FINDING OF NO SIGNIFICANT IMPACT

Issuance of a Negotiated Agreement for the Use of Outer Continental Shelf Sand from Borrow Area Offshore Oak Island (OSOKI) for the Town of Oak Island 2025 Renourishment Project

Pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), and Department of the Interior (DOI) regulations implementing NEPA (43 CFR 46), the Town of Oak Island in Brunswick County, North Carolina (NC) contracted Moffatt & Nichol to prepare an environmental assessment (EA), under the direction of the Bureau of Ocean Energy Management (BOEM). The EA was prepared to determine whether authorizing use of Outer Continental Shelf (OCS) sand from the Offshore Oak Island (OSOKI) borrow area for the Town of Oak Island's Beach Renourishment Project (Project) would have a significant effect on the human environment and whether an environmental impact statement (EIS) should be prepared. Pursuant to NEPA and the Department of the Interior (DOI) regulations implementing NEPA (43 CFR 46), BOEM contributed to the development of the EA and conducted an independent review prior to adoption. BOEM determined that entering into a negotiated agreement with the Town of Oak Island for the Project does not constitute a major Federal action significantly affecting the quality of the human environment and would not require preparation of an EIS.

Proposed Action

The beach at the Town of Oak Island has been nourished since 2001 with beneficial placement of dredged material from the navigation channel in the United States Army Corps of Engineer's (Corps) Wilmington Harbor Deepening Project. Sections of the beach within the Town of Oak Island were subsequently nourished in 2009 and 2015 and received beneficial placement of dredged material from the Corps' Inner Ocean Bar maintenance dredging events in 2009 and 2018. After Hurricanes Matthew and Florence in 2016 and 2018, the Town initiated dune restoration efforts in two phases, with the eastern and western portions completed in 2021 and 2022, respectively. While the eastern and western ends of the Town's shoreline benefit from periodic beach renourishment facilitated by beneficial use of dredged material from federally authorized navigation channels, the central portion of Oak Island has not undergone substantial beach renourishment since 2001.

This Project is proposed as an interim coastal resilience measure while the Town of Oak Island continues to develop a longer-term beach and inlet management plan and financing strategy. In 2024 the Town of Oak Island submitted an application to use OCS sand resources to nourish the Town of Oak Island beaches. The Town received a $20 million dollar grant from the State of North Carolina to support construction. BOEM's proposed action is the issuance of a negotiated agreement to authorize use of the OSOKI borrow area so that the project proponent, the Town of Oak Island, can obtain up to 2.9 million cubic yards of sand for a beach renourishment project along the Town of Oak Island beaches. The purpose of the Project is to reduce future storm damages to coastal infrastructure, increase and maintain recreational opportunities, and improve natural habitat. The Project area stretches along the Town's oceanfront from Station 210+00 to Station 680+00, approximately 47,100 linear feet or just under 9 miles.

The Project beach-fill design involves the construction of a berm to provide advanced fill for a 6-year renourishment interval, with the berm designed to be at elevation 7.0 ft NAVD88. The width of the berm will vary from around 40 to 150 feet, depending on historical erosion rates in each area. Damaged dunes will be restored to their original authorized specifications, designed to withstand a 25-year return period storm, with elevations ranging from 13.0 to 15.5 ft NAVD88 and specific slope ratios from 4:1 or 5:1 (Horizontal:Vertical). Native vegetation will be planted along the dune slopes and crest, with no disturbance to existing stable dune vegetation during construction. The Project includes a suite of mitigation measures to avoid or minimize environmental impacts.

Alternatives to the Proposed Action

The EA considers three alternatives, including: (1) beach and dune renourishment, (2) abandon and retreat, and (3) no action (which includes continued periodic beneficial use events). Based upon a combination of economic, engineering, and environmental factors, the Town has identified beach and dune renourishment as a preferred strategy. The Town initially identified eight borrow area options that were conceptually possible and then technically, economically, and environmentally evaluated each to identify feasible options to provide the required fill material. The OSOKI borrow area was identified as the preferred source following a practicability screening analysis of all identified borrow area options. Several of the eight borrow areas considered were not economically and technically feasible owing to the urgent need and availability of grant funds. This EA considers a one-time leasing action for a single, interim beach renourishment project covering the area determined to be at-risk for both long-term erosion and storm damage.

The only practical alternative to the BOEM's proposed action is to not issue the negotiated agreement. The potential impacts resulting from the BOEM not leasing depend on the course of action subsequently pursued by the Town, which could include periodic, small-scale nourishments using navigation channel material or an upland sand source. Coastal erosion would continue and progressively worsen since the current strategy has proved to be an inadequate approach to manage erosion. In the case of the no project option, coastal erosion would continue, sea turtle and shorebird nesting habitat would deteriorate, and the likelihood and frequency of property and storm damage would increase.

Environmental Effects

The Town and BOEM identified a suite of mitigation measures necessary to avoid, minimize, or reduce and track any foreseeable adverse effects that may result from the Project. The Town is responsible for implementing all environmental requirements prior to, during, and after construction. A subset of mitigation, monitoring, and reporting requirements, specific to activities under BOEM jurisdiction, will be incorporated into the negotiated agreement to avoid, minimize, and/or reduce and track any foreseeable adverse impacts.

Significance Review

Pursuant to 40 CFR 1501.3(d), BOEM evaluated the significance of potential environmental effects considering both the context of the action and the intensity of effects. Adverse and

beneficial effects were considered. BOEM analyzed the potential significance of environmental effects in both spatial and temporal context, including duration. Potential effects are generally considered reversible because they would be minor to moderate, localized, and short-lived. The only potential long-term effect would be on the physical geomorphology due to the removal of sand from the OSOKI borrow area; however, no significant or cumulatively significant adverse effects were identified. The following eight intensity factors were considered in the EA, including the intensity of effects, as applicable to the proposed action and in relationship to one another:

1. *The degree to which the action may adversely affect public health and safety.*

The proposed activities are not expected to significantly affect public health and safety. Construction would temporarily increase ambient noise levels, and equipment emissions would temporarily decrease air quality in the immediate vicinity of placement activities. The public is typically prevented from entering the segment of beach under construction, so recreational activities would not occur near operations.

There is a low potential for Munitions of Explosive Concern (MEC) in the OSOKI borrow area. The Town prepared a MEC probability assessment to assess the risk of encountering munitions within the OSOKI borrow area. This assessment revealed no known Formerly Used Defense Sites (FUDS) located at the site of the OSOKI borrow area and no documented, historical evidence of any MEC in the borrow area. The Town of Oak Island conducted a magnetometer survey in the borrow area; the results showed no indication of the presence of any large MEC (e.g., artillery projectiles such as cannonballs) that would have been in use during World War I or the Civil War era. The Town of Oak Island deemed the potential to encounter MEC to be low risk during construction due to the more than 16 nautical miles distance offshore and the lack of evidence of MEC use or disposal in the OSOKI borrow area. The project specifications require the contractor to stop work and notify the appropriate agencies and the Town if MEC is encountered and will require the contractor to prepare and implement a MEC response plan, if warranted. The MEC response plan will be developed prior to construction, including reporting and response actions. The protocol will address notification of the relevant federal and state agencies, engagement of MEC handling specialists, MEC response actions, implementation of risk mitigation measures, and planned removal and disposition of MEC.

Dredging operations will be performed in accordance with an environmental protection plan, addressing marine pollution, waste disposal, and air pollution. The Town will be overseeing the construction contract and will be conducting inspections of all contract-related operations, in coordination with BOEM and Corps to ensure compliance with all plans and protocols.

2. *The degree to which the action may adversely affect unique characteristics of the geographic area such as historic or cultural resources, parks, Tribal sacred sites, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

No prime or unique farmland, park lands, designated Wild and Scenic reaches, or wetlands would be impacted by implementation of this Project. Critical habitat has been designated within and/or in the vicinity of the OSOKI borrow area and adjacent beach placement area for Atlantic sturgeon, loggerhead sea turtles (nesting, wintering, and nearshore reproductive critical habitat), and North

Atlantic right whales (calving and migratory). BOEM and the Corps have programmatically consulted with National Marine Fisheries Service (NMFS) (2020 South Atlantic Regional Biological Opinion (SARBO)) and United States Fish and Wildlife Service (USFWS) (North Carolina Coastal Beach Sand Placement Statewide Programmatic Biological Opinion) for dredging and material placement activities in the Project area. To avoid adverse effects to designated critical habitat, the Town and its dredging contractor will follow all applicable conservation measures, Project Design Criteria (PDC), Reasonable and Prudent Measures (RPMs), and Terms and Conditions (T&Cs).

