any were ever present, they have long since been destroyed by plowing.

Since erosion is so rapid at this site, the bluff should be checked periodically and any eroding features salvaged. This could be carried out by perhaps monthly visits to the site of three to four days.

A frame house, built since 1930 is located on the site near the creek bank.							

**Show relationship to nearby sites, access roads, streams, and major landmarks, and indicate scale.

*Complete all categories even if unknown (U/K), unavailable (U/A), incomplete (I), see attachment (S/A); explain if necessary.

State Site No. 9-CH-155

Inst. Site No. 9-CH-155

Georgia Archaeological

Site File

Report No. 5063

RECORD OF MATERIALS

05519
ACC.NO./Storage 22591
22407-8, 21898
25060

Collected by Survey

Pat Garrow excavated several historic period trash pits along the bluff in 1972 and 1973, and tested several other portions of the site.

ELEANOR T. West has a map showing the location of Garrow's excavations and also the material he recovered. Material from his pit excavations was mainly from the first half of the 19th Century.

Prehistoric period material was not abundant, but the following was found by Garrow in 1973:

- 9 Deptford Simple Stamped
- 6 Brewton Hill Complicated Stamped
- 1 Wilmington-St. Catherines Cord-marked
- 9 Savannah Check Stamped (with diatoms)
- 32 Savannah Fine Cord-marked
- 44 Sand-tempered Plain
- 4 Plain (with diatoms)
- Assorted 19th Century historic material
- 1 Spanish olive jar fragment

The 1974 ^{DePratter} Survey recovered only six sherds; ~~as follows:~~

- 1 Deptford Check Stamped
2 Irene Complicated Stamped
3 Undiagnostic Sand-tempered
1 Flint flake
Assorted 19th Century historic material

CULTURAL AFFINITY

Preliminary Classification EARLY WOODLAND: DEPTFORD SIMPLE STAMPED; MIDDLE WOODLAND: BREWTON HILL COMPLICATED STAMPED; LATE WOODLAND: WILMINGTON-ST. CATHERINES; MIDDLE MISSISSIPPIAN: SAVANNAH; LATE MISSISSIPPIAN: IRENE; HISTORICAL: SPANISH OLIVE
Subsequent Classification Jar, then 19th century historical material

NATIONAL REGISTER OF HISTORIC PLACES

Eligible for Nomination (circle appropriate response): Yes No Nominated Registered
Justification _____

Cultural Significance (circle appropriate evaluation): Local State National
Justification

FORM COMPLETION/UPDATE

Punch Card Submitted
(Circle Response)

[illegible]

Yes	No
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No

Appendix IV
Resume of Principal Investigator

SCOT J. KEITH

Registered Professional Archaeologist

Southern Research, Historic Preservation Consultants, Inc.

Education

Geographic Information Science (GIS) Certificate, 2007, University of West Florida, Pensacola
M.S., 1998, Anthropology, University of Southern Mississippi, Hattiesburg
B.A., 1992, Anthropology, University of Georgia, Athens

Professional Experience

2021 - Present	Senior Archaeologist, Southern Research, Pine Mountain, Georgia
2010 - 2021	Senior Archaeologist/Assistant Director of Archaeology, New South Associates, Stone Mountain, Georgia
2008 - 2010	Senior Archaeologist, Terracon, Duluth, Georgia
1999 - 2008	Senior Archaeologist, Southern Research, Waverly Hall, Georgia
1997 - 1999	Senior Archaeologist, R.S. Webb & Associates, Holly Springs, Georgia
1995 - 1997	Graduate Student Archaeological Intern, DeSoto National Forest, Mississippi
1993 - 1995	Archaeological Technician, various Cultural Resource Management firms
1993	Curation Assistant, University of Georgia Archaeology Laboratory
1991	Georgia Archaeological Site File Manager, University of Georgia Archaeology Laboratory

Scot Keith serves as Senior Archaeologist, providing technical and managerial support at all levels of Southern Research. Having spent the bulk of his 30 years in cultural resource management on projects within Georgia, he has also worked in Alabama, South Carolina, North Carolina, Florida, Tennessee, Mississippi, Texas, Kansas, Oklahoma, Arkansas, West Virginia, and Michigan. He has extensive experience designing and managing all phases and sizes of archaeological investigations for a wide range of clients and has worked on a wide variety of site types and contexts. Scot's responsibilities include consultation with agencies and SHPO; scopes of work, budgets, and proposals; field and laboratory methodologies; supervising and conducting fieldwork; artifact and data analysis; NRHP evaluations; archival research; technical reporting and review; GIS operations and mapping; quality control/assurance; mentoring of younger archaeologists; and management of projects and staff. He has directed over 200 archaeological investigations, authored or co-authored approximately 150 technical reports, and published journal articles and book chapters. In addition, Mr. Keith regularly participates in public archaeology outreach efforts, including writing both popular and technical journal articles, book chapters, and educational website articles, and gives talks at local, state, and regional archaeological conferences and societies.

