



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

DIVISION OF WATER  
RICHARDSON & ROBBINS BUILDING  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

**WETLANDS &  
WATERWAYS SECTION**

**PHONE  
(302) 739-9943**

September 11, 2024

Todd A. Schaible, Chief, Regulatory Branch  
United States Army Corps of Engineers-Philadelphia District  
100 E. Penn Square East  
Philadelphia, PA 19107

**RE: 401 Water Quality Certification Request: Delaware Department of Natural Resources and  
Environmental Control (DNREC)-Division of Watershed Stewardship**

Dear Mr. Schaible,

On September 5, 2024, the Delaware Department of Natural Resources and Environmental Control (DNREC) received the attached Water Quality Certification (WQC) request from the DNREC-Division of Watershed Stewardship regarding the beach renourishment on the north side of Indian River Inlet in Sussex County, Delaware.

The WQC rule requires the Certifying Agency (DNREC-Division of Water) to inform the United States Army Corps of Engineers, Philadelphia District (USACE) of the date the request was received. DNREC received the Water Quality Certification Request on September 5, 2024, and deemed it administratively complete on September 11, 2024.

Attached to this email is a copy of the 401 Water Quality Certification Request and associated documentation as required by 40 CFR Section 121.5.

If you should have any questions, please contact Matthew Jones at (302) 739-9385 or via email at [matthew.jones@delaware.gov](mailto:matthew.jones@delaware.gov)

Sincerely,

*Matthew Jones*

Matthew R. Jones, Section Manager  
DNREC-Wetlands and Waterways Section



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

DIVISION OF WATERSHED STEWARDSHIP  
ENTERPRISE BUSINESS PARK  
285 BEISER BOULEVARD, SUITE 102  
DOVER, DELAWARE 19904

**SHORELINE AND WATERWAY  
MANAGEMENT SECTION**

PHONE: (302) 608-5500  
FAX: (302) 739-6724

September 4, 2024

Matthew Jones  
DNREC Division of Water  
Wetlands and Waterways Section  
89 Kings Highway  
Dover, Delaware 19901

Re: Request for a 401 Water Quality Certification to Support the Indian River Flood Shoal Dredging and Beneficial Use - Emergency Project

Dear Mr. Jones,

Please accept this request for a Water Quality Certification under Section 401 of the Clean Water Act (CWA) to support the proposed Indian River Flood Shoal Dredging and Beneficial Use - Emergency Project. The Project would involve dredging from three potential borrow sites and the beneficial use of dredged material at the northside Indian River Inlet beach (North Beach), Delaware Seashore State Park, Sussex County, Delaware. All potential borrow sites are within Indian River Inlet and include the Inlet flood shoal, Middle Island Shoal, and Burton Island Shoal. The intention is to perform the geotechnical and chemical evaluations at all three potential borrow sites, and then decide the best path forward for reconstructing North Beach based on the volume and quantity of sand that is determined. Given the imminent risk of failure to critical infrastructure like the Charles W. Cullen Memorial (Inlet) Bridge and Delaware State Route-1 due to severe coastal erosion, this Project was escalated, and an Emergency Waiver of the Subaqueous Lands Act was approved on August 19, 2024.

### **Description and Purpose**

North Beach has a long history of erosion due to the interruption of the northward flow of sand caused by the construction of the inlet jetties. This erosion has made critical infrastructure, such as Delaware State Route-1 (SR-1) and the Charles W. Cullen Memorial (Inlet) Bridge, more vulnerable to storm damages. To mitigate risk and provide a consistent source of sand to North Beach, a sand bypass facility was constructed in 1990 by the U.S. Army Corps of Engineers (USACE) and is operated and maintained by the State of Delaware. The sand bypass system imitates the natural flow of sand from south to north by continuously pumping sand from the southside beach, across the inlet to North Beach. Sand pumping rates are variable and average 100,000 cy of sand per year.

In 2012, Hurricane Sandy eroded hundreds of thousands of cubic yards of sand from North Beach and overwash from the storm surge flooded SR-1 and the approach to the newly constructed Inlet Bridge. Over 500,000 cy of sand was required to rebuild the beach template, which is a far greater volume than the sand bypass system could accommodate. Therefore in 2013 under a coastal emergency action, the USACE dredged the Indian River Inlet flood shoal borrow area and used all dredged material to rebuild the berm and dune system at North Beach.

For several years the annual pumping of the sand bypass system helped mitigate erosion at North Beach and was the primary maintenance activity; however in 2019 the system became inoperable. Since then, DNREC Shoreline and Waterway Management Section has judiciously added sand to North Beach via truck haul which has been ineffective for mitigating risk. In response to the inadequate maintenance, the dune system at North Beach is severely eroded and prone to scour from direct wave energy on a regular high tide. The purpose of the Project is to restore the severely eroded berm and dune system at North Beach using dredged material from three potential sources (Indian River flood shoal, Middle Island Shoal, and/or Burton Island Shoal) to enhance resiliency and protect critical infrastructure from the effects of coastal erosion. The Project includes the following key components:

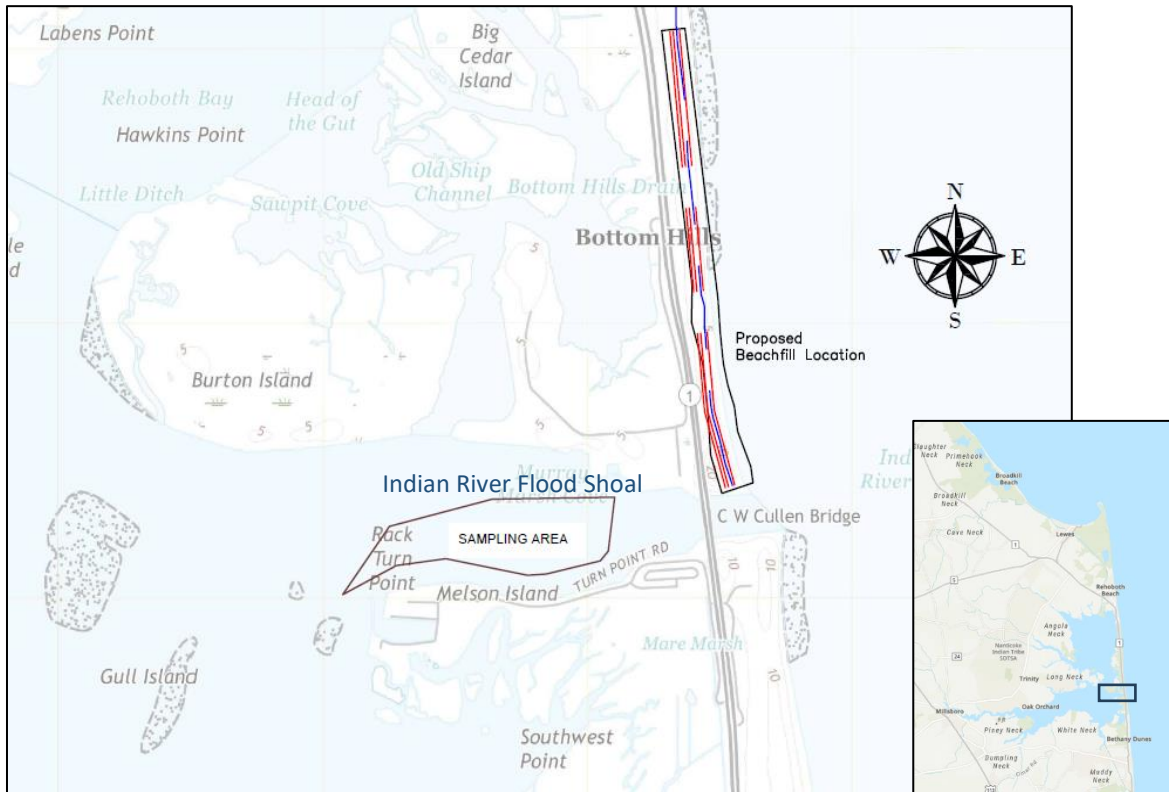
- Dredge up to 550,000 cy of sediment from authorized borrow sites.
- Transport dredged material, via pipeline, to the beneficial use placement site at North Beach.
- Spread and grade dredged material to restore the berm (+9.0 ft NAVD, 100 to 150-ft width) and dune system to an overall elevation of +16.0 ft NAVD and 25-ft wide. Placement will begin at the north jetty and extend northward for approximately 5,200 ft (between 0+00 and 55+0).

### **Sediment Sampling and Water Quality Evaluation**

Anchor QEA, Inc. was contracted to collect sediment samples from all three borrow sites for geotechnical and chemical testing. For the Indian River Flood shoal, five surface grab and six sediment cores to an elevation of -24 ft NAVD will be collected. For Middle Island and Burton Island Shoals, fifteen sediment cores to an elevation of -12 ft NAVD will be collected. Sample locations and laboratory test methods are detailed in the *Modified Sampling and Analysis Plan\_2024.08.30.pdf* provided with the permit application package.

\*Please note, the geotechnical and chemical evaluations of sediment samples will be provided as soon as available. Sample collection is currently scheduled for the week of September 9, 2024. Once laboratory results are received, sediment data will be compared to DNREC risk-based screening criteria to determine if contaminants are at low enough concentrations to pose no risk to the health and safety of humans. If contaminant levels exceed screening level values, additional risk assessment methods will be used to determine whether dredging and beneficial use will have adverse impacts on humans and aquatic life at the Project site.

# Map of Potential Borrow Sites and Placement Location



## Current Conditions and Site Photographs

The current condition of North Beach is such that a minor storm surge or swell event is very likely to breach the dune. This has the potential to flood Delaware State Route-1 (SR-1), an evacuation route, and erode the existing Inlet Bridge. A dune breach occurred most recently on August 17, 2024, that forced the closure of SR-1 for several hours as ocean water, sand and debris flooded the roadway (Photos 1-2).

Severe erosion at North Beach has also exposed hazardous debris from historical roads that had previously washed out (Photo 3). There have been extensive clean-up efforts among DNREC and local volunteers, but as the beach erodes further, additional debris becomes exposed. The debris is now more difficult to remove since the beach elevation has lowered leaving no dry beach above the intertidal zone during high tide (Photo 4). In response, beachgoers are walking and sitting on the dune face and crest, which is an additional stressor. During low tide at North Beach, beachgoers sit in the intertidal zone among the large pieces of marine debris that are now exposed and washing ashore (Photo 5). In addition, swimmers and waders may be unaware of the hazards posed by debris and the currents driven by wave energy from the dune.

Currently, the only means to add sand to attempt to repair North Beach is truck haul sand from inland sources. The volume and rate of sand delivery is inadequate such that sand moved onto the beach gets washed out within one tidal cycle. The beach needs to be rebuilt and requires a large volume of sand that is delivered rapidly; therefore DNREC is seeking emergency authorization to repair North Beach.



Photo 1. August 17, 2024. Aerial view of the dune breach at Delaware Seashore State Park (looking north). The SR-1 northbound lane is closed to vehicles and completely covered in ocean water, sand, and debris.



Photo 2. August 17, 2024. View of the dune breach at Delaware Seashore State Park (looking south). The SR-1 northbound lane is covered in water and sand, forcing a road closure.

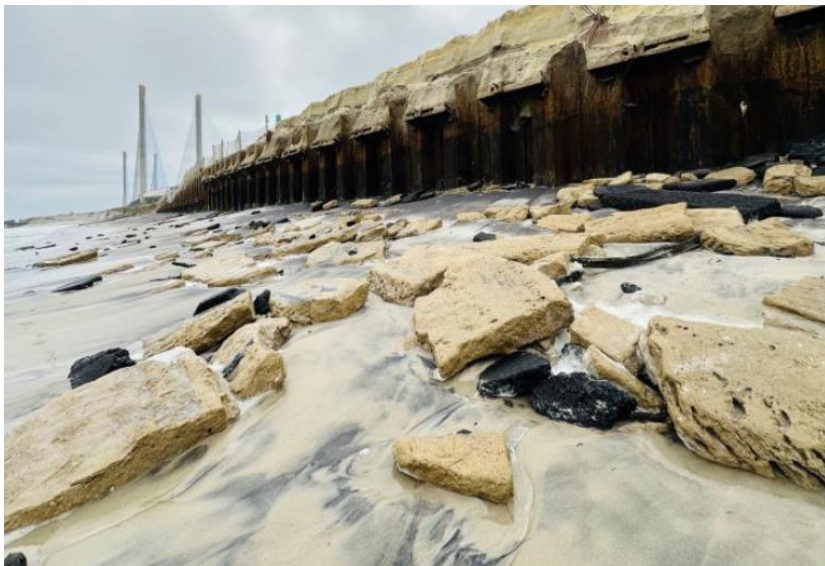


Photo 3. April 2024. View (looking south) of hazardous debris exposed on North Beach due to erosion.



Photo 4. July 26, 2024. *View of North Beach from the Atlantic Ocean during high tide. No observable dry beach above the intertidal zone. Beachgoers sit on the dune face and crest.*



Photo 5. August 2, 2024. *Bird's-eye view of North Beach during low tide. Beachgoers sit in the intertidal zone among large pieces of potentially hazardous debris.*

## Proposed Timeline

The project is planned for October 2024 through February 28, 2025. Dredging during winter months complies with time of year restrictions for migratory species that could be adversely affected by dredging activities, including summer flounder and sand tiger sharks, and limits impacts to when aquatic species are not as active as in other seasons.

## Regulatory Permits and Approvals

Given the emergency conditions, the following approvals have been GRANTED:

- U.S. Army Corps of Engineers, North Atlantic Division
  - Special (Emergency) Permit Processing Procedures (Authorized Aug 23, 2024)
  
- DNREC, Division of Water, Wetlands and Waterways Section
  - Emergency Waiver of the Subaqueous Lands Act (Authorized Aug 19, 2024)
  - Letter of Authorization to conduct sediment sampling (Granted Aug 7, 2024, Amended Aug 30, 2024).

The Water Quality Certification is being requested to support the following PENDING permit approvals:

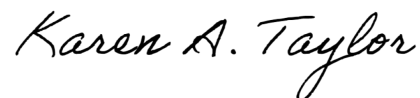
- U.S. Army Corps of Engineers: CWA Section 404 Individual permit for dredging and fill activities
- DNREC Wetlands and Waterways: Section 401 Water Quality Certification
- DNREC Coastal Programs: Coastal Zone Management (CZM) Federal Consistency review

The following documents are included in the 401 Water Quality Application Package for your review:

01 DNREC Wetlands and Subaqueous Lands Section Water Quality Certification Form.pdf  
02 Property Deed.pdf  
03 USACE Emergency Permit Procedures Approval.pdf  
04 Modified Sediment and Analysis Plan\_2024.08.30.pdf  
05 Request for 401 WQ Pre-filing meeting  
06 USACE Special Permit Processing Application Portfolio.pdf

Please feel free to contact me for any addition information or questions. Your time and attention to this critical situation is very much appreciated.

Sincerely,



Karen A Taylor  
Coastal Environmental Scientist IV  
DNREC Shoreline and Waterway Management Section  
901 Pilottown Rd. Lewes, DE 19958  
(302) 855-7302, KarenAnn.Taylor@delaware.gov



# **WETLANDS AND SUBAQUEOUS LANDS SECTION PERMIT APPLICATION FORM**

**For Subaqueous Lands, Wetlands, Marina and  
401 Water Quality Certification Projects**

**State of Delaware  
Department of Natural Resources and Environmental Control  
Division of Water**

**Wetlands and Subaqueous Lands Section**



**APPLICATION FOR APPROVAL OF  
SUBAQUEOUS LANDS, WETLANDS, MARINA  
AND WATER QUALITY CERTIFICATION PROJECTS**

**PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY****Application Instructions:**

1. Complete each section of this basic application and appropriate appendices as thoroughly and accurately as possible. Incomplete or inaccurate applications will be returned.
2. All applications must be accompanied by a scaled plan view and cross-section view plans that show the location and design details for the proposed project. Full construction plans must be submitted for major projects.
3. All applications must have an original signature page and proof of ownership or permitted land use agreement.
4. Submit an original and two (2) additional copies of the application (total of 3) with the appropriate application fee and public notice fee\* (prepared in separate checks) to:

**Department of Natural Resources and Environmental Control  
Wetlands and Subaqueous Lands Section  
89 Kings Highway  
Dover, Delaware 19901**

\*Application and public notice fees are non-refundable regardless of the Permit decision or application status.