The South Atlantic Fishery Management Council (SAFMC) has designated the OSOKI borrow area as Essential Fish Habitat (EFH). Impacts to EFH may occur, but the limited spatial and temporal extent of dredging suggests these impacts will not adversely affect EFH on a broad scale. Dredging will locally modify the overall seafloor geomorphology within the OSOKI borrow area. Similar microhabitat will exist pre- and post-dredging and benthic re-colonization should occur within a few years given recruitment from adjacent undisturbed communities. Demersal and pelagic fishes may temporarily avoid the dredged area because of locally reduced prey availability but are expected to return following benthic re-colonization. The OSOKI borrow area and associated pipeline corridors have been surveyed and cleared of hard bottom habitat; thus, direct and indirect impacts will be avoided. The NMFS Habitat Conservation Division (HCD) provided conservation recommendations on September 27, 2024, in response to BOEM's consultation request for the Project. The Town and BOEM have committed to implementing all recommendations, including post construction monitoring of volumetric infilling and sediment grain size in the OSOKI borrow area to ground truth recovery assumptions. The Town has committed to performing pre- and immediate post-dredge bathymetric surveys as well as surveys one year and three years following project completion.

The Town of Oak Island conducted geophysical surveys to explore the potential for historic and cultural resources with the OSOKI borrow area and pipeline corridors. No adverse effects to historic properties or cultural resources are expected. Consultation with the State Historic Preservation Office (SHPO) of the NC Department of Natural and Cultural Resources (DNCR) was led by the Corps. On September 4, 2024, the NC SHPO concurred with the no effect determination. Additionally, the Corps consulted with the Catawba Indian Nation (Catawba) and received concurrence on October 3, 2024.

3. *Whether the action may violate relevant Federal, State, Tribal, or local laws or other requirements or be inconsistent with Federal, State, Tribal, or local policies designed for the protection of the environment.*

The Town of Oak Island must comply with all applicable Federal, State, and local laws and requirements. BOEM would require the dredging contractor provide an environmental protection plan that verifies compliance with environmental requirements. BOEM has undertaken the necessary consultations with NMFS, USFWS, and relevant state agencies. The Town obtained a NC Department of Environmental Quality (DEQ) Division of Water Resources Individual 401 Water Quality Certification (DWR #20181344v4) for the Project. Water quality will be monitored to ensure state water quality standards are not violated. Additionally, the Division of Coastal

Management and Coastal Resources Commission in the NC DEQ issued a Coastal Area Management Act (CAMA) Major Permit (96-24) which included a seasonal prohibition on construction activities. These permits include mitigation and monitoring requirements that are applicable to the connected state construction activities, but not to BOEM's proposed action.

The proposed action is in compliance with the Marine Mammal Protection Act. Marine mammals are not likely to be adversely affected by the project and incorporation of safeguards to protect threatened and endangered species during project construction would also protect marine mammals in the area. The proposed action is in compliance with the Migratory Bird Treaty Act. Migratory birds are not likely to be adversely affected by the proposed action. Shorebirds and colonial nesting birds utilize the beach habitat year-round, but primarily in the spring and fall which does not overlap with the project schedule.

4. The degree to which the potential effects on the human environment are highly uncertain.

Beach nourishment is a common solution to coastal erosion problems along NC and has been ongoing in the Town of Oak Island since 2001. The OSOKI borrow area has been identified by the Town to contain approximately 5.0 Mcy of beach-compatible material available, but approximately 2.9 Mcy of material would be excavated.

The proposed dredging cut depths range between 3-10 feet and could create a post-dredge seafloor depression. The rate of infilling can vary based on location and the prevailing hydrodynamic conditions and sediment supply. Offshore borrow sites, such as the OSOKI borrow area, are positioned outside the primary sediment transport processes, and can result in a slower rate of infilling and associated benthic invertebrate recovery rates compared to nearshore sites. The recovery rate and benthic community structure of the OSOKI borrow area could be impacted by a slowed infilling rate and change in grain size composition; however, impacts are still expected to be short-term and recoverable. The Town has committed to implementing all Conservation Recommendations provided by NMFS, including monitoring of volumetric infilling and sediment grain size in the OSOKI borrow area to ground truth recovery assumptions. The proposed activities do not involve any unique or unknown risks.

5. The degree to which the action may adversely affect resources listed or eligible for listing in the National Register of Historic Places

Seafloor-disturbing activities (e.g., dredging, anchoring, pipeline emplacement and relocation) would occur during proposed construction activities. Archaeological clearance surveys were performed within the OSOKI borrow area and pipeline corridors to identify and avoid historic properties. The proposed action is expected to have no effect on historic or pre-Contact resources. The Corps led consultation with the NC SHPO and Catawba received concurrence on the determination of no effect on historic properties listed or eligible for listing in the National Register of Historic Places.

Interpretation of geophysical data identified what appears to be an infilled paleochannel in the vicinity of or beneath the borrow area. Assessment of geophysical survey and geological data revealed no features that could host potentially significant submerged cultural resources. Given

the remote possibility that one area of the paleochannel infill could represent a paleo landscape and contain evidence of human occupation, the Town of Oak Island conservatively revised the borrow area design by substantially reducing the cut elevation to only target material that is a marine transgressive deposit. BOEM will work with the NC DCNR Division of Historical Resources (DHR) and the Catawba should a shipwreck or other cultural resources be unexpectedly discovered. If an unexpected discovery occurs, the Corps and BOEM will work with the SHPO and Catawba to determine if the resource is significant or not and make the determination of the best means to protect the resource.

6. *The degree to which the action may adversely affect an endangered or threatened species or its habitat, including habitat that has been determined to be critical under the Endangered Species Act of 1973.*

The Project may adversely affect endangered and threatened species. The Town of Oak Island will comply with all requirements of Endangered Species Act (ESA) programmatic biological opinions associated with this Project including the 2020 SARBO and NC Coastal Beach Sand Placement Statewide Programmatic Biological Opinion to minimize the degree of effect. All applicable conservation measures, PDC, RPMs, and T&Cs, etc. will be followed.

BOEM and the Corps have confirmed the Project activities are covered under the existing SARBO and all applicable PDCs will be followed. The USFWS provided a response to a public notice posted by the Corps, stating that if all conservation measures and T&Cs of the Statewide programmatic opinion can be met (with emphasis on the requirements to work only during the winter work window and ensure compatibility of placed material with sea turtle nesting), the issuance of the Corps permit or BOEM negotiated agreement are covered.

This Project was fully coordinated under the ESA and is in full compliance with the Act. If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action, consultation will need to be reinitiated.

7. *The degree to which the action may adversely affect communities with environmental justice concerns.*

Executive Order (EO) 12898 directs federal agencies to identify and address disproportionately high and adverse environmental and human health effects of their actions on minority and low-income populations. The 2022 Census reveals a population of approximately 9,500 residents in the Town of Oak Island with a racial makeup of 94.9% white, 1% Black/African American, 0.1% American Indian/Alaska Native, 0.9% Asian, 1.2% Hispanic or Latino, and 3% two or more races. The median household income for the Town of Oak Island is higher than the median household income reported for NC, which indicates a substantial percentage of households reporting retirement incomes. The percentage of those living below the poverty line for the Town is 11.1 %, less than the percentage of those living below the poverty line for the State at 14%. This Project is

not expected to result in a disproportionate adverse effect to communities with environmental justice concerns, including access to public beaches.

8. The degree to which the action may adversely affect rights of Tribal Nations that have been reserved through treaties, statutes, or Executive Orders.

BOEM and the Corps have taken measures to ensure the action does not adversely affect rights of Tribal Nations, reserved through treaties, statues, and Executive Orders. The Corps initiated coordination with the Catawba on July 25, 2024, inviting them to consult on the proposed action. BOEM's action was identified. The Corps provided project specific details and the best available information to the Catawba to allow them to make an informed decision on whether to initiate consultation or not. The Corps received a response on October 4, 2024 stating that the Catawba reviewed the information and had no concerns regarding potential traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. The Catawba requested the Corps and BOEM notify them if Native American artifacts or human remains are inadvertently discovered during ground disturbance.

Consultations and Public Involvement

The Corps published a 30-day public notice for the Project on February 15, 2024. Commenting agencies included USFWS, NC Wildlife Resources Commission, and U.S. Environmental Protection Agency (USEPA) Region 4. Municipality comments were submitted by the Village of Bald Head Island and Coastal Protection Engineering of NC representing the Town of Caswell Beach. The Corps and BOEM considered all comments and integrated responses, as appropriate, in the EA. In addition, the Corps and BOEM have coordinated with the USFWS, NMFS, NC DEQ, SHPO, and Catawba Tribal Historic Preservation Officer (THPO) in support of this decision. Pertinent correspondence with Federal and state agencies are provided in the EA and associated appendices. This Finding will be made available to the public on boem.gov.

Mitigation and Monitoring

The Town of Oak Island is responsible for complying with all mitigation measures and monitoring requirements engendered by Federal, State, Tribal, and local laws. The Town will prepare an environmental compliance matrix (ECM) to document and track all environmental mitigation requirements and identify roles and responsibilities for implementation to ensure monitoring and enforcement prior to, during, and after construction. This ECM will satisfy the monitoring and compliance plan required by 40 CFR 1505.3(c). Additionally, the dredging contractor will be required to provide an environmental protection plan that verifies compliance with relevant environmental requirements. Implementation of mitigation measures and monitoring requirements will ensure effects are not significant.

Any mitigation or monitoring uniquely specified by BOEM in its negotiated agreement is done pursuant to the authority established by the Outer Continental Shelf Lands Act and 30 CFR 583. BOEM will verify that all mitigation required during OCS activities is completed through regular project meetings and reporting requirements, in addition to the ECM and environmental protection plan. Other project mitigation is engendered by various authorities, including the vested authority of the Corps, as well as environmental laws, such as ESA, CWA, and CZMA. Other federal or

state agencies shall be responsible for enforcement of other mitigation measures. BOEM may terminate its authorization or refer the Corps and the Town of Oak Island to enforcing agencies if the Town does not comply with mitigation measures (30 CFR 583).

Conclusion

BOEM considered the consequences of entering into a negotiated agreement authorizing use of OCS sand from the OSOKI borrow area for the Project. BOEM contributed to the preparation of the 2024 EA and then conducted its own independent review before adopting it. BOEM finds that the EA complies with the relevant provisions of the CEQ regulations implementing NEPA, DOI regulations implementing NEPA, and other Bureau requirements.

Based on the evaluation of potential effects and associated mitigation measures discussed in the EA, BOEM finds that entering into a negotiated agreement, with the implementation of the mitigating measures, does not constitute a major Federal action significantly affecting the quality of the human environment, in the sense of NEPA Section 102(2)(C), and would not require preparation of an EIS.

Attachments

Attachment 1 – Project Maps
Attachment 2 – EA

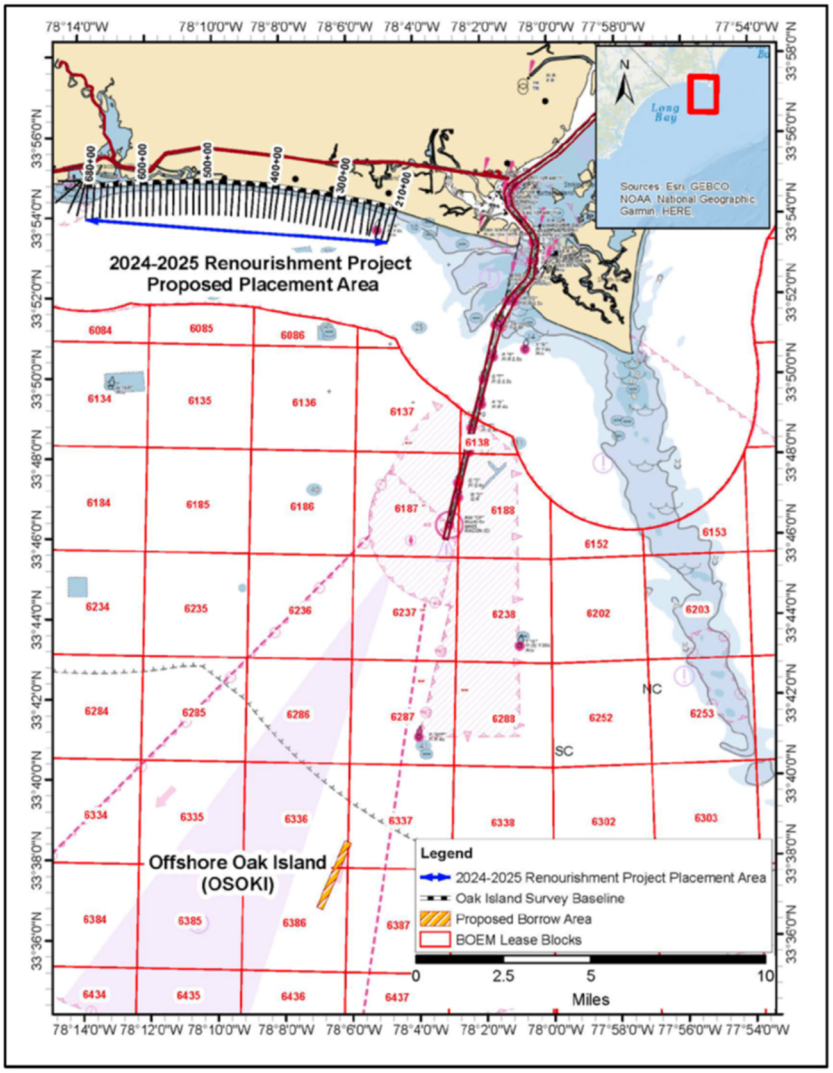
JEFFREY REIDENAUER Digitally signed by JEFFREY REIDENAUER
Date: 2025.01.15 14:23:44 -05'00'

Jeffrey Reidenauer, PhD
Division Manager, Marine Minerals

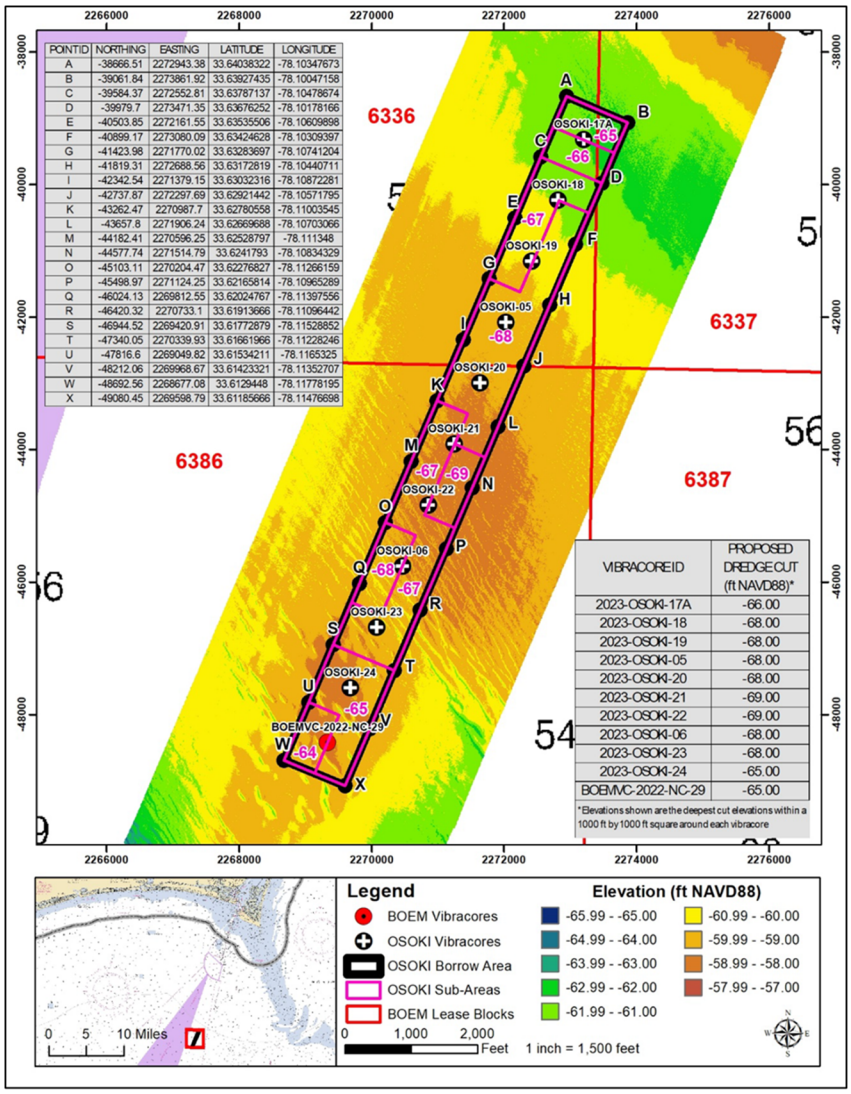
Date

ATTACHMENT 1
Project Maps

Project Location and OSOKI Borrow Area.



Attachment 1



POINTID	NORTHING	EASTING	LATITUDE	LONGITUDE
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B	-39061.84	2273861.92	33.63927435	-78.10047158
C	-39584.37	2272552.81	33.63787137	-78.10478674
D	-39979.7	2273471.35	33.63676252	-78.10178166
E	-40503.85	2272161.55	33.63535506	-78.10609898
F	-40899.17	2273080.09	33.63424628	-78.10309397
G	-41423.98	2271770.02	33.63283697	-78.10741204
H	-41819.31	2272688.56	33.63172819	-78.10440711
I	-42342.54	2271379.15	33.63032316	-78.10872281
J	-42737.87	2272297.69	33.62921442	-78.10571795
K	-43262.47	2270987.7	33.62780558	-78.11003545
L	-43657.8	2271906.24	33.62669688	-78.10703066
M	-44182.41	2270596.25	33.62528797	-78.111348
N	-44577.74	2271514.79	33.6241793	-78.10834329
O	-45103.11	2270204.47	33.62276827	-78.11266159
P	-45498.97	2271124.25	33.62165814	-78.10965289
Q	-46024.13	2269812.55	33.62024767	-78.11397556
R	-46420.32	2270733.1	33.61913666	-78.11096442
S	-46944.52	2269420.91	33.61772879	-78.11528852
T	-47340.05	2270339.93	33.61661966	-78.11228246
U	-47816.6	2269049.82	33.61534211	-78.1165325
V	-48212.06	2269968.67	33.61423321	-78.11352707
W	-48692.56	2268677.08	33.6129448	-78.11778195
X	-49080.45	2269598.79	33.61185666	-78.11476698

VIBRACOREID	PROPOSED DREDGE CUT (ft NAVD88)*
2023-OSOKI-17A	-66.00
2023-OSOKI-18	-68.00
2023-OSOKI-19	-68.00
2023-OSOKI-05	-68.00
2023-OSOKI-20	-68.00
2023-OSOKI-21	-69.00
2023-OSOKI-22	-69.00
2023-OSOKI-06	-68.00
2023-OSOKI-23	-68.00
2023-OSOKI-24	-65.00
BOEMVC-2022-NC-29	-65.00

*Elevations shown are the deepest cut elevations within a 1000 ft by 1000 ft square around each vibracore

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Attachment 1

ATTACHMENT 2

ENVIRONMENTAL ASSESSMENT FOR THE USE OF OUTER CONTINENTAL SHELF SAND FROM BORROW AREA OFFSHORE OAK ISLAND (OSOKI) FOR THE TOWN OF OAK ISLAND 2025 BEACH RENOURISHMENT PROJECT