# Radio Island Multi-Use Terminal
# Morehead City, Carteret County

ADMINISTRATIVE ACTION

**DRAFT ENVIRONMENTAL IMPACT STATEMENT**

October 2023

In Compliance with the North Carolina Environmental Policy Act

Lead Agency: North Carolina State Ports Authority
Brian E Clark
Executive Director

# Radio Island Multi-Use Terminal
# Morehead City, Carteret County

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Documentation Prepared by:

HDR Engineering Inc. of the Carolinas

Signatures and Dates will be included on the Final EIS.

| | |
|---|---|
| Date | Jonathan Henderson, PE<br>HDR Engineering Inc. of the Carolinas<br>South Atlantic Area Manager<br>HDR Principal |
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For the:

**North Carolina State Ports Authority**

| | |
|---|---|
| Date | Brian E Clark<br>North Carolina State Ports Authority<br>Executive Director |
| Date | Todd C Walton<br>North Carolina State Ports Authority<br>Senior Environmental Analyst |

# Table of Contents

## List of Tables

# List of Appendices and Figures

# Acronyms and Abbreviations

AADT-Annual Average Daily Traffic

ACHP-Advisory Council on Historic Preservation

ACS-American Community Survey

AFT-Aviation Fuel Terminal

APE-Area of Potential Effects

AST-Abandoned Storage Tank

BG-Block Group

BLS-Bureau of Labor Statistics

BMP-Best Management Practice

BOEM-Bureau of Ocean Energy Management

CAA-Clean Air Act

CAMA-Coastal Area Management Act

CFR-Code of Federal Regulations

CLNA-Carolina Coastal Railway

CO-Carbon Monoxide

CT- Census Tract

CTP-Comprehensive Transportation Plan

dB- Decibels

dBA-A-weighted Decibel

DEIS-Draft Environmental Impact Statement

DOD-Department of Defense

DSA-Demographic Study Area

EFH-Essential Fish Habitat

EO-Executive Order

EPA-Environmental Protection Agency

ESA-Endangered Species Act

EJ-Environmental Justice

FEMA-Federal Emergency Management Agency

FHWA-Federal Highway Administration

FLUM-Future Land Use Map

FRA-Federal Railroad Administration

FRIS-Flood Risk Information System

FTA-Federal Transit Agency

HTRW-Hazardous, toxic, and radioactive waste

HQW-High Quality Waters

Hz- Hertz

IPaC-Information for Planning and Consultation

Ldn-Day-Night Average Sound Level

LEP-Limited English Proficiency

Leq-Equivalent noise level

LiMWA-Limit of Moderate Wave Action

LOS-Level of Service

LST-Landing Ship Tank

MGD-Million gallons per day

Mph-Miles per hour

MSL-Mean Sea Level

NAAQS-National Ambient Air Quality Standards

NCDEQ-NC Department of Environmental Quality

NCDOT-NC Department of Transportation

NCDWR-NC Division of Water Resources

NEPA-National Environmental Policy Act

NHPA-National Historic Preservation Act

NMFS-National Marine Fisheries Service

NOAA-National Oceanic and Atmospheric Administration

NPDES-National Pollutant Discharge Elimination System

NRHP-National Register of Historic Places

NS- Norfolk Southern Railway

ORW-Outstanding Water Resources

OSW-Offshore wind

PIDP-Port Infrastructure Development Program

PM-Particulate Matter

PNA-Primary Nursery Areas

RoRo-Roll on/Roll off

ROW-Right of Way

SAV-Submerged Aquatic Vegetation

SEPA-State Environmental Policy Act

SHPO-State Historic Preservation Office

SPL-Sound Pressure Level

STIP-State Transportation Improvement Program

SVOC-semi-volatile organic compounds

SWL-Sound Power Level

UDO-Unified Development Ordinance

USACE-US Army Corps of Engineers

USCG-US Coast Guard

USFWS-US Fish and Wildlife Service

UST-Underground Storage Tank

UV-Ultraviolet

WCWC-West Carteret Water Corporation

# PROJECT COMMITMENTS

Radio Island Multi-Use Terminal

Morehead City, Carteret County

During the National Environmental Policy Act (NEPA)/ State Environmental Policy Act (SEPA) process, commitments are made to avoid, minimize, or mitigate project impacts. Commitments result from public comment or through the requirements of, or agreements with, environmental resource and regulatory agencies.

The following bullets list special project commitments that have been agreed to by North Carolina State Ports Authority (the Authority).

- The Authority should ensure that all public involvement activities include outreach materials appropriately focused on environmental justice (EJ) populations. Public involvement and outreach activities must ensure full and fair participation of all potentially affected communities in the transportation decision-making process.
- Best practices for minimizing construction impacts described in Section 4.15 and Mitigation Measures described in 4.16 will be followed and relayed to contractors for the project.
- Construction activities in-water will not occur until a determination is received from National Oceanic and Atmospheric Administration (NOAA) on impacts, if any, to essential fish habitat.
- Construction activities in-water will not occur until submerged aquatic vegetation areas are verified.
- The National Marine Fisheries Service (NMFS) lists the Atlantic sturgeon which will prompt informal consultation with NMFS (in process).
- The Authority or the construction contractor will monitor for new, active bald eagle nests within 660 feet of the study area throughout the duration of the construction.
- Prior to construction, the USFWS species list should be reevaluated to ensure no additional species have been listed as endangered or threatened that may have potential habitat in the project area.
- The Authority or a representative will apply for the following permits/approvals:
    - A Section 10 Permit (Nationwide or Individual) from the USACE
    - A Section 10 approval as part of the above
    - A Section 401 Certification from the NCDWR
    - A Section 9 Permit from the United States Coast Guard
    - A Consultation with NOAA Fisheries (in process)
    - A NCDWQ Isolated Wetland Permit
    - A Coastal Area Management Act (CAMA) Major Permit
    - A state stormwater permit in accordance with 15A NCAC 2H.1000.
    - Erosion and Sediment Control Permit as required by the North Carolina Department of Environmental Quality (NCDEQ). As part of the above permit, the Authority will be issued a General National Pollutant Discharge Elimination System (NPDES) Permit (NCG 10000) to cover stormwater discharges during construction.
- A refined construction noise assessment including a noise mitigation evaluation will be performed during the final design phase of the project.
- The type of pile driving equipment used, the locations of use, and need for noise mitigation measures can be determined during the final design phase of the project.

**Project Commitments Page 2**

- The Authority will coordinate with NCDOT Division 2 on proposed STIP Project U-5876. The Authority will coordinate with the Carteret County- Beaufort Airport Authority as tenant needs are determined to minimize impacts to airplanes from cranes used during project construction and operations.
- If existing water lines will be relocated, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section.
- Contractors will be required to provide proof of proper disposal for all generated waste to permitted facilities.

# SUMMARY

## S.1 Type of Action

Administrative Action Environmental Impact Statement

[X] Draft [ ] Final

## S.2 Contacts

The North Carolina State Ports Authority is serving in the role of Lead Agency on this project.

The following individual may be contacted for additional information regarding the Draft Environmental Impact Statement (DEIS):

North Carolina State Ports Authority

Todd C. Walton
Senior Environmental Analyst
2202 Burnett Boulevard
Wilmington, NC 28401
(910) 746-6460

## S.3 Description of Proposed Action

The North Carolina State Ports Authority (the Authority) proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County, North Carolina. Additional actions include roadway and rail improvements and a natural gas line from Morehead City to Radio Island. The rail improvements include multiple spurs on the Authority owned Class 3 rail line located on Radio Island (Figure 1-Appendix D).

## S.4 Purpose of the Proposed Action

The purpose of the Radio Island Multi-Use Terminal project is to support new industry opportunities to the state and the Authority. Additionally, the proposed project is for the generation of jobs and labor income to improve unemployment, increase median income, decrease the poverty rate in Carteret County and the region, and assist in transitioning the state to a clean energy economy.

## S.5 Need for the Proposed Action

October 29, 2018 North Carolina Governor Roy Cooper issued Executive Order (EO) No. 80 to address climate change and transition to a clean energy economy. In 2020, the governors of Maryland, North Carolina, and Virginia announced a three-state collaboration to advance offshore wind projects in the region and promote the Southeast and Mid-Atlantic United States as a hub for offshore wind energy and industry. The creation of the Southeast and Mid-Atlantic Regional Transformative Partnership for Offshore Wind Energy Resources (SMART-POWER) provides a framework for the three states to cooperatively promote, develop, and expand offshore wind energy and the accompanying industry supply chain and workforce. In June of 2021, Governor Cooper issued Executive Order No. 218 highlighting North Carolina's commitment to offshore wind power as the state transitions to a clean energy economy. The Executive Order highlights the economic and environmental benefits of offshore wind and directs actions to help North Carolina secure the jobs and economic development associated with the industry's estimated $140 billion investment over the next 15 years to develop projects from North Carolina up the Atlantic Coast.

The proposed action is needed to comply with these two EOs and to move the North Carolina economy in a more sustainable direction (Appendix A).

The need to be addressed by the project is to expand the capacity of the Authority to include automotive and wind energy industries and complementary manufacturing in support of EO No. 218, and other complementary opportunities at the Port of Morehead City.

Increasing automotive and wind energy commodity cargo would have a positive impact on the local economy. A modern state of the art terminal and OSW turbine generator hub would positively impact the local and regional economy creating a long-term high value asset.

A terminal for the wind power introduces a new industry opportunity to the state either as a service in maintaining an OSW wind farm or in manufacturing if a firm is recruited to the state. There would be long-term job impacts that recur each year, as long as the industry operates in the state. The employment impacts could be in the manufacturing sector, associated support manufacturing, transportation, or construction/maintenance of facilities offshore.

## S.6 Alternatives Considered

Two alternatives were considered for the Radio Island Multi-Use Terminal Facility. These include:

1. No Build Alternative
2. Built Alternative
    a. Alternative A
    b. Alternative B

The alternatives are described in Section 2.3 of this DEIS.

## S.7 Preferred Alternative

Build Alternative B, described in Section 2.2 and shown in Figure 3B in Appendix D is the Preferred Alternative for the proposed Radio Island Multi-Use Terminal. The Build Alternative was selected because construction of the project would provide infrastructure that meets the intent of the 2021 Strategic Plan of the North Carolina State Ports and the 2022 Statewide Multimodal Freight Plan, and specifically EO No. 80 and EO No. 218, by constructing a multi-use terminal on Radio Island that could attract automotive and wind energy industries and enhance economic development, both locally and across the state. Specifically, Alternative B was selected as the Preferred Alternative as it allows truck traffic to access the multi-use terminal from Radio Island Road instead of Marine Drive, thus providing safer travel for local residents and users of the recreational area on the east side of the island. Alternative A was not selected as the Preferred Alternative as it would mix personal vehicles and truck traffic accessing the multi-use terminal.

## S.8 Summary of Impacts

A summary of the potential impacts from the Preferred Alternative is shown in Table S-1.

Table S-1. Summary of Potential Impacts

| Resource/Affected Environment | Potential Impacts |
|---|---|
| Estimated Investment | $250-285 million dollars (construction) |
| Expected Employment | 150-400 construction/operation jobs |
| Right of Way Impacts (acres) | None |
| Permanent Easements (acres) | None |
| Temporary Easements (acres) | None |
| Wetland Impacts (acres) | Approx. 3.1 acres of wetlands are in the study area. Wetland impacts to be determined when the final site plan is developed for tenant(s). |
| Submerged Aquatic Vegetation (acres) | TBD |
| Threatened or Endangered Species | 17 species/ 6 potentially impacted |
| Impacted Species | Piping Plover- MANLAA<br>Red Knot- MANLAA<br>Northern Long-Eared Bat- MANLAA<br>Tricolored Bat- MANLAA<br>West Indian Manatee- MANLAA<br>Atlantic Sturgeon – MANLAA |
| Archaeology | None |
| Section 4(f) Resources | None |
| Noise | Unknown until tenant needs are known |
| Hazardous Materials | 5 sites/ No impacts |

MANLAAA= May Affect, Not Likely to Adversely Affect

## S.9 Actions Required by Other State and Federal Agencies

It is anticipated that the following permits/approvals will be necessary:

- A Section 10 Permit (Nationwide or Individual) from the USACE
- A Section 10 approval as part of the above
- A Section 401 Certification from the NC Division of Water Resources (NCDWR)
- A Section 9 Permit from the United States Coast Guard
- Essential Fish Habitat Consultation with NOAA Fisheries (in progress)
- A NCDWQ Isolated Wetland Permit
- A Coastal Area Management Act (CAMA) Major Permit
- A state stormwater permit in accordance with 15A NCAC 2H.1000.
- Erosion and Sediment Control Permit as required by the North Carolina Department of Environmental Quality (NCDEQ). As part of the above permit, the Authority would be issued a General National Pollutant Discharge Elimination System (NPDES) Permit (NCG 10000) to cover stormwater discharges during construction.

# 1. PURPOSE OF AND NEED FOR PROJECT

## 1.1 Type of Action

This environmental document is a Draft Environmental Impact Statement (DEIS) and was prepared in accordance with the North Carolina State Environmental Policy Act of 1971 (SEPA). National Environmental Policy Act (NEPA) requirements are also included due to the potential to maintain eligibility for federal funding as well as ensure the permitting agencies have all the necessary information required for their processes. This document is prepared for the purpose of evaluating the potential impacts of a proposed transportation improvement project.

## 1.2 Proposed Action

The Authority proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County, North Carolina. Additional actions include roadway and rail improvements and a natural gas line from Morehead City to Radio Island. The rail improvements include spurs on the Authority owned Class 3 rail line located on Radio Island.

The proposed action includes development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operations in the automotive and offshore wind (OSW) industries. Infrastructure development would include gravel or paving the majority of 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of an estimated 300,000 square foot manufacturing facility with office space for OSW, approximately 100,000 square feet of warehouse with office space or complementary uses for automotive industry use, modifying the existing pier to accommodate roll on and roll off vessel operations, construction of a new southern 1,600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

## 1.3 Project Setting

### 1.3.1 Description of Project Area

Radio Island is a 1930's spoil-created island of approximately 253 acres situated between the mainland municipalities of Morehead City and Beaufort in Carteret County. The island is surrounded by the Intracoastal Waterway, which includes the Newport River to the north, and Bogue Sound to the west. Additionally, the Beaufort and Morehead City channels are located to the immediate east and west of Radio Island, respectively. The Authority owns both the Port of Morehead City, located west of Radio Island, and approximately 200 acres on the west side of Radio Island. Approximately 154 acres of the port-owned land on Radio Island is undeveloped. Radio Island is wholly within the municipal limits of Morehead City. The project study area includes 154 acres of the island and 31 acres within the Newport River (Figure 1-Appendix D).

The Port of Morehead City is identified as a Strategic Seaport for military use. Strategic Seaports are key facilities that enable rapid deployments and responses to national security and the US Department of Defense (DOD).

Radio Island has direct access to the ocean with no bridge or overhead obstruction. No height restrictions exist on the southern portion of Radio Island[1]. The port has a channel depth of 45 feet at Radio Island. The ocean channel has a 47-foot depth in the approach to the port. The ocean channel is four miles away. There is no air draft restriction in the channel. One turning basin is located within the northwest leg of the harbor channel and has a water depth of approximately 35 feet and radius of 1,100 feet. The other turning basin, located at the 'Y' of the navigation channel and the Newport River, has a water depth of 45 feet and radius of 1,350 feet.

Radio Island port infrastructure includes an existing bulkhead and related liquid loading/ unloading equipment for above ground storage tanks, an aviation fuel terminal, approximately 320-foot-long barge dock, and administrative offices. The storage tanks are leased to private companies but are currently empty. The T-head pier on the west side of the Island can

[1] Source: Building North Carolina's Offshore Wind Supply Chain, BVG Associates, LLC, March 2021, available at https://www.commerce.nc.gov/report-building-north-carolinas-offshore-wind-supply-chain/download.

accommodate barges and vessels up to 600 feet in length. Vessel access to the Radio Island terminal is via the T-head pier near the terminus of the existing rail tracks, inside the port security zone for the terminal.

Six aboveground storage tanks are located at the southern end of Radio Island Road. The tanks to the north previously contained liquid fertilizer but have been empty for over six years, and the tanks to the south originally contained sulfur but were decommissioned in 2021. The tanks are located on port-owned property.

Carolina Coastal Railway (CLNA) operates the Authority trackage serving the Port of Morehead City. The Radio Island switching yards for CLNA are located between US 70 and Old Causeway Road. On Radio Island there are five at-grade crossings, three leads, and two spurs for the currently out-of-service rail line (see Figure 2- Appendix D).

Immediately south of the project study area, at the island's southern tip, is a 3.9 acre federally owned parcel which includes three landing-ship-tank (LST) ramps and a large, paved staging area. This area is used by the US Navy for the embarking and debarking of troops and equipment based in eastern North Carolina at Marine Corps Base Camp Lejeune and Marine Corps Air Station Cherry Point (see Figure 2- Appendix D).

US Highway 70 travels along the northern boundary of Radio Island and provides access to major interstates located west of Carteret County and to the Outer Banks National Scenic Byway in Beaufort. The Byway's western terminus begins at the intersection of US 70 and Merrimon Road (SR 1300), approximately six miles east of Radio Island.

Pivers Island is located between the Town of Beaufort on the east and Radio Island on the west. This island includes Duke University's Marine Lab and the National Oceanic and Atmospheric Administration's (NOAA) Beaufort Lab. The island includes boat docks for use by the research facilities.

The Rachel Carson Coastal Estuarine Reserve is a collection of islands, saltwater marshes, and surrounding water encompassing 2,315 acres. The Reserve is located east of Radio Island between the mouths of the Newport and North Rivers, west of the Town of Beaufort. Access to the island is only by water transport.

Fort Macon State Park is located south of Radio Island across the Morehead City shipping channel. The Park is open year-round for visitors to enjoy fishing, swimming, and hiking activities. Seasonal education events are scheduled between April and October.

### 1.3.2 Existing Transportation Facilities

US 70 (Arendell Street) is classified as a Principal Arterial. The roadway approaches Radio Island from Morehead City (US 70 East) and consists of two 12-foot lanes across the Newport River bridge. The posted speed limit is 45 miles per hour (mph). Traveling from Beaufort US 70 West consists of four 12-foot travel lanes with a 55-mph speed limit. This portion of US 70 bridges Town Creek then transitions to a grass median-divided roadway. A section of US 70, approximately 0.30 miles in total length and located on either side of the Radio Island Road intersection, consists of a superstreet configuration (a reduced conflict intersection). Traffic from Radio Island must turn right onto US 70 with those wishing to travel westward making a U-turn in approximately 800 feet. US 70 is a designated hurricane evacuation route and in Carteret County also designated as a military commuting route.

Carteret County maintains the paved roads on Radio Island which include:

- Old Causeway Road (SR 1205) is classified as a local roadway providing east-west travel on a 2-lane bidirectional roadway. Old Causeway Road parallels both US 70 and the CLNA yard on the north side. The roadway has a posted speed limit of 55 mph.
- Radio Island Road (SR 1175) is a two-lane bidirectional roadway that provides semicircular travel in a northeast to southwest to southeast direction between the two intersections with Marine Drive. The roadway has 10-foot travel lanes and a posted speed limit of 45 mph. Radio Island Road provides access to industrial, and residential properties, Radio Island Marina, and the NC Port terminal. West of Radio Island Marina,

Inlet Drive intersects Radio Island Road in two locations. Inlet Drive provides access to a private dock and single-family residential properties.

- Marine Road provides north-south travel beginning at the intersection with Radio Island Road, across from Radio Island Marina to the southern tip of the island. This roadway provides access to Olde Towne Yacht Club Road, Olde Towne Yacht Club Drive and the US DOD parcel at the southern end of the island. Marine Drive is identified as a Non-State-Owned/ Non-Federal-Owned[2] roadway (i.e. private, municipal etc.). It is used several times a year for military purposes to reach the landing craft area.[3]
- Olde Towne Yacht Club Road intersects Marine Drive from the east at approximately mid-island. Olde Towne Yacht Club, a waterside condominium community is located on Olde Towne Yacht Club Road. The community includes 102 permanent and rental properties in a single 7-story building with amenities, marina and 96 boat slips. North of the Olde Yacht Club community a new waterfront residential community, Inlet Cove at Radio Island, is under construction. This community will include 61 4-story townhouse units in 15 buildings with a variety of configurations, amenities and private marina.
- Olde Towne Yacht Club Drive is located immediately south of Olde Towne Yacht Club Road and provides access to the Radio Island Public Beach Access area. The Authority owns the beach access parcel with Carteret County Parks and Recreation Department managing the recreational resource.
- Morgan Road is a partially paved, gravel local roadway on the east side of the island providing access to a commercial boat repair facility and single-family houses with private docks. The roadway intersects with Old Causeway Road. Morgan Creek Landing, a 30-unit condominium community, is located at this intersection.

The CLNA corridor is stubbed west of Beaufort at Town Creek and travels westward across Radio Island on the 1/3-mile long railroad bridge across the Newport River. The railroad connects with the Norfolk Southern Railway (NS) system west of the Port of Morehead City. The distance from Radio Island to the NS interchange is approximately 1.5 miles. NS receives and delivers the rail business from the port with CLNA performing rail operations in the port area.