5. No construction may begin at the project site before written approval has been received from this office.

**Helpful Information:**

1. Tax Parcel Information:
 

New Castle County	(302) 395-5400
Kent County	(302) 736-2010
Sussex County	(302) 855-7878
2. Recorder of Deeds:
 

New Castle County	(302) 571-7550
Kent County	(302) 744-2314
Sussex County	(302) 855-7785
3. A separate application and/or approval may be required through the Army Corps of Engineers. Applicants are strongly encouraged to contact the Corps for a determination of their permitting requirements. For more information, contact the Philadelphia District Regulator of the Day at (215) 656-6728 or visit their website at: <http://www.nap.usace.army.mil/Missions/Regulatory.aspx>.
4. For questions about this application or the Wetlands and Subaqueous Lands Section, contact us at (302) 739-9943 or visit our website at: <http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>. Office hours are Monday through Friday 8:00 AM to 4:30 PM, except on State Holidays.

## APPLICANT'S REVIEW BEFORE MAILING

### DID YOU COMPLETE THE FOLLOWING?

<u>X</u> _____	Yes	BASIC APPLICATION
<u>X</u> _____	Yes	SIGNATURE PAGE (Page 3)
<u>N/A</u> _____	Yes	APPLICABLE APPENDICES
<u>X</u> _____	Yes	SCALED PLAN VIEW
<u>X</u> _____	Yes	SCALED CROSS-SECTION OR ELEVATION VIEW PLANS
<u>X</u> _____	Yes	VICINITY MAP
<u>X</u> _____	Yes	COPY OF THE PROPERTY DEED & SURVEY
<u>N/A</u> _____	Yes	THREE (3) COMPLETE COPIES OF THE APPLICATION PACKET
<u>N/A</u> _____	Yes	APPROPRIATE APPLICATION FEE & PUBLIC NOTICE FEE (Separate checks made payable to the State of Delaware)

### Submit 3 complete copies of the application packet to:

**Department of Natural Resources and Environmental Control**  
**Wetlands and Subaqueous Lands Section**  
**89 Kings Highway**  
**Dover, Delaware 19901**

### Before signing and mailing your application packet, please read the following:

The Department requests that the contractor or party who will perform the construction of your proposed project, if other than the applicant, sign the application signature page along with the applicant in the spaces provided. When the application is signed by the contractor as well as the applicant, the Department will issue the Permit to both parties. For Leases, the contractor will receive a separate construction authorization that will make them subject to all of the terms and conditions of the Lease relating to the construction

**Section 1: Applicant Identification**

1. Applicant's Name: Stephen Williams Telephone #: 302-739-9921  
 Mailing Address: 285 Beiser Blvd, Suite 102, Dover, DE 19904 Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: Stephen.Williams@delaware.gov  
 \_\_\_\_\_
2. Consultant's Name: Karen A Taylor Company Name: DNREC Shoreline & Waterway Management Section  
 Mailing Address: 901 Pilottown Rd. Lewes, DE 19958 Telephone #: 302-855-7302  
 \_\_\_\_\_ Fax #: 302-645-1069  
 \_\_\_\_\_ E-mail: KarenAnn.Taylor@delaware.gov
3. Contractor's Name: \_\_\_\_\_ Company Name: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 \_\_\_\_\_ Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: \_\_\_\_\_

**Section 2: Project Description**

4. Check those that apply:  
 New Project/addition to existing project?  Repair/Replace existing structure? (If checked, must answer #16)

## 5. Project Purpose (attach additional sheets as necessary):

The Project seeks a 401 Water Quality Certification for reconstructing the dune system at the north side Indian River Inlet beach (North Beach) using dredged material from three potential borrow sources that include: Indian River Inlet Flood Shoal, Middle Island Shoal, and Burton Island Shoal to protect critical infrastructure like the Inlet Bridge and DE State Route-1 that are in imminent risk of failure due to severe coastal erosion. The intention is to: 1) Dredge 550,000 cubic yards of sediment from authorized borrow site(s), 2) Transfer dredged material via pipeline to the placement site at North Beach, 3) Spread and grade material to restore approx 5,200 linear ft of shoreline. See Attachments for further details.

6. Check each Appendix that is enclosed with this application:

<input type="checkbox"/>	A. Boat Docking Facilities	<input type="checkbox"/>	G. Bulkheads	<input type="checkbox"/>	N. Preliminary Marina Checklist
<input type="checkbox"/>	B. Boat Ramps	<input type="checkbox"/>	H. Fill	<input type="checkbox"/>	O. Marinas
<input type="checkbox"/>	C. Road Crossings	<input type="checkbox"/>	I. Rip-Rap Sills and Revetments	<input type="checkbox"/>	P. Stormwater Management
<input type="checkbox"/>	D. Channel Modifications/Dams	<input type="checkbox"/>	J. Vegetative Stabilization	<input type="checkbox"/>	Q. Ponds and Impoundments
<input type="checkbox"/>	E. Utility Crossings	<input type="checkbox"/>	K. Jetties, Groins, Breakwaters	<input type="checkbox"/>	R. Maintenance Dredging
<input type="checkbox"/>	F. Intake or Outfall Structures	<input type="checkbox"/>	M. Activities in State Wetlands	<input type="checkbox"/>	S. New Dredging

\*Subaqueous Lands Emergency Waiver (WA-134/24)

**Section 3: Project Location**

7. Project Site Address: Indian River Inlet Flood Shoal, Middle Island Shoal, Burton Island Shoal, and northside Indian River Inlet beach (North Beach), Delaware Seashore State Park County:  N.C.  Kent  Sussex  
 Site owner name (if different from applicant): \_\_\_\_\_  
 Address of site owner: \_\_\_\_\_

8. Driving Directions: IRI flood shoal: Waterway accessible by the Atlantic Ocean to the east, Indian River Bay to the west, and Rehoboth Bay to the north. Middle and Burton Island shoals: Accessible by the Atlantic Ocean to the east, Indian River Bay to the south, Rehoboth Bay to the north. Directions to North Beach, DE Seashore State Park: From Dover, DE take 113/Route-1 south for approx. 47 miles. Bear right onto Inlet Rd (0.6 mi). Turn left into the North Inlet Day Area Parking Lot.  
 (Attach a vicinity map identifying road names and the project location)

9. Tax Parcel ID Number:
- North Beach: 334-25.00-11.00
- Subdivision Name:
- n/a

<b>WSLS Use Only:</b>		<b>Permit #s:</b> _____		_____		_____		_____	
<b>Type</b>	SP <input type="checkbox"/>	SL <input type="checkbox"/>	SU <input type="checkbox"/>	WE <input type="checkbox"/>	WQ <input type="checkbox"/>	LA <input type="checkbox"/>	SA <input type="checkbox"/>	MP <input type="checkbox"/>	WA <input type="checkbox"/>
<b>Corps Permit:</b> SPGP 18 <input type="checkbox"/> 20 <input type="checkbox"/>		<b>Nationwide Permit #:</b> _____		<b>Individual Permit #</b> _____					
<b>Received Date:</b> _____		<b>Project Scientist:</b> _____							
<b>Fee Received?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>		<b>Amt: \$</b> _____		<b>Receipt #:</b> _____					
<b>Public Notice #:</b> _____		<b>Public Notice Dates:</b> ON _____		OFF _____					

**Section 3: Project Location (Continued)**

10. Name of waterbody at Project Location: Indian River Inlet waterbody is a tributary to: Atlantic Ocean

11. Is the waterbody:  Tidal  Non-tidal Waterbody width at mean low or ordinary high water IRI: 1,800 ft

12. Is the project:  On public subaqueous lands?  On private subaqueous lands?\*

In State-regulated wetlands?  In Federally-regulated wetlands?

\*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:

(Written permission from the private subaqueous lands owner must be included with this application)

13. Present Zoning:  Agricultural  Residential  Commercial  Industrial  Other

**Section 4: Miscellaneous**

14. A. List the names and complete mailing addresses of the immediately adjoining property owners on all sides of the project (attach additional sheets as necessary):

DNREC Division of Parks and Recreation, 89 Kings Highway, Dover, DE 19901

United States of America Department of Interior, Washington DC 20242

South Shores Homeowners Association, 35370 Atlantic Ave, Millville, DE 19967 Pot-Nets Communities-CCDS LLC, 34026 Anna's Way Ste 1, Millsboro, DE 19966

B. For wetlands and marina projects, list the names and complete mailing addresses of property owners within a 1,000 foot radius of the project (attach additional sheets as necessary):

N/A

15. Provide the names of DNREC and/or Army Corps of Engineers representatives whom you have discussed the project with:

DNREC: Matt Jones, Mike Snyder, Rebecca Bobola, Scott Borino, Sarah Carr, John Cargill

USACE: Michael Yost

EPA: Natalie Motley

NOAA: Rob Bourdon

A. Have you had a State Jurisdictional Determination performed on the property?  Yes  No

B. Has the project been reviewed in a monthly Joint Permit Processing Meeting?  Yes  No

\*If yes, what was the date of the meeting? 6/20/2024

16. Are there existing structures or fill at the project site in subaqueous lands?  Yes  No

\*If yes, provide the permit and/or lease number(s):

\*If no, were structures and/or fill in place prior to 1969?  Yes  No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?

No  Pending  Issued  Denied Date: Special Permit Processing Procedures Approved 8/23/2024

Type of Permit: Individual Permit Federal Permit or ID #: \_\_\_\_\_

18. Have you applied for permits from other Sections within DNREC?

No  Pending  Issued  Denied Date: \_\_\_\_\_ Permit or ID #: \_\_\_\_\_

Type of permit (circle all that apply):  Septic  Well  NPDES  Storm Water

Other: CZM Federal Consistency Determination

**Section 5: Signature Page**

## 19. Agent Authorization:

If you choose to complete this section, all future correspondence to the Department may be signed by the duly authorized agent. In addition, the agent will become the primary point of contact for all correspondence from the Department.

I do not wish to authorize an agent to act on my behalf

I wish to authorize an agent as indicated below

I, Stephen Williams, hereby designate and authorize Karen A Taylor  
 (Name of Applicant) (Name of Agent)  
 to act on my behalf in the processing of this application and to furnish any additional information requested by the Department.

Authorized Agent's Name: Karen A Taylor Telephone #: 302-855-7302  
 Mailing Address: 901 Pilottown Rd. Lewes, DE 19958 Fax #: 302-645-1069  
 E-mail: KarenAnn.Taylor@delaware.gov

## 20. Agent's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

Karen A. Taylor 9/04/2024  
 Agent's Signature Date

## 21. Applicant's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application. I grant permission to authorized Department representatives to enter upon the premises for inspection purposes during working hours.

Tyler Brown For Steve Williams 9/5/2024  
 Applicant's Signature Date

Tyler Brown  
 Print Name

## 22. Contractor's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge, and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

\_\_\_\_\_  
 Contractor's Name Date

\_\_\_\_\_  
 Print Name

**Property Information**

Property Location:

Unit:

City:

State:

Zip:

Class: EXM-Exempt  
 Use Code (LUC): ST-STATE GOVERNMENT  
 Town: 00-None  
 Tax District: 334 – LEWES REHOBOTH  
 School District: 6 - CAPE HENLOPEN  
 Fire District: 86-Rehoboth  
 Deeded Acres: 935.5300  
 Frontage: 0  
 Depth: .000  
 Irr Lot:  
 Plot Book Page: /PB

100% Land Value: \$46,750,000  
 100% Improvement Value: \$1,936,900  
 100% Total Value: \$48,686,900

**Legal**

Legal Description: 935.53 AC  
 W/IMP 24343450

**Owners**

Owner	Co-owner	Address	City	State	Zip
DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901

**Owner History**

Tax Year:	Owner:	Co-owner	Address:	City:	State:	Zip:	Deed Book/Page:
2024	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2023	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2022	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2021	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2020	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2019	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2018	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2017	DELAWARE STATE OF %DEPT OF NATURAL	RESOURCES & ENV CONTROL	89 KINGS HWY	DOVER	DE	19901	2575/116
2007	DELAWARE STATE OF DEPT OF NATURAL		RESOURCES ENV CONTROL 89 KINGS HWY	DOVER	DE	19901	2575/116
2006	DELAWARE STATE OF DEPT OF NATURAL		RESOURCES ENV CONTROL 89 KINGS HWY	DOVER	DE	19901	2575/116
2006	DELAWARE STATE OF DEPT OF NATURAL		RESOURCES ENV CONTROL 89 KINGS HWY	DOVER	DE	19901	2575/116
2004	DELAWARE STATE OF DEPT OF NATURAL		RESOURCES ENV CONTROL 89 KINGS HWY	DOVER	DE	19901	2575/116
2001	DELAWARE STATE OF DEPT OF NATURAL		RESOURCES ENV CONTROL 89 KINGS HWY	DOVER	DE	19901	2575/116
1900	DELAWARE STATE OF CT OF CHANCERY					0	45/214

**Land**

Line	Class	Land Use Code	Act Front	Depth	Calculated Acres	Ag
1	EXM	ST	0	0	935.5300	

**Land Summary**

Line: 1  
 100% Land Value: 46,750,000

## 100% Values

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100% Land Value	100% Improv Value	100% Total Value
\$46,750,000	\$1,936,900	\$48,686,900

## 50% Values

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50% Land Value	50% Improv Value	50% Total Value
\$23,375,000	\$968,450	\$24,343,450

## Permit Details

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Permit Date:	Permit #:	Amount:	Note 1
22-MAR-2023	202303692	\$1,500,000	DELAWARE SEASHORE STATE PARK: RENOVATING LOOKOUT TOWER
16-MAR-2023	202303402	\$11,500	ROOF REPAIR, PAINTING, BAR REPAIR, SIDING
28-NOV-2022	202216943	\$0	DRystack MARINA: REPLACE ROOF AND SIDING
14-MAR-2019	201902746	\$15,000	*BIG CHILL BEACH CLUB* REPLACE KITCHEN HOOD
02-APR-2015	201501809	\$1,000	INTERIOR WORK ONLY (INSTALL A WALL IN THE KITCHEN)
22-JUL-2014	201403401	\$1,078,558	24X11 BLDG3 LAUNDRY 24X28 BLD4 SHOWER
26-JUN-2014	201404899	\$3,000	8X8 PREFAB SHED, 9X5 SHED & 16X8 OUTSIDE BAR
17-JUN-2014	201405445	\$70,628	CONTACT STATION 7X9 BLDG 2
30-SEP-2013	201311553	\$0	CONCRETE BATCHING PLANT
11-MAR-2013	201302673	\$10,000	Hammerheads Restaurant Tenant Fit Out
31-JAN-2012	77381-17	\$2,043	REP WINDOWS-953.53 ACRES
20-MAR-2008	77381-16	\$2,000,000	MARINA STORE-INLET RD
07-DEC-2006	77381-15	\$0	INT/EXT RENOVATIONS-INLET RD
23-JAN-2006	77381-14	\$500,000	BATHROOM BUILDING-MARINA
12-JUL-2005	77381-13	\$0	RENEW BP 229564-KINGS WAY
15-FEB-2005	77381-12	\$119,700	POLE BARN-COASTAL HWY
21-JUL-2004	77381-11	\$800,000	HEADQUARTERS-INDIAN RIVER
20-MAY-2004	77381-10	\$800,000	FOUNDATION ONLY-INDIAN RIVER INLET
02-SEP-2003	77381-9	\$1,948	12 COTTAGES-LOT 24 130
16-JUL-2003	77381-8	\$35,000	ANTENNAS/RADIO EQUIP-935. ACRES
06-APR-1998	77381-7	\$175,000	REMOD.(INT.MUSEUM)-W/1
11-MAR-1998	77381-6	\$188,000	REMODEL LIFE SAV.STA-N/A
14-SEP-1995	77381-5	\$25,100	CHARTER BOAT BLDG-N/A
26-DEC-1990	77381-4	\$42,500	WASTE BUILDING-W/14
21-OCT-1987	77381-3	\$20,000	ADDITION TO OFFICE-N/A
07-FEB-1984	77381-2	\$31,295	STORE-W/1 1/2 MILE N/IND.RIV.INLET
13-SEP-1982	77381-1	\$58,000	DW. ATT.PORCHW/DECK-W/1 S OF INDIAN BEACH



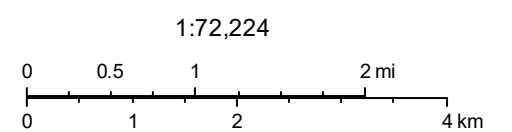


# Sussex County



<b>PIN:</b>	334-25.00-11.00
<b>Owner Name</b>	DELAWARE STATE OF %DEPT OF NATURAL
<b>Book</b>	2575
<b>Mailing Address</b>	89 KINGS HWY
<b>City</b>	DOVER
<b>State</b>	DE
<b>Description</b>	935.53 AC
<b>Description 2</b>	W/IMP 24343450
<b>Description 3</b>	
<b>Land Code</b>	

Streets  
County Boundaries





DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, NORTH ATLANTIC DIVISION  
FORT HAMILTON MILITARY COMMUNITY  
302 JOHN WARREN AVENUE  
BROOKLYN, NY 11252-6700

CENAD-PD-OR (1200A-1145)

23 AUG 2024

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, Philadelphia District (CENAP-OPR Todd A. Schaible), 1650 Arch Street, Philadelphia, Pennsylvania 19103

SUBJECT: Approval of Special (Emergency) Permit Processing Procedures for Application Number NAP-2024-00438-85 by Delaware Department of Natural Resource and Environmental Control

1. References:

a. Email, Philadelphia District, 21 AUG 2024, SUBJECT: USACE Special (Emergency) Permit Processing Procedures for Application Number NAP-2024-00438-85 Indian River Shoal Dredging and Beach Placement SX by the Delaware Department of Natural Resources and Environmental Control.

b. Title 33 Code of Federal Regulations, Part 325.2(e)(4), Emergency Procedures.

2. Pursuant to Reference 1.b., 33 CFR 325.2(e)(4), you are authorized to implement special, alternative permit processing procedures, as specifically outlined in Reference 1.a., for an emergency dredging project at the Indian River Inlet with beach placement at North Beach in Sussex County, Delaware to protect the vital infrastructure and hurricane evacuation route of State Route 1. I expect that any work being evaluated under these procedures will be closely coordinated with the appropriate State and Federal resource agencies.

3. This authorization to implement these procedures, under the provisions of 33 CFR 325.2(e)(4), is valid through 31 DEC 2025 unless modified or rescinded.

4. CENAD-PD-OR point of contact for this action is Jodi M. McDonald, Chief of Operations & Regulatory Division, at 347-370-4556 or [jodi.m.mcdonald@usace.army.mil](mailto:jodi.m.mcdonald@usace.army.mil).

*John P. Lloyd*  
JOHN P. LLOYD  
Brigadier General, USA  
Commanding

August 29, 2024

## **Indian River Inlet Sampling and Analysis Plan – 3 Shoal Locations**

Anchor QEA, Inc. (Anchor QEA) has prepared this sampling and analysis plan to support the Delaware Department of Natural Resources and Environmental Control (DNREC) with sediment sampling and reporting services associated with the Indian River Inlet shoal dredging and beneficial use project. Anchor QEA understand that DNREC and the U.S. Army Corps of Engineers (USACE) desires to obtain a better understanding of the nature and type of sediments present at three shoals proximate to the Indian River Inlet to evaluate beneficial use applications in the vicinity of the project area. The locations of the proposed shoal sampling areas are shown on Figures 1 and 4.

### **Scope of Services**

Anchor QEA will collect sediment cores and grab samples to support DNREC's efforts to permit sediment dredging in the Indian River Inlet Flood Shoal, Middle Island Shoal, and Burton Island Shoal and beneficial reuse of the dredged material as fill at the beach at Northside Indian River Inlet.

#### **1. Sediment Sampling and Data Analysis – Indian River Inlet Flood Shoal**

Sediment core and grab sample locations from USACE's 2013 dredging project in the Indian River Inlet following Hurricane Sandy will be replicated and three additional cores will be collected to generate composite samples for analytical testing. The scope of the sediment sampling and data analysis activities for the Indian River Inlet Flood Shoal is outlined below:

- Six (6) sediment cores (3-inch diameter) will be collected to the proposed dredge depth of -24 ft North American Vertical Datum 1988 (NAVD88). The bottom 2 inches from 3 sediment cores will be composited into one sample. The remaining upper sediment interval from the same 3 sediment cores will be composited into another sample. The compositing scheme will be repeated for the other 3 cores as detailed in Table 1.
- Five (5) grab samples will be collected from the sediment surface using a Ponar grab sampler (or similar equipment). One composite sample will be collected from the five grab samples.
- Proposed sediment core and grab locations are summarized in Table 1 and are shown on Figures 2 and 3. Existing bathymetry and core sample cross-sections are shown on Figures 2 and 3.
- Each sample (five [5] total) will be analyzed for the following items:
  - Grain size via ASTM International (ASTM) D422 Standard Test Method for Particle-Size Analysis
  - Polyaromatic hydrocarbons (PAHs) and alkylated PAH homologs via United States Environmental Protection Agency (USEPA) Method 8270E SIM

- Target Compound List (TCL) organochloride (OC) pesticides via USEPA Method 8081A
  - Polychlorinated biphenyls (PCBs\_ via USEPA Method 680
  - Target Analyte List (TAL) metals via USEPA Method 6020B
  - Mercury via USEPA Method 7471B
  - Total Kjeldahl Nitrogen (TKN) Method 351.2
  - Ammonia nitrogen via Method 4500 NHS C-2011
  - Nitrate and nitrite via Method EPA 300.0 R2.1
  - Total nitrogen
  - Total phosphorus via Method 365.1
  - Dioxins/furans via USEPA Method 1613B
  - Total organic carbon (TOC) via the Llyod Kahn Method
  - Total solids
  - Percent moisture
- Each sample collected for grain size analysis will be analyzed on a 15-day turnaround time (TAT).
  - Each sample collected for chemical analysis will be analyzed on a 10-day TAT.
  - Quality assurance/quality control (QA/QC) samples (i.e., field duplicates, blind duplicates, matrix spike [MS], matrix spike duplicate [MSD] matrix, etc.) will not be collected or analyzed.
  - Due to deeper water depths and targeted sediment core depths, Anchor QEA will use subcontractor labor, vessels, and equipment to complete sediment core and grab samples. Anchor QEA staff will process all samples collected.

**Table 1**  
**Indian River Inlet Flood Shoal Sediment Core and Grab Sample Locations**

<b>Core/Grab Sample ID</b>	<b>Northing DE State Plane NAD83 (US feet)</b>	<b>Easting DE State Plane NAD83 (US feet)</b>	<b>Composite Sample ID</b>
Core_1	221309.00	753626.00	IRI-1-Top IRI-2-Bottom
Core_2	221396.00	754203.00	
Core_19	221162.69	753785.78	
Core_3	221481.00	754802.00	IRI-3-Top IRI-4-Bottom
Core_20	221162.69	754473.73	
Core_21	221134.57	755097.86	
Grab_1	221270.95	754804.84	IRI-5
Grab_2	221256.66	753824.39	
Grab_3	221277.54	755555.90	
Grab_4	221527.54	754825.19	
Grab_5	220969.21	754795.83	

### Driving Directions for Indian River Inlet Flood Shoal

Indian River Inlet – From Dover, Delaware, take DE-1 South approximately 50 miles to the Indian River Inlet. Sampling area located within inlet proximate to southern shoreline.

### 2. Sediment Sampling and Data Analysis – Middle Island Shoal and Burton Island Shoal

The scope of the sediment sampling and data analysis activities for the Middle Island Shoal and Burton Island Shoal (shown in Figure 4) is outlined below:

- Fifteen (15) sediment cores (3-inch diameter) will be collected to a depth of -12 ft North American Vertical Datum 1988 (NAVD88). Nine (9) sediment cores will be collected in the Middle Island Shoal and six (6) sediment cores will be collected from the Burton Island Shoal. Sediment from three (3) cores will be composited into one sample. The compositing scheme is detailed in Table 2.
- Proposed sediment core locations are summarized in Table 2 and are shown on Figures 5 and 6. Approximated existing surface elevations and core sample cross-sections are also shown on Figures 5 and 6.
- Each sample (five [5] total) will be analyzed for the following items:
  - Grain size via ASTM International (ASTM) D422 Standard Test Method for Particle-Size Analysis
  - Polyaromatic hydrocarbons (PAHs) and alkylated PAH homologs via United States Environmental Protection Agency (USEPA) Method 8270E SIM
  - Target Compound List (TCL) organochloride (OC) pesticides via USEPA Method 8081A
  - Polychlorinated biphenyls (PCBs\_ via USEPA Method 680
  - Target Analyte List (TAL) metals via USEPA Method 6020B
  - Mercury via USEPA Method 7471B
  - Total Kjeldahl Nitrogen (TKN) Method 351.2
  - Ammonia nitrogen via Method 4500 NHS C-2011
  - Nitrate and nitrite via Method EPA 300.0 R2.1
  - Total nitrogen
  - Total phosphorus via Method 365.1
  - Dioxins/furans via USEPA Method 1613B
  - Total organic carbon (TOC) via the Llyod Kahn Method
  - Total solids
  - Percent moisture
- Each sample collected for grain size analysis will be analyzed on a 15-day turnaround time (TAT).
- Each sample collected for chemical analysis will be analyzed on a 10-day TAT.

- Quality assurance/quality control (QA/QC) samples (i.e., field duplicates, blind duplicates, matrix spike [MS], matrix spike duplicate [MSD] matrix, etc.) will not be collected or analyzed.
- Due to deeper water depths and targeted sediment core depths, Anchor QEA will use subcontractor labor, vessels, and equipment to complete sediment core and grab samples. Anchor QEA staff will process all samples collected.

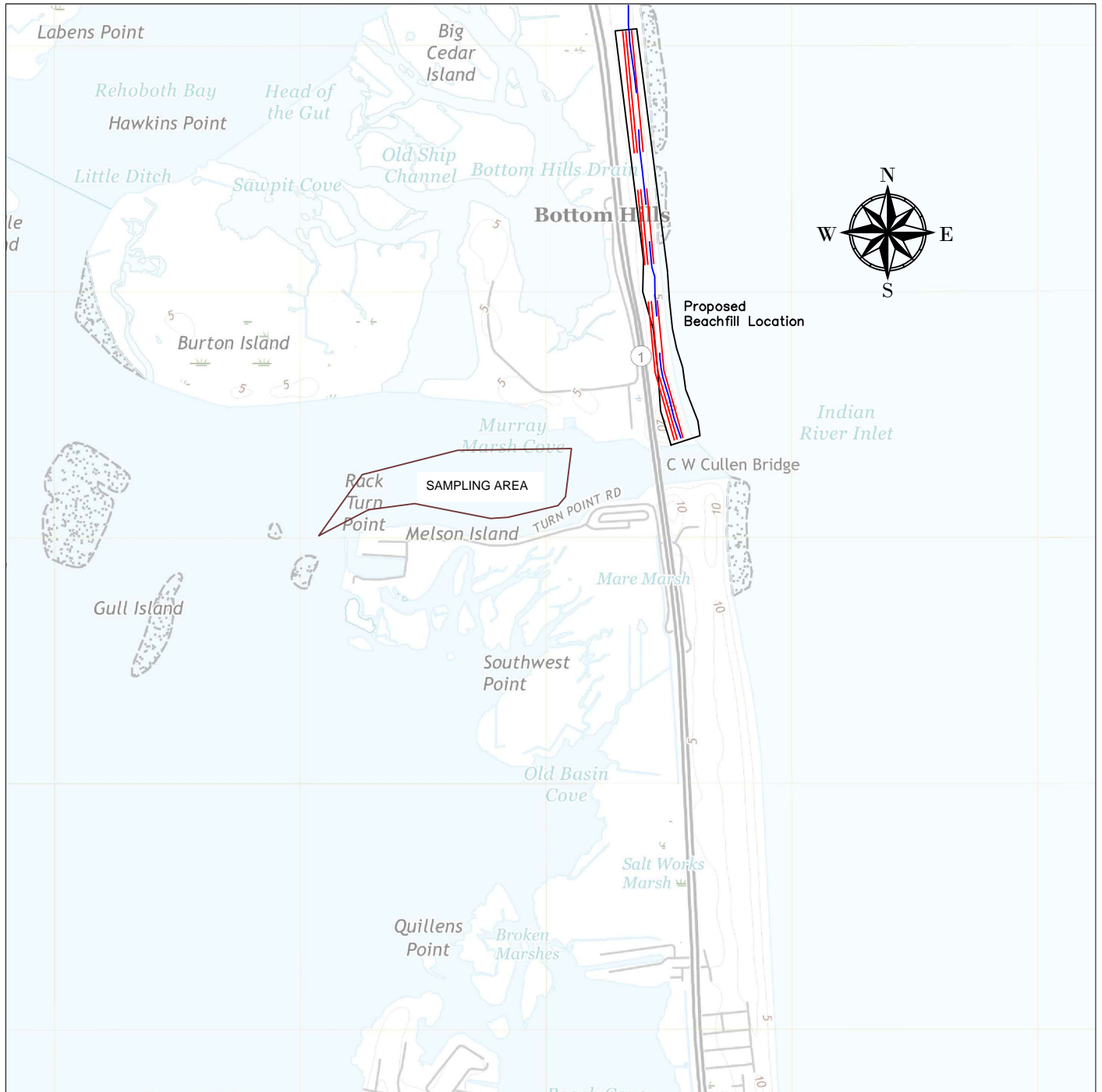
**Table 2**  
**Middle Island Shoal and Burton Island Shoal Sediment Core and Grab Sample Locations**

<b>Core/Grab Sample ID</b>	<b>Northing DE State Plane NAD83 (US feet)</b>	<b>Easting DE State Plane NAD83 (US feet)</b>	<b>Composite Sample ID</b>
Core_4	224776.96	748133.90	MS-1
Core_5	224908.04	747863.34	
Core_6	225067.53	747536.29	
Core_7	223987.94	747866.03	MIS-2
Core_8	224166.41	747488.42	
Core_9	224365.77	747169.34	
Core_10	222970.23	747711.78	MIS-3
Core_11	223257.32	747193.27	
Core_12	223536.42	746858.24	
Core_13	221768.03	750794.60	BIS-1
Core_14	221361.33	750284.07	
Core_15	221855.80	749553.27	
Core_16	222836.85	749770.52	BIS-2
Core_17	222900.46	749337.89	
Core_18	223466.65	749513.39	

*Driving Directions for Middle Island Shoal and Burton Island Shoal*

Massey’s Landing – From Dover, Delaware, take DE-1 South approximately 30 miles. Turn right onto 258/Hudon Road and continue 7.5 miles to DE-5 S. Take DE-5 S 4 miles to DE 23 S/ Long Neck Rd for 5.5 miles to the site.

# Indian River Flood Shoal SEDIMENT SAMPLING PLANS



Scale: 1" = 2000'	Date: 12/12/2023
Designed by:	J. Faries, P.E.
Drawn by:	J. Faries, P.E.
Checked by:	J. French, P.E.
Sheet No.	FIGURE 1

**Indian River Flood Shoal**  
**SEDIMENT SAMPLING PLANS**  
 COASTAL  
 SUSSEX COUNTY, DELAWARE

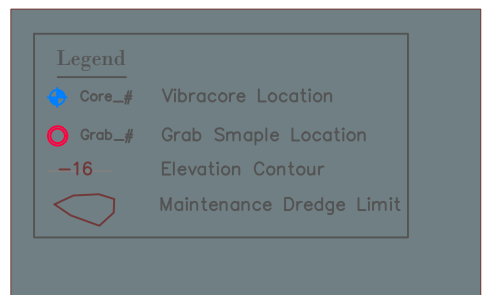
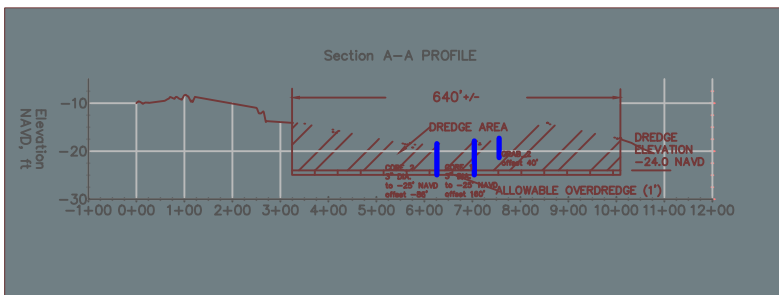
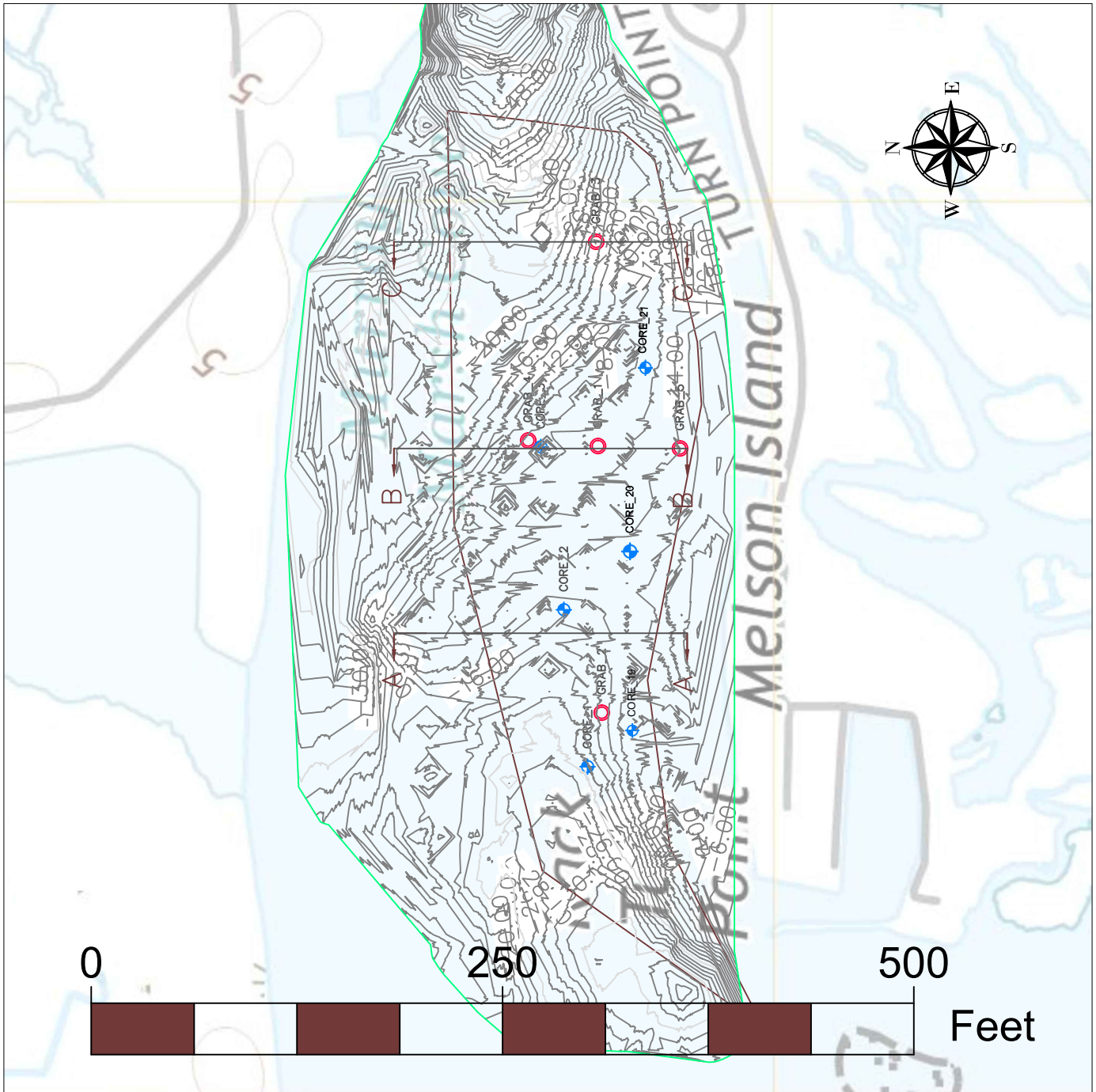


DELAWARE DEPARTMENT OF  
**NATURAL RESOURCES AND  
 ENVIRONMENTAL CONTROL**

Division of Watershed Stewardship  
 Shoreline and Waterway Section

**Dover Office**  
 255 Belair Blvd.  
 Dover DE, 19904  
 Phone: (302) 739 - 8921

**Lewes Office**  
 901 Pottowom Rd  
 Lewes DE, 19958  
 Phone: (302) 855 - 7290



Scale: As Shown Date: 12/12/23
Designed by: J. Faries, P.E.
Drawn by: J. Faries, P.E.
Checked by: J. French, P.E.
Sheet No. FIGURE 2

**Indian River Flood Shoal**  
**SEDIMENT SAMPLING PLANS**  
 COASTAL  
 SUSSEX COUNTY, DELAWARE

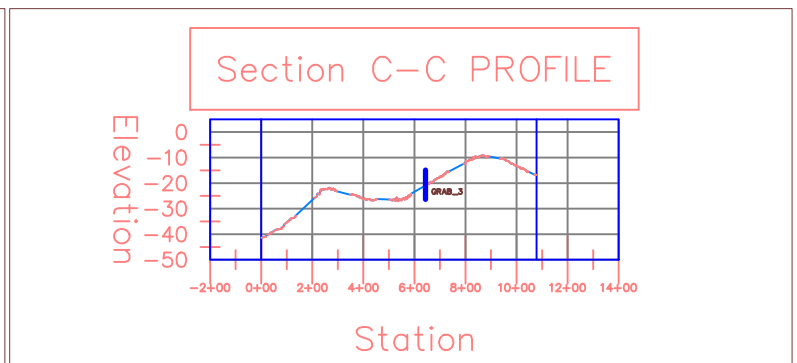
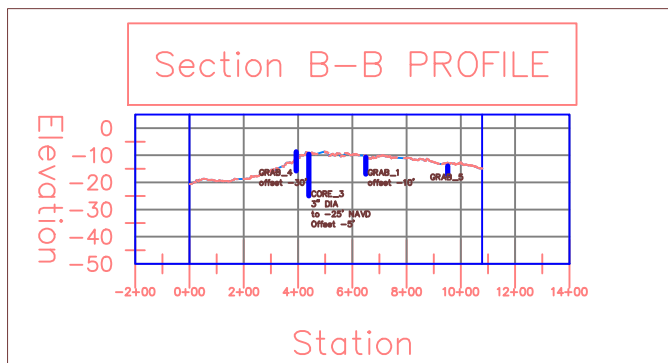
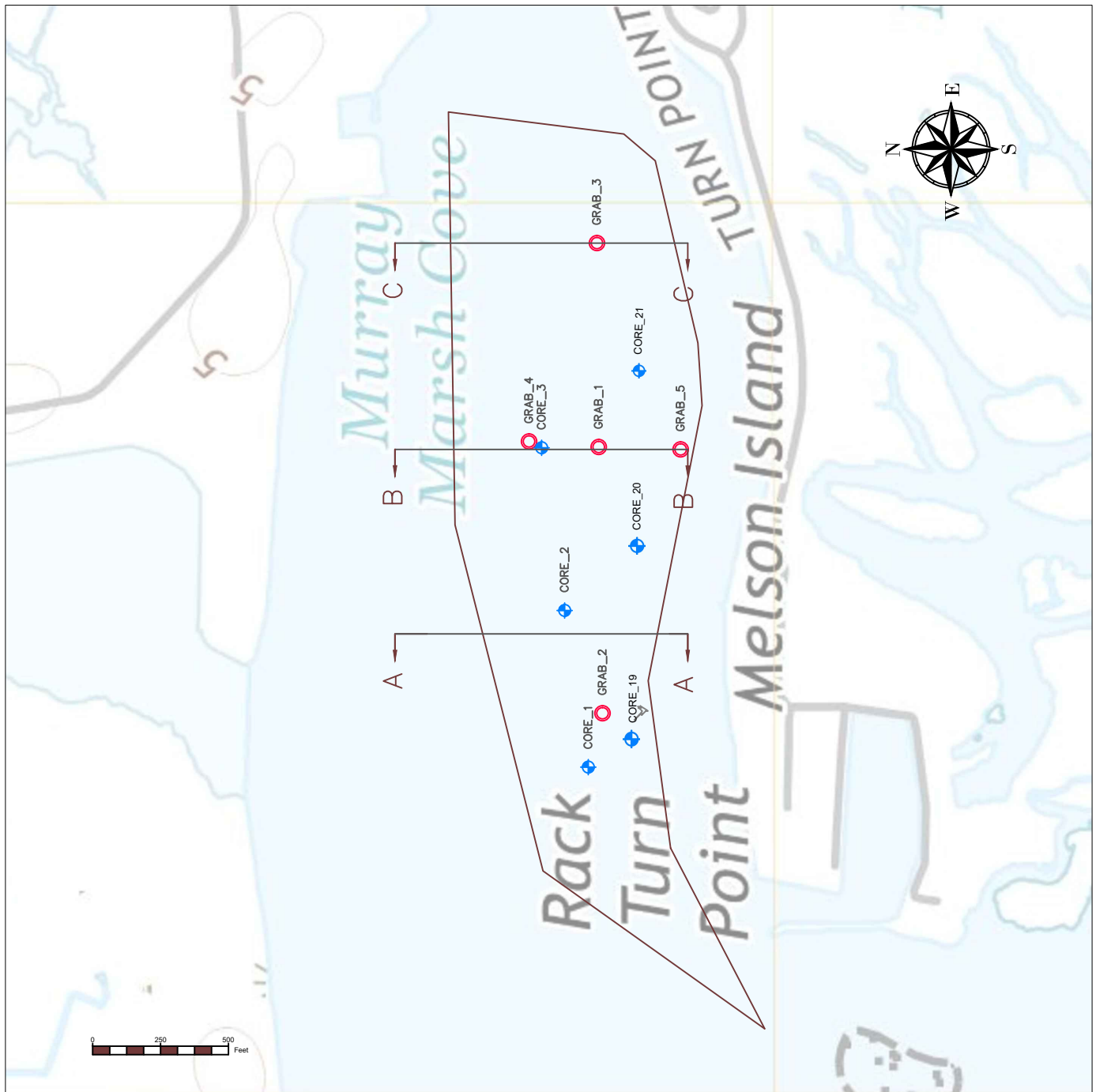


Division of Watershed Stewardship  
 Shoreline and Waterway Section

**Dover Office**  
 255 Belair Blvd.  
 Dover DE, 19904  
 Phone: (302) 739 - 8921


**Lewes Office**  
 901 Pilotown Rd  
 Lewes DE, 19958  
 Phone: (302) 855 - 7290





Scale: As Shown	Date: 12/12/23
Designed by:	J. Faries, P.E.
Drawn by:	J. Faries, P.E.
Checked by:	J. French, P.E.
Sheet No.	FIGURE 3

**Indian River Flood Shoal**  
**SEDIMENT SAMPLING PLANS**  
 COASTAL  
 SUSSEX COUNTY, DELAWARE



DELAWARE DEPARTMENT OF  
**NATURAL RESOURCES AND  
 ENVIRONMENTAL CONTROL**

Division of Watershed Stewardship  
 Shoreline and Waterway Section

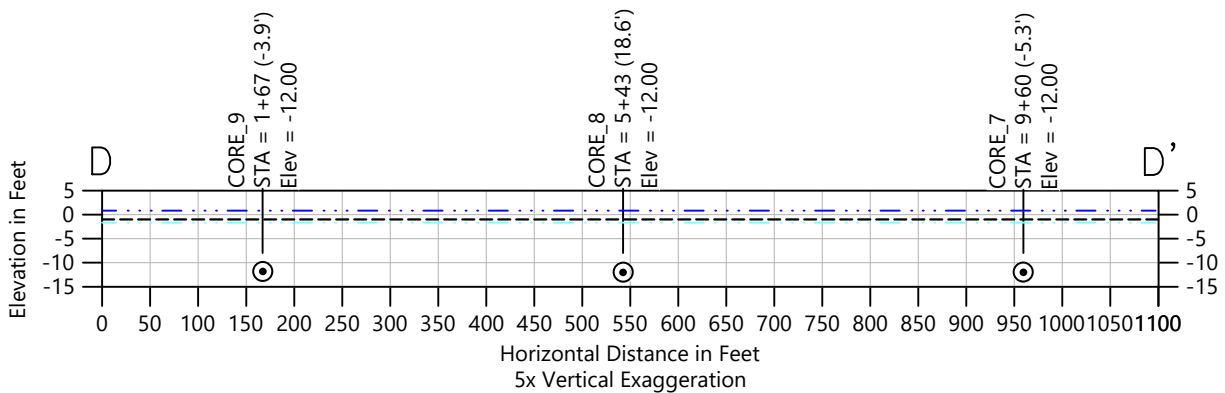
**Dover Office**  
 285 Belair Blvd.  
 Dover DE, 19904  
 Phone: (302) 739 - 8921

**Lewes Office**  
 901 Pilotown Rd  
 Lewes DE, 19658  
 Phone: (302) 855 - 7290



**SOURCE:** Aerial ©2024 Microsoft Corporation  
 ©2024 Maxar ©CNES (2024) Distribution Airbus DS  
**HORIZONTAL DATUM:** Delaware State Plane,  
 North American Datum of 1983 (NAD83), U.S.  
 Survey Feet  
**VERTICAL DATUM:** North American Vertical  
 Datum of 1988 (NAVD88)





**SOURCE:** Aerial ©2024 Microsoft Corporation ©2024 Maxar ©CNES (2024) Distribution Airbus DS  
**HORIZONTAL DATUM:** Delaware State Plane, North American Datum of 1983 (NAD83), U.S. Survey Feet  
**VERTICAL DATUM:** North American Vertical Datum of 1988 (NAVD88)

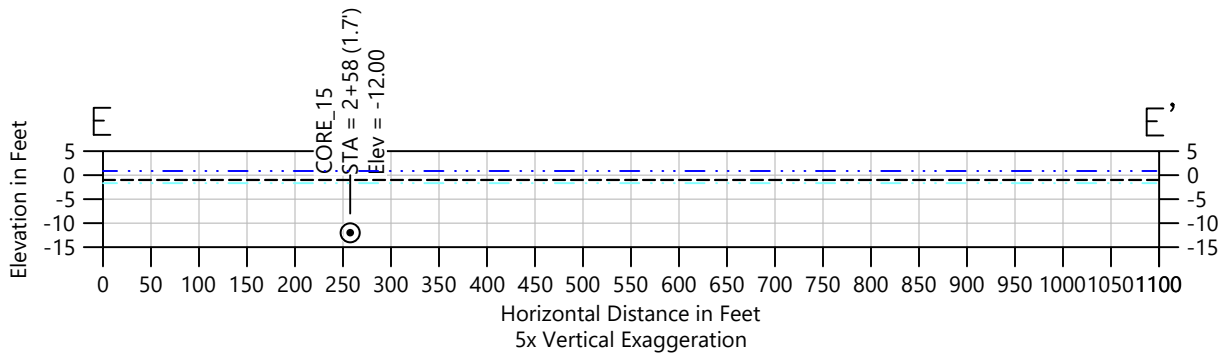
**LEGEND:**

- Proposed Core Location
- · · · — Mean High Water (+0.85 ft NAVD88)
- · · · — Mean Low water (-1.67 ft NAVD88)
- - - - Approximate Existing Mudline





Indian River Bay



**SOURCE:** Aerial ©2024 Microsoft Corporation  
 ©2024 Maxar ©CNES (2024) Distribution Airbus DS  
**HORIZONTAL DATUM:** Delaware State Plane,  
 North American Datum of 1983 (NAD83), U.S.  
 Survey Feet  
**VERTICAL DATUM:** North American Vertical  
 Datum of 1988 (NAVD88)

**LEGEND:**

- ⊙ Proposed Core Location
- · · · — Mean High Water (+0.85 ft NAVD88)
- · · · — Mean Low water (-1.67 ft NAVD88)
- - - - - Approximate Existing Mudline



**From:** [Jones, Matthew R. \(DNREC\)](#)  
**To:** [Taylor, Karen \(DNREC\)](#)  
**Cc:** [French, Joanna \(DNREC\)](#); [Bobola, Rebecca \(DNREC\)](#)  
**Subject:** Re: 401 WQ Cert Request - Indian River Flood Shoal Dredging  
**Date:** Monday, August 26, 2024 10:37:11 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[Outlook-raqnkhlg.png](#)  
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[Outlook-r1AhNH-e0A.png](#)  
[Outlook-tRHZv1Mbc2.png](#)  
[Outlook-GZ42p1VBPU.png](#)

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Good morning Karen,

The DNREC-Wetlands and Waterways Section is formally waiving the request for a pre-filing meeting regarding a 401 Water Quality Certification for the Indian River Flood Shoal Dredging and DU Project.





Please submit your formal request for a Water Quality Certification to the DNREC-Wetlands and Waterways Section.

Thank you,



**Matthew Jones**

Section Manager  
Division of Water-Wetlands and Waterways Section

-  302-739-9943
-  [matthew.jones@delaware.gov](mailto:matthew.jones@delaware.gov)
-  89 Kings Highway, Dover, DE 19901
-  [www.de.gov/water](http://www.de.gov/water)

---

**From:** Taylor, Karen (DNREC) <KarenAnn.Taylor@delaware.gov>  
**Sent:** Monday, August 26, 2024 9:38 AM  
**To:** Jones, Matthew R. (DNREC) <Matthew.Jones@delaware.gov>  
**Cc:** French, Joanna (DNREC) <Joanna.French@delaware.gov>  
**Subject:** 401 WQ Cert Request - Indian River Flood Shoal Dredging

Good Morning Mr. Jones,

This email is to formally request a pre-filing meeting regarding a 401 Water Quality Certification for the Indian River Flood Shoal Dredging and BU Project.

DNREC Shoreline and Waterway Management Section is seeking authorization to restore the berm

and dune system at the northside Indian River Inlet beach (North Beach) using dredged material from the Inlet flood shoal. The intention is to replicate the 2013 US Army Corps project that dredged over 500,000 cubic yards of material from the Inlet flood shoal and renourished over 5,000 linear feet of coastline along North Beach to protect critical infrastructure and habitat.

Sincerely,

**Karen A Taylor**  
**Coastal Environmental Scientist IV**



**Division of Watershed Stewardship  
Shoreline & Waterway Management**

☎ 302-855-7302

✉ [KarenAnn.Taylor@delaware.gov](mailto:KarenAnn.Taylor@delaware.gov)

📍 901 Pilottown Road, Lewes, DE 19958

**Indian River Flood Shoal Dredging and Beneficial Use Project**  
Special Permit Application Processing Request  
August 21, 2024

1. Applicant's name, address, and telephone number (or the applicant's agent)
  - a. Agent: Karen Taylor, DNREC Division of Watershed Stewardship, Shoreline and Waterway Management Section, 901 Pilottown Rd, Lewes, DE 19958, 302-855-7302, [KarenAnnTaylor@delaware.gov](mailto:KarenAnnTaylor@delaware.gov)
  - b. Applicant: Stephen Williams, 285 Beiser Blvd. Suite 102, Dover, DE 19904, 302-739-9921, [Stephen.Williams@delaware.gov](mailto:Stephen.Williams@delaware.gov)
2. ORM2 identification number
  - a. NAP-2024-00438-85 (Indian River Shoal Dredging and Beach Placement SX)
3. Location of the proposed activity (city, county, state, waterway name, latitude and longitude)
  - a. Sussex County, Delaware, Atlantic Ocean and Indian River Inlet (38.606549, -75.074819)
4. Description of the proposed activity, including schematic drawings of sufficient detail to describe the work proposed and photographs of the site, if available
  - a. The intention is to replicate the 2013 US Army Corps of Engineers (USACE) project that includes the following key components: 1) Dredge up to 550,000 cubic yards of sediment from the Indian River Inlet flood shoal, consistent with the authorized federal channel elevation of -24 ft NAVD with 1 ft of allowable over-dredge and approximately 640 ft wide; 2) Transport dredged material, via pipeline, to the beneficial use placement site at North Beach; 3) Spread and grade dredged material to construct the berm (+9.0 NAVD, 100 to 150-ft-width) and dune system to an overall elevation of +16.0 ft NAVD by 25-ft wide to restore the beach template. The beneficial placement of dredged material will begin at the north jetty and extend northward for approximately 5,200 linear feet (00+00 to 55+00). This will restore the dune system at North Beach to improve coastal resiliency and protect critical infrastructure and habitat from future storm events. The Permit Design Plans are provided as Attachment 1. Updated Plans to include the staging area and pipeline will be provided as soon as available.
  - b. Previous survey data indicates that nearly 50% of the material dredged (520,000 cubic yards) by the US Army Corps in 2013 returned to the flood shoal after one year and nearly 100% after four years. We theorize that the flood shoal is a sink of material that has eroded from the North Beach. As sand erodes offshore and washes out along the outside of the north jetty, it likely gets siphoned through the inlet and deposited in the flood shoal.
  - c. Construction is expected during the Fall of 2024 into the Winter/Spring of 2025, within the expected environmental window (October through March). Please see photographs below.
5. District's assessment of the circumstances justifying the use of special procedures
  - a. Since 1990 the sand bypass system was used to move sand from the south to north sides of the inlet generally maintaining sand levels on North Beach to acceptable conditions. After Hurricane Sandy in 2012, conditions severely worsened and the USACE conducted a similar nourishment project as the one proposed herein. In 2020 the sand

bypass system became inoperable and since then DNREC has judiciously added sand to North Beach via truck haul; however this can no longer overcome the current rate of erosion. Presently, a minor storm surge or swell event is very likely to breach the dune and flood the Delaware State Route-1 (SR-1) northbound lane, an evacuation route, placing critical infrastructure at risk of failure. A dune breach occurred most recently on August 17, 2024, that forced the closure of SR-1 for several hours (Figures 1-2). The construction of this project as well as the continued operation of the bypass (slated for December 2024) will hopefully protect SR-1 and surrounding infrastructure for several years.



Figure 1. August 17, 2024. Aerial view of the dune breach at Delaware Seashore State Park (looking north). The SR-1 northbound lane is closed to vehicles and completely covered in ocean water, sand, and debris.





Figure 2. August 17, 2024. View of the dune breach at Delaware Seashore State Park (looking south). The SR-1 northbound lane is covered in water and sand, forcing a road closure.

- b. Prior to the dune breach, severe erosion at North Beach had exposed hazardous debris from historical roads that had previously washed out. There have been extensive clean-up efforts among DNREC and local volunteers, but as the beach erodes further, additional debris becomes exposed. The debris is now more difficult to remove since the beach elevation has lowered leaving no dry beach above the intertidal zone during high tide (Figure 3). In response, beachgoers at the time were walking and sitting on the dune face and crest, which was an additional stressor. During low tide, beachgoers were sitting in the intertidal zone among the large pieces of marine debris that are now exposed and washing ashore (Figure 4). In addition, swimmers and waders may be unaware of the hazards posed by debris and the currents driven by wave energy from the dune.



Figure 3. July 26, 2024. View of North Beach from the Atlantic Ocean during high tide. No observable dry beach above the intertidal zone. Beachgoers sit on the dune face and crest.



Figure 4. August 2, 2024. Bird's-eye view of North Beach during low tide. Beachgoers sit in the intertidal zone among large pieces of potentially hazardous debris.

- c. Currently, the only means to add sand to attempt to repair North Beach is truck haul sand from inland sources (due to the sand bypass system being inoperable); however this method has been ineffective for mitigating risk, as the volume and rate of sand delivery is inadequate such that sand placed onto the beach gets washed out within one tidal cycle. The beach needs to be rebuilt and requires a large volume of sand that is delivered rapidly. To do so, DNREC is seeking an emergency authorization to replicate the project led by the USACE following Hurricane Sandy in 2013.
6. Summary of any consultations with the Council on Environmental Quality in the event the district believes emergency response activities would result in significant environmental impact, and justification that the activity proposed is the minimum necessary to control the immediate impacts of the emergency in accordance with 40 C.F.R. § 1506.11.
- a. The Philadelphia District Regulatory Branch plans to prepare an Environmental Assessment to analyze the effects from the proposed dredging and beneficial use of dredged material.
  - b. DNREC determines the proposed dredging and beneficial use of dredged material as the minimum necessary to control the immediate impacts of the emergency. Alternatives were considered for protecting North Beach and include: no action, using truck haul sand from inland sources to nourish North Beach, transporting sand from the southside Inlet beach to North Beach, and the beneficial use of dredged material from the Inlet flood shoal to reconstruct North Beach. The alternatives were considered with respect to project cost, habitat loss due to construction activities, turbidity increases, disturbances to fish and wildlife, human safety, and recreational uses of the area.
    - i. If no action is taken to rebuild the North Beach berm and dune system, continued erosion from coastal storm events will severely endanger SR-1 and the Inlet Bridge from becoming impassible and eventually result in total failure. Loss of the roadway and use of the bridge would severely hinder first responders and emergency personnel who rely on SR-1 and the Inlet Bridge to access areas in and around the Indian River area by land. SR-1 is also an important evacuation route in southern Delaware. In addition, economic interruptions could affect businesses and communities as the Inlet Bridge provides the only reasonable means of reaching the southside of Indian River Inlet via roadway in Delaware. Additionally, if no action is taken erosion will continue to expose hazardous road debris at North Beach that will increasingly threaten human and environmental safety.
    - ii. Sand is available for purchase from inland quarries that is suitable for beach nourishment; however this is not an ideal option mainly due to the cost and volume of sand needed. Costs associated with transporting over 500,000 cy of sand at approximately 12 cy per truck (50,000 trucks), as well as the wear and tear on the existing road system, increased emissions, and the increased traffic on an already congested roadway are all factors that negatively impact this option. In addition, this option does not improve navigability within Indian River Inlet. Therefore, using truck-hauled sand from inland sources is not recommended.
    - iii. Accretion occurs on the southside Indian River Inlet beach due to the Inlet jetties disrupting the northward flow of sand caused by the longshore current; therefore the sand bypass system was installed to help transport sand back to North Beach. Given the sand bypass system has not been operational since

2020, adequate sand has accumulated onto the southside beach. One alternative is to move sand manually using front-end loaders and trucks from the southside beach to North Beach for nourishment; however this is not an ideal option. Cost and manpower associated with transporting over 500,000 cy of sand at approximately 12 cy per truck (~42,000 trucks), as well as the wear and tear on the vehicles and existing road system, increased emissions, and the increased traffic are all factors that negatively impact this option. In addition, removing over 500,000 cy of sand from southside would significantly alter the dune profile and leave the beach looking sparse. Therefore, using trucks to transport sand from the southside of the Inlet to North Beach is not recommended.

- iv. The preferred alternative is to dredge the Indian River Inlet flood shoal to an elevation of -24 ft NAVD and then use all dredged material for reconstructing the berm and dune system at North Beach for a length of over 5,000 linear feet of shoreline beginning from the north jetty and extending northward. Smaller truck-haul beach nourishment projects can no longer keep up with the rapid rate of erosion occurring at North Beach. This area needs to be rebuilt with a large volume of material that is delivered rapidly, and there is a significant quantity of sand available within the Indian River Inlet. Dredging the Inlet flood shoal also provides advanced maintenance of the channel by reducing infilling of adjacent sediments. The beneficial use of dredged material would allow for the immediate improvement of navigation within Indian River Inlet and protection of critical infrastructure, like SR-1 and the Inlet Bridge, from erosion. The preferred design alternative is the most cost effective and least environmentally damaging alternative that would meet the project goals.

7. Summary of avoidance, minimization, and compensatory mitigation measures
  - a. Impacts to waters of the United States will be avoided and minimized by placing temporary perimeter controls near dredging operations that will be monitored routinely throughout construction to protect water quality. Dredging during winter months will also limit the disruption to migrating fish and aquatic species that could be adversely impacted by water column turbidity. Transport pipelines will be floated and clearly marked to avoid environmental impact. Proper construction oversight will be implemented to ensure there are no negative impacts to water quality via daily site inspections.
  - b. Compensatory mitigation should not be required for the proposed Project as dredging would be performed to the previously authorized elevation of -24 ft NAVD.
8. Summaries of comments received from the appropriate federal, state and local agencies and the affected public and the district's evaluation of those comments
  - a. DNREC was issued an Emergency Waiver in accordance with Section 7205 (c3) of the Subaqueous Lands Act. Portions of the application and the public notice typically required by the Subaqueous Lands Act have been waived to expedite the activity. The Emergency Waiver is included as Attachment 2.
  - b. The US Army Corps Individual Permit cannot be waived. On August 21, 2024, USACE provided guidance and potential paths forward to authorize renourishment at North Beach. DNREC's committed coordination with federal and state agencies is on-going.

9. Statement regarding conformance with state water quality certification requirements and/or Coastal Zone Management Act consistency certification, when applicable
  - a. There are no known or suspected sources of contamination at the Project site that would negatively impact human health or aquatic life if sediment were dredged from the Indian River Inlet and placed on North Beach. A sediment chemical evaluation is planned for September 2024, and subsequently results will be compared to Delaware risk-based criteria. DNREC hired Anchor QEA, Inc. to coordinate sediment sampling services as well as geotechnical and chemical testing to comply with the 401 Water Quality Certification. The Indian River Flood Shoal Sampling and Analysis Plan is included as Attachment 3. The Sediment Chemical Evaluation will be provided as soon as available.
  - b. The Project is expected to conform to the DNREC Coastal Zone Management (CZM) Act Consistency Certification. DNREC’s commitment to complying with all federal and state agency requests is on-going, including the CZM certification requirement.
  
10. Statement regarding compliance with section 7 of the Endangered Species Act (ESA), section 106 of the National Historic Preservation Act (NHPA), and/or Essential Fish Habitat (EFH) consultation, as applicable
  - a. Data from the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) planning tool and species list for the State of Delaware was used to determine the potential for special status species to occur within the Project site. The resulting IPaC letters are included as Attachment 4. Table 1 presents the federally listed special status species with the potential to occur in or adjacent to the Project area. None of the special status species are anticipated to be affected during dredging and placement activities. It is expected that both species of bats, monarch butterflies and roseate terns will prefer to leave or avoid the dredging area, if present. Lastly, it is very unlikely that any flowering plants will be affected by the Project since coastal erosion has caused severe dune scarping and loss of vegetation on North Beach.

Table 1. Federal Special Status Species within the Project Area

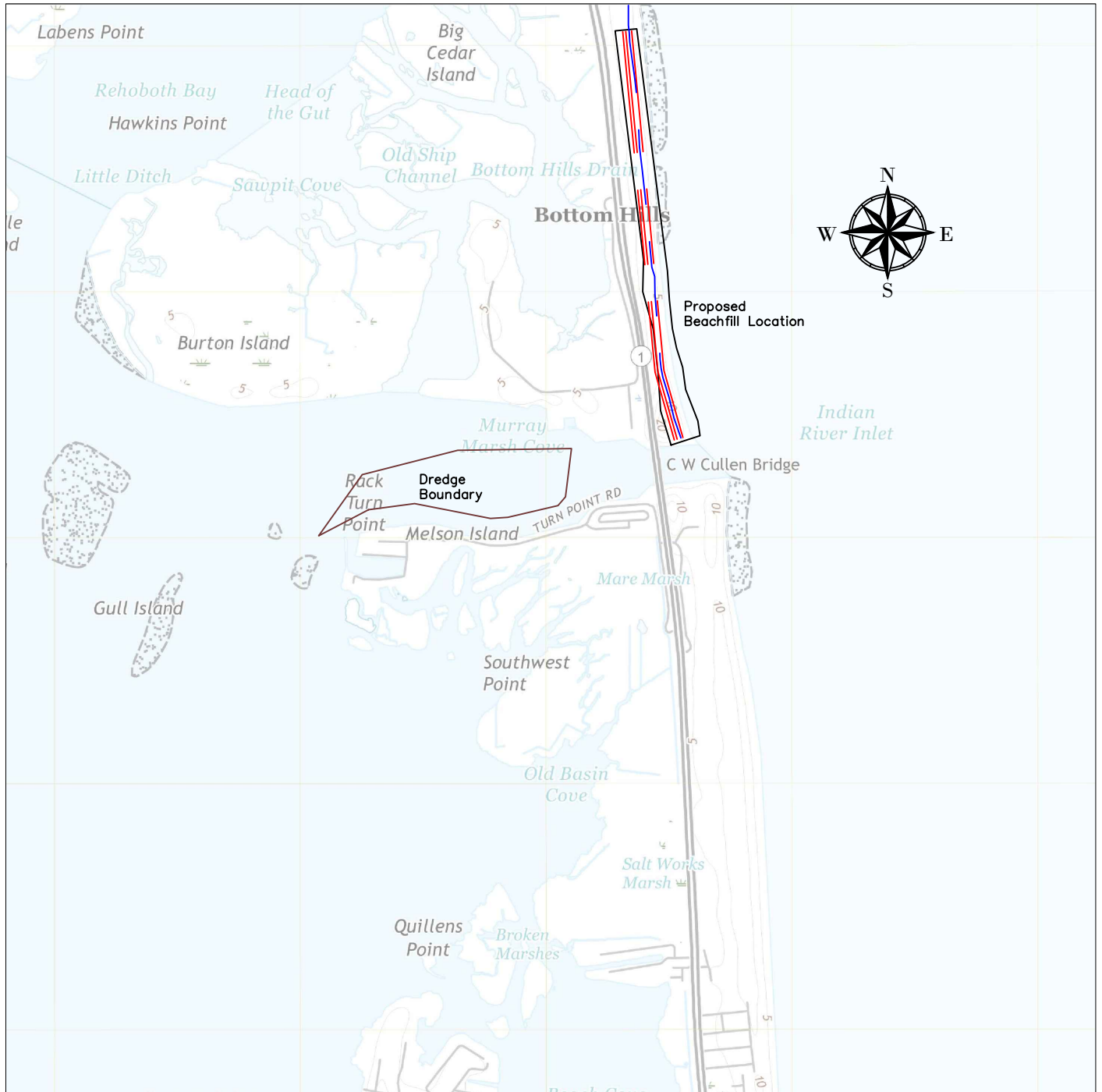
Common Name	Scientific Name	Special Status	Special Status
Northern long-eared bats	<i>Myotis septentrionalis</i>	Mammal	Endangered species
Monarch butterfly	<i>Danaus Plexippus</i>	Insect	Candidate species
Tricolored bat	<i>Perimyotis subflavus</i>	Mammal	Proposed endangered
Roseate Tern	<i>Sterna dougallii dougallii</i>	Bird	Endangered species
Seabeach Amaranth	<i>Amaranthus pumilus</i>	Flowering Plant	Threatened species

- b. The Project area contains Essential Fish Habitat (EFH) for both highly migratory and New England/Mid-Atlantic species that may be adversely affected during dredging. However, the expected construction window during winter months accommodates many dredging restrictions, including for summer flounder and sand tiger sharks, and limits impacts to when aquatic species are not as active as in other seasons. For example, during summer months the Inlet is typically utilized as a forage area for juveniles and adults, and a nursery area for larvae and young of the year life stages. Juveniles and adults are expected to vacate the area once construction starts, and nearby waters outside of the Project site will remain and serve as EFH. The disturbance of bottom sediments

associated with dredging could interfere with feeding, predation, and avoidance patterns; however, adverse impacts are expected to be temporary and highly localized. No critical habitats have been identified within the Project area. EFH Assessment Worksheets are included as Attachment 5.

- c. Consultation with the State Historic Preservation Office consultation was received 8/21/2024 and concluded there are no known archaeological sites or historic properties within the area of potential effect, and there is low potential for any intact archeological sites. The SHPO determination letter is included as Attachment 6.
11. Draft special conditions appropriate to the proposed activity as determined by the District Commander and/or recommended by other commenting agencies
- a. TBD

# Indian River Flood Shoal Dredging and Beneficial Use Permit Plan Set



Scale: 1" = 2000'	Date: 12/12/2023
Designed by:	J. Faries, P.E.
Drawn by:	J. Faries, P.E.
Checked by:	J. French, P.E.
Sheet No.	1 of 4

## Indian River Flood Shoal Dredging and Beneficial Use

### Permit Plans

COASTAL  
SUSSX COUNTY, DELAWARE

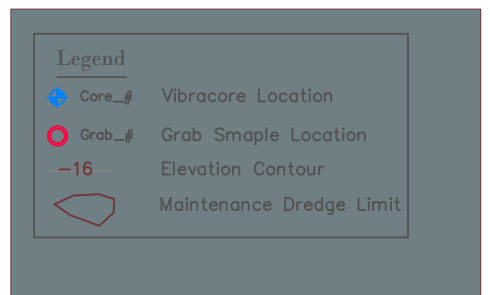
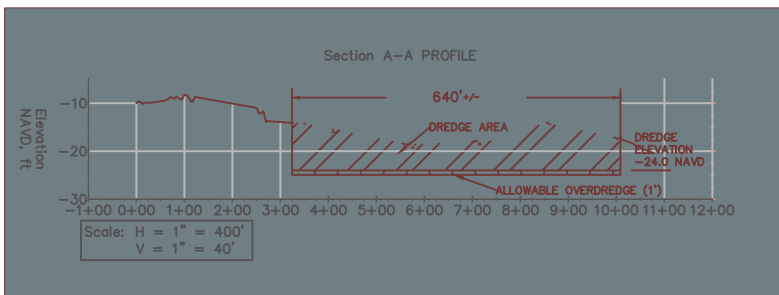


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**Lewes Office**  
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Scale: As Shown	Date: 12/12/23
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Drawn by:	J. Faries, P.E.
Checked by:	J. French, P.E.
Sheet No.	2 of 4

## Indian River Flood Shoal Dredging and Beneficial Use Permit Plans

COASTAL  
KENT COUNTY, DELAWARE



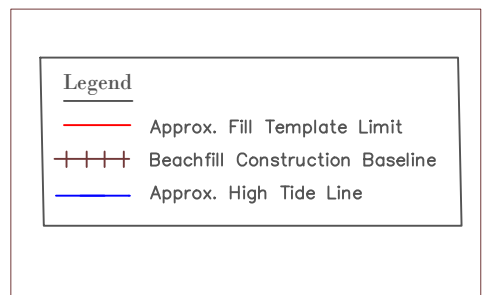
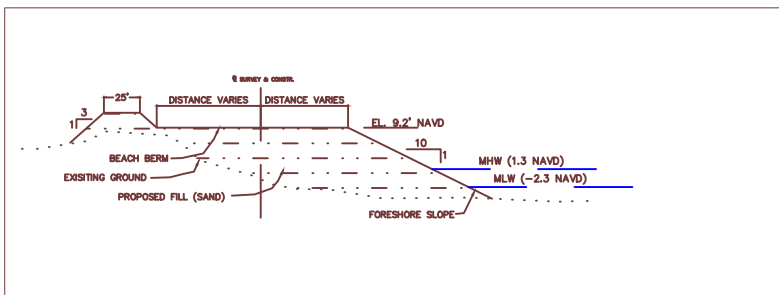
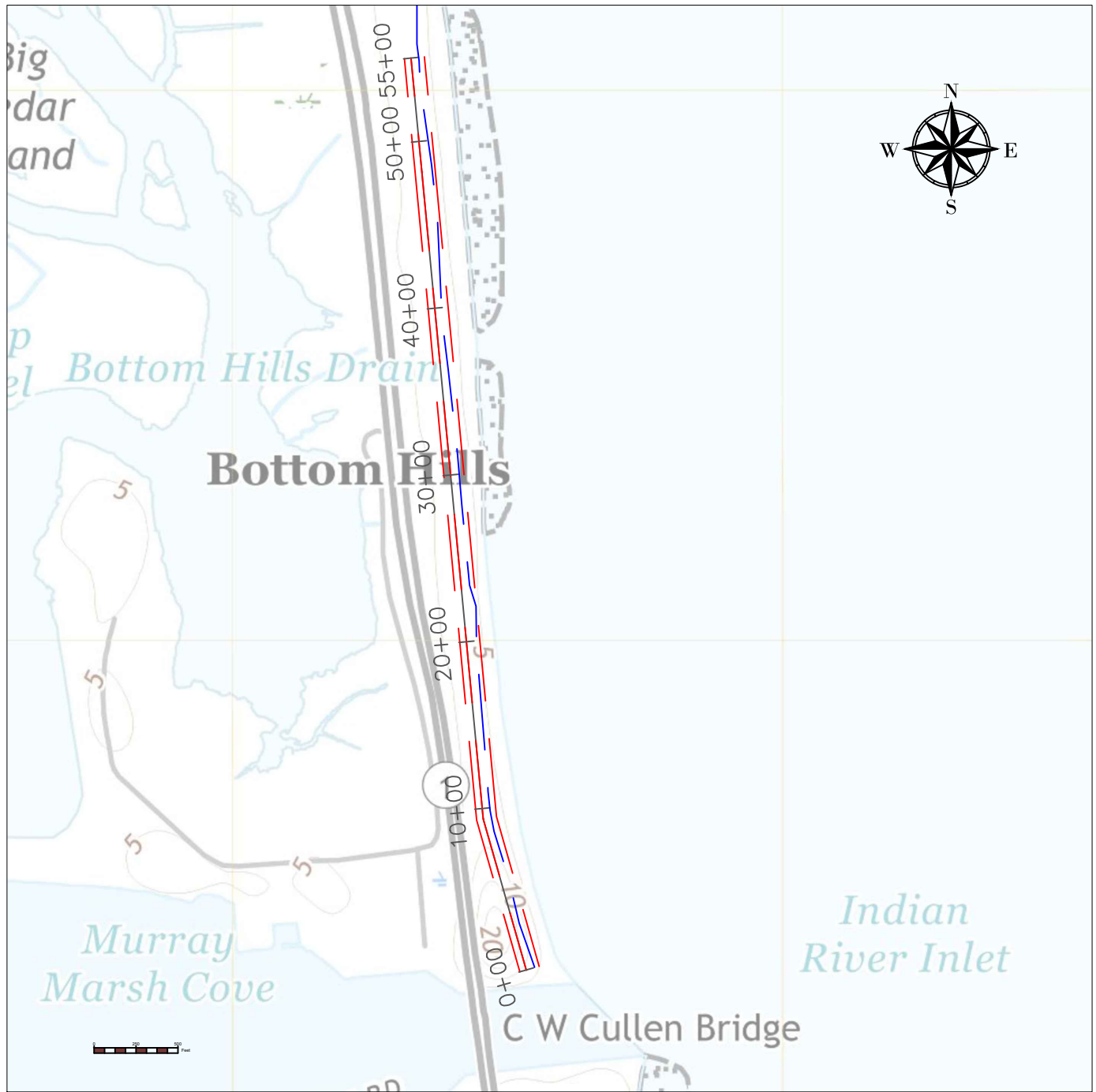
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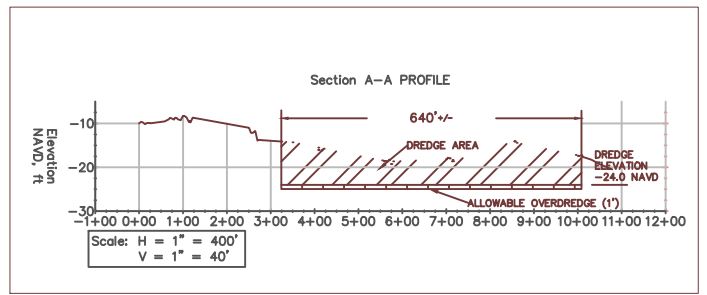
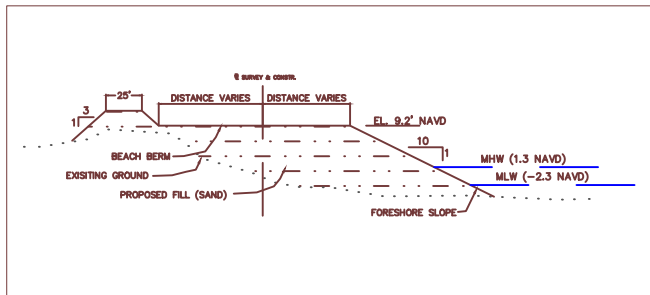
Scale: As Shown Date: 12/12/23
Designed by: J. Faries, P.E.
Drawn by: J. Faries, P.E.
Checked by: J. French, P.E.
Sheet No. 3 of 4

**Indian River Flood Shoal  
Dredging and Beneficial Use  
Permit Plans**  
  
 COASTAL  
 SUSSEX COUNTY, DELAWARE



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Scale: As Shown Date: 12/12/23

Designed by: J. Faries, P.E.

Drawn by: J. Faries, P.E.

Checked by: J. French, P.E.

Sheet No. 4 of 4

## Indian River Flood Shoal Dredging and Beneficial Use Permit Plans

COASTAL  
SUSSEX COUNTY, DELAWARE



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STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

DIVISION OF WATER  
RICHARDSON & ROBBINS BUILDING  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

**WETLANDS &  
WATERWAYS SECTION**

PHONE  
(302) 739-9943

August 19, 2024

DNREC, Division of Watershed Stewardship  
c/o: Stephen Williams  
285 Beiser Boulevard, Suite 102  
Dover, DE 19904

Waiver Authorization No.: WA-134/24  
Date of Issuance: August 19, 2024

RE: Emergency Waiver – WA-134/24  
Emergency Repairs-Beach Renourishment, Indian River Inlet, Sussex County, Delaware

Dear Mr. Williams,

By this letter, the Wetlands and Waterways Section (WWS) grants DNREC – Division of Watershed Stewardship an Emergency Waiver to conduct beach renourishment activities along the north side of Indian River Inlet, Sussex County, Delaware.

This Emergency Waiver is granted in accordance with Section 7205 (c3) of the Subaqueous Lands Act, which authorizes the waiver of certain provisions of the regulations when imminent or catastrophic damage or loss of major infrastructure is likely if all provisions of the regulations are adhered to. Portions of the application and the public notice typically required by the Subaqueous Lands Act have been hereby waived to expedite this activity.

**Emergency Waiver  
Granted to DNREC – Division of Watershed Stewardship  
Authorizing Emergency Repairs-Beach Renourishment  
Indian River Inlet, Sussex County, Delaware**

Sincerely,

A handwritten signature in blue ink that reads "Matthew Jones".

Matthew R. Jones  
Division of Water-Wetlands and Waterways Section  
Section Manager

## Emergency Waiver of IP

Williams, Stephen N. (DNREC) <Stephen.Williams@delaware.gov>

Sun 8/18/2024 9:20 PM

To: Garvin, Shawn M. (DNREC) <Shawn.Garvin@delaware.gov>

Cc: BorinOgden, Lisa (DNREC) <Lisa.BorinOgden@delaware.gov>; Reese, Leslie (DNREC) <Leslie.Reese@delaware.gov>; Davis, Amanda (DNREC) <AmandaL.Davis@delaware.gov>; Smailer, Steven M. (DNREC) <Steven.Smailer@delaware.gov>; Jones, Matthew R. (DNREC) <Matthew.Jones@delaware.gov>; French, Joanna (DNREC) <Joanna.French@delaware.gov>

Shawn,

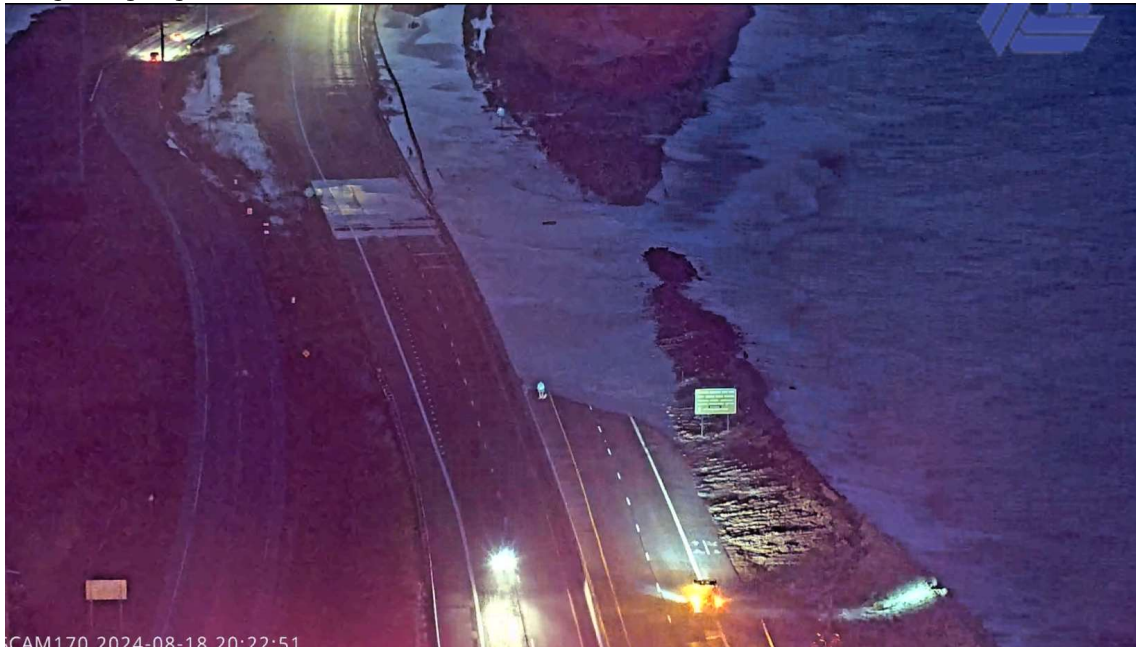
In talking with Matt and Steve, we need the Army Corps to issue an emergency waiver of the Individual Permit that would be required for a nourishment project because of the imminent threats being posed to a major transportation route (SR-1 is a major highway and emergency evacuation route) and highway/bridge infrastructure. If the IP is waived, then a Water Quality Certification would not be required by the state as it is triggered when a federal action is taken.

### Other Updates:

- Katie is working with Alastair to have sand deliveries tomorrow from Melvin Joseph and David Horsey and Sons.
- Our Beach Crew has been mobilized and is on-site; Katie expects them to work through the night.
- Joanna will be contacting Anchor QEA tomorrow to get the sediment sampling done ASAP (I told her we can have phone calls placed by whomever it takes to expedite the process).
- Joanna will be calling Pete Gori with the Corps for dredging contractor info and she will be placing calls to other contractors that she has worked with.
- Matt said that he is able to issue an emergency Subaqueous Permit very quickly.

Steve

Going through high tide now and looks like northbound and southbound SR-1 are closed.



CAM170\_2024-08-18\_20:22:51



Stephen N. Williams, P.G.  
Director  
DNREC Division of Watershed Stewardship  
285 Beiser Boulevard, Suite 102, Dover Delaware 19904  
Ph: 302-739-9921









July 19, 2024

## **Indian River Flood Shoal Sampling and Analysis Plan**

Anchor QEA, Inc. (Anchor QEA) has prepared this sampling and analysis plan to support the Delaware Department of Natural Resources and Environmental Control (DNREC) with sediment sampling and reporting services associated with the Indian River Inlet Flood Shoal dredging and beneficial use project. Anchor QEA understand that DNREC and the U.S. Army Corps of Engineers (USACE) desires to obtain a better understanding of the nature and type of sediments present at this location to evaluate a suite of beneficial use applications in the vicinity of the project area. The proposed sampling area is shown on Figure 1.

### **Scope of Services – Sediment Sampling and Data Analysis – Indian River Inlet Flood Shoal**

Anchor QEA will collect sediment cores and grab samples to support DNREC's efforts to permit sediment dredging in the Indian River Inlet Flood Shoal and beneficial reuse of the dredged material as fill at the beach at Northside Indian River Inlet. Sediment core and grab sample locations from USACE's 2013 dredging project in the Indian River Inlet following Hurricane Sandy will be replicated. The scope of the sediment sampling and data analysis activities is outlined below:

- Three (3) sediment cores (3-inch diameter) will be collected to the proposed dredge depth of - 24 North American Vertical Datum 1988 (NAVD88). The bottom 2 inches from each sediment core will be composited into one sample. The remaining upper sediment interval from each sediment core will be composited into one sample.
- Five (5) grab samples will be collected from the sediment surface using a Ponar grab sampler (or similar equipment). One composite sample will be collected from the five grab samples.
- Proposed sediment core and grab locations are summarized in Table 1 and are shown on Figures 2 and 3. Existing bathymetry and core sample cross-sections are shown on Figures 2 and 3.
- Each sample (three [3] total) will be analyzed for the following items:
  - Grain size via ASTM International (ASTM) D422 Standard Test Method for Particle-Size Analysis
  - Polyaromatic hydrocarbons (PAHs) and alkylated PAH homologs via United States Environmental Protection Agency (USEPA) Method 8270E SIM
  - Target Compound List (TCL) organochloride (OC) pesticides via USEPA Method 8081A
  - Polychlorinated biphenyls (PCBs\_ via USEPA Method 680
  - Target Analyte List (TAL) metals via USEPA Method 6020B
  - Mercury via USEPA Method 7471B
  - Total Kjeldahl Nitrogen (TKN) Method 351.2
  - Ammonia nitrogen via Method 4500 NHS C-2011
  - Nitrate and nitrite via Method EPA 300.0 R2.1

- Total nitrogen
- Total phosphorus via Method 365.1
- Dioxins/furans via USEPA Method 1613B
- Total organic carbon (TOC) via the Llyod Kahn Method
- Total solids
- Percent moisture
- Each sample collected for grain size analysis will be analyzed on a 15-day turnaround time (TAT).
- Each sample collected for chemical analysis will be analyzed on a 10-day TAT.
- Quality assurance/quality control (QA/QC) samples (i.e., field duplicates, blind duplicates, matrix spike [MS], matrix spike duplicate [MSD] matrix, etc.) will not be collected or analyzed.
- Due to deeper water depths and targeted sediment core depths, Anchor QEA will use subcontractor labor, vessels, and equipment to complete sediment core and grab samples. Anchor QEA staff will process all samples collected.

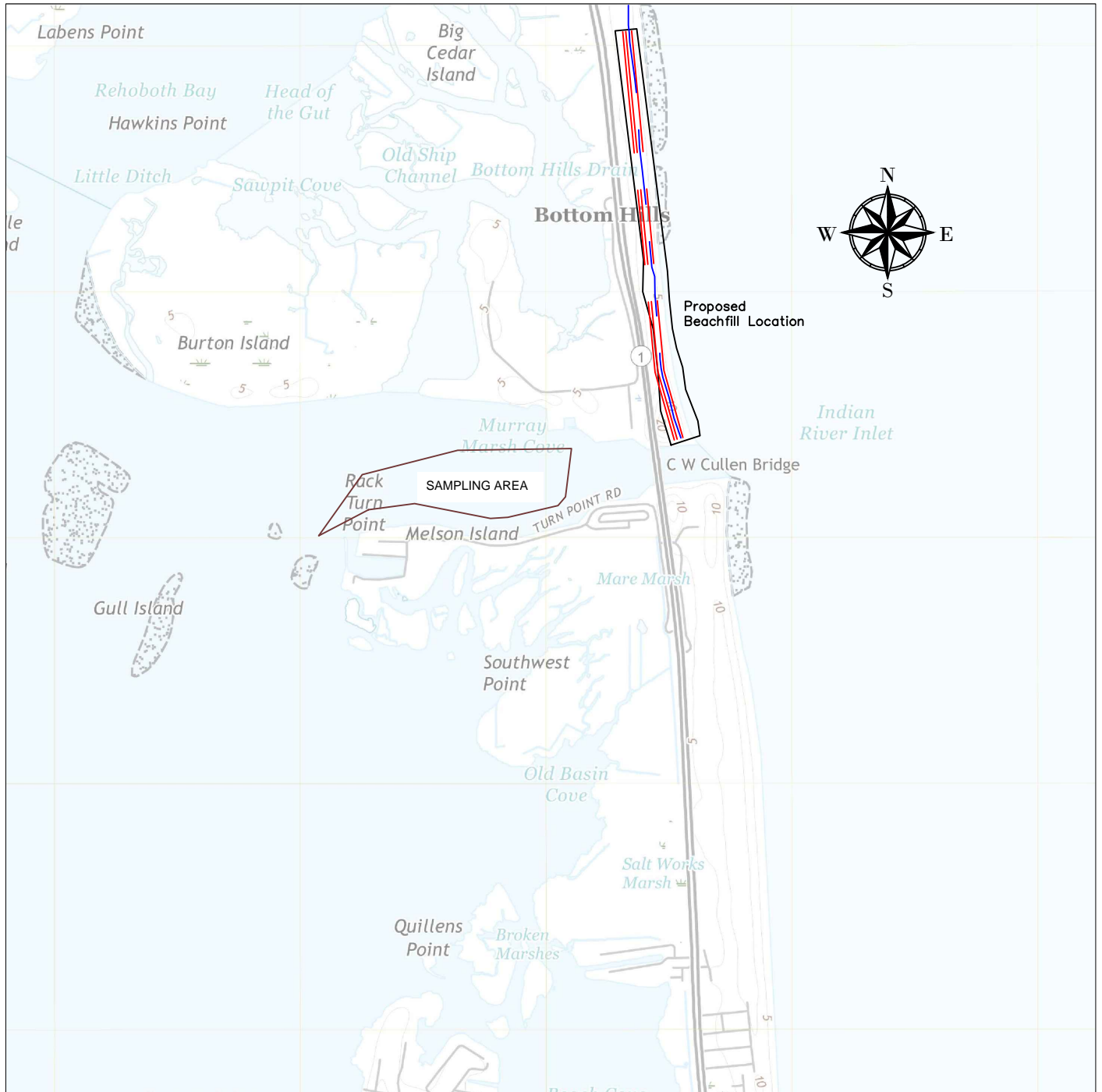
**Table 1 – Sediment Core and Grab Sample Locations**

<b>Core/Grab Sample ID</b>	<b>Northing DE State Plane NAD83 (US feet)</b>	<b>Easting DE State Plane NAD83 (US feet)</b>
Core_1	221309.00	753626.00
Core_2	221396.00	754203.00
Core_3	221481.00	754802.00
Grab_1	221270.95	754804.84
Grab_2	221256.66	753824.39
Grab_3	221277.54	755555.90
Grab_4	221527.54	754825.19
Grab_5	220969.21	754795.83

**Driving Directions**

Indian River Inlet – From Dover, Delaware, take DE-1 South approximately 50 miles to the Indian River Inlet. Sampling area located within inlet proximate to southern shoreline.

# Indian River Flood Shoal SEDIMENT SAMPLING PLANS



Scale: 1" = 2000'	Date: 12/12/2023
Designed by:	J. Faries, P.E.
Drawn by:	J. Faries, P.E.
Checked by:	J. French, P.E.
Sheet No.	FIGURE 1

**Indian River Flood Shoal**  
**SEDIMENT SAMPLING PLANS**  
 COASTAL  
 SUSSEX COUNTY, DELAWARE

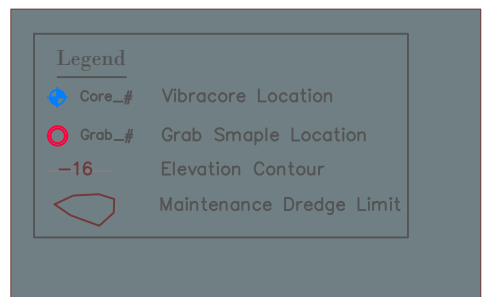
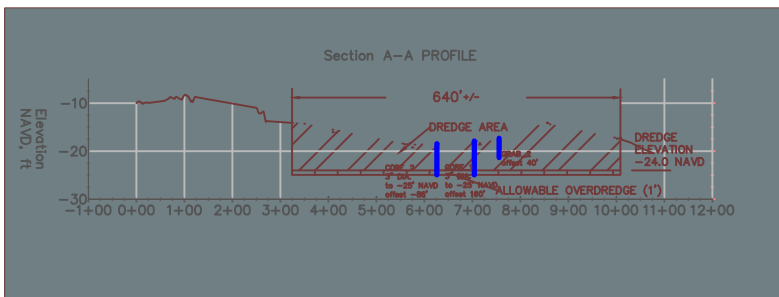
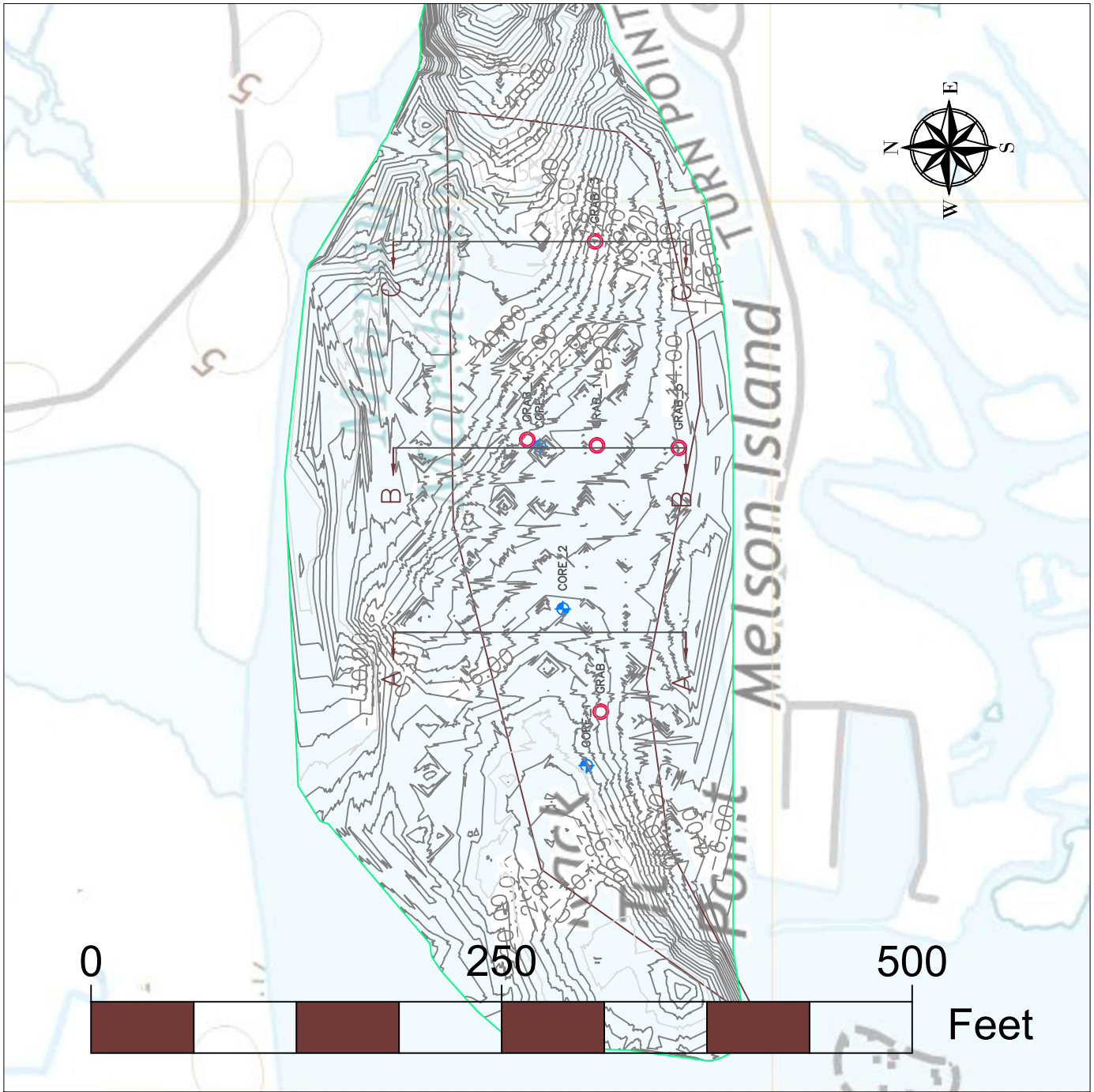


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Scale: As Shown Date: 12/12/23
Designed by: J. Faries, P.E.
Drawn by: J. Faries, P.E.
Checked by: J. French, P.E.
Sheet No. FIGURE 2

**Indian River Flood Shoal**  
**SEDIMENT SAMPLING PLANS**  
 COASTAL  
 SUSSEX COUNTY, DELAWARE

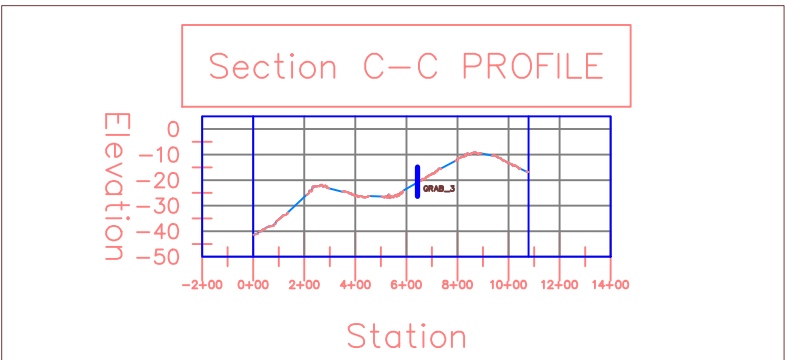
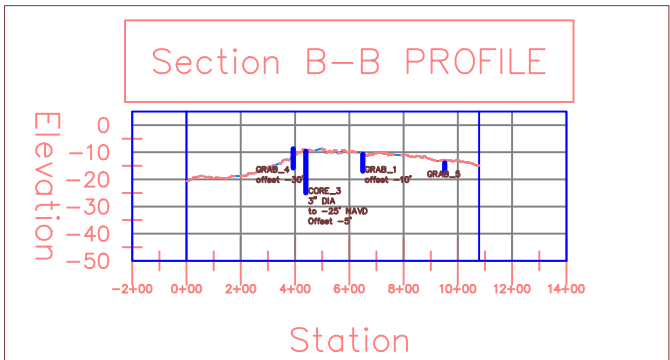
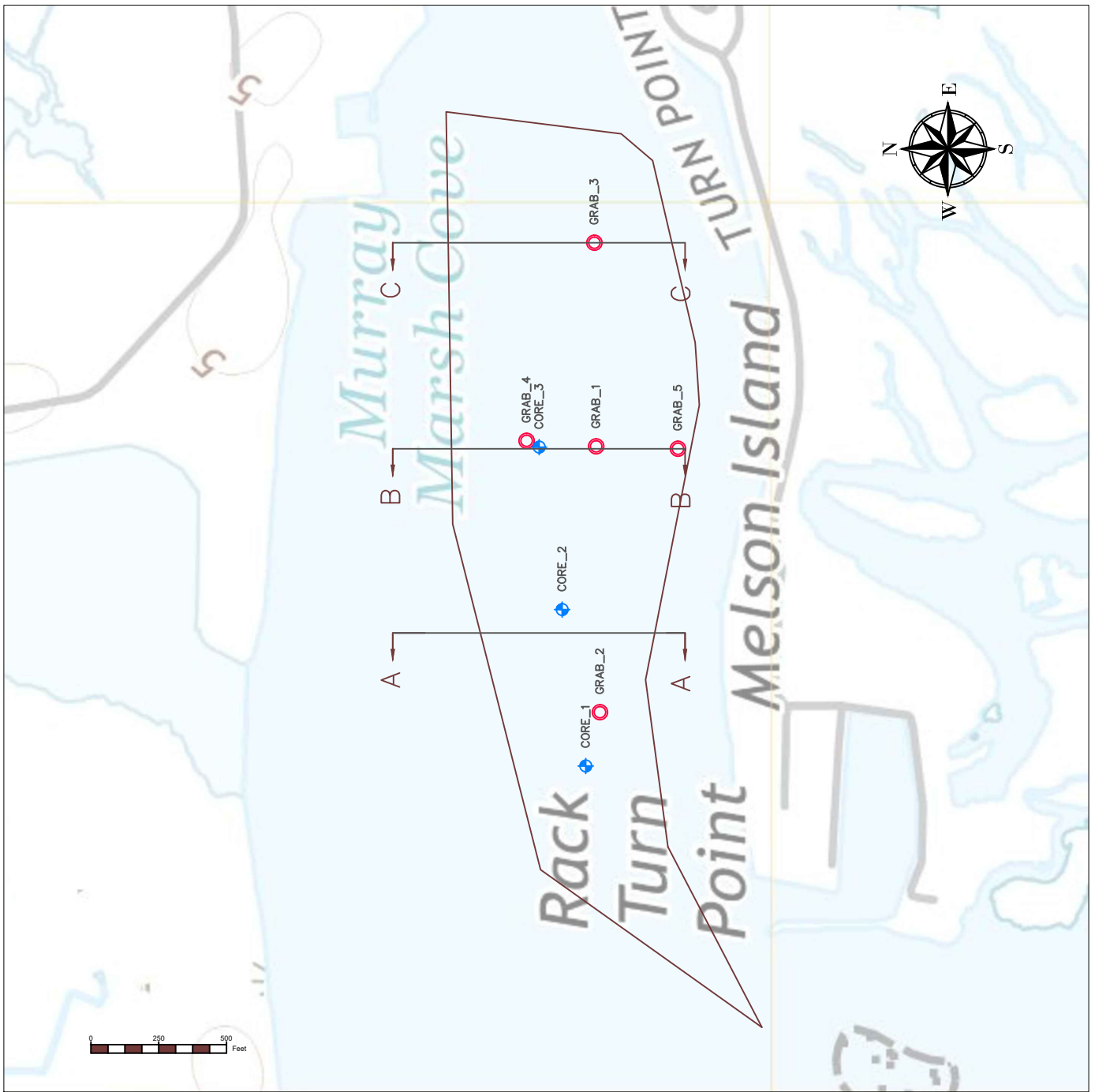


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Scale: As Shown Date: 12/12/23
Designed by: J. Faries, P.E.
Drawn by: J. Faries, P.E.
Checked by: J. French, P.E.
Sheet No. FIGURE 3

**Indian River Flood Shoal**  
**SEDIMENT SAMPLING PLANS**  
 COASTAL  
 SUSSEX COUNTY, DELAWARE

DELAWARE DEPARTMENT OF  
**NATURAL RESOURCES AND  
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# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Chesapeake Bay Ecological Services Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To:

06/05/2024 18:17:33 UTC

Project code: 2024-0100027

Project Name: Indian River Flood Shoal Dredging and Beneficial Use Project

Federal Action Agency (if applicable): Delaware Department of Natural Resources and Environmental Control

**Subject:** Record of project representative's no effect determination for 'Indian River Flood Shoal Dredging and Beneficial Use Project'

Dear Karen Taylor:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 05, 2024, for 'Indian River Flood Shoal Dredging and Beneficial Use Project' (here forward, Project). This project has been assigned Project Code 2024-0100027 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

## **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

## **Determination for the Northern Long-Eared Bat**

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the

action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

### **Other Species and Critical Habitat that May be Present in the Action Area**

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

### **Next Steps**

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Chesapeake Bay Ecological Services Field Office and reference Project Code 2024-0100027 associated with this Project.

## Action Description

You provided to IPaC the following name and description for the subject Action.

### 1. Name

Indian River Flood Shoal Dredging and Beneficial Use Project

### 2. Description

The following description was provided for the project 'Indian River Flood Shoal Dredging and Beneficial Use Project':

The project aims to hydraulically dredge the flood shoal located within the Indian River Inlet west of the Charles W. Cullen Memorial Bridge, and then place dredge material on the north side Indian River Inlet beach (North Beach). The flood shoal is to be dredged to the authorized federal channel elevation of -24 ft NAVD with 1 ft of allowable over-dredge and approximately 640 ft wide. An estimated volume of 520,000 cubic yards (cy) of material is to be transported via pipeline, then beneficially re-used as beach fill for dune replenishment at North Beach. Dredge material is to be placed and graded at North Beach to stabilize the dune system and nourish nearly 5,500 linear feet of coastline. Dredge material consists mainly of sand (>90%) and will not be contained.

The dune system at North Beach was previously rebuilt by the beneficial re-use of dredge material taken from the Indian River Inlet flood shoal by the United States Army Corps of Engineers (USACE) under an emergency action in 2013 following Hurricane Sandy. Since then, the flood shoal has recovered all of the volume previously dredged (520,000 cubic yards). This project aims to repeat the efforts performed by the USACE with the hope of identifying a long term, renewable source of sand for placement at North Beach.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.6074727,-75.07242323883648,14z>





## DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

*No*

2. The proposed action does not intersect an area where the northern long-eared bat is likely to occur, based on the information available to U.S. Fish and Wildlife Service as of the most recent update of this key. If you have data that indicates that northern long-eared bats are likely to be present in the action area, answer "NO" and continue through the key.

Do you want to make a no effect determination?

*Yes*

# PROJECT QUESTIONNAIRE

## **IPAC USER CONTACT INFORMATION**

Agency: Delaware Department of Natural Resources and Environmental Control

Name: Karen Taylor

Address: 901 Pilottown Rd

City: Lewes

State: DE

Zip: 19958

Email: karenann.taylor@delaware.gov

Phone: 3028557302



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Chesapeake Bay Ecological Services Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To:

06/06/2024 19:09:39 UTC

Project Code: 2024-0100711

Project Name: Indian River Flood Shoal Dredging and Beneficial Use Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Coastal Barriers
- Wetlands

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Chesapeake Bay Ecological Services Field Office**  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
(410) 573-4599

## PROJECT SUMMARY

Project Code: 2024-0100711

Project Name: Indian River Flood Shoal Dredging and Beneficial Use Project

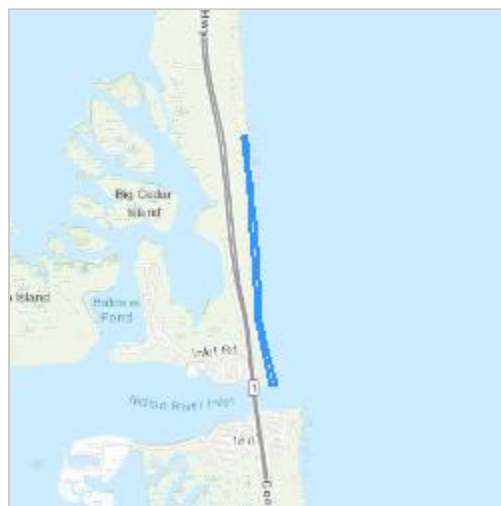
Project Type: Beach nourishment

Project Description: The project aims to hydraulically dredge the flood shoal located within the Indian River Inlet west of the Charles W. Cullen Memorial Bridge, and then place dredge material on the north side Indian River Inlet beach (North Beach). The flood shoal is to be dredged to the authorized federal channel elevation of -24 ft NAVD with 1 ft of allowable over-dredge and approximately 640 ft wide. An estimated volume of 520,000 cubic yards (cy) of material is to be transported via pipeline, then beneficially re-used as beach fill for dune replenishment at North Beach. Dredge material is to be placed and graded at North Beach to stabilize the dune system and nourish nearly 5,500 linear feet of coastline. Dredge material consists mainly of sand (>90%) and will not be contained.

The dune system at North Beach was previously rebuilt by the beneficial re-use of dredge material taken from the Indian River Inlet flood shoal by the United States Army Corps of Engineers (USACE) under an emergency action in 2013 following Hurricane Sandy. Since then, the flood shoal has recovered all of the volume previously dredged (520,000 cubic yards). This project aims to repeat the efforts performed by the USACE with the hope of identifying a long term, renewable source of sand for placement at North Beach.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.61635035,-75.0637089420803,14z>



Counties: Sussex County, Delaware

## ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [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.



**MAMMALS**

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>This species only needs to be considered if the project includes wind turbine operations.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>This species only needs to be considered if the project includes wind turbine operations.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

**BIRDS**

NAME	STATUS
Roseate Tern <i>Sterna dougallii dougallii</i> Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2083">https://ecos.fws.gov/ecp/species/2083</a>	Endangered

**INSECTS**

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

**FLOWERING PLANTS**

NAME	STATUS
Seabeach Amaranth <i>Amaranthus pumilus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8549">https://ecos.fws.gov/ecp/species/8549</a>	Threatened

**CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

# USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## COASTAL BARRIERS

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.

## 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.*

UNIT	NAME	TYPE	SYSTEM UNIT ESTABLISHMENT DATE	FLOOD INSURANCE PROHIBITION DATE
DE-07P	Delaware Seashore	OPA	N/A	11/16/1991

## WETLANDS

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.

### ESTUARINE AND MARINE WETLAND

- M2US2N

- M2US2P
- M2RSPr

## **IPAC USER CONTACT INFORMATION**

Agency: Delaware Department of Natural Resources and Environmental Control

Name: Karen Taylor

Address: 901 Pilottown Rd

City: Lewes

State: DE

Zip: 19958

Email: karenann.taylor@delaware.gov

Phone: 3028557302

## EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Greater Atlantic Regional Office](#)

[Atlantic Highly Migratory Species Management Division](#)

## Query Results

Degrees, Minutes, Seconds: Latitude = 38° 36' 29" N, Longitude = 76° 56' 6" W

Decimal Degrees: Latitude = 38.608, Longitude = -75.065





















The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

### \*\*\* WARNING \*\*\*

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

## EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Adult, Juvenile	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Atlantic Herring	Juvenile	New England	Amendment 3 to the Atlantic Herring FMP
		Black Sea Bass	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Bluefish	Adult, Juvenile	Mid-Atlantic	Bluefish
		Clearnose Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Little Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Longfin Inshore Squid	Eggs	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Red Hake	Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Sand Tiger Shark	Adult, Neonate/Juvenile	Secretarial	Amendment 10 to the 2006 Consolidated HMS FMP: EFH
		Sandbar Shark	Juvenile, Neonate	Secretarial	Amendment 10 to the 2006 Consolidated HMS FMP: EFH
		Scup	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Skipjack Tuna	Adult	Secretarial	Amendment 10 to the 2006 Consolidated HMS FMP: EFH
		Smoothhound Shark Complex (Atlantic Stock)	ALL	Secretarial	Amendment 10 to the 2006 Consolidated HMS FMP: EFH
		Spiny Dogfish	Adult Male, Sub-Adult Female	Mid-Atlantic	Amendment 3 to the Spiny Dogfish FMP
		Summer Flounder	Adult, Juvenile, Larvae	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Windowpane Flounder	Adult, Eggs, Juvenile, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP



### Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

### Atlantic Salmon

No Atlantic Salmon were identified at the report location.

### HAPCs

Link	Data Caveats	HAPC Name	Management Council
		Summer Flounder SAV	Mid-Atlantic Fishery Management Council

### EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

**Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.**

**\*\*For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

**Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.**

**\*\*For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

**All EFH species have been mapped for the Greater Atlantic region,**

**Atlantic Highly Migratory Species EFH,**

Bigeye Sand Tiger Shark,

Bigeye Sixgill Shark,

Caribbean Sharpnose Shark,

Galapagos Shark,

Narrowtooth Shark,

Sevengill Shark,

Sixgill Shark,

Smooth Hammerhead Shark,

Smalltail Shark

# North Beach, DE Seashore State Park **EFH Mapper Report**

## EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Greater Atlantic Regional Office](#)  
[Atlantic Highly Migratory Species Management Division](#)

## Query Results

















Degrees, Minutes, Seconds: Latitude = 38° 36' 37" N, Longitude = 76° 56' 13" W  
Decimal Degrees: Latitude = 38.610, Longitude = -75.063

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.







### **\*\*\* WARNING \*\*\***

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

## EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Adult	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Black Sea Bass	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Bluefish	Adult, Juvenile	Mid-Atlantic	Bluefish
		Clearnose Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Little Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Longfin Inshore Squid	Eggs	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Scup	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Spiny Dogfish	Adult Male, Sub-Adult Female	Mid-Atlantic	Amendment 3 to the Spiny Dogfish FMP



Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Summer Flounder	Adult, Juvenile, Larvae	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Windowpane Flounder	Adult, Eggs, Juvenile, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP





### Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

### Atlantic Salmon

No Atlantic Salmon were identified at the report location.

### HAPCs

Link	Data Caveats	HAPC Name	Management Council
		Sand Tiger Shark (Delaware Bay)	NMFS Highly Migratory Species Division
		Summer Flounder SAV	Mid-Atlantic Fishery Management Council

### EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

**Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.**

**\*\*For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

**All EFH species have been mapped for the Greater Atlantic region,**

**Atlantic Highly Migratory Species EFH,**

Bigeye Sand Tiger Shark,

Bigeye Sixgill Shark,

Caribbean Sharpnose Shark,

Galapagos Shark,

Narrowtooth Shark,

Sevengill Shark,

Sixgill Shark,

Smooth Hammerhead Shark,

Smalltail Shark

August 21, 2024

Karen A. Taylor  
DNREC Division of Watershed Stewardship  
901 Pilottown Road,  
Lewes, DE 19958

**Subject: Indian River Flood Shoal  
SHPO Project No. 2024.06.13.04**

Dear Ms. Taylor:

We understand from your letter that the Delaware Department of Natural Resources and Environmental Control (DNREC), is seeking a permit from the US Army Corps of Engineers (USACOE) for the proposed undertaking at the Indian River Inlet and North Beach in Sussex County. DNREC is proposing to maintenance dredge the flood shoal located within the Indian River Inlet and use the sandy material to restore the berm and dune system at North Beach. Because of the need for authorization from the USACOE, the project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966 (as amended).

There are no known archaeological sites or historic properties within the area of potential effect (APE). The fire control tower (S06049) is the only historic structure within a half-mile radius of the APE. Due to the limited nature of the proposed undertaking and the distance to the known historic resource, there is no anticipated impact to this property. There are no archaeological sites within a half-mile radius of the APE. As the proposed dredging and beach renourishment is within the footprint of previous undertakings of the same nature, there is low potential for any intact archaeological sites.

Our Office finds there to be No Historic Properties Affected by the proposed undertaking. Please feel free to contact me if you have any questions at (302) 736-7431 or [sarah.carr@delaware.gov](mailto:sarah.carr@delaware.gov).

Sincerely,



Sarah Carr  
Cultural Preservation Specialist  
cc: Gwen Davis, Deputy SHPO