Michael J Smith Field is a general aviation airport located approximately two miles northeast of Radio Island. Access to the airport is from US 70. The airport is managed by the Carteret County- Beaufort Airport Authority and includes three asphalt runways, a terminal building, hangar and tie-down spaces, and fuel storage.

## 1.4 Purpose of Proposed Action

The purpose of the Radio Island Multi-Use Terminal project is to support new industry opportunities to the state and the Authority. Additionally, the proposed project is for the generation of jobs and labor income to improve unemployment, increase median income, decrease the poverty rate in Carteret County and the region, and transition NC to a clean energy economy.

## 1.5 Need for Proposed Action

The project is needed to comply with North Carolina EO Nos. 80 and 218 by advancing a clean energy economy. The proposed action would expand the capability of the Authority to include wind energy industries and complementary manufacturing. The proposed project would also provide waterside and landside facilities to support the automotive industry. The proposed project is intended to address the following:

- Improving NC Port's ability to expand their customer base.
- Introducing new growth opportunities for automotive and wind power industries.
- Allowing the Authority to perform as an OSW hub.
- Supporting NC energy and economic development goals.
- Helping NC transition to a clean energy economy by 2030.

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[2] Source: NCDOT Public Street Information Database Map (HB620) https://ncdot.maps.arcgis.com/apps/webappviewer/index.html?id=9ddc945069a0497cbc3587c64b442f31

[3] Source: Duke Energy Site Evaluation Report, Radio Island Site; Carteret County NC, 2019

### 1.5.1 Current Radio Island Terminal Operations

The Radio Island terminal is currently not in use. In the past liquid bulk freight was transported through the facility, however, the six holding tanks are not in use and sit empty. The tanks are separated by a grassy area that included former aviation fuel tanks. These tanks were removed in 2000. Section 3.12 provides information on groundwater monitoring at the former Aviation Fuel Terminal (AFT) facility with conclusions and recommendations. Ships do not currently dock at the pier on the west side of the island that was previously used to support liquid bulk freight.

### 1.5.2 Economic Development

The following sections describe EO Nos 80 and 218 and state initiatives that can drive and promote economic development across North Carolina and serve as the backbone for development of the Radio Island multi-use terminal.

#### *1.5.2.1 Executive Order 80 and 218*

Executive Order No. 80, North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy, calls on Cabinet agencies (which include NCDOT and its Divisions) to integrate climate adaptation and resiliency planning into their policies, programs, and operations. This includes supporting communities and sectors of the economy that are vulnerable to the effects of climate change, and enhancing the agencies' ability to protect human life and health, property, natural and built infrastructure, cultural resources, and other public and private assets.

Executive Order No. 218 serves to advance OSW power in an effort to help secure the jobs and economic development associated with wind power, and transition to a clean energy economy. In the EO Governor Cooper directed the NC Department of Commerce to establish the North Carolina Taskforce for Offshore Wind Economic Resource Strategies (NCTowers). The Order also established offshore wind development goals of 2.8 gigawatts off the North Carolina coast by 2030 and 8.0 gigawatts by 2040. A copy of both EO Nos 80 and 218 are in Appendix A.

#### *1.5.2.2 Offshore Wind (OSW) Energy Development*

During the February 3, 2022 inaugural meeting of the NCTowers taskforce the policymakers heard a presentation from the NC Department of Commerce that major component parts for OSW energy are too large to be transported by truck or rail. This means that blades, towers, and steel plates must be manufactured and assembled close to the coast in staging areas. Workers in many different occupations, including machinists, computer-controlled machine tool operators, assemblers, welders, quality-control inspectors, and industrial production managers, are involved in manufacturing the turbine components.[4] Subsequent taskforce and subcommittee meetings were held May 5, August 4 and November 1, 2022. The November 2022 meeting agenda included a presentation that OSW energy , among other energy delivery and storage systems, is focusing on areas east of I-95 in North and South Carolina[5]. The presentation noted that the Port of Morehead City is well suited to support the OSW industry currently developing off the US East Coast.[6]

The US Bureau of Labor Statistics (BLS) released a white paper in February 2021 titled *Solar and Wind Generation Occupations: A Look at The Next Decade.*[7] The paper indicates that advancements in technology have allowed for the rapid expansion of solar and wind generation capacity. After turbines are manufactured, wind turbine technicians (windtechs) install, maintain, and repair them. This occupation is projected to grow much faster than the average for all

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[4] Source; US Bureau of Labor Statistics website https://www.bls.gov/green/wind_energy/

[5] Source: NCTowers Quarterly Meeting, November 1, 2022, Offshore Wind-Related Activities PowerPoint presentation available at https://www.commerce.nc.gov/media/6389/open

[6] Source: NC Department of Commerce, Key Findings and Recommendations from the 2021 NC Offshore Wind Supply Chain Report, available on the NC TOWERS website https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers

[7] Source: US Bureau of Labor Statistics (BLS) Beyond the *Numbers Solar and Wind Generation Occupations: A Look At The Next Decade*, available on the BLS website https://www.bls.gov/opub/btn/volume-10/solar-and-wind-generation-occupations-a-look-at-the-next-decade.htm

occupations from 2019 to 2029. This occupation will continue to be needed to meet the expected increased demand for renewable electricity generation. The BLS data indicates between 2019 and 2029 the windtech occupation is projected to increase almost 61 percent. In 2019 the median annual wage for this occupation was almost $53,000, which is more than the 2019 US median annual wage for all occupations ($39,810). This occupation typically requires on-the-job training to attain skills competency rather than requiring a postsecondary degree. This occupation could provide long-term, high paying jobs to the local economy.

North Carolina could realize permanent, skilled jobs in the manufacturing sector, associated support manufacturing, transportation, or in the case of OSW, construction and maintenance of a facility offshore.

#### *1.5.2.3 Roll-On Roll-off Cargo*

Roll-on Roll-off (RoRo) cargo includes wheeled equipment that may be rolled onto a specialized vessel. RoRo cargo requires no cargo handling equipment at the berth. The RoRo market considered for North Carolina would be focused on personal vehicles, and construction or industrial equipment, which may be heavy or oversize.

Oversize cargo comprises breakbulk goods that may be too heavy, too tall, or too wide to transport, handle, or store with conventional facilities. This includes cargo that requires high-capacity cranes at the wharf. Large components for wind power installation are among the cargo included in the oversize category. Lifting very large or heavy cargo requires special handling equipment. It is important that inland road and rail infrastructure can also accommodate the size and weight requirements of this cargo.

Producers of manufactured goods, especially those that make large bulky products rely on port access to receive parts and to deliver products to customers. The ability of the Authority to accommodate RoRo or oversize cargo on Radio Island would ensure the fast and efficient shipping of goods over long distances. RoRo vessels offer a more efficient means of transporting wheeled cargo then other methods, reducing the time a vessel remains at the dock.

A RoRo terminal may also support battery electric vehicles (BEV). These all-electric vehicles use batteries to store electrical energy that powers the vehicle. Manufacturing of the alternative-energy BEV, and batteries to support the vehicles, is a growing industry in the southeastern states. The Authority estimates 150-175 thousand vehicles a year could be processed through a RoRo facility on Radio Island.

### 1.5.3 Capacity Analysis Results

The Traffic Assessment for Radio Island (January 2023) analyzed the three intersections on US 70 in an effort to determine potential impacts of the proposed development on the traffic operations at the adjacent intersections. The intersections are:

- US 70 and Western U-Turn Bulb
- US 70 and Radio Island Road/ Newport Pier and Ramp Driveway
- US 70 and Eastern U-Turn Bulb

The intersections were evaluated for each of the following scenarios:

- 2022 Existing Conditions
- 2045 No-Build Conditions
- 2045 Build Conditions
- 2045 Build Improved Conditions

The analysis evaluated the future-year conditions both with and without the proposed development in order to understand the potential impacts of the development on traffic volumes at the study intersections. The analysis evaluated these impacts to make recommendations regarding the design or configuration of the adjacent intersections and roadways. Table 1 summarizes the existing roadway network within the vicinity of the site.

**Table 1. Existing Roadway Inventory**

| Road Name | Lanes | Maintained By | Speed Limit | Annual Average Daily Traffic (AADT) |
|---|---|---|---|---|
| US 70 (Arendell Street) | 2-lane undivided / 4-lane divided | NCDOT (US Route) | 45 mph | 19,000 vehicles per day (vpd)[1] |
| Radio Island Road (SR 1175) | 2-lane undivided | NCDOT (Secondary Route) | Not posted | 1,300 vpd[2] |

1. Based on NCDOT 2019 AADT data (note 2020 data available, but is not shown due to effects of the COVID-19 pandemic on traffic trends)
2. Based on data collection, assuming the weekday PM peak hour represents 10% of daily traffic

Assess to the proposed development is proposed via connections to the existing Radio Island Road.

The capacity of an intersection is described by Level of Service (LOS), ranging from A to F with A described as free-flow traffic conditions and F as poor progression, extreme delay. Except for the northbound approach of the US 70/ Newport Pier and ramp driveway all of the intersections in the analysis perform with a LOS of C or better under the 2045 Build conditions. LOS C traffic flow conditions are fair progression with some delay. Tables 2 and 3 show the weekday AM and PM Peak Hour Level of Service, respectively. In the tables below Delay is a measure of quality of service to the road user. It is represented by the number of seconds traffic is delayed at the intersection. The volume/capacity (v/c) ratio is a measure of capacity sufficient or if the physical geometry and signal design provide sufficient capacity for the movement(s).

**Table 2. Weekday AM Peak Hour Level of Service**

| Intersection | Approach | 2022 Existing | | | 2045 No-Build | | | 2045 Build | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | LOS | Delay | Max v/c | LOS | Delay | Max v/c | LOS | Delay | Max v/c |
| US 70 and western U-turn bulb | Eastbound | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Westbound U | C | 16.3 | 0.01 | B | 13.5 | 0.08 | C | 15.3 | 0.17- |
| | Overall | -- | -- | -- | -- | -- | -- | -- | -- | |
| US 70 and Radio Island Rd/ Newport Pier and ramp driveway | Eastbound | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Westbound Left | C | 19.1 | 0.12 | -- | -- | -- | -- | -- | -- |
| | Northbound | C | 15.5 | 0.09 | B | 13.0 | 0.09 | B | 13.5 | 0.16 |
| | Southbound | A | 0.0 | -- | A | 0.0 | -- | A | 0.0 | -- |
| | Overall | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| US 70 and eastern U-turn bulb | Eastbound U | C | 23.5 | 0.11 | C | 16.3 | 0.09 | C | 17.9 | 0.18 |
| | Westbound | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Overall | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 3 Weekday PM Peak Hour Level of Service**

| Intersection | Approach | 2022 Existing | | | 2045 No-Build | | | 2045 Build | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | LOS | Delay | Max v/c | LOS | Delay | Max v/c | LOS | Delay | Max v/c |
| US 70 and western U-turn bulb | Eastbound | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Westbound U | C | 18.4 | 0.06 | C | 15.6 | 0.19 | C | 18.7 | 0.36 |
| | Overall | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| US 70 and Radio Island Rd/ Newport Pier and ramp driveway | Eastbound | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Westbound Left | D | 25.7 | 0.47 | -- | -- | -- | -- | -- | -- |
| | Northbound | C | 20.0 | 0.06 | C | 20.1 | 0.40 | E | 36.3 | 0.78 |
| | Southbound | A | 0.0 | -- | A | 0.0 | -- | A | 0.0 | -- |
| | Overall | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| US 70 and eastern U-turn bulb | Eastbound U | C | 23.2 | 0.28 | C | 16.6 | 0.24 | C | 23.1 | 0.52 |
| | Westbound | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | Overall | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Additional details can be found in the Radio Island Traffic Assessment Memo available in the Authority's project files.

### 1.5.4 Crash Data

For the Traffic Assessment crash data was reviewed within the study area utilizing the NCDOT Total Crash Frequency by Intersection map for the most recent 5-year period (January 1, 2017, through December 31, 2021). Overall, no fatal crashes were reported in the most recent 5-year period at the study area intersections. Table 4, below, summarizes the number of crashes within the vicinity of the site.

**Table 4 Crash Data Summary**

| Intersection | No. of Crashes (5-Year | Approx. Average No. Crashes /Yr. | % Rear End Collisions | % Frontal Impact Collisions | Sideswipe Collisions | % Other Collisions |
|---|---|---|---|---|---|---|
| US 70 and Radio Island Rd/ Newport Pier and Ramp Driveway | 21 | 4 | 38% | 29% | 5% | 28% |

Overall, the majority of crashes were rear end collisions or frontal impact collisions based on the most recent 5-year period of crash data within the study area, as shown in the NCDOT Total Crash Frequency by Intersection map. These crash types are typically associated with congestion along the corridor. With the improvements proposed, these crashes are anticipated to be reduced. It should be noted that this data collection period included construction and the impact of the COVID-19 pandemic, which may alter normal operations and crash results.

### 1.5.5 Transportation Plans and Studies

Several planning studies were reviewed, and the subject project incorporated to address maritime and accompanying roadway needs where appropriate. The plans and studies include:

The North Carolina State Ports Authority

*2021 Strategic Plan of the NC State Ports Authority (June 2021)*

- **Ro-Ro, Auto, Project Sectors**

  The Authority has an opportunity to make an entrance as a Roll on, Roll off (Ro-Ro) terminal player over the five-year planning period. The mid-Atlantic is underserved by Ro-Ro facilities with the largest gateways located to the north in Baltimore, Maryland and to the South in Brunswick, Georgia and Jacksonville, Florida. The number of automotive manufacturing plants and dealership distribution points in the southeastern United States is substantial and growing. Automotive supply chains are built around manufacturers, original equipment manufacturers (OEMs), and processors – each having the potential to anchor regular Ro-Ro services connecting Asia, Europe, and the Americas (Mexico).

  As the Authority's rail network grows, developing access to plants producing electric and other technologically advanced vehicles will become a crucial strategy.

- **Energy, Renewables, Offshore Wind**

  North Carolina as a state is examining the opportunity of developing the offshore wind (OSW) supply chain, including OSW manufacturing (blades, towers, and nacelles), assembly, marshalling, and the OSW maintenance and support sector. North Carolina's well-established manufacturing in the state provides a unique opportunity to leverage the growing offshore wind industry on the US East Coast. The Authority has multiple port and water-front properties well-situated to meet the requirements for staging, storage, and maintenance in support of the industry. In the near term, environmental studies and access improvements at potential offshore wind support facilities, mainly Radio Island in Morehead City, could help North Carolina compete for OSW manufacturing and construction opportunities, as well as longer-term maintenance and support operations.

  Within the OSW, automotive, and project sectors, specialized carriers and terminals often cater to a mix of complementary industrial sets. The Authority must consider potential growth with industry partners across these sectors to maximize gateway asset and property potential.

Carteret County

*2021 Land Use Plan Carteret County North Carolina* (Adopted Draft December 2021)

- **Infrastructure Carrying Capacity Policy Number 3.11** supports improving US 70 with a 4-lane divided boulevard from 4th Street in Morehead City to Radio Island and constructing a new interchange at US 70 and Radio Island Road.
- **Infrastructure Carrying Capacity Policy Number 3.15** states that Carteret County supports growth and material expansion of the North Carolina State Port Terminal, provided plans are prepared that address the impact of associated rail and road traffic increases in Morehead City and Carteret County.
- **Natural and Man-Made Hazard Areas Policy Number 4.13** provides guidance for dredging and beach nourishment activities.

*Carteret County Comprehensive Transportation Plan* (CTP) (May 2012)[8]

- The CTP recommends a multi-use path along US 70 from Morehead City eastward to Radio Island then south on Marine Road and Olde Towne Yacht Club Road. The CTP also identifies on-road bicycle facilities along US 70 from 35th Street to 4th Street as needing improvement.

Town of Morehead City

*Town of Morehead City North Carolina Coastal Area Management Act (CAMA) Core Land Use Plan (*Adopted August 14, 2007, Amended August 3, 2021)

- The plan acknowledges that "further development of Radio Island is expected to occur, with a mix of industrial, residential and recreational uses."
- The Future Land Use Map classifies the NC Port facility and Radio Island in the Port Mixed Use classification. This classification is suitable for multiple land uses including industrial, commercial, and high density residential.

Other

*North Carolina Statewide Multimodal Freight Plan* (May 2022)

- The plan states that although, there is still room to improve on the current footprint of the port, Radio Island is a good development site for a stand-alone facility and has potential to be further developed (Ro/Ro or containers would be good cargo here).
- Recommendation to move military operations to Radio Island, add secure gate there.
- Recommendation to widen US 70 (Arendell St) and Radio Island Compressed Diamond (with U-5740) (See NCDOT Division 2 U-5876 P4.0 HWY: unfunded US 70 Havelock Bypass).
- The navigation channel into Morehead City adjacent to Radio Island at the mouth of the Newport River is filling with sediment and deposition of sand and is a bottleneck to the transport of hazardous materials by ship in that area. This is causing the company, Nutrien Aurora Phosphate, to only partially load ships to prevent grounding and other safety concerns. The plan suggests the Corps of Engineers enhance the channel that nature seems to favor, rather than continuing to dredge in an area of ongoing deposition.

### 1.5.6 Proposed Nearby Highway Improvements

The NC Department of Transportation's (NCDOT) 2024-2033 State Transportation Improvement Program (STIP) was researched on June 20, 2023 for proposed highway improvements in the vicinity of Radio Island. The STIP includes seven roadway improvement projects and a broadband improvement located within three miles of the proposed project. One proposed project includes improvements on Radio Island; STIP Project U-5876. Proposed improvements for U-5876 include the widening of US 70 and the replacement of bridge number 150013 over the Newport River. Project number U-5876 also includes a grade separation of US 70 on Radio Island. Table 5 provides a brief description of these projects, along with the right of way (ROW) and construction schedule.

[8] The CTP is currently under revision. The expected completion date is unknown.

**Table 5. Nearby STIP Projects**

| STIP No. | Project Description | ROW Begins | Construction Begins |
|---|---|---|---|
| B-5938 | Rehabilitate bridge 150068 on Atlantic Beach Causeway (SR 1182) over the Bogue Sound | -- | Under Construction |
| HS-2002U | SR 1310 (Lennoxville Rd) at Carteret Avenue in Beaufort. Install crosswalk signalization. | -- | Under Construction |
| R-5777D | Install broadband fiber along US 70m from I-40 to Port of Morehead City | -- | Under Construction |
| R-5945 | On US 70 incorporate access management techniques from NC 101 to Olga Road (SR 1429) | 2027 | 2029 |
| R-5946 | On US 70 upgrade the intersection with Lennoxville Road (SR 1310) | 2027 | 2029 |
| R-5962 | On US 70 construct a roundabout at Live Oak Street | Not Funded | Not funded |
| U-5876 | Widen US 70 to multi-lanes from 4th St to Radio Island Rd (SR 1175) | Funded for PE Only | Funded for PE Only |
| U-6058 | On US 70 construct a roundabout at NC 101 | 2023 | 2025 |

### 1.5.7 Proposed Nearby Rail Improvements

On December 23, 2021, a US Department of Transportation 2021 Port Infrastructure Development Program (PIDP) grant was awarded to the Authority for the Radio Island Rail Improvements Project. The project includes improvements within the Radio Island port facility to replace existing tracks with rail infrastructure that meets federal track safety standards. Development of the environmental document and permitting for these rail improvements is scheduled for 2023 with construction scheduled to begin by the end of 2023.

# 2. DESCRIPTION OF ALTERNATIVES CONSIDERED

A discussion of the alternatives considered for the proposed action, the process of elimination of those alternatives not determined reasonable and feasible, and the basis for the selection of the alternatives carried forward for detailed study are provided in this chapter.

Alternative concepts were evaluated for the proposed action to determine their reasonableness and feasibility and included the No Build Alternative and Build Alternatives.

## 2.1 No Build Alternative

The No Build Alternative includes short-term, minor restoration types of activities (safety and maintenance improvements, etc.) that maintain continuing operation of the existing Radio Island terminal. The No Build Alternative assumes the current terminal operations continue without implementation of the proposed action. With the exception of routine maintenance, no changes would take place within the project study area. The No Build Alternative also serves as the baseline comparative alternative for the Build Alternatives.

The No Build Alternative would not provide the Authority critical infrastructure to develop a new customer base with the automotive and wind energy industries or support EO No. 218; therefore, it would not meet the needs of the project. However, in accordance with NEPA (40 Code of Federal Regulations [CFR] 1502.14(d)) the No Build Alternative is given full consideration in the DEIS to provide a baseline for comparison with the Build Alternatives.

As described in Appendix B of the USACE regulations at 33 CFR 325, USACE considers the No Build Alternative to be the alternative that results in no construction requiring a USACE permit.

## 2.2 Build Alternatives

The Build Alternatives includes the construction of multi-use terminals on both landside and waterside areas along the west side of Radio Island, construction of rail spurs, and improvements of existing roadways to provide access to the newly constructed improvements.

Two Build Alternatives were developed based on the *Traffic Assessment; Radio Island* discussed in Section 1.5.3. Elements of the two alternatives, A and B, are described below and shown in Figures 3A and 3B in Appendix D.

***Alternative A consists of:***

*Improvements for the automotive industry:*

- Approximately 4,000-parking space asphalt storage lot (40 acres) for RoRo located between the island's western edge and Marine Drive. Port-side ingress/egress for vehicles would be between the six existing storage tanks. Land side ingress/egress could be from car carriers accessing the lot from Radio Island Road and/or new rail spurs that would tie into the existing rail, along Radio Island Road.
- Approximately 100,000 square foot warehouse/office space located on the northern end of the port property.
- Modifying the existing T-head pier to accommodate roll on and roll off vessels.

*Improvements for the OSW industry:*

- Approximately 300,000 square foot fabrication/assembly building, with office space, located on the southern end of the port property.
- Approximately 60-acre gravel pad in front of the fabrication/assembly building for storage/laydown.
- Constructing a new rail spur paralleling a portion of Marine Drive that would tie into the existing rail to the north of the project area and travel along the west side and in front of the fabrication/assembly building.
- Approximately 65 parking spaces for private vehicles (Authority employees, contractors etc.) between Marine Drive and the rear of the fabrication/assembly building.
- Land side ingress/egress could be from new rail spurs that would tie into the existing rail, Radio Island Road or Marine Drive.

*Improvements for both the automotive and OSW industries:*

- Constructing a southern 1,600-foot berthing facility to accommodate the berthing of larger or multiple vessels and associated heavy freight handling equipment.

***Alternative B consists of:***

*Improvements for the automotive industry:*

- Approximately 4,000-parking space asphalt storage lot (40 acres) for RoRo located between the island's western edge and Marine Drive. Port-side ingress/egress for vehicles would be between the six existing storage tanks. Land-side ingress/egress could be from car carriers accessing the lot from Radio Island Road and/or new rail spurs that would tie into the existing rail along Radio Island Road.
- Approximately 100,000 square foot warehouse/office space located on the northern end of the port property.
- Modifying the existing T-head pier to accommodate roll on and roll off vessels.

*Improvements for the OSW industry:*

- Approximately 300,000 square foot fabrication/assembly building, with office space, located on the southern end of the port property.
- Approximately 60-acre gravel pad in front of the fabrication/assembly building for storage/laydown.
- Constructing a new rail spur paralleling a portion of Marine Drive that would tie into the existing rail to the north of the project area and travel along the west side and in front of the fabrication/assembly building.
- Approximately 65 parking spaces for private vehicles (the Authority employees, contractors etc.) located between Marine Drive and the rear of the fabrication/assembly building.

*Improvements for both the automotive and OSW industries:*

- Constructing a southern 1,600-foot berthing facility to accommodate the berthing of larger or multiple vessels and associated heavy freight handling equipment.

A mooring and berthing analysis was performed to evaluate the suitability of the existing and proposed docks based on design loads and operational requirements to determine the system, footprint, and number of piles required. It was determined that due to the high live loads and long exposed height of piles, approximately 1,298 piles are required for the 1,600-foot-long and 150-foot-wide OSW dock platform, spaced 13.5-feet center-to-center. An approximately 1875-foot-long dredged berth basin with an approximate 816,760-square-foot footprint will be needed for the dock along the berthing line. The anticipated dredge volume associated with the basin is approximately 900,000 cubic yards.

The analysis also evaluated the suitability of the existing T-head dock. The existing facility is a small jetty platform, and improvements would be needed with loading and unloading operations to the southside of the existing facility. A new RoRo dock with a footprint of 360 feet by 75 feet is proposed approximately 550 feet south of the existing T-head dock. The RoRo dock would require approximately 59 piles. The vessel line, existing fender, and existing bollard loads were found to be generally acceptable. Additional details can be found in the Marine Study Summary Report available in the Authority's project files.

An offsite alternative at the Port of Morehead City facility on the west side of the Newport River was considered. This facility is constrained with existing port activities and commitments. Therefore, it does not lend itself to additional tenants or allow for the space needed to stage vehicles for the automotive component or to transport and move the over-sized components for OSW activities. Non-port owned property in Carteret County with direct access to deep water was not considered due to lack of suitable, available property.

### 2.3 Preferred Alternative

Build Alternative B was selected by the Authority as the Preferred Alternative since it meets the purpose and need and removes access to the site from Marine Drive. The No Build Alternative would not meet the purpose and need and Alternative A would allow trucks and traffic accessing the terminal on Marine Drive. The use of Marine Drive would impact local residents and users of the public beach. Construction of the multi-use terminal is dependent on the tenant and may occur in stages as determined by the Authority and the future tenant(s).

Build Alternative B was used to evaluate impacts to the human and natural environments as reported in detail in Chapter 4.

### 2.4 Project Costs

With the project located on port-owned property there is no expected right of way cost associated with the project. Construction of the Radio Island multi-use terminal and associated infrastructure (roadway and rail improvements and a gas line from Morehead City to Radio Island) have an estimated cost of $250-285 million dollars. The estimated employment from this project is 150-400 construction/operation jobs. The estimated cost and employment figures were provided by the Authority in 2022.

## 3. AFFECTED ENVIRONMENT

This section describes the existing conditions and characteristics of the project study area that could be affected by the proposed action. In accordance with the NEPA an assessment of potential environmental impacts from construction and operation of the Radio Island multi-use terminal were analyzed. The issues anticipated to be encountered are described in Chapter 4.

### 3.1 Human Environment

This section contains population, demographic, employment, community, and other social and economic information pertinent to the understanding of Radio Island and Carteret County. Demographics for the state, county, and the sole census tract (CT) block group (BG) were

compared to the local-level data to identify potential socioeconomic or Environmental Justice (EJ) disparities in the project area.

### 3.1.1 Population and Demographics

For the purposes of this analysis, statistical data developed and maintained by the US Census Bureau was used. Consistent with NC Department of Transportation (NCDOT) procedures, the demographic study area (DSA) was defined in order to describe existing baseline conditions and determine potential project-related impacts to the human environment. The project study area encompasses a portion of Radio Island, however, the smallest DSA for demographic data consists of Carteret County CT 9703.05, BG 1. See Figure 4 in Appendix D for the DSA as it relates to the project study area.

**Population Change**

Based on Census data, growth rates in both the Block Group and DSA are higher than those of the county or state (Table 6).

**Table 6. Population Changes**

| Geography | ACS 2006-2010 Population* | ACS 2011-2015 Population | ACS 2016-2022 Population | Difference | Percent Change | Annualized Growth Rate |
|---|---|---|---|---|---|---|
| CT 9703.05, BG 1 | 632 | 976 | 962 | 330 | 52.2% | 4.3% |
| DSA | 632 | 976 | 962 | 330 | 52.2% | 4.3% |
| Carteret County | 65,077 | 68,236 | 69,301 | 4,224 | 6.5% | 0.6% |
| North Carolina | 9,271,002 | 9,845,305 | 10,386,227 | 1,115,225 | 12.0% | 1.1% |

Source: US Census Bureau, American Community Survey 5-year Estimates (2006-2010, 2011-2015, and 2016-2020), Table B01003, "Total Population."
* ACS 2006-2010 and 2011-2015 population data has been re-appropriated to the 2020 census boundaries

**Environmental Justice**

Title VI of the Civil Rights Act of 1964 protects individuals from discrimination on the grounds of race, age, color, religion, disability, sex, and national origin. EO No. 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” provides that each federal agency shall make achieving environmental justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations.

EO No. 12898 requires that EJ principles be incorporated into all transportation studies, programs, policies and activities. The three EJ principles are to (1) ensure the full and fair participation of potentially affected communities in the transportation decision-making process; (2) avoid, minimize or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority or low-income populations; and (3) fully evaluate the benefits and burdens of transportation programs, policies, and activities, upon low-income and minority populations.

The standard of practice used by NCDOT for determining the presence of minority populations is when the percentage of minorities in a Block Group is ten percentage points above the county average, or fifty percent, whichever is less. The block group and DSA percentages are approximately twelve percent larger than the county rate.

According to the American Community Survey (ACS), Carteret County has a low percentage of minority populations, persons living in poverty, and populations with limited English proficiency (LEP) as shown in Tables 7, 8, and 9, respectively.

**Table 7. Minority Population**

| Geography | Total Population | White, Non-Hispanic | | Minority Population* | |
|---|---|---|---|---|---|
| | | # | % | # | % |
| CT 9703.05, BG 1 | 962 | 715 | 74.3% | 247 | 25.7% |
| DSA | 962 | 715 | 74.3% | 247 | 25.7% |
| Carteret County | 69,301 | 59,743 | 86.2% | 9,558 | 13.8% |
| North Carolina | 10,386,227 | 6,503,292 | 62.6% | 3,882,935 | 37.4% |

Source: US Census Bureau, American Community Survey 5-year Estimates (2016-2020), Table B03002, "Hispanic or Latino Origin by Race."
* Minority population includes all races that are Non-White and Hispanic populations that are also White.

For low-income populations, the standard of practice used by NCDOT for determining EJ populations is when the population of any of the poverty categories equals or exceeds 25 percent of that total population of that block group, or when the percentage of the population in any of the poverty categories exceeds the county average by 5 percentage points or more. The poverty categories within the census are below poverty, very poor (income is less than 50 percent of the poverty level), and near poor (income is 100 to 149 percent of the poverty level).The low-income threshold of a county for each category is established as the lower of 25 percent or 5 percentage points higher than the county average. The EJ low-income threshold is met for this project as the block group and DSA are approximately 10 percent higher than the county.

**Table 8. Poverty**

| Geography | Population for whom Poverty Status is Determined | Below Poverty Level | | Under 50% of Poverty Level | | Between 100% and 149% of Poverty Level | |
|---|---|---|---|---|---|---|---|
| | | # | % | # | % | # | % |
| CT 9703.05, BG 1 | 701 | 64 | 9.1% | 29 | 4.1% | 131 | 18.7% |
| DSA | 701 | 64 | 9.1% | 29 | 4.1% | 131 | 18.7% |
| Carteret County | 67,964 | 6,260 | 9.2% | 2,827 | 4.2% | 5,627 | 8.3% |
| North Carolina | 10,098,330 | 1,411,939 | 14.0% | 621,154 | 6.2% | 965,298 | 9.6% |

Source: US Census Bureau, American Community Survey 5-year Estimates (2016-2020), Table C17002, "Ratio of Income to Poverty Level in the Past 12 Months."

As shown in Table 9 one percent of the DSA speaks English less than very well; with Other Indo-Euro being the predominate primary language.

**Table 9. Limited English Proficiency (LEP)**

| Geography | Total Adult Population 18 years and older | Primary Language Group of Persons Who Speak English Less than Very Well | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Spanish | | Other Indo-Euro | | Asian/Pacific | | Other | |
| | | # | % | # | % | # | % | # | % |
| CT 9703.05, BG 1 | 906 | -- | 0.0% | 12 | 1.3% | -- | 0.0% | -- | 0.0% |
| DSA | 906 | -- | 0.0% | 12 | 1.3% | -- | 0.0% | -- | 0.0% |
| Carteret County | 57,195 | 470 | 0.8% | 73 | 0.1% | 114 | 0.2% | 5 | 0.0% |
| North Carolina | 8,084,631 | 262,413 | 3.2% | 41,907 | 0.5% | 62,567 | 0.8% | 17,225 | 0.2% |

Source: US Census Bureau, American Community Survey 5-year Estimates (2016-2020), Table B16004, "Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over."

## Employment

Data from the NC Department of Commerce Quarterly Census of Employment and Wages (QCEW)[9] identifies the top employers in Carteret County as those employers that have the largest number of employees. Table 10 shows the top 10 employers, by employment range, for

[9] The QCEW is a federal-state cooperative effort between the NC Department of Commerce, Labor and Economic Analysis and the US Department of Labor's Bureau of Labor Statistics. The QCEW program provides quarterly employment and wage statistics by industry. The information is derived from employer quarterly unemployment insurance tax and wage reports and related data sources.

Carteret County in the most recent quarterly census of 2022 (Q3). By a large margin the top three employers are in the public sector.

**Table 10. Top 10 Employers in Carteret County-2022 Q3**

| Company Name | Industry | Employment Range |
|---|---|---|
| Carteret County General | Health Care & Social Assistance | 1000+ |
| Carteret County Board of Education | Educational Services | 1000+ |
| Carteret County Government | Public Administration | 500-999 |
| Wal-Mart Associates, Inc. | Retail Trade | 250-499 |
| Lowes Home Centers Inc. | Retail Trade | 250-499 |
| Carteret Community College | Educational Services | 250-499 |
| Food Lion | Retail Trade | 250-499 |
| Bally Refrigerated Boxes Inc. | Manufacturing | 100-249 |
| McDonalds | Accommodation & Food Services | 100-249 |
| Town of Morehead City Human Resources | Public Administration | 100-249 |

Source: NC Dept. of Commerce webpage located at: https://d4.nccommerce.com/QCEWLargestEmployers.aspx

The NC Department of Commerce Labor & Economic Analysis Division reported the December 2022 unemployment rate (not seasonally adjusted) for Carteret County as 3.1 percent, compared to the state rate of 3.2 percent. Across NC the county unemployment rates ranged from 2.5 to 6.9 percent for the same timeframe.

The NC Department of Commerce's May 2022 County Profile for Carteret reports that 31.4 percent of workers 16 years and over commuted 30 minutes or more to work. The county profile reported 24.6 percent of commuters worked outside Carteret County and that the 2020 median household income was $63,475.

The proposed project would add jobs and increase economic development in the surrounding area. As noted in Section 2.4, the estimated employment from this project is 150-400 jobs.

### 3.1.2 Economic Development

NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns each a tier designation. For 2023, the 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2 and the 20 least distressed as Tier 3. This tier system is incorporated into state business recruitment and grant funding programs to encourage economic activity in the less prosperous areas of the state.[10] For 2023, Carteret County is designated as a Tier 3 county. It is assumed that the proposed project would continue to improve the local economy with well-paying jobs and a skilled manufacturing workforce.

The Governor's Office has designated several key roles and structures within state government to facilitate OSW development in the state. The state has a designated liaison to the Bureau of Ocean Energy Management (BOEM) for federal policy and regulatory issues within the NC Department of Environmental Quality as well as an Interagency OSW Taskforce led by the Governor's Office. The Taskforce meets quarterly to discuss coordinated state strategy and action in support of the industry. As discussed in Section 1.5.2.2 the taskforce has met quarterly since February 2022. A presentation on development of OSW along the East Coast was provided during the November 1, 2022 meeting. Members also heard a presentation on NC's potential for OSW positions and training programs. While the taskforce presentations currently are generalized for the OSW energy industry, they are applicable for local economic development and workforce development. Carteret Community College degrees linked to the OSW industry were noted in the November presentation. [11]

### 3.1.3 Community Facilities and Resources

Radio Island does not have emergency service facilities, schools, religious facilities, or cemeteries located on the island.

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[10] Source: https://files.nc.gov/nccommerce/documents/Research-Publications/2021-Tiers-memo_asPublished_113020.pdf

[11] Source: https://www.commerce.nc.gov/media/6388/open

## 3.2 Recreation Areas

### 3.2.1 Public Beach Access and Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 protects properties that include publicly owned public parks, recreation areas, wildlife or waterfowl refuges, and historic sites. The use of Section 4(f) properties must be evaluated to determine that no feasible and prudent avoidance alternative is available, and all possible planning to minimize harm to the property was considered.

Radio Island Public Beach Access is a recreational area with access from Marine Drive/Olde Towne Yacht Club Drive located at 505 Marine Drive, known locally as East Beach. The 21-acre parcel is owned by the Authority and leased to Carteret County. In addition to beach access along Bulkhead Channel, the recreation area includes parking, restrooms, bike racks, and a hiking trail. The Radio Island Public Beach Access area is both publicly owned and open to the public, therefore it is protected by Section 4(f).

### 3.2.2 Recreational & Commercial Fishing and Section 4(f)

Radio Island has one of the largest public boat ramps and piers in the area, the Newport River Boat Ramp. This site is found almost directly off the main highway at 301 Highway 70 and takes up almost the entirety of the northwest corner of Radio Island. The expansive area features parking for 56 vehicles with trailers, public restrooms, and six boat launches that can accommodate vessels of varying sizes. From this site, visitors can directly reach the Newport River, as well as the Back Sound, the Bogue Sound, and other waters in and around the Crystal Coast region. In addition, the Newport River Boat Ramp, owned by the Authority and leased to the Town of Morehead City, has a 575-foot-long fishing pier that extends into the heart of the river. This ramp and pier are popular destinations for local anglers[12].

## 3.3 Compatibility with Land Use and Transportation Planning

**Carteret County**

Carteret County planning, zoning, and public policy development decisions are based on the formally adopted 2021 Coastal Area Management Act (CAMA) Land Use Plan (Plan). The Plan provides a framework that guides local government officials and private citizens on decisions affecting development. The Plan serves as an overall "blueprint" for the development of Carteret County that when implemented, results in the most suitable and appropriate use of the land and protection of the county's natural resources. The Plan is used by local, state and federal agencies in CAMA permitting decisions, project funding, and project consistency determinations. The Plan identified deficiencies in the county transportation system, which included US 70/Radio Island. The Plan recommended improving the existing 2/4 lane facility with a 4-lane divided boulevard from 4th Street in Morehead City to Radio Island and a new interchange on US 70 and Radio Island Road to address over capacity of the roadway. The Plan noted that Carteret County Parks and Recreation Department maintains the Radio Island Beach Access facility. The Plan does not provide any specific recommendations for the project area.

CAMA's Future Land Use Map (FLUM) for Carteret County, shown on Figure 5 in Appendix D, identifies the northeast portion of Radio Island as developed at high or moderate densities with central water service provided. The area is colored red on the FLUM. Urban development pressures are expected to continue. The area is also subject to redevelopment/infill development. The remaining portion of Radio Island is identified on the Carteret County FLUM as Municipalities.

**Morehead City**

The Town of Morehead City CAMA Core Land Use Plan (Plan), amended and certified August 3, 2021, provides tools for managing development such as land use decision making and implementation tools. This document outlines and protects areas from incompatible development. Prior to the issuance of any initial zoning permit or zoning change permit town

[12] Source: https://www.beaufort-nc.com/newport-river-pier-and-ramp.html

planning staff and the local CAMA inspector certify that the proposed use or structure complies with development standards of the "State Guidelines for Areas of Environmental Concern".

The Morehead City Plan also identifies critical, important, and sensitive growth areas which includes watersheds, wetlands, flood plains, active farmlands, and similar land resources. A Land Suitability Map ranks land in the municipality on suitability for development. The goal of the CAMA is not to stop growth, but to channel the more intense growth to areas where public infrastructure allows growth to be sustained over the long term. The Morehead City CAMA Land Suitability Map indicates State Port property is not assessed per the Town of Morehead City. Lands on Radio Island that are not port-owned are identified on the Land Suitability Map as low or medium suitability for development and classified as Port Mixed Use (see Figure 6 and 7 in Appendix D).

The Port Mixed Use classification, as described in the Plan are areas include the existing state port facilities as well as surrounding properties that are suitable for multiple land uses including industrial, commercial, and high density residential. Portions of the area identified as Port Mixed Use are potential growth areas that may develop primarily as one use type or may evolve into multi-use areas.

Industrial uses with this classification include marine port facilities, warehousing, and related uses. Commercial uses include a variety of support retail, office, business services, personal services, and marine-related uses. The anticipated residential density within this classification includes primarily high density developments.

Other zoning districts on Radio Island includes Planned Development (PD), Commercial Marina (CM), and Residential R5. The PD district is intended to permit flexibility from conventional development controls by establishing criteria for planned development based on performance. Land under this designation is planned and developed as a whole. Land that includes the Olde Towne Yacht Club condominium is zoned PD. Land that includes the Radio Island Marina is zoned CM. Residential parcels located east of Marine Road include land uses zoned as R5 which has a minimum lot size of 5,000 square feet.

On Morehead City's Future Land Use Map the entire Radio Island is identified as Port Mixed Use (see Figure 7 in Appendix D).

The Morehead City CAMA Core Land Use Plan states that further development of Radio Island is expected to occur, with a mix of industrial, residential and recreational uses. Radio Island is identified in this plan as being in Neighborhood 1. Development Policy No. 7 for this neighborhood states:

> The Town will encourage development of Radio Island with a good blend of residential, recreational and industrial uses, while only encouraging industrial uses that are not hazardous to or would diminish the value of the residential or recreational uses. The Town will continue to support activities on the State Port-owned properties.

**Morehead City's Unified Development Ordinance**

Zoning is detailed in Morehead City's Unified Development Ordinance (UDO)[13]. The goal of the UDO is to promote the health, safety, and general welfare of the residents of the Town of Morehead City. The UDO is intended to implement the planning policies adopted by City Council, as reflected in the CAMA Land Use Plan. The current version of Morehead City's UDO was approved February 10, 2023. The UDO contains development standards for all designated zoning districts, which include Port Mixed Use. Development standards for the Port Mixed-Use classification include 25-foot minimum front setback, and a 40 percent lot coverage. Minimum side and rear setbacks or maximum height restrictions are not indicated in the UDO for Port Mixed-Use.

[13] Source: https://library.municode.com/nc/morehead_city/codes/code_of_ordinances?nodeId=PTIVUNDEOR

## 3.4 Cultural Resources

Cultural resources include archaeological resources, historic architectural or engineering resources, and traditional cultural resources. Under Section 106 of the National Historic Preservation Act (NHPA), historic properties are defined as cultural resources (buildings, structures, sites, districts, or objects) listed in or eligible for listing in the National Register of Historic Places (NRHP). Resources of traditional, religious, and cultural importance can include archaeological resources, sacred sites, structures, neighborhoods, prominent topographic features, habitat, plants, animals, or minerals considered essential for the preservation of traditional culture. To be considered eligible for listing in the NRHP, a cultural resource must be found significant under NRHP criteria at the local, state, or national levels. Historic properties are typically 50 years of age or older and must retain sufficient integrity to convey their historic significance. Historic properties can be less than 50 years of age if found to have achieved significance within the last 50 years and be of exceptional importance.

Section 106 of the NHPA requires federal agencies to consider the effect of an undertaking on historic properties. Federal agencies are responsible for identifying the Area of Potential Effects (APE) for an undertaking, identifying historic properties in the APE, and assessing the potential effects of an undertaking on historic properties in the APE, if any such properties are present. Federal agencies conduct the Section 106 process (identification of, NRHP eligibility evaluation of, and assessment of effects to historic properties) in consultation with the appropriate State Historic Preservation Office(s) (SHPO), the Advisory Council on Historic Preservation (ACHP), Tribes, and other consulting or interested parties, including the public.

The APE is defined as the geographic area or areas within which an undertaking (project) may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE for the Proposed Action is defined as the project footprint plus a half-mile buffer. The APE includes areas where visual, noise, and vibration effects to historic properties may occur. The half-mile buffer is based on the anticipated height of structures proposed, which would not exceed 80 feet in height.

### 3.4.1 Historic Architectural Resources

A review of the NC SHPO's GIS data in HPOWEB 2.0 shows a portion of the APE and southeastern Radio Island are within the boundaries of the NRHP-listed Beaufort Historic District (Site ID CR0001). No other historic properties are present in the APE.

The Beaufort Historic District was listed in the NRHP in 1974 for significance under Criterion A in the areas of Commerce, Military, Science, Transportation, Urban Planning, and Other (Recreation) and under Criterion C in the area of Architecture. The period of significance for the district was identified as circa 1710 to present (1974). The border of the historic district extends approximately one mile from the shore, and includes portions of Pivers Island, Radio Island, and Rachel Carson Reserve. The NRHP nomination form states that "The most striking element of the sea-oriented town is its waterfront with its impressive row of houses, its wharves and boats…" and "…inclusion of this large area of water is needed to protect the waterfront and harbor view of the town but stops short of the Morehead City Channel."[14]

Based on correspondence dated May 25, 2022 from the SHPO there is concern that the potential size of future buildings and structures on Radio Island may adversely affect the National Register-listed Beaufort Historic District. A copy of the SHPO letter is located in the Appendix B.

### 3.4.2 Archaeological Resources

Radio Island is comprised primarily of dredge spoil and does not require terrestrial archaeological survey.

[14] Source: US Department of the Interior, National Park Service, National Register of Historic Places Nomination Form https://files.nc.gov/ncdcr/nr/CR0001.pdf

In 1997 The Authority desired to expand on Radio Island. As a part of the planning process for the Final Environmental Impact Statement for Radio Island Expansion, Port of Morehead City (2001) NC SHPO was notified and comments requested on the expansion.

In January 1998, the North Carolina Department of Cultural Resources SHPO notified the Authority of the potential presence of underwater archaeological resources in the vicinity of Radio Island. The Authority consultant Earth Tech retained Tidewater Atlantic Research, Inc. to perform the necessary terrestrial and underwater archaeological studies. Tidewater Atlantic Research, Inc. identified ten underwater targets indicative of an association with potentially significant submerged cultural resources. Remote sensing surveys were designed to identify magnetic and/or acoustic anomalies that might be generated by shipwreck resources. The underwater survey was conducted May 8 and 9, 1998. On May 12, 1998, a terrestrial remote sensing survey was conducted at the location of the proposed terrestrial facilities and in the vicinity of a charted shipwreck located by the Underwater Archaeological Unit of the North Carolina Division of Archives and History. Targets identified during the remote sensing survey were investigated and assessed by scuba divers. Diver investigations identified each of the targets as modern debris and not archaeological or historically significant cultural material. The terrestrial survey identified a magnetic signature at the site of a charted shipwreck, however, that target had signature characteristics that were considered indicative of modern dredge pipe. August 26, 1998 SHPO concurred that the Radio Island expansion project will not involve significant archaeological resources. See Appendix B for the clearance letter from the SHPO.

During project scoping activities for the subject project the SHPO was again contacted. A letter dated May 25, 2022 from SHPO recommended a comprehensive archaeological survey be taken within the outlined Water Study Area prior to ground disturbing activities. SHPO indicated a potentially historic shipwreck site (CR317) was located in a previous survey. As discussed above, this area was cleared by SHPO in 1998 (see Appendix B).

## 3.5 Visual Quality and Aesthetics

The project study area is located in an industrial area of the coastal plain of North Carolina. Topography within the project study area is relatively flat but elevations up to 27 feet mean sea level (MSL) are present near the south end of the island. The dominant natural features within the study area include the Intracoastal Waterway and Beaufort Inlet Channel.

Multi-story residential buildings, Pivers Island, and the Beaufort Historic District, are located east of the proposed project. North of the proposed project are single family residences surrounding the Radio Island Marina. Duke University Marine Lab and the NOAA Beaufort Laboratory are located on Pivers Island. The facilities include single and multi-story buildings and docks.

The nearby ocean, waterways, coastal marshes and beaches, and numerous commercial and recreational vessels traveling in the project area contribute to unique aesthetics common to coastal North Carolina communities. Recreational opportunities in the area include boating, kayaking, fishing, birding, beach visitation, and other outdoor and ecotourism-type activities.

The port terminal on Radio Island currently supports industrial uses which include overhead lighting, aboveground storage tanks, and ships supporting port activities.

## 3.6 Area Airport Facility

As previously discussed in Section 1.3.2 Michael J Smith Field is a general aviation airport located approximately two miles northeast of Radio Island.

## 3.7 Natural Resources

**Water Resources**

Radio Island is located in the White Oak River Basin (HUC Code 03-05-03). Areas of impaired water include the Newport River and its tributaries. The main cause of impairment for waters in this subbasin is fecal coliform bacterial contamination, resulting from runoff from urbanized areas and subdivisions.

The Division of Marine Fisheries is responsible for classifying all coastal waters as to their suitability for shellfish harvesting for human consumption. Shellfish growing waters can be

classified as “Approved”, “Conditionally Approved”, “Restricted”, or “Prohibited”. Approved areas are consistently open to harvest, while Prohibited areas are off limits for shellfish harvest. Conditionally Approved areas can be open to harvest under certain conditions, such as dry weather when stormwater runoff is not having an impact on surrounding water quality, and Restricted waters can be used for harvest at certain times as long as the shellfish are subjected to further cleansing before they are made available for consumption.

The area around the Morehead City Port and Radio Island is Shellfish Grow Area E-3 and is classified as permanently closed for shellfish harvesting (Shellfish Sanitation Temporary Closure Public Viewer 2022).[15]

Back Sound (Stream Index: 21-35-(1.5)) is classified as an Outstanding Resource Waters (ORW) and is within a one-mile radius of the project area. Four High Quality Waters (HQW) found within a one-mile radius of the project area. These waters were: Back Sound (Stream Index: 21-35-(0.5)), Newport River (Stream Index: 21-(17)), Bogue Sound (Stream Index: 20-36-(8.5)), and Tar Landing (Stream Index: 20-36-15).

Based on on-line mapping by NC Marine Fisheries[16] anadromous fish spawning areas are not located within one mile of the project. No fish community monitoring stations or benthis monitoring stations are located within several miles of the project. The project study area does not contain primary nursery areas (PNA)[17].

**Submerged Aquatic Vegetation**

The presence/absence of submerged aquatic vegetation (SAV) was determined using historic aerial photography (from 2002 through 2019) and field surveys conducted on April 18 and 19, 2022, May 3 and 4, 2022, and August 11, 2022. As previously documented in the 2001 Final Environmental Impact Statement (FEIS) SAV survey, a 1998 aerial revealed that there were several one-meter square patches of eelgrass (Zostera marina) along the southwest side of the island. However, it is important to note that eelgrass is only identifiable during the summer. No SAV was observed during the review of aerial photographs or during the field surveys conducted during the spring and summer of 2022. During a multi-agency scoping meeting held November 4, 2022 a NC Division of Marine Fisheries representative, James Harrison, noted there is a record of SAV on the northwest side of the island and it should be considered for this project. On-line mapping from Division of Marine Fisheries indicates SAV in surveys conducted during 1983. The datasets used in this survey are over 40 years old. More recent data (2012-2014) does not indicate a presence of SAV. Links to both surveys are located in the EIS References. A project commitment is added to ensure SAV areas are verified prior to in-water construction. A copy of the meeting minutes are available in Appendix B.

**Threatened and Endangered Species**

Data from the US Fish & Wildlife Service Information for Planning and Consultation (IPaC) and NC Natural Heritage Program were reviewed to determine federally listed threatened and endangered species within a one-mile radius of the project study area in Carteret County. Table 11 lists the 17 threatened and endangered species. On April 18 and 19, May 3 and 4, and August 11, 2022, a threatened and endangered species reconnaissance survey was conducted within the study area to identify suitable habitat and possible individuals of these protected species. A copy of the Threatened and Endangered Species Survey sent to USFWS is included in Appendix B. The status, presence of habitat, and the biological conclusion for each species for the study area are included in Table 11.

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[15] Source: https://data-ncdenr.opendata.arcgis.com/apps/ncdenr::shellfish-sanitation-temporary-closure-public-viewer/explore

[16] Source: https://www.arcgis.com/apps/webappviewer/index.html?id=5c0c6a1a3c5b4d56bd3974bb05b99961&extent=-8535944.5665%2C4131592.9022%2C-8493904.2009%2C4155422.1458%2C102100#

[17] Primary nursery areas are defined as those areas inhabited by the embryonic, larval, or juvenile life stages of marine or estuarine fish or crustacean species due to favorable physical, chemical, or biological factors. Source: 15A NC Administrative Code 10C.0502.

**Table 11: Federal Protected Species Listed in the Study Area**

| Scientific Name | Common Name | Federal Status | Habitat Present | Biological Conclusion |
|---|---|---|---|---|
| *Laterallus jamaicensis ssp. Jamaicensis* | Eastern Black Rail | T | No | No Effect |
| *Charadrius melodus* | Piping Plover | T | Yes | MANLAA |
| *Calidris canutus rufa* | Red Knot | T | Yes | MANLAA |
| *Picoides borealis* | Red-cockaded Woodpecker | E | No | No Effect |
| *Myotis septentrionalis* | Northern Long-Eared Bat (NLEB) | E | Yes | MANLAA |
| *Perimyotis subflavus* | Tricolored bat | PE | Yes | MANLAA |
| *Alligator mississippiensis* | American Alligator | T(S/A) | No | No Effect |
| *Chelonia mydas* | Green Sea Turtle | T | No | No Effect |
| *Lepidochelys kempii* | Kemp's Ridley Sea Turtle | E | No | No Effect |
| *Dermochelys coriacea* | Leatherback Sea Turtle | E | No | No Effect |
| *Caretta caretta* | Loggerhead Sea Turtle | T | No | No Effect |
| *Trichechus manatus* | West Indian Manatee | T | Yes | MANLAA |
| *Lysimachia asperulaefolia* | Rough-leaved Loosestrife | E | No | No Effect |
| *Amaranthus pumilus* | Seabeach Amaranth | T | Yes | No Effect |
| *Acipenser brevirostrum* | Shortnose Sturgeon | E | Yes | No Effect |
| *Acipenser oxyrinchus oxyrinchus* | Atlantic Sturgeon | E | Yes | MANLAA |
| *Haliaeetus leucocephalus* | Bald Eagle | BGEPA* | Yes | No Effect |

T (S/A) = Threatened due to similarity of appearance
T = Threatened E = Endangered PE = Proposed Endangered
MANLAA= May Affect, Not Likely to Adversely Affect
*Protected under the Bald and Golden Eagle Protection Act

While the Bald Eagle (Haliaeetus leucocephalus) is no longer on the Endangered Species list it must be adequately protected against threats that can disturb or affect their survival. Suitable habitat for bald eagle was identified in the study area, however the project is expected to have no effect on these species as no bald eagles or active nests were observed during the field reconnaissance survey.

The National Marine Fisheries Service (NMFS) lists the Atlantic sturgeon and shortnose sturgeon. During the November 4, 2022 scoping meeting with federal and state agencies the representative for National Oceanic and Atmospheric Administration (NOAA) Fisheries, Fritz Rohde stated that shortnose sturgeon are unlikely and the Atlantic sturgeon would be the most likely species in the area. Mr. Rohde also stated that critical habitat is not designated for them in this area.

Research on the USFWS critical habitat mapper indicates there is no USFWS critical habitat present for any species.

Essential Fish Habitat (EFH) is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1802, 50 CFR § 600.10). The preliminary study area is an 8.7-acre area that includes four sections of shoreline and four potential access roads to the shoreline. EFH within the study area includes 1.1 acre of unconsolidated shore and 26.8 acres of unconsolidated bottom habitat primarily associated with the intertidal zone of the Bogue Sound. The Snapper-Grouper Complex and Penaeid Shrimp Habitat Area of Particular Concern (HAPC), of the South Atlantic Region fishery management plans (FMPs), overlap with the study area. Additionally, the federally managed Smoothhound Shark Complex and other migratory species have the potential to utilize EFH within the study area. An EFH Initial Consultation Letter was sent to NOAA Fisheries July 24, 2023. The consultation package is available in Appendix B. A Biological Assessment (BA) of Essential Fish Habitat is in process. A copy of the draft BA is located in the Authority's project files.

Carteret is a designated Coastal Area Management Area (CAMA) county. The seasonal high water table elevation is dependent on the tides.

The NC Department of Natural and Cultural Resources-NC Natural Heritage Program identifies Radio Island as a Natural Area. The Representational Rating of the Natural Area is R2 (Very High). This ranking is a measure of the area's potential to contribute to a collection of the best locations for imperilment of native or non-native resources. The Natural Heritage Program identifies the Authority as the owner of the Managed Area of the Port of Morehead City within the project area. Natural resource conservation is one of the primary management goals for a Managed Area.

The Carteret County Soil survey identifies one soil unit type within Radio Island. The soil series prevalent in the project study area is Newhan fine sand, dredged with 2 to 30 percent slopes.

## 3.8 Streams and Wetlands

There are no streams located on Radio Island. Four jurisdictional wetlands were identified within the project study area. Wetland classifications are presented in Table 12. All wetlands in the project study area are within the White Oak River Basin (HUC Code 03-05-03). The wetlands are shown on Figure 8 in Appendix D.

**Table 12. Jurisdictional Characteristics of Wetlands**

| Map ID | NCWAM Classification | Hydrologic classification | Acres in Study |
|---|---|---|---|
| WA | Pocosin | PFO/PSS | 0.249 |
| WB | Basin | PFO/PSS | 0.170 |
| WC | Pocosin | PEM/PSS | 2.527 |
| WD | Pocosin | PEM/PSS | 0.150 |
| | | TOTAL | **3.096** |

PFO/PSS= palustrine forested/ palustrine shrub
PEM/PSS= palustrine emergent/ palustrine shrub

## 3.9 Floodplains and Floodways

Federal Emergency Management Agency (FEMA) flood zone mapping includes Limit of Moderate Wave Action (LiMWA). The LiMWA indicates areas where wave heights can be between 1.5 and 3 feet during a base flood event. The Carteret County GIS website indicates LiMWA lines along portions of the west side of Radio Island.

NC Flood Risk Information System (FRIS) GIS mapping indicates that the west side of Radio Island is within medium (0.2% annual chance flood hazard) to high (Flood Zone AE) flood risk areas. The AE base flood elevation is 7 feet. See Figure 8 in Appendix D for designated floodplains within the project area.

## 3.10 Terrestrial Resources Wildlife and Natural Vegetation

Recent aerial imagery indicates the composition of terrestrial plant communities for the project site consists of open areas of dune grass, and maritime grassland, and shrubby areas of maritime shrub.

Dune grass species may consist of saltmeadow cordgrass (Spartina patens), seashore dropseed (Sporobolus virginicus), largeleaf pennywort (Hydrocotyle bonariensis), American beachgrass (Ammophila breviligulata), broomsedge (Andropogon virginiacus), sawbrier (Smilax bona-nox), dune greenbrier (Smilax auriculata) and American searocket (Cakile edentula).

Maritime grassland species may consist of saltmeadow cordgrass, sawbrier, beach-tea (Croton punctatus), yaupon (Ilex vomitoria), Spanish dagger (Yucca gloriosa), waxmyrtle (Morella cerifera), beach prickly pear (Opuntia pusilla), and Indian blanket (Gaillardia pulchella).

Maritime shrub species may consist of waxmyrtle, sawbrier, yaupon, sea marsh-elder (Baccharis halimifolia), eastern red cedar (Juniperus virginiana), Virginia creeper (Parthenocissus quinquefolia), live oak (Quercus virginiana), and inkberry (Ilex glabra).

The maritime shrub areas could serve as habitat for short-tailed shrew (Blarina brevicauda), eastern mole (Scalopus aquaticus), eastern cottontail (Sylvilagus floridanus), Virginia opossum (Didelphis virginiana), raccoon (Procyon lotor), white tailed deer (Odocoileus virginianus), red fox (Vulpes vulpes), gray fox (Urocyon cinereoargenteus), red tailed hawk (Buteo jamaicensis),

red shouldered hawk (Buteo lineatus), American robin (Turdus migratorius), and a variety of other birds.

The open habitats (dune grass, and maritime grassland) would be potential habitat for the eastern cottontail, old field mouse (Peromyscus polionotus), eastern harvest mouse (Reithrodontomys humulis), groundhog (Marmota monax), gray fox, red fox, white tailed deer, and various avian species.

## 3.11 Air Quality and Noise

### 3.11.1 Air Quality

The US Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards has set National Ambient Air Quality Standards (NAAQS) for six principal pollutants, called "criteria" pollutants. They are carbon monoxide, nitrogen dioxide, ozone, lead, particulates of 10 microns or less in size (PM-10 and PM-2.5), and sulfur dioxide. Ozone is the only parameter not directly emitted into the air but forms in the atmosphere when three atoms of oxygen ($0_3$) are combined by a chemical reaction between oxides of nitrogen and volatile organic compounds in the presence of sunlight. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents are some of the major sources of nitrogen and volatile organic compounds, also known as ozone precursors. Strong sunlight and hot weather can cause ground-level ozone to form in harmful concentrations in the air. The Clean Air Act (CAA) General Conformity Rule (58 FR 63214, November 30, 1993, Final Rule, Determining Conformity of General Federal Actions to State or Federal Implementation Plans) dictates that a conformity review be performed when a federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS. A conformity assessment would require quantifying the direct and indirect emissions of criteria pollutants caused by the Federal action to determine whether the proposed action conforms to CAA requirements and any State Implementation Plan.

The general conformity rule was designed to ensure that Federal actions do not impede local efforts to control air pollution. It is called a conformity rule because Federal agencies are required to demonstrate that their actions "conform with" (i.e., do not undermine) the approved State Implementation Plan for their geographic area. The purpose of conformity is to (1) ensure Federal activities do not interfere with the air quality budgets in the State Implementation Plans; (2) ensure actions do not cause or contribute to new violations, and (3) ensure attainment and maintenance of the NAAQS.

Carteret County is currently designated by the EPA as an attainment area for ozone under the 2015 8-hour standard. Carteret County is also in attainment for Carbon Monoxide (CO) and Fine Particulate Matter 2.5 (PM 2.5). This classification is the result of area-wide air quality modeling studies, and the information is readily available from the North Carolina Department of Environmental Quality Air Quality Division.

### 3.11.2 Noise

This section discusses basic acoustical concepts used in this noise study, applicable noise rules, the noise study area, and existing noise levels.

<u>Acoustical Concepts</u>

Noise is defined as unwanted sound and is comprised of small fluctuations in air pressure. Because the range of pressures that can cause audible sounds is large, sound is measured on a logarithmic scale in decibels (dB).

A young, healthy human's range of hearing is between 20 and 20,000 Hertz (Hz) and is most sensitive between 500 and 4,000 Hz. To align with this selective sensitivity, the A-weighted scale (dBA) was developed and is frequently used for community noise assessments.

The A-weighting scale puts more emphasis or "weight" on frequencies that humans hear well, and less emphasis or "weight" on frequencies we do not hear well (primarily low frequency noise).

A common metric to describe long-term noise levels is the equivalent noise level (Leq). The Leq is a mean average noise level, a single sound level representing all the varying sound energy over a specified period (e.g., 1 hour).

Another common metric used to evaluate community response to noise is the Day-Night Average Sound Level (Ldn). The Ldn is the sum of 24 consecutive A-weighted 1-hour Leq values over a 24-hour period with a 10 dB penalty imposed on Leq values that occur between 10 PM and 7 AM. The nighttime penalty accounts for the additional nuisance or annoyance associated with nighttime noise events. The faintest sound that can be heard by a healthy ear approaches 0 dBA, while an uncomfortably loud sound is approximately 120 dBA. Some common sound levels include:

- Jet flyover at 1,000 feet: 100 dBA
- Gas lawnmower at 3 feet: 90 dBA
- Food blender at 3 feet: 85 dBA
- Vacuum cleaner at 10 feet: 75 dBA
- Average speech at 3 feet: 60 dBA
- Quiet urban outdoor daytime: 50 dBA
- Quiet urban outdoor nighttime: 40 dBA
- Quiet suburban outdoor nighttime: 35 dBA

Applicable Rules

The State of North Carolina does not have environmental noise rules that apply to the project, but instead delegates the regulation, restriction, and prohibition of noise to the counties and cities. Carteret County and Morehead City do not have quantitative noise limits; however, noise restrictions applicable to project activities do exist, as shown in Table 13.

**Table 13. Applicable Noise Restrictions**

| Jurisdiction | Ordinance Number | Ordinance Text |
|---|---|---|
| Carteret County | Code of Ordinances, Appendix C.3009.2 | Support equipment that might generate loud noise, such as air compressors and air conditioning equipment, that is located out-of-doors adjacent to a residential use or district shall be installed in a sound-reducing enclosure, buffer, or on the roof of the primary building. If installed on a roof or other elevated location, the equipment shall be screened from view of the adjacent residential use or district and shall be installed in a sound-reducing enclosure. |
| Morehead City | Code of Ordinances, Part III. Chapter 20. Sec. 20-13. (b). (10) | The use of any mechanical device operated by compressed air [is prohibited] unless the noise created thereby is effectively muffled and reduced. |

These noise restrictions are applicable to both construction and operation of the project. According to these restrictions, air compressors in use at the Project are required to be muffled, and project-related equipment in use at the north and east portions of the site adjacent to residential use must be enclosed. Examples of equipment subject to the enclosure restrictions include air compressors or generators used during construction, or air conditioning units installed at project buildings.

Noise Study Area

The study team reviewed a list of activities likely to occur during construction and operation of the proposed project. The team also reviewed noise sources and land uses adjacent to and in the vicinity of the project site. The loudest sources of noise in the vicinity of the project site are roadway traffic, railroad, boating, and airplane noise. With the exception of airplane noise, these are similar to the loudest sources of noise that would occur during operation of the proposed project. Therefore, the study team decided that a quarter-mile buffer around the project study area limits (the boundaries of the terrestrial and marine-based project footprint) was a reasonable and appropriate noise study area for use in the assessment of project-related noise (see Figure 9 in Appendix D).

Existing Noise Levels

Within the noise study area, existing sources of noise include traffic noise from US 70 and Old Causeway Road, rail noise from the Coastal Carolina Railway, airplane noise from Michael J. Smith Field, boat noise from private boat traffic from the marinas in the study area, general community noise (lawn mowing, conversations between neighbors), and natural sounds (birds, insects, wind). Table 14 includes estimates of existing noise levels at each receptor, based on methodology from the Federal Transit Administration (FTA) “Transit Noise and Vibration Impact Assessment” manual.

The estimated existing noise levels are dependent on the receptors’ proximity to US 70 and Old Causeway Road, and the population density of the area, which is estimated to be from 300 to 1,000 people per square mile based on US Census data. Since detailed train information on the Coastal Carolina Railway was not available, proximity to the railway was not considered when developing the existing noise estimates, in accordance with FTA guidance. Airplane noise and private boat traffic may temporarily increase noise levels at the nearby receptors, however; are not expected to contribute to the day-night noise level due to their relatively short duration.

Existing noise levels in the study area are the highest north of the project at the resorts, condominiums, and residences along Old Causeway Road and lowest east of the project at the public beach, condominiums, and proposed residential development, with a range of 45 to 65 dBA on an Ldn basis.

Figure 9 in Appendix D also shows the terrestrial and marine limits of the project study area, the resulting noise study area, the locations and types of noise-sensitive receptors, and estimates of existing noise levels at those receptors.

**Table 14. Existing Noise Levels at Sensitive Receptors**

| Receptor Number | Receptor Type | Existing Zoning/ Land Use | Distance From Project (ft) | Estimated Existing Noise Levels (dBA $L_{dn}$) |
|---|---|---|---|---|
| 1 | Public Beach | PM | 0 | 45 |
| 2 | Residential Development | PD | 89 | 45 |
| 3 | Residence | PD | 133 | 50 |
| 4 | Residence | PD | 153 | 50 |
| 5 | Residence | PD | 215 | 50 |
| 6 | Residence | PM | 247 | 55 |
| 7 | Residence | PM | 251 | 50 |
| 8 | Resort | CM | 351 | 60 |
| 9 | Residence | PM | 374 | 55 |
| 10 | Residence | PM | 384 | 50 |
| 11 | Condominiums | PM | 386 | 60 |
| 12 | Residence | PM | 393 | 50 |
| 13 | Residence | PM | 397 | 50 |
| 14 | Residence | PM | 401 | 50 |
| 15 | Resort | CM | 430 | 60 |
| 16 | Resort | CM | 489 | 60 |
| 17 | Condominiums | PD | 652 | 45 |
| 18 | Residence | RMF | 756 | 65 |
| 19 | Residence | RMF | 774 | 65 |
| 20 | Residence | RMF | 796 | 65 |
| 21 | Residence | RMF | 825 | 65 |
| 22 | Residence | RMF | 846 | 65 |
| 23 | Residence | RMF | 903 | 65 |
| 24 | Residence | RMF | 953 | 65 |
| 25 | Residence | RMF | 1,106 | 65 |
| 26 | Residence | RMF | 1,149 | 65 |
| 27 | Residence | RMF | 1,209 | 65 |
| 28 | Residence | RMF | 1,257 | 65 |
| 29 | Residence | R15 | 1,307 | 65 |

Source: HDR Engineering, Inc. 2022
CM=Commercial Marina PD=Planned Development PM=Port Maritime
RMF=Residential Multifamily R15+=Single-Family Residential

## 3.12 Utilities

The project study area includes all utilities (water, sewer, electricity, telecommunications) except for natural gas, which is available from Morehead City across the Newport River. Electric infrastructure can serve up to 2.5 megawatts. Telecommunications infrastructure lines are adjacent to the study area.[18]

Potable water is provided by West Carteret Water Corporation (WCWC) from five deep wells, and an underground aquifer (Castle Hayne). The Atlantic Coastal Plain aquifers and confining units of North Carolina are composed of crystalline carbonate rocks, sand, clay, silt, and gravel that contain large volumes of high-quality groundwater. In large portions of this aquifer, sand and limestone materials are so well connected that withdrawals cause pressure reductions many miles from the pumping center. In the surficial aquifers, groundwater flow direction generally follows the topography and flow towards open bodies of water.

The system serves a customer base consisting of residential, commercial, and institutional members. WCWC regularly tests the raw water supply for the purpose of observing and recording trends in both water quality and quantity. In addition to changes in water supply, the Environmental Protection Agency and Public Water Supply Section of the NC Department of Environmental Quality are constantly revising guidelines.

The Morehead Water and Sewer Department, within the Public Works Department's Public Services office, operates one water reclamation plant and a sewage collection system that collects and transports sewage. The Waste Treatment Plant, located at 1000 Treatment Plant Road, operates under Permit Number NC0026611. The plant is located off NC 24 approximately 4 miles west of the proposed project. The service is funded by an enterprise fund from user charges. Currently the Department provides wastewater service to 5,500 customers. The plant is permitted to receive up to 2.5 million gallons per day (MGD). The system has an average estimated flow of approximately 1.4 MGD since 2019, with less than a 10 percent average increase during summer months. The receiving stream for the treatment plant is Calico Creek in the White Oak River Basin (Subbasin 03-05-03). The plant uses an ultraviolet (UV) disinfection system.

The Morehead Water and Sewer Department also provides water utility services to approximately 5,500 customers, which includes those on Radio Island. The water source is groundwater from five wells on the mainland. Daily use for Morehead City is approximately 1 million gallons per day (MGD). Since 2010, Morehead City has had a Water Shortage Response Plan. The five levels in the response plan include voluntary reduction, two stages of mandatory reduction, and an emergency response before water rationing is implemented. There are no proposed expansion plans for the sewer or water services at this time.

Electrical power for Radio Island is provided by Carteret Craven Electric Cooperative and Duke Energy Progress.

## 3.13 Hazardous Material Sites

Hazardous materials are any material that may have a harmful effect on humans or the natural environment. Examples of potentially hazardous materials and waste sites include service stations, regulated landfills, unregulated dumpsites, salvage yards, industrial sites, and aboveground and underground storage tanks (USTs).

A review and evaluation of readily available public information relating to hazardous material issues within the project study area was conducted. The objective of this preliminary assessment was to identify the existence of, and potential for, hazardous, toxic, and radioactive waste (HTRW) contamination, which could impact or be impacted by the proposed Project. The assessment consisted of a review of recent and historic environmental reports provided by the Authority and regulatory agency database information via the North Carolina Department of Environmental Quality (NCDEQ) Division of Waste Management Site Locator Tool and the United States Environmental Protection Agency Cleanups in My Community map. A site

[18] Source: Duke Energy Site Readiness Program, Radio Island Site, Carteret County, NC, July 23, 2019, PowerPoint

reconnaissance was not conducted in this assessment to verify the status and location of sites referenced in the regulatory database search or to locate any additional unreported hazardous materials sites.

### 3.13.1 Historical Environmental Report Review

A review was conducted of the "Report of Post Soil Remediation Groundwater Monitoring" (Report) prepared by Wood Environment & Infrastructure Solutions, Inc., dated December 15, 2021. The Report summarized a groundwater monitoring event conducted in October 2021 at the former aviation fuel terminal (AFT) facility on the northwestern portion of Radio Island. The groundwater sampling event consisted of gauging select wells for the presence of light non-aqueous phase liquid (LNAPL), and purging and sampling of six monitoring wells for semi-volatile organic compounds (SVOCs) and biological parameters used to evaluate monitored natural attenuation (MNA). The sampling was reportedly conducted after soil removal activities in April 2003 and February 2008, and was part of a long-term groundwater monitoring plan implemented under oversight from NCDEQ. Results of analyses indicated that concentrations of several SVOCs (acenaphthene, fluorene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene) were detected in one or more monitoring wells at concentrations that exceeded the laboratory reporting limit; however, only the concentration of 2-methylnaphthalene in well MWG-107 exceeded the Groundwater Quality Standard established under T15A NCAC 2L .0202 (2L Standard). Based on these results, Wood recommended that the Authority request a status of No Further Action from NCDEQ and cease periodic groundwater monitoring at the AFT.

### 3.13.2 Regulatory Agency Review

Review of the NCDEQ Site Locator Tool web-based map resulted in the following potential sites/releases of concern on Radio Island:

- Abandoned Storage Tank (AST) Incident #86641: A release from a 55,000-gallon AST (No. 8 Tank) at the AFT was discovered as an inventory loss on January 17, 1986. Offloading of product from No. 8 Tank was reportedly conducted immediately following discovery of inventory loss. The incident was reported to the Division of Environmental Management Groundwater Section via a Pollution Incident Reporting Form citing release of approximately 4,200 gallons of JP-4 fuel. Between 1986 and 1987, approximately 11,700 gallons of JP-4 fuel were recovered from the release. This incident corresponds to the release assessed and summarized in the Wood Report discussed in Section 3.11.1 above. The most recent correspondence in the NCDEQ files was a response letter from NCDEQ to the Authority regarding the Wood Report and recommendation that annual groundwater monitoring be terminated. NCDEQ requested that an on-site water supply well be sampled, and that groundwater fate and transport modeling be conducted prior to consideration of closure of the incident.

- AST Incident #16384: A release of approximately 20 gallons of lubrication oil at Gillikin's Boat Works (Gillikin's) was reported to the North Carolina Department of Environment and Natural Resources (NCDENR) on October 5, 1995. Gillikin's is located on the northeastern portion of Radio Island. Representatives from the NCDENR and the United States Coast Guard (USCG) conducted a site inspection in October 1995 and observed several areas of oil-stained soil around the Gillikin's property. NCDENR issued two Notice of Violations (NOVs) to Gillikin's, resulting in issuance of AST Incident #16384. More recent files available through NCDEQ indicate that the USCG has received multiple reports of spills and sheens on surface water from the Gillikin's site in 2020 and 2021. The files do not indicate current NCDEQ involvement or cleanup status.

- UST Incident #11524: One 4,000-gallon gasoline UST was removed from the Radio Island Marina on December 21, 1993. Benzene, ethylbenzene, xylenes, isopropyl ether (IPE), and ethylene dibromide (EDB) were detected at concentrations that exceeded the 2L Standards in a groundwater sample collected during tank removal, confirming a release to groundwater. NCDENR issued a status of No Further Action to the release in August 2005. The Radio Island Marina is located at the northernmost extent of Radio Island, at the intersection of Old Causeway Road and Marine Drive.

- Two additional petroleum incidents on Radio Island are attributed to Morehead Sports Marina, Inc. (UST #12178) and the Mannie Piner Property (AST #85314); however, files related to the incidents were not available on the NCDEQ website. Both sites are located on the northern portion of Radio Island.

## 3.14 Resiliency

### 3.14.1 Climate Change

Radio Island is being planned and designed for short-and-long term climate resiliency specific to its location and geography. According to the USEPA 2017 emission records, carbon dioxide, methane, nitrous oxide, and fluorinated gases are the main pollutants contributing to climate change with carbon dioxide accounting for 82 percent of US greenhouse gas emissions.[19]

Impacts such as increased heat wave/ humidity intensity and frequency would result in operating at high temperatures. Extreme precipitation events and flooding have increased during the last century, and these trends are expected to continue, causing erosion, and declining water quality. Climate change also results in increased high wind events, and stronger storm events such as hurricanes and flooding. The project is being guided by both regulatory requirements as well as by the above-mentioned vulnerabilities, which have resulted in the project creating an adaption plan to ensure resilient infrastructure occurs to account for climate change.

### 3.14.2 Sea Level Rise

The Radio Island peninsula is exposed to storm surges from coastal storms, which pose an increasing risk due to sea level rise. It is said North Carolina sea level is expected to rise by one foot in 30 years.[20]

The storm surges include hurricanes, which are expected to become more frequent and more detrimental due to climate change. The Authority recognizes global climate change brings increased risks of extreme weather events, such as hurricanes and flooding. The occurrence of more severe weather threatens the ability for the Radio Island Multi-Use Terminal to effectively connect people, products, and places safely and efficiently. Due to sea level rise, it's predicted that the project area has an 82 percent risk level of one or more flood events between 2022 and 2050 that would result in flooding over 4 feet. The absence of measures to manage increasing flooding, effective inundation of coastal areas could become widespread within the next 40 years and encompass much of the coast by the end of the century.[21] Although the threat of inundation due to sea level rise exists, the impacts should be minimal, as the Authority continues to strive to be resilient against extreme weather conditions, responding to any disturbances and rapidly recovering from them. Figure 10 in Appendix D shows the projected sea level rise in 30 years.

# 4. ENVIRONMENTAL CONSEQUENCES

## 4.1 Social and Economic Impacts

Construction impacts include one-time job generation at start-up, which could fluctuate over the duration of construction. Operating impacts include the hiring associated with the operation of the project and local purchases of goods and services necessary to operate the project. This would continue as long as the project is in operation.

Impacts to socioeconomic resources as a result of the proposed Radio Island Multi-Use Terminal would be minor and, in general, beneficial. Economically local and state revenue would be impacted positively. The additional earnings generated by the construction and operations activity would yield personal income tax revenues and consumer demand resulting from this new job growth. From 2019-2020, North Carolina had an individual income tax rate of 5.25

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[19]Source:https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks#:~:text=The%20gases%20covered%20by%20the,sulfur%20hexafluoride%2C%20and%20nitrogen%20trifluoride

[20] Source: https://coastalreview.org/2022/02/new-report-projects-sea-levels-to-rise-a-foot-in-30-years/#

[21] Source: Effective inundation of continental United States communities with 21st century sea level rise | Elementa: Science of the Anthropocene | University of California Press (ucpress.edu)

percent.[22] The effect of the proposed project on the value of properties near the project are not expected to change as the land uses or access to Radio Island would not materially change. The 2020 Carteret County property tax rate was 0.33 which led to $54,313,866 in property tax revenue.[23]

Carteret County economic developers are promoting the port property and Authority staff has been engaged by representatives for the automotive and offshore wind industry.

Demographic analysis does not reveal that minority and low-income populations meet the EJ thresholds. Additionally, minority or low-income communities are not identified on Radio Island. Therefore, there are no potential impacts to EJ populations.

No homes or businesses would be relocated by the proposed project.

Marine Drive may be temporarily impacted by construction activities. Roadway improvements to accommodate wider truck loads or weights necessary for OSW manufacturing could result in permanent impacts if the impacts extend outside of the existing right of way. To minimize any permanent impacts roadway improvements would be constructed on Port-owned right of way.

## 4.2 Recreation Areas

Radio Island Public Beach Access area will not be impacted because it is outside of the project area.

## 4.3 Compatibility with Land Use and Transportation Plans

The compatibility of the project with local land use and transportation planning is assessed in this section. Consistency with land use plans is a factor when considering the scope and intensity of project impacts.

The proposed action is compatible with local public policy since it would meet the port growth expectation identified in the Morehead City and Carteret County CAMA Land Use Plans. The proposed project is also compatible with local economic development initiatives of the Crystal Coast Economic Development Foundation and the Carteret County Economic Development Department.

## 4.4 Cultural Resources

Anticipated potential effects on historic properties would consist of potential disturbance of archaeological deposits during ground-disturbing activity, and visual, noise, and vibration effects to historic properties outside of the project footprint. Radio Island is comprised primarily of dredge spoil and does not require a terrestrial archaeological survey. The proposed action would not affect any terrestrial archaeological sites.

Applying the Criteria of Adverse Effects in 36 CFR 800.5, the potential visual, noise, and vibration impacts in the APE to aboveground historic properties would be negligible to minor. The undertaking would not alter any characteristics of the Beaufort Historic District—the only known historic property in the APE—in a manner that would diminish a property's historic integrity. Because the undertaking would not introduce potential visual, noise, and vibration impacts in a manner that would diminish a property's historic integrity, this study concludes that the undertaking would have no effect on previously recorded landside historic properties in the APE.

As described in Section 3.4.2 on August 26, 1998 the NC Department of Cultural Resources SHPO concurred that the Radio Island expansion project will not involve significant archaeological resources. See Appendix B for the clearance letter from the SHPO.

## 4.5 Visual Quality and Aesthetics

Construction activities associated with the multi-use terminal area would result in a change in the general visual character on the western portion of Radio Island from undeveloped property

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[22] Source: https://www.ncdor.gov/taxes-forms/tax-rate-schedules#:~:text=For%20Tax%20Years%202019%2C%202020,For%20Tax%20Year%202014.

[23] Source: Carteret County, North Carolina Annual Comprehensive Financial Report For the Fiscal Year Ended June 30, 2021 https://www.carteretcountync.gov/852/ACFR

with wetlands, sparse vegetation, and estuarine vista to an expanded industrial facility with longer vessel berths, cranes, warehouses, and automobile staging areas.

Construction activities associated with the terminal upgrades and the new buildings, when completed and in operation, would present a very low profile, particularly in relation to the existing storage tanks. This project would introduce new cranes with booms that would project into the skyline when in their stowed position.

The viewshed from Fort Macon State Park would change from a less developed coastline and Port facility on Radio Island to a larger lighted industrial area and increased ship or barge traffic. Viewsheds from the top floors of the residential buildings of Olde Towne Yacht Club and Morgan Creek Landing could change with expanded industrial uses from the introduction of a two-story manufacturing and repair building, however the commanding views from the residential communities are primarily focused to the east and southeast to include water views. The proposed project site, to the west, would be peripheral and not out of character for the industrial marine environment of a port. The water views would be intermittently impacted by ship traffic but not site improvements.

Cargo stacked on the decks of the ships would be partially visible when in transit over water and rail. The warehouse and storage tanks would conceal some evidence of the vessels when docked but visible when loading/offloading on the ships. Cranes used during construction activities or operations could impact the viewshed from Fort Macon State Park, however the current viewshed includes the Port of Morehead City cranes and overhead equipment.

The Historic District of Beaufort would likely not be impacted from a changed viewshed due to the location of the improvements on the west side of Radio Island. Pivers Island, with industrial, institutional, and residential land uses, is located between Beaufort and Radio Island providing a visual barrier.

Due to the existing light levels surrounding the residential areas, and distance from the terminal area, an increase in lighting would not likely be noticeable. Nighttime ambient light levels in portions of Radio Island could increase due to additional high mast lighting, port activities, and reflections. Nightglow is currently present but could increase with additional lighting. The level of increase would depend on the design and use of the lighting structures.

The viewshed from the public beach access area would not be impacted by construction of the proposed project. An increase in the number of ships in the Morehead City channel could increase, however the beach is positioned to the east with an island in the Rachel Carson Reserve between the beach and shipping channel. Ships would travel along the southern end of Radio Island away from the public beach.

The maximum height of buildings to support OSW activities could be up to 80 feet. The height of the 7-story Old Towne Yacht Club condominiums, located east of the proposed project, is approximately 70 feet. Mobile shore crane heights could vary based on wind turbine sizes.

In summary, the proposed project would have a less than cumulatively considerable contribution on views from scenic vistas, given the context of the distinctive marine industrial character of the working port and existing residential building heights. Within this context, the quality of the view from Beaufort is high. No obstruction of this view has been introduced by past Authority projects, nor would present or future projects do so. Regarding the contribution of the proposed project, the affected view is oriented to the west, and the proposed project's features would be peripherally to the southwest and west. Although two features of the proposed project would be peripherally visible (cranes and buildings), they would not obstruct the scenic view and would not change the character of the view from the historic area of Beaufort.

## 4.6 Area Airport Facility

Airspace and activities at Michael J Smith Field are not expected to be impacted. The Authority will coordinate with the Carteret County - Beaufort Airport Authority as tenant needs are determined to ensure that impacts do not occur from cranes used during project construction and operations.

## 4.7 Natural Resources

Although bald eagles may hunt or scavenge within the study area, based on the limited availability of suitable habitat in the study area, bald eagle nesting is unlikely. Monitoring for new, active nests within 660 feet of the study area is recommended throughout the duration of construction.

Correspondence from the US Fish and Wildlife Service (USFWS) indicates that the proposed action is not likely to adversely affect any federally listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Endangered Species Act (ESA). Correspondence from the USFWS is available in Appendix B.

The proposed project has the potential to result in permanent or temporary effects to essential fish habitat (EFH) due from direct or indirect causes through the construction process. Temporary effects would be expected to remain for the duration of the project or project-phase for which the effect is associated (e.g., pile driving). Project areas experiencing temporary effects are expected to return to the existing (current) condition following completion of the project.

Permanent, direct effects include loss of EFH from the addition of concrete and riprap fill in the rock slope construction supporting the construction of the offshore wind dredged berth basin, as well as construction of an Offshore Wind Dock and a Roll-on/Roll-off Offloading Dock. At the Offshore Wind Dock, the total area of the dredged berth basin footprint is 816,763 square feet with the anticipated dredge volume on the order of 900,000 cubic yards. The proposed footprint for the Offshore Wind Dock is approximately 1,600 feet long by 150 feet wide and includes 1,298 54-inch diameter spun-cast cylinder concrete piles. The proposed Roll-on/Roll-off Offloading Dock footprint is approximately 360 feet long by 75 feet wide and includes 59 24-inch square precast/prestressed concrete piles and 8 of these piles near the waterside face will be battered for stability in carrying lateral loads. Approximately 85-95 acres of the 154-acre site may be paved.

The proposed action will require dredging from the face of the dock to the navigation channel limits for the construction of the offshore wind dock, which can result in both permanent and temporary direct impacts. Although mobile species would likely avoid the area during dredge activity, early and/or vulnerable life stages may be susceptible to hydraulic entrainment (direct mortality) from dredges. Dredging, and the subsequent placement of fill materials, can also result in permanent loss and/or conversion of EFH. Dredge material is expected to be disposed off-site. The type of dredging vehicle and method used is currently undetermined. Temporary impacts associated with dredging include the noise of dredging and suspended sediment.

Pile driving associated with the construction of the Offshore Wind Dock and roll-on/roll-off dock has the potential to cause permanent or temporary impacts to species in the area. Construction noise is generally considered to generate impulsive or non-impulsive sounds. Impulsive sounds are transient, brief (less than 1 second), and typically consist of high peak pressure with rapid rise time and rapid decline, such as those created by impact pile drivers. Non-impulsive sounds can be brief or prolonged and continuous or intermittent, but typically do not have a high peak pressure with rapid rise time, such as those produced by sonar and vibratory pile drivers.

If an individual animal is close to the project during pile driving or dredging, there is potential for long-term or permanent auditory impacts (i.e., hearing loss). However, it is more likely that species within the project area may experience temporary effects of noise in the form of behavior changes (e.g., avoidance) and are unlikely to be directly harmed. The use of “slow-starts” while pile driving is recommended to deter animals from the area and minimize disturbance.

Siltation and/or turbidity due to dredging or the installation of piles and fill materials is expected to be minor, localized, and temporary. Siltation can cause increased thermal loading, increase in turbidity, alterations in nutrient distribution, affects to dissolved oxygen levels, and impact primary productivity. The settling of siltation on the estuary floor can also impact benthic

organisms. The increase in turbidity and associated decrease in light attenuation can affect organisms in the area by limiting visual ability for feeding, movement, and predator avoidance.

As design progresses, efforts will be made to avoid, minimize, and mitigate these impacts. The project will be designed to minimize impacts to wetlands and waters of the US. Coordination will occur with the US Army Corps of Engineers Wilmington District, NC Division of Water Resources, NC Division of Marine Fisheries, NC Wildlife Resources Commission, and NC Division of Coastal Management.

As an integral part of the environmental process, the Authority is soliciting input from NOAA Fisheries concerning the types of EFH in the study area and potential impacts of the proposed project. A copy of the April 2023 letter to NOAA is located in Appendix B.

The National Marine Fisheries Service (NMFS) lists the Atlantic sturgeon which will prompt informal consultation with NMFS. A consultation package for NMFS is under development.

The USFWS recommended implementing directional boring methods and stringent sediment and erosion control measures to avoid adverse impacts to aquatic species. An approved erosion and sedimentation control plan should be submitted to and approved by the NC Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters.

Ports are governed by federal and local regulations with regard to stormwater discharge. These vary from place to place, but typically do not allow direct discharge of untreated storm water into the ocean or river on which a port is located. Interceptor devices are used to retain some amount of storm water so that some of the pollution that may be carried by storm water settles out in the system as opposed to being swept directly into the sea.

## 4.8 Streams and Wetlands

Jurisdictional waters of the United States include wetlands and streams under the authority of the CWA Section 404 enforced by the USACE. The assessment of the jurisdictional waters of the US conformed to the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Atlantic and Gulf Coastal Plain Regional Supplement (USACE 2010). The study area does not have any jurisdictional streams; however, it does contain four wetland areas and the Morehead City Channel.

Direct impacts to state and federally jurisdictional wetlands can result from construction activities such as clearing, draining, and filling. Site visits on April 18 and 19, 2022, May 3 and 4, 2022, and August 11, 2022 were conducted and verified three USACE jurisdictional wetlands are present within the study area. An additional wetland, WD, was identified during a field visit with a representative of the USACE on May 9, 2023. A USACE approved jurisdictional determination and 404 permit as well as an appropriate NCDWQ water quality certification (401) would be applied for before the commencement of construction.

Best management practices and all associated USACE and NCDWQ permit requirements would be adhered to for the project. Appropriate sediment and erosion control devices would also be used to maintain water quality during construction. BMPs for in water work would be determined after the footprints for the new berth and extended existing berth are finalized.

Impacts to wetlands within the Study Area are anticipated due to the location of the wetlands. Approximately, 3.1 acres of wetlands are located within the proposed impact area. Direct impacts to these wetlands will be mitigated under a USACE Clean Water Act, Section 404 permit.

## 4.9 Floodplains and Floodways

Construction of the project would cause a permanent impact on site topography. There are no regulated floodways within the project areas so there would be no impacts to floodways. The western edge of Radio Island is within FEMA Zone AE. Placement of fill within the floodplain may have an impact on flood elevations; however, it is expected to be minimal due to the very

wide floodplain to the west of Radio Island. Impacts to FEMA elevations will be further investigated during final design of the project.

In addition to assessing floodplain impacts, Figure 10 in Appendix D shows the projected sea level rise of 4 feet compared to the proposed site plans for the project indicating buildings would be outside of the projected flooding due to sea level rise.

## 4.10 Air Quality/Noise

### 4.10.1 Air Quality

The Clean Air Act (CAA), as amended (42 USC § 7401, et seq.) prohibits Federal agencies from approving any action that does not conform to an approved state, tribal, or Federal implementation plan. Under the CAA General Conformity Rule (Section 176(c)(4)), Federal agencies are prohibited from approving any action that causes or contributes to a violation of a NAAQS in a nonattainment area.

The air-pollutant concentrations in the study area are consistently below the NAAQS. The study area is not in a maintenance or non-attainment area. The nearest air quality monitoring station is in Castle Hayne, NC located approximately 90 miles southwest of the project study area.

During construction, vehicles and heavy equipment would generate diesel and gasoline fumes, which can include particulate matter, carbon monoxide, sulfur dioxide, ozone, and dust. Construction workers would be exposed to these emissions, which can contribute to an increased risk of negative health effects such as lung cancer, chronic respiratory problems, and cardiovascular disease.

During construction, measures to minimize emission of air pollutants and exposure to workers will be evaluated and incorporated into the final project design as appropriate. The contractor will identify planned air pollution-generating processes including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions. Measures to control particulates may include sprinkling with water, windscreens, and cleaning along haul routes to reduce dirt, dust, and debris from roadways. Equipment measures may include diesel emission control technology or idling limits. Emissions are not expected to affect implementation of North Carolina's CAA implementation plan and would have no lasting effect on the study area.

### 4.10.2 Noise

This section discusses the assessment of air-borne noise during the No-Build Alternative, and project-related air-borne noise during construction and operation of the proposed project for both Build Alternatives.

**No-Build Alternative**

Under the No-Build Alternative additional noise due to construction and operation of the proposed facility would not occur. The ambient soundscape would remain as it is today.

**Build Alternatives**

While subtle differences exist between the two Build Alternatives, air-borne noise from construction and operations are comparable. The following sections discuss construction noise and noise from operations.

**Construction Noise**

In general, construction of the proposed project consists of:

- Clearing and paving a storage lot for RoRo vehicles,
- Modifying the existing pier for roll on and roll off (RoRo) vessels,
- Constructing a new berthing facility for future vessels,
- Constructing new rail lines and rail spurs – for materials used in the manufacturing building and OSW warehouse and lay-down area,
- Clearing and paving, and constructing a warehouse, a warehouse/ office, and fabrication/ assembly buildings,

- Clearing and pouring concrete for a new laydown pad associated with the warehouse/ office building (for OSW) and roadways on the site.

Detailed construction plans are not available at this early phase of the project. But it is possible to perform a simplified construction noise assessment by evaluating the likely phases of construction, and equipment that could reasonably be assumed to be used during those phases. This simplified construction noise assessment methodology identifies the loudest two pieces of equipment in each phase of construction and propagates noise from those items to different reference distances. This methodology assumes both pieces of equipment operate next to one another, resulting in conservatively high estimates of the combined level of the two noisiest pieces of equipment at reference distances.

Table 15 shows the assumptions and results of the construction noise assessment performed for this project. The table shows equipment use and power rating assumptions, the resulting total sound power level (SWL), sound pressure levels (SPL) at different distances, and the combined noise level of the two noisiest pieces of equipment in each phase of the construction process. All noise levels are expressed in A-weighted decibels (dBA).

**Table 15. Construction Noise Assessment**

| Equipment | Qty. | Hours /day | Utilization | Horse-power | Total SWL | SPL (dBA) at distance (feet) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 100 | 200 | 500 | 1,000 |
| ***Clearing*** | | | | | | | | | |
| Off-highway trucks | 4 | 6 | 50% | 350 | 126 | 89 | 82 | 75 | 69 |
| Rubber tired dozers | 3 | 8 | 67% | 255 | 125 | 87 | 81 | 73 | 67 |
| Rubber tired loaders | 2 | 6 | 50% | 199 | 121 | 83 | 77 | 69 | 63 |
| Tractors/loaders/backhoes | 3 | 5 | 42% | 97 | 119 | 81 | 75 | 67 | 61 |
| Trenchers | 2 | 4 | 33% | 80 | 115 | 77 | 71 | 63 | 57 |
| **Combined level of two noisiest equipment** | | | | | **129** | **91** | **85** | **77** | **71** |
| ***Earthwork*** | | | | | | | | | |
| Excavators | 2 | 8 | 67% | 162 | 121 | 83 | 77 | 69 | 63 |
| Graders | 1 | 8 | 67% | 174 | 118 | 81 | 75 | 67 | 61 |
| Off-highway trucks | 4 | 8 | 67% | 350 | 127 | 90 | 84 | 76 | 70 |
| Rollers | 2 | 6 | 50% | 80 | 117 | 79 | 73 | 65 | 59 |
| Rubber tired dozers | 1 | 8 | 67% | 255 | 120 | 82 | 76 | 68 | 62 |
| Rubber tired loaders | 2 | 6 | 50% | 199 | 121 | 83 | 77 | 69 | 63 |
| Scrapers | 2 | 8 | 67% | 361 | 125 | 87 | 81 | 73 | 67 |
| Signal boards | 3 | 8 | 67% | 6 | 109 | 71 | 65 | 57 | 51 |
| Tractors/loaders/backhoes | 3 | 6 | 50% | 97 | 119 | 82 | 76 | 68 | 62 |
| **Combined level of two noisiest equipment** | | | | | **129** | **92** | **86** | **78** | **72** |
| ***Buildings, Roads, Layout Pads, Parking & Staging Areas*** | | | | | | | | | |
| Cranes | 4 | 7 | 58% | 226 | 125 | 87 | 81 | 73 | 67 |
| Excavators | 2 | 8 | 67% | 162 | 121 | 83 | 77 | 69 | 63 |
| Forklifts | 3 | 8 | 67% | 89 | 120 | 83 | 77 | 69 | 63 |
| Generator sets | 4 | 8 | 67% | 84 | 121 | 84 | 78 | 70 | 64 |
| Graders | 2 | 8 | 67% | 174 | 121 | 84 | 78 | 70 | 64 |
| Pavers | 2 | 8 | 67% | 125 | 120 | 82 | 76 | 68 | 62 |
| Paving equipment | 2 | 8 | 67% | 130 | 120 | 82 | 76 | 68 | 62 |
| Rollers | 2 | 8 | 67% | 80 | 118 | 80 | 74 | 66 | 60 |
| Rubber tired dozers | 2 | 8 | 67% | 255 | 123 | 85 | 79 | 71 | 65 |
| Scrapers | 2 | 8 | 67% | 361 | 125 | 87 | 81 | 73 | 67 |
| Tractors/loaders/backhoes | 2 | 8 | 67% | 97 | 119 | 81 | 75 | 67 | 61 |
| Welders | 3 | 8 | 67% | 46 | 117 | 80 | 74 | 66 | 60 |
| Concrete mixers | 3 | 8 | 67% | 110 | 121 | 84 | 77 | 70 | 64 |
| Concrete pump | 2 | 8 | 67% | 60 | 117 | 79 | 73 | 65 | 59 |
| Concrete vibrator | 2 | 8 | 67% | 30 | 114 | 76 | 70 | 62 | 56 |
| **Combined level of two noisiest equipment** | | | | | **128** | **90** | **84** | **76** | **70** |
| ***Install track and sub-ballast*** | | | | | | | | | |
| Air compressors | 1 | 6 | 50% | 78 | 114 | 76 | 70 | 62 | 56 |
| Cranes | 1 | 7 | 58% | 226 | 119 | 81 | 75 | 67 | 61 |
| Forklifts | 3 | 8 | 67% | 89 | 120 | 83 | 77 | 69 | 63 |
| Generator sets | 1 | 8 | 67% | 84 | 115 | 78 | 72 | 64 | 58 |
| Track laying machine | 1 | 8 | 67% | 1500 | 128 | 90 | 84 | 76 | 70 |
| Track tamper | 1 | 8 | 67% | 200 | 119 | 81 | 75 | 67 | 61 |
| Track stabilizer | 1 | 8 | 67% | 700 | 124 | 87 | 81 | 73 | 67 |
| Ballast regulator | 1 | 8 | 67% | 135 | 117 | 80 | 74 | 66 | 60 |
| Tractors/loaders/backhoes | 2 | 8 | 67% | 97 | 119 | 81 | 75 | 67 | 61 |
| Welders | 1 | 8 | 67% | 46 | 113 | 75 | 69 | 61 | 55 |
| **Combined level of two noisiest equipment** | | | | | **129** | **92** | **86** | **78** | **72** |

| *Pier Modification and New Berthing Facility* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cranes | 2 | 7 | 58% | 226 | 122 | 84 | 78 | 70 | 64 |
| Forklifts | 3 | 8 | 67% | 89 | 120 | 83 | 77 | 69 | 63 |
| Generator sets | 1 | 8 | 67% | 84 | 115 | 78 | 72 | 64 | 58 |
| Tractors/loaders/backhoes | 2 | 8 | 67% | 97 | 119 | 81 | 75 | 67 | 61 |
| Welders | 1 | 8 | 67% | 46 | 113 | 75 | 69 | 61 | 55 |
| Dumper/tender | 2 | 4 | 33% | 16 | 108 | 70 | 64 | 56 | 50 |
| Concrete mixers | 3 | 8 | 67% | 110 | 121 | 84 | 77 | 70 | 64 |
| Concrete pump | 2 | 8 | 67% | 60 | 117 | 79 | 73 | 65 | 59 |
| Concrete vibrator | 2 | 8 | 67% | 30 | 114 | 76 | 70 | 62 | 56 |
| Tugboats | 2 | 8 | 67% | 3000 | 134 | 96 | 90 | 82 | 76 |
| **Combined level of two noisiest equipment** | | | | | **134** | **96** | **90** | **82** | **76** |

Source: HDR Engineering, Inc. 2022

Construction noise assessment results indicate that noise levels could range from 96 dBA to 70 dBA at distances between 100 and 1,000 feet from the loudest noise sources. This range of noise levels is not uncommon for daytime equipment use on construction projects. A more refined construction noise assessment including a noise mitigation evaluation can be performed during the final design phase of the project.

Pile driving may occur during pier modifications and construction of the new berthing facility. Impact pile driving and sonic pile driving are the most common methods of installing new piles. Noise levels from impact pile driving can reach 101 dBA at 50 feet, while noise levels from sonic pile driving can reach 95 dBA at 50 feet. The type of pile driving equipment used, locations, and need for noise mitigation measures can be determined during the project's final design phase.

**Operations Noise**

Under the Build Alternatives the Project proposes the following operations.

- Manufacturing and material handling in warehouse buildings,
- Shipping/ receiving via train,
- Outdoor material handling associated with the OSWF lay-down area,
- RoRo, and potentially rail car and vehicle trailer truck loading and unloading,
- Vessel idling at RoRo,
- Future vessel idling at new berthing facility.

Noise emissions from operations at the proposed project site are going to be similar to the dominant noise sources under existing conditions and the No-Build Alternative (traffic noise, train noise, noise from boats and vessels).

Noise associated with the proposed warehouses and office buildings would mostly occur indoors. The exterior walls of the warehouse buildings in which manufacturing and material handling activities would occur will reduce the transmission of indoor noise to the outdoor environment. Outdoor equipment, including HVAC equipment, is subject to the noise requirements shown in affected environment section 3.10.2 Noise.

Noise from moving trains is a function of their speed, and on-site train speeds are expected to be 10 mph or less. Trains would slow down and stop as they reach their destination on the project site. At this point in the project development, train consist, speed, volume details are not available. Using FTA/Federal Railroad Administration (FRA) methods it is possible to develop an estimate of train noise. Assuming a single train has one locomotive and ten railcars, travels at a speed of 10 mph, the noise level at 50 feet is approximately 67 dBA on an Leq basis during the train pass-by. Turnouts and jointed rail on-site may result in slightly louder train noise levels.

Outdoor material handling activities at the proposed lay-down area would use equipment that is similar to some of the equipment used during the construction phase. This could include two to four cranes, forklifts, heavy trucks, and possibly other equipment.

Noise from the RoRo activities would consist of cars, trucks, vehicle trailer trucks and potentially other vehicles driving on-site at approximately 10 mph. Noise from RoRo activities is expected

to be lower than daytime traffic noise from the nearby highway. Rubber ramp flaps can be used to mitigate the familiar “da-kunk” noise that happens when vehicles drive off a steel ramp. At this time in the project development when the type and number of vessels using the project site is unknown, it is not possible to estimate noise emissions from idling vessels.

## 4.11 Utilities

Due to island and industrial setting of the project substantial utility infrastructure is present within the port property where the construction activities would occur. Infrastructure to provide natural gas service would need to be constructed by the utility provider from the mainland across the Newport River. Impacts may include small utility extensions to existing utilities. These impacts are accounted for in other sections of the DEIS. During final design, all utility providers will be coordinated with to ensure that the proposed design and construction of the project would not substantially disrupt service.

## 4.12 Energy

Factors that could influence a reduction in energy consumption include the combination of vessels and trains transporting vehicles or wind energy equipment. This increased use of ship and rail would result in decreased traffic congestion and vehicle idling on US 70 and local roadways, thereby increasing the transportation related energy efficiency within the project area for truck traffic.

The proposed project can have a positive impact on energy consumption regionally and within the southeast US with the production of OSW energy and battery power.

## 4.13 Hazardous Material Sites

Impacts on hazardous materials are discussed below for the No-Build and Build Alternatives.

### 4.13.1 No-Build Alternative

The No-Build Alternative would have no impact on hazardous materials associated with regulated facilities in the region or the on-going remediation activities at the former AFT facility. The No-Build Alternative includes short-term, minor restoration types of activities (safety and maintenance improvements, etc.) that maintain continuing operation of the existing Radio Island terminal. With the exception of routine maintenance, no changes would take place within the project study area. A limited potential exists to encounter hazardous material during maintenance dredging; however, based on review of available data, that potential is considered to be extremely low. Dredged materials may not be suitable for beneficial use, but there is no indication that they would need to be disposed as hazardous waste.

### 4.13.2 Build Alternatives

Under the Build Alternative, development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industries would occur. The potential for encountering hazardous materials or waste during construction of the proposed facilities is considered to be low, as the majority of the 154 acres is undeveloped land created from dredge spoil material. While dredged materials may not be suitable for beneficial use, there is no indication that they would need to be disposed as hazardous waste.

Based on review of environmental records, five contaminated or regulated sites are located on Radio Island; however, the most recent schematic drawings provided by the Authority do not show construction activities (other than paving) in the vicinity of known contamination.

Construction activities associated with the Build Alternative may temporarily increase the risk of hazardous material spills from or around construction equipment, but this increased risk can be mitigated through implementation of health and safety, and spill prevention plans.

The proposed action would not impact groundwater monitoring. A recommendation from Wood Environmental & Infrastructure Solutions was recently made to the Authority to request of status change to No Further Action from NCDEQ and a cease of periodic groundwater monitoring at the former AFT facility.

## 4.14 Indirect and Cumulative Effects

The proposed project includes construction of a terminal, a manufacturing facility, offices, and railroad spurs on Authority owned property. The proposed project would not increase the capacity of adjacent roads. The project would not alter traffic capacity or travel patterns, reduce travel time on roadways, affect access to properties in the area, or open areas for development or redevelopment.

Due to its minimal transportation impact-causing activities, this project would neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect and cumulative effects study was not necessary.

## 4.15 Construction Impacts

Construction activities for the multi-use terminal would consist of activities in the Morehead City Channel and on land, dredging, disposal of dredged materials, and transport of construction materials.

Pile driving, deposition of rubble, dredging, sand compaction and other construction work in water cause resuspension of sediments and turbid water. Resuspension of sediments in water leads to an increase in the level of suspended solids and in the concentration of organic matter, possibly to toxic or harmful levels. It also reduces sunlight penetration.

Dredging may cause changes in current patterns and flows and lead to shore erosion. Construction work and dredging disturb bottom sediments and induce resuspension, dispersal, and settlement of such sediments. Underwater archaeological resources may also be impacted by dredging activities.

Dumping of dredged material directly alters bottom configuration and biology and may reduce fishery resources or disperse toxic or harmful chemicals around the disposal site. Dredging also removes bottom habitat and may lead to a loss of fishery resources.

Settlement of resuspended sediments on fragile marine fauna and flora damages the ecosystem. Piles, concrete surfaces, rubble mounds and other similar structures in water could form new habitats, which may introduce undesirable species. If toxic substances and other contaminants are resuspended through dredging or dumping, they may lead to contamination of fishery and shellfishery resources.

Emissions from construction equipment, work vessels, trucks and other vehicles used in construction work could be a source of air pollution. Dust from construction activities is also a possible source of air pollution.

Construction activities may create a problem of noise and vibration generated by construction equipment, truck traffic, work vessels and other similar sources.

Wastes from construction activities are mainly spoils generated by dredging. Disposal of dredged material on land may cause destruction of plants, loss of vegetation, leakage of contaminated materials and salt, odor, an unsightly view, and other nuisances to the local community. Disposal in water may cause problems identified previously.

Work vessels are a possible cause of oil spills, garbage discharge, and leakage of other substances into water. Diffusion from concrete work in water may be possible sources of water pollution.

Possible discharges from ships that could be sources of water pollution are bilge water, ballast water, oily wastes, sewage, garbage, and other residues in a ship. Spills of oils, lubricants, fuels, and other oily liquids may be other sources of water pollution. Once an oil or oily compound is discharged into water, it is spread on the surface by winds and currents, forming a thin layer. Leakage of oils, oily wastes and mixtures may directly cause damage to fishery resources, aquatic biology, and coastal habitat. Ships are a possible source of airborne emissions such as gasses, smoke, soot, and fumes.

Oil and oily wastes discharged from ships may reach nearby beaches and spoil recreational activities which cause serious damage to tourism. Ship traffic may disturb pleasure boat cruising

and fishery boat operations. The possibility of accidents in the ship traffic becomes a worry to local people.

## 4.16 Mitigation Measures

The adverse effects of construction work could be minimized by appropriate selection of equipment in pile driving or dredging, proper use of silt curtains, careful planning of settling ponds and suitable transport of construction materials and dredged material.

Proper disposal of dredged material plays a critical part in preserving the environment. Deposition in a landfill may offset problems being caused by disposal in the channel. Disposal of dredged material on land may possibly cause leakage of harmful substances into ground water or changes in waterfront drainage.

Beach erosion could be avoided by carefully planning the steepness of the dredging slope and the deviation from the shoreline.

Careful survey of a fragile marine and coastal ecology or historic resources is essential for appropriate planning of construction work, dredging, and disposal of dredged material. Measures to minimize bottom contamination are effective for mitigating changes in aquatic and terrestrial habitat.

Methods for controlling dust emission are water scattering in the construction site, use of proper transport methods, such as a conveyor belt, for excavated material and screens around the construction site. A green belt zone or open space between the construction site and the local community could be an effective buffer. Temporary pavement of roads in a construction site could considerably reduce dust emission.

Transmission of noise and vibration are limited by the distance from their sources. Noise could be considerably reduced by adoption of low noise equipment or installation of sound insulation fences. Green belt of plants can be a good barrier. Limitation of working hours may be a possible means to mitigate the nuisances of construction activities.

The adverse effects of disposal of contaminated dredged material or other wastes from construction activities could be offset by including them in land reclamation. Appropriate design, according to the characteristics of the wastes, is a basic requisite for retaining walls, settling ponds, capping of landfills, and land use after completion.

Appropriate regulations on ship discharges and provision of reception facilities are indispensable for proper control of emissions and effluent from ships. Detection of spills is also important for regulating ship discharges. Since accidental spills are unavoidable, recovery vessels, oil fences, and treatment chemicals should be prepared with a view to minimizing dispersal. Proper contingency plans and a prompt reporting system are keys to prevention of oil dispersal. Periodical clean-up of floating wastes is also necessary for preservation of port water quality. Regulation and proper detection of emissions from ships are effective means to reduce discharges of pollutants. Prohibition of the use of heavy diesel oil as fuel could be a possible means to reduce pollutants.

Appropriate regulations on ship traffic and discharges and contingency plan for ship accidents could mitigate the concern of local people about oil and oily waste discharge from ships.

## 4.17 Conservation Measures and Best Management Practices (BMPs)

The Authority commits to implementing conservation measures or actions to minimize or compensate for potential effects to protected species in the Action Area. In general, the contractor would adhere to National Pollutant Discharge Elimination System (NPDES) permit conditions including the following BMPs:

- Standard sediment and erosion control practices will be applied, including (but not limited to) the following:
    - Avoidance and minimization of temporary impacts to waters and wetland vegetation for BMP control structures installation,
    - No permanent bank erosion or decreased stabilization,

  - To the maximum extent practicable, the Project would be implemented in stages of development so that only areas that are in active construction are exposed. All other areas should have good cover of either temporary or permanent vegetation (using native seed mixtures), or bioengineering material,
  - Grading would be completed as soon as possible following commencement,
  - Runoff velocities would be kept as low as possible and retained on-site using sediment and erosion control BMPs,
  - Appropriate sediment and erosion controls would be used and maintained in effective operating condition throughout the duration of the Project.
- Raw or live concrete may not come into contact with wetlands or open water until cured.
- All steps would be taken to prevent pollutants from entering waterways or wetlands.
- Use of "soft-starts" while boating to deter animals from the area and minimize disturbance.
- Siltation barriers would be made of material in which a sea turtle or other aquatic life cannot become entangled; barriers would be properly secured and regularly monitored to avoid protected species entrapment.
- Water quality monitoring and possible installation of aeration devices if dissolved oxygen concentration declines to levels insufficient for aquatic life.

The Authority commits to following the Protected Species Construction Conditions per the NOAA Fisheries Southeast Regional Office. Contractors would also adhere to all conservation measures and conditions detailed in the NOAA-NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS 2006).

Impacts to EFH are anticipated during construction and may include direct, permanent impacts from fill as well as indirect and temporary impacts, such as a temporary increase in turbidity. Impacts are anticipated to be minimal or short-term in nature; as design progresses, efforts would be made to avoid, minimize, and mitigate these impacts. The project would be designed to minimize impacts to wetlands and waters of the US to the maximum extent practicable. Coordination will occur with the US Army Corps of Engineers Wilmington District, NC Division of Water Resources, NC Division of Marine Fisheries, NC Wildlife Resources Commission, and NC Division of Coastal Management.

Monitoring for new, active bald eagle nests within 660 feet of the study area throughout the duration of the construction.

# 5. AGENCY COORDINATION AND PUBLIC INVOLVEMENT

## 5.1 Agency Coordination

Coordination between federal agencies is an important part of the NEPA/SEPA process. NEPA requires that the agency proposing the project "consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved." In compliance with these requirements comments on the proposed action were solicited from the agencies below. The list below also includes agencies with representatives at the scoping meeting held November 4, 2022. The agencies represented are identified in bold text. An asterisk indicates either written or oral comments were received on the project. Letters of response and scoping meeting minutes are available in Appendix B.

- **National Oceanic and Atmospheric Administration (NOAA), Marine Fisheries***
- **US Army Corps of Engineers (USACE)***
- **US Dept of the Interior Fish and Wildlife Service (USFWS)***
- US Environmental Protection Agency (USEPA)
- US Coast Guard- 5th District
- US National Marine Fisheries Service
- US Navy
- **NC Department of Environmental Quality (NCDEQ)***
- **NC Department of Natural & Cultural Resources State Historic Preservation***

- **NC Department of Transportation (NCDOT)***
- **NC Division of Air Quality (NCDAQ)***
- **NC Division of Coastal Management (NCDCM)***
- **NC Division of Emergency Management**
- **NC Division of Environmental Assistance and Customer Service (NCDEACS)***
- **NC Division of Marine Fisheries***
- **NC Division of Waste Management (NCDWM)***
- NC State Environmental Review Clearinghouse*

Agency comments requested an underwater archaeological survey be undertaken, coordination occur with the local floodplain administrator since the proposed project is in close vicinity to a Special Flood Hazard Area, and a Scoping Meeting coordinated with government agencies to discuss the proposed project and permits needed for construction. Based on the Section 106 Compliance Report for Historic Resources Radio Island Expansion (1999) SHPO concurred in a 1998 letter that no further archaeological investigation be conducted with the Radio Island expansion project as there are no significant archaeological resources. Coordination with the local floodplain administrator can occur when a tenant is secured for the property.

A Scoping Meeting was held on-line on November 4, 2022. Attendees includes representatives from the Authority, NOAA, NCDEQ, USACE, and the consultant. The Scoping Meeting Request, a list of attendees and minutes from the meeting are included in Appendix B. Fritz Rohde with NOAA noted that the impact to shallow habitat is expected to be minimal and does not see the project as a big issue for NOAA Fisheries. The scoping letter mentioned short nose sturgeon but that they are unlikely, and the Atlantic sturgeon would be most likely to be in area however, critical habitat is not designated for them in this area. Nevertheless, information on a moratorium to protect the Atlantic sturgeon was included in the project commitments (Greensheet) in the event of species in the area. Heather Styron with NC Division of Coastal Management shared that the new berth cannot extend into the channel water body for more than a quarter of the distance of the opening. Sarah E. Hair with USACE requested wetland delineation verified and an Essential Fish Habitat Assessment. On May 9, 2023, a field visit was conducted with Ms. Hair to delineate the wetlands. A BA for NOAA National Marine Fisheries Service Species in in process. A copy of the draft is located in the Authority's project files.

## 5.2 Public Involvement

On Friday, August 11, 2023, a Local Official's Informational Meeting (LOIM) was held at the Morehead City Municipal Campus- City Hall, 1100 Bridges Street, between 10:00 am and 11:00 am. The meeting was to present the project, answer questions and discuss logistics of the upcoming Public Information Meeting. Attendees included staff from the NC State Ports Authority, Town of Morehead City, Town of Beaufort, and Carteret County. The list of attendees is available in Appendix C.

August 31, 2023 postcards were mailed to 163 residents, businesses, rental company representatives and homeowners inviting them to a public meeting for the project. Between the postcard mailing and day of the meeting 8 postcards were returned as non-deliverable. The undelivered postcards appear to be from rental agencies or outside of the project study area.

On Tuesday September 26, 2023 a public meeting for the proposed improvements was held between 4:00 pm and 6:00 pm at the Crystal Coast Civic Center/ Main Hall in Morehead City. Approximately 22 people attended representing residential owners, business owners, and other attendees. The comment period for the public meeting is for 15 days (September 26 to October 10). Three comments were received prior to the meeting and three were received during the meeting. One comment concerned the impact of the project on rental properties, two comments requested information, and three comments indicated concern for rail and vehicular traffic at area intersections. A NCDOT representative attended the meeting and provided additional information on improvements to US 70, which are not in the scope of this project. Any updates to the public meeting comments will be provided in the Final EIS.

Postcard notices, handouts, comment forms, and the comment/response matrix are available in Appendix C. The sign-in sheets are available in the Authority's project files.

# 6. LIST OF PREPARERS AND DEIS DISTRIBUTION

## 6.1 Preparers

The following list of preparers helped to develop this Draft EIS (Table 16):

**Table 16. Environmental Document Preparers**

| Name, Registration | Project Role | Education | Years of Experience |
|---|---|---|---|
| Adrienne Blum | GIS, Mapping, QC | MS, City and Regional Planning<br>BS, Civil Engineering | 4 |
| Tim Casey, INCE | Noise & Vibration | BS, Biology | 32 |
| Jeff Dayton, PE | Traffic Lead | BS, Civil Engineering | 20 |
| Sara Easterly | Environmental Scientist, field work, Co-Author NRTR | MS, Environment, Health, and Safety Management<br>BA, Biology | 36 |
| Mark Filardi | HazMat | MS, Geology<br>BS, Geology | 22 |
| Joshua Fletcher, RPA | Historic Resources, Section 4(f) and 6(f), Visual and Aesthetic Resources | MA, Archaeology<br>BS, Architectural Design | 24 |
| Jessica Forbes | Architectural Historian | MA, History/ Public History<br>BA History | 9 |
| Jackson Garvey | Environmental Scientist | BS, Natural Resources | 6 |
| Cheryl Hannah | Author DEIS | BA, Political Science | 25 |
| Jenessa Kay | Fisheries Biologist | BA, Biological Sciences<br>MS, Marine Ecology | 12 |
| Jennifer Mathis, ENV SP | Air Quality Analysis | BS, Chemistry | 22 |
| Vickie Miller, AICP, PWS | Project Manager | MS, Natural Resource Management<br>BS, Environmental Studies | 22 |
| Emily Poole | Quality Assurance | BA, Environmental Studies | 10 |
| Andrew Ritter, PE | Traffic Analysis | BS, Civil Engineering | 8 |
| Jessica Tisdale | Water & Biological Resources Specialist, field work | MS, Forestry<br>BS, Environmental Sciences | 16 |
| Karsen Williams | Biological Resources | MS, Coastal, Marine, and Wetland Studies<br>BS, Environmental Sciences | 8 |

## 6.2 DEIS Distribution

The individuals listed in Table 17 received a copy of the Draft EIS. Comments received from the agency review will be added to the Final EIS.

**Table 17. Draft EIS Recipients**

| Name | Agency | Email |
|---|---|---|
| Sarah Hair | USACE | sarah.e.hair@usace.army.mil |
| Leigh Mann | USFWS | leigh_mann@fws.gov |
| Twyla Cheatwood | National Marine Fisheries Service | twyla.cheatwood@noaa.gov |
| Fritz Rohde | National Marine Fisheries Service | Fritz.rohde@noaa.gov |
| Ntale Kajumba | US EPA | kajumba.ntale@epa.gov |
| US Coast Guard | USCG 5th District | sectornc@uscg.mil |
| LCDR Gregory Herrod | US Navy | gregory.herrod@navy.mil |
| Crystal Best | NC State Environmental Review Clearinghouse | state.clearinghouse@doa.nc.gov |

# 7. REFERENCES


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- Carteret County, NC Flood Map Changes https://cc-gis.maps.arcgis.com/apps/MapSeries/index.html?appid=1b84c102eb7a4aa1b37a0680eff19fc0, October 2022.
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- NC Department of Environmental Quality Online GIS- NC SAV Mosaic 1981 to 2021 webpage https://data-ncdenr.opendata.arcgis.com/datasets/adf822944e9b48efbd1a1b2014e51e91_0/explore?location=34.715147%2C-76.687432%2C15.00

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- NC State Ports Authority, Marine Study Summary Report, Radio Island EIS Study, May 8, 2023. Prepared by HDR, May 2023.
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- NC State Ports Authority, Radio Island Rail Improvements, Project Narrative, July 2021
- NC State Ports Authority webpage https://ncports.com/. Accessed January 27, 2022.
- NC Taskforce for Offshore Wind Economic Resource Strategies (NCTOWERS) webpage https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers
- TopoQuest- Radio Island webpage https://www.topoquest.com/place-detail.php?id=992978
- Town of Beaufort, Crystal Coast Visitors Guide- Rachel Carson Coastal Estuarine Reserve website https://www.beaufort-nc.com/rachel-carson-reserve.html
- Town of Morehead City North Carolina Coastal Area Management Act (CAMA) Core Land Use Plan (Adopted August 14, 2007, Amended and Certified August 3, 2021, https://moreheadcitync.org/DocumentCenter/View/1305/Morehead-City-Core-Land-Use-Plan-PDF
- US Army Corps of Engineers. Atlantic and Gulf Coastal Plain Regional Supplement. Nov. 2010. US Bureau of Labor Statistics (BLS) Beyond the Numbers Solar and Wind Generation Occupations: A Look At The Next Decade, available on the BLS webpage : US Bureau of Labor Statistics (BLS) Beyond the Numbers Solar and Wind Generation Occupations: A Look At The Next Decade, available on the BLS website https://www.bls.gov/opub/btn/volume-10/solar-and-wind-generation-occupations-a-look-at-the-next-decade.htm
- US Environmental Protection Agency Cleanups in My Community webpage https://www.epa.gov/cleanups/cleanups-my-community

- US Fish and Wildlife Service IPaC Report April 2023, website https://ipac.ecosphere.fws.gov/location/C50KUMNGTNGVRBKBCWUL2X2W5Q/resources
- VisitNC Outer Banks National Scenic Byway webpage https://www.visitnc.com/listing/Nfii/outer-banks-national-scenic-byway
- Wood Environmental & Infrastructure Solutions, Inc., *Report of Post Soil Remediation Groundwater Monitoring October 2021 Former Aviation Fuel Terminal, Radio Island, Morehead City, North Carolina*

# APPENDICES

**Appendix A** Executive Orders

**Appendix B** Comments Received from State and Local Agencies

**Appendix C** Public Meeting Documentation and Comments

**Appendix D** Figures

**Appendix A** Executive Orders

# State of North Carolina

## ROY COOPER
GOVERNOR

**October 29, 2018**

**EXECUTIVE ORDER NO. 80**

**NORTH CAROLINA'S COMMITMENT TO ADDRESS CLIMATE CHANGE AND TRANSITION TO A CLEAN ENERGY ECONOMY**

**WHEREAS**, North Carolina residents deserve to be better educated, healthier, and more financially secure so that they may live purposeful and abundant lives; and

**WHEREAS**, N.C. Const. art. XIV, § 5 requires the conservation, protection, and preservation of state lands and waters in public trust; and

**WHEREAS**, North Carolina is well positioned to take advantage of its technology and research and development sectors, along with its skilled workforce, to promote clean energy technology solutions and a modernized electric grid; and

**WHEREAS**, public-private partnerships in North Carolina foster market innovations and develop clean energy technology solutions that grow the state's economy; and

**WHEREAS**, the effects of more frequent and intense hurricanes, flooding, extreme temperatures, droughts, saltwater intrusion, and beach erosion have already impacted and will continue to impact North Carolina's economy; and

**WHEREAS**, climate-related environmental disruptions pose significant health risks to North Carolinians, including waterborne disease outbreaks, compromised drinking water, increases in disease-spreading organisms, and exposure to air pollution, among other issues; and

**WHEREAS**, to maintain economic growth and development and to provide responsible environmental stewardship, we must build resilient communities and develop strategies to mitigate and prepare for climate-related impacts in North Carolina.

**NOW, THEREFORE**, by the authority vested in me as Governor by the Constitution and the laws of the State of North Carolina, **IT IS ORDERED**:

1. The State of North Carolina will support the 2015 Paris Agreement goals and honor the state's commitments to the United States Climate Alliance.

   The State of North Carolina will strive to accomplish the following by 2025:

   a. Reduce statewide greenhouse gas emissions to 40% below 2005 levels;
   b. Increase the number of registered, zero-emission vehicles ("ZEVs"; individually, "ZEV") to at least 80,000;
   c. Reduce energy consumption per square foot in state-owned buildings by at least 40% from fiscal year 2002-2003 levels.

2. Cabinet agencies shall evaluate the impacts of climate change on their programs and operations and integrate climate change mitigation and adaptation practices into their programs and operations. Council of State members, higher education institutions, local governments, private businesses, and other North Carolina entities are encouraged to address climate change and provide input on climate change mitigation and adaptation measures developed through the implementation of this Executive Order. Consistent with applicable law, cabinet agencies shall actively support such actions.

3. The Secretary or designee of each cabinet agency and a representative from the Governor's Office shall serve on the North Carolina Climate Change Interagency Council ("Council"), which is hereby established. The Secretary of the North Carolina Department of Environmental Quality, or the Secretary's designee, shall serve as the Council Chair. The North Carolina Department of Environmental Quality shall lead the Council by providing strategic direction, scheduling and planning Council meetings, determining the prioritization of activities, facilitating stakeholder engagement, and assisting in the implementation of pathways to achieve the goals provided in Section 1 of this Executive Order.

   The duties of the Council shall include the following:

   a. Recommend new and updated goals and actions to meaningfully address climate change;
   b. Develop, implement, and evaluate programs and activities that support statewide climate mitigation and adaptation practices;
   c. Establish workgroups, as appropriate, to assist the Council in its duties;
   d. Consider stakeholder input when developing recommendations, programs, and other actions and activities;
   e. Schedule, monitor, and provide input on the preparation and development of the plans and assessments required by this Executive Order;
   f. Review and submit to the Governor the plans and assessments required by this Executive Order.

4. The North Carolina Department of Environmental Quality ("DEQ") shall develop a North Carolina Clean Energy Plan ("Clean Energy Plan") that fosters and encourages the utilization of clean energy resources, including energy efficiency, solar, wind, energy storage, and other innovative technologies in the public and private sectors, and the integration of those resources to facilitate the development of a modern and resilient electric grid. DEQ shall collaborate with businesses, industries, power providers, technology developers, North Carolina residents, local governments, and other interested stakeholders to increase the utilization of clean energy technologies, energy efficiency measures, and clean transportation solutions. DEQ shall complete the Clean Energy Plan for the Council to submit to the Governor by October 1, 2019.

5. The North Carolina Department of Transportation ("DOT"), in coordination with DEQ, shall develop a North Carolina ZEV Plan ("ZEV Plan") designed to increase the number of registered ZEVs in the state to at least 80,000 by 2025. The ZEV Plan shall help establish interstate and intrastate ZEV corridors, coordinate and increase the installation of ZEV infrastructure, and incorporate, where appropriate, additional best practices for increasing ZEV adoption. DOT shall complete the ZEV Plan for the Council to submit to the Governor by October 1, 2019.

6. The North Carolina Department of Commerce ("DOC") and other cabinet agencies shall take actions supporting the expansion of clean energy businesses and service providers, clean technology investment, and companies with a commitment to procuring renewable energy. In addition, DOC shall develop clean energy and clean transportation workforce assessments for the Council to submit to the Governor by October 1, 2019. These assessments shall evaluate the current and projected workforce demands in North Carolina's clean energy and clean transportation sectors, assess the skills and education required for employment in those sectors, and recommend actions to help North Carolinians develop such skills and education.

7. Cabinet agencies shall prioritize ZEVs in the purchase or lease of new vehicles and shall use ZEVs for agency business travel when feasible. When ZEV use is not feasible, cabinet agencies shall prioritize cost-effective, low-emission alternatives. To support implementation of this directive, the North Carolina Department of Administration ("DOA") shall develop a North

Carolina Motor Fleet ZEV Plan ("Motor Fleet ZEV Plan") that identifies the types of trips for which a ZEV is feasible, recommends infrastructure necessary to support ZEV use, develops procurement options and strategies to increase the purchase and utilization of ZEVs, and addresses other key topics. DOA shall complete the Motor Fleet ZEV Plan and provide an accounting of each agency's ZEVs and miles driven by vehicle type for the Council to submit to the Governor by October 1, 2019, and annually thereafter.

8. Building on the energy, water, and utility use conservation measures taken pursuant to N.C. Gen. Stat. § 143-64.12(a), DEQ shall update and amend, where applicable, a Comprehensive Energy, Water, and Utility Use Conservation Program ("Comprehensive Program") by February 1, 2019, and biennially beginning December 1, 2019, to further reduce energy consumption per gross square foot in state buildings consistent with Section 1 of this Executive Order. The Comprehensive Program shall include best practices for state government building energy efficiency, training for agency staff, cost estimation methodologies, financing options, and reporting requirements for cabinet agencies. DEQ and cabinet agencies shall encourage and assist, as requested, higher education institutions, K-12 schools, and local governments in reducing energy consumption. To achieve the required energy consumption reductions:

    a. By January 15, 2019, each cabinet agency shall designate an Agency Energy Manager, who shall serve as the agency point of contact.
    b. Each cabinet agency shall develop and submit an Agency Utility Management Plan to DEQ by March 1, 2019, and biennially thereafter, and implement strategies to support the energy consumption reduction goal set forth in Section 1 of this Executive Order. DEQ shall assess the adequacy of these plans and their compliance with this Executive Order.
    c. By September 1, 2019, and annually thereafter, each cabinet agency shall submit to DEQ an Agency Utility Report detailing its utility consumption, utility costs, and progress in reducing energy consumption.
    d. DEQ shall develop an annual report that describes the Comprehensive Program and summarizes each cabinet agency's utility consumption, utility costs, and achieved reductions in energy consumption. DEQ shall complete this report for publication on its website and for the Council to submit to the Governor by February 1, 2019, and annually thereafter beginning December 1, 2019.

9. Cabinet agencies shall integrate climate adaptation and resiliency planning into their policies, programs, and operations (i) to support communities and sectors of the economy that are vulnerable to the effects of climate change and (ii) to enhance the agencies' ability to protect human life and health, property, natural and built infrastructure, cultural resources, and other public and private assets of value to North Carolinians.

    a. DEQ, with the support of cabinet agencies and informed by stakeholder engagement, shall prepare a North Carolina Climate Risk Assessment and Resiliency Plan for the Council to submit to the Governor by March 1, 2020.
    b. The Council shall support communities that are interested in assessing risks and vulnerabilities to natural and built infrastructure and in developing community-level adaptation and resiliency plans.

10. DEQ shall prepare and manage a publicly accessible Web-based portal detailing the Council's actions and the steps taken to address climate-related impacts in North Carolina. Cabinet agencies shall submit data, information, and status reports as specified by the Council to be published on the portal. In addition, DEQ shall develop, publish on the portal, and periodically update an inventory of the state's greenhouse gas emissions that, among other things, tracks emissions trends statewide by sector and identifies opportunities for additional emissions reductions.

11. By October 15, 2019, and annually thereafter, the Council shall provide to the Governor a status report on the implementation of this Executive Order.

12. This Executive Order is consistent with and does not otherwise abrogate existing state law.

13. This Order is effective October 29, 2018 and shall remain in effect until rescinded or superseded by another applicable Executive Order.

**IN WITNESS WHEREOF,** I have hereunto signed my name and affixed the Great Seal of the State of North Carolina at the Capitol in the City of Raleigh, this the 29th day of October, in the year of our Lord two thousand eighteen.

Roy Cooper
Governor

**ATTEST:**

Rodney S. Maddox
Chief Deputy Secretary of State

# State of North Carolina

**ROY COOPER**
GOVERNOR

**June 9, 2021**

**EXECUTIVE ORDER NO. 218**

**ADVANCING NORTH CAROLINA'S ECONOMIC AND CLEAN ENERGY FUTURE WITH OFFSHORE WIND**

**WHEREAS**, clean energy resources create North Carolina jobs, grow our economy, and help reduce climate change pollution; and

**WHEREAS**, North Carolina is a national leader in clean energy through its robust clean energy workforce, third-in-the-nation ranking in installed solar capacity, and position having the highest technical potential for offshore wind power on the east coast of the United States; and

**WHEREAS**, Exec. Order No. 80, 33 N.C. Reg. 1103-1106 (December 3, 2018), which was issued on October 29, 2018, ("North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy") calls for North Carolina to transition to a clean energy economy and reduce greenhouse gas emissions, and the North Carolina Clean Energy Plan identifies offshore wind as a strategic resource in the state's clean energy future; and

**WHEREAS**, offshore wind development along the U.S. Atlantic Coast and its accompanying supply chain present a significant economic opportunity for North Carolina, with an estimated 85,000 new jobs and $140 billion in capital expenditure along the Atlantic Coast by 2035; and

**WHEREAS**, North Carolina has a highly favorable business environment for offshore wind manufacturers and supply chain companies through its large skilled labor force, strong community college system, innovative technology clusters, major research and development facilities and universities, top-ranked business climate, and targeted industry support; and

**WHEREAS**, responsible offshore wind energy development can coexist with North Carolina's military installations, which are critical for national defense, provide approximately 600,000 jobs, and contribute approximately $70 billion annually to North Carolina's economy and the leadership of this state, including the undersigned, would not jeopardize these important military installations; and

**WHEREAS**, North Carolina is committed to advancing the development of offshore wind and the accompanying supply chain through regional partnerships such as the Southeast and Mid-Atlantic Regional Transformative Partnerships for Offshore Wind Energy Resources ("SMART-POWER").

**NOW, THEREFORE**, by the authority vested in me as Governor by the Constitution and the laws of the State of North Carolina, **IT IS ORDERED**:

**Section 1. Offshore Wind Procurement Targets.**

The State of North Carolina will strive for development of 2.8 gigawatts ("GW") of offshore wind energy resources off the North Carolina coast by 2030 and 8.0 GW by 2040.

**Section 2. Clean Energy Economic Development Coordinator.**

The Secretary of the North Carolina Department of Commerce ("the Secretary") shall designate a clean energy economic development coordinator ("the Coordinator") to secure the economic and workforce opportunities clean energy, including offshore wind, can provide North Carolina. The Coordinator shall:

A. Identify and analyze North Carolina's economic and workforce opportunities and challenges presented by the transition to a clean energy economy.

B. Develop and implement policies and programs that capture strategic opportunities for North Carolina's workforce and businesses to thrive in a clean energy economy.

C. Coordinate with divisions of the North Carolina Department of Commerce ("Commerce"), state agencies, local governments, businesses, community colleges, military leaders, SMART-POWER states and other partners to maximize North Carolina's economic opportunities as the state transitions to a clean energy economy.

D. Lead Commerce's efforts to develop the state's offshore wind supply chain, workforce and infrastructure.

**Section 3. North Carolina Taskforce for Offshore Wind Economic Resource Strategies.**

A. The Secretary shall establish the N.C. Taskforce for Offshore Wind Economic Resource Strategies ("NC TOWERS" or "the Taskforce") to provide expert advice for advancing North Carolina offshore wind energy projects, economic development and job creation. The Secretary or the Secretary's designee shall serve as chair of the Taskforce and convene the Taskforce at least quarterly.

B. The Taskforce may (1) advise on programs and policies for developing offshore wind energy projects, enhancing North Carolina's supply chain and economic benefits, creating workforce solutions and establishing strategic partnerships; (2) foster industry relationships throughout the offshore wind supply chain; (3) advance opportunities for equitable access, particularly in underserved communities, to the economic benefits created by the offshore wind industry; (4) connect offshore wind-related economic and technology research capacity at North Carolina institutions of higher learning with the needs of the offshore wind industry and policy makers, and (5) undertake other offshore wind–related activities at the Secretary's discretion.

C. Taskforce membership shall include a mix of individuals who represent a variety of perspectives, including state and local government, offshore wind industry, economic development, workforce, military, higher education, environmental protection, equity and justice, marine industry, and tourism. The Taskforce shall submit a report annually to the Governor and General Assembly that summarizes the status of North Carolina's offshore wind energy development activities and recommends policies, programs and other activities to advance offshore wind-related projects, supply chain development and other economic opportunities.

**Section 4. Additional Offshore Wind Energy Development off the North Carolina Coast.**

The Secretary of the North Carolina Department of Environmental Quality ("NCDEQ") shall take the following actions to support responsible development of offshore wind energy projects in the Outer Continental Shelf off the North Carolina coast consistent with the targets established in Section 1 of this Executive Order:

A. Designate an offshore wind coordinator to lead NCDEQ's offshore wind–related activities, interface with state cabinet agencies, and support implementation of SMART-POWER.

B. Coordinate efforts with Commerce to ensure alignment and synergy between offshore wind development and economic development efforts within the state.

C. Collaborate with the U.S. Bureau of Ocean Energy Management ("BOEM") and other federal partners to advance the leasing and development of North Carolina's existing Wind Energy Areas.

D. Work with the federal government and other partners to identify and lease new areas for offshore wind energy development through BOEM's established deconfliction process, the U.S. Department of Defense Military Aviation and Installation Assurance Siting Clearinghouse, and other mechanisms that address potential competing ocean uses, such as military operations and readiness, shipping lanes, habitat and migratory patterns, fishing and visibility.

E. Review, clarify and streamline regulatory and permitting requirements, as appropriate, that are applicable to offshore wind energy development, related onshore infrastructure and attendant offshore wind energy–related activities.

**Section 5. Offshore Wind Coordinator for Military Affairs.**

The Secretary of the North Carolina Department of Military and Veterans Affairs shall designate an offshore wind coordinator to serve as the State's offshore wind liaison to North Carolina's military installations, help ensure offshore wind energy projects do not interfere with the ability of North Carolina's military installations to provide for the national defense, and coordinate with Commerce, NCDEQ, and others on issues related to military and veteran affairs. The North Carolina Military Affairs Commission is encouraged to support the development of offshore wind energy projects off the North Carolina coast in a manner consistent with the state's strong economic health and the long-term vitality of North Carolina's military installations and communities.

**Section 6. North Carolina Offshore Wind Interagency Workgroup.**

The North Carolina Governor's Office shall continue to convene the Offshore Wind Interagency Workgroup ("the Workgroup") at least quarterly to coordinate state cabinet agencies on cross-cutting issues. The Workgroup shall include senior officials from Commerce, NCDEQ, North Carolina Department of Military and Veterans Affairs, North Carolina Department of Transportation and any other relevant cabinet agency or state-affiliated entity identified by the Governor's Office.

**Section 7. Effective Date.**

This Executive Order is effective immediately and shall remain in effect until December 31, 2024. This Executive Order supersedes and replaces all other Executive Orders and directives on this subject.

**IN WITNESS WHEREOF**, I have hereunto signed my name and affixed the Great Seal of the State of North Carolina at the Capitol in the City of Raleigh, this 9th day of June in the year of our Lord two thousand and twenty-one.

Roy Cooper
Governor

**ATTEST:**

Elaine F. Marshall
Secretary of State

**Appendix B** Comments Received from State and Local Agencies

STATE OF NORTH CAROLINA
# DEPARTMENT OF ADMINISTRATION

Roy Cooper
GOVERNOR

Pamela B. Cashwell
Secretary

May 25, 2022

Cheryl Hannah
North Carolina Ports
c/o HDR, Inc.
101 N. 3rd Street, Suite 201
Wilmington, NC 28401-4034

Re: SCH File # 22-E-4620-0215 The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure. Project is for the development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry. Infrastructure de

Dear Cheryl Hannah:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are comments made by the agencies in the review of this document.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

CRYSTAL BEST
State Environmental Review Clearinghouse

Attachments

*Mailing Address:*
NC DEPARTMENT OF ADMINISTRATION
1301 MAIL SERVICE CENTER
RALEIGH, NC 27699-1301

*Telephone:* (919)807-2425
*Fax:* (919)733-9571
COURIER: #51-01-00
*Email: state.clearinghouse@doa.nc.gov*
*Website: www.ncadmin.nc.gov*

*Location:*
116 WEST JONES STREET
RALEIGH, NORTH CAROLINA

Control No.: 22-E-4620-0215

County.: CARTERET

Date Received: 4/13/2022

Agency Response: 5/13/2022

Review Closed: 5/13/2022

LYN HARDISON
CLEARINGHOUSE COORDINATOR
DEPT OF ENVIRONMENTAL QUALITY

Project Information

Type: National Environmental Policy Act ping

Applicant: North Carolina Ports

Project Desc.: The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure. Project is for the development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry. Infrastructure development would include the paving of the majority of the 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 200,000 square foot manufacturing facility with office space, approximately 100,000 square feet of warehouse with office space, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

As a result of this review the following is submitted:

☐ No Comment ☐ Comments Below ☑ Documents Attached

Reviewed By: LYN HARDISON Date: 5/25/2022

ROY COOPER
*Governor*
ELIZABETH S. BISER
*Secretary*

NORTH CAROLINA
***Environmental Quality***

To: Crystal Best
State Clearinghouse
NC Department of Administration

From: Lyn Hardison
Division of Environmental Assistance and Customer Service
Washington Regional Office

RE: 22-0215
Scoping – The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure, development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry.
Carteret County

Date: May 24, 2022

The Department of Environment Quality has reviewed the proposal for the referenced project. Based on the information provided, one (1) contamination site was identified within one mile of the project site. In addition, several of our agencies have identified permits that may be required and offered some valuable guidance. The comments are attached for the applicant's review. The comments are attached for the applicant's review.

A project of this size should have a Scoping meeting to discuss the full scope of project with the State and Federal permitting and resources agencies. The meeting is design to discuss all permits that will be required, any potential environmental impacts that may be present and will improve the permitting processes. Please ask the applicant to contact Cameron Weaver, Permit Assistance Coordinator, in the Department's Wilmington Regional Office, to coordinate a scoping meeting. His contact information is 910-796-7265 and cameron.weaver@ncdenr.gov.

Thank you for the opportunity to respond.

Attachments

ROY COOPER
*Governor*
ELIZABETH S. BISER
*Secretary*
BRAXTON DAVIS
*Director*

NORTH CAROLINA
***Environmental Quality***

May 18, 2022

Lyn Hardison
N.C. Department of Environmental Quality
943 Washington Square Mall
Washington, NC 27889

RE: Project Number 22-0215, North Carolina Ports Notice of Scoping for a Radio Island Multi-use Terminal and Related Infrastructure, Carteret County.

Dear Ms. Hardison:

The N.C. Division of Coastal Management (DCM) appreciates the opportunity to comment on the above referenced Notice of Scoping dated April 12, 2022, including the attached maps. The scoping letter states that the North Carolina Ports has retained HDR Engineering, Inc. of the Carolinas (HDR) to prepare environmental documentation, in accordance with the National Environmental Policy Act, for the proposed Radio Island multi-use terminal and associated infrastructure needed for development of Port of Morehead City facilities and economic development initiatives. The purpose of the scoping letter is to gather relevant comments on the proposed action and incorporate them into an environmental analysis for the project. The letter states that HDR is providing this information with the intent to identify the primary environmental concerns of all interested parties. Respondents are asked to identify any potential environmental resources or other factors that should be considered and included in the environmental analysis of the Radio Island multi-use terminal.

DCM works to protect, conserve and manage North Carolina's coastal resources through an integrated program of planning, permitting, education and research. It is in this context that we provide the comments in this letter. There are numerous natural and human environmental resources on Radio Island and the surrounding area. This includes the following Coastal Area Management Act (CAMA) Areas of Environmental Concern (CAMA AEC's) Coastal Wetlands, Estuarine Waters, Public Trust Areas, and Estuarine Shorelines AEC's. When a project proposes development in a CAMA AEC, then a CAMA permit is required.

Due to this project's potential for impacts to CAMA AEC's and other coastal resources, DCM recommends that the North Carolina Ports schedule agency coordination meetings with DCM and other relevant agencies throughout the project development and environmental analysis. The consideration and incorporation of comments received from all parties into the project design will help to ensure the development of a project that avoids and minimizes environmental impacts to the maximum extent practicable. It will also greatly reduce the likelihood of unforeseen concerns arising late in project design and implementation.

The following are specific items for consideration by the North Carolina Ports during the project development and environmental studies:

- Increase the study area to allow for a more comprehensive analysis of cumulative and secondary impacts.

- Coordinate with the N.C. Division of Marine Fisheries (DMF) and the N.C. Wildlife Resources Commission (WRC) to incorporate fisheries classifications for all waters in the study area into the project design, as well as any corresponding in-water work moratoriums.

- Coordinate closely with other public facilities in the area, such as the Michael J. Smith Field public airport, and government facilities on nearby Piver's Island (Duke Marine Laboratory, NOAA Lab, National Estuarine Research Reserve, and NC Coastal Reserve).

- Coordinate closely with NCDOT regarding potential impacts to proposed NCDOT projects in the area, including the US 70 Improvements in Morehead City, which includes the widening of the Newport River Bridge (TIP U-5740).

- Analyze potential impacts to CAMA AEC's, including Estuarine Waters, Public Trust Ares, Coastal Wetlands, and the Estuarine Shoreline. This includes, but is not limited to, impervious surface limits within the Estuarine Shoreline, the loss of public trust usage in areas that would be occupied by new facilities, and any increased amount of dredging.

- Analyze potential impacts to wetlands and waters of the State and identify compensatory mitigation for unavoidable impacts. If Coastal Wetlands are located during field surveys, they should be depicted and labelled separately from other Section 404 Wetlands on the project maps and drawings. Please be aware that Coastal Wetlands are stringently protected by the State of North Carolina, and the project design should avoid any alignments in Coastal Wetlands, if possible.

- Describe the vulnerability of potential development to sea level rise and flooding now and in the future.

- Coordinate closely with the N.C. Coastal Reserve and the N.C. State Parks regarding any potential impacts to the nearby Rachel Carson National Estuarine Research Reserve and Fort Macon State Park. For example, the environmental analysis should include potential impacts to water quality and increases in the amount of noise and human activity that could disturb wildlife and degrade the enjoyment of the natural resources of this area by people.

- Study the potential impacts to navigational usage by recreational and commercial vessels not associated with the North Carolina Ports due to an increased number and size of vessels travelling to and from the North Carolina Ports facilities.

- Coordinate closely with the State Historic Preservation Office (SHPO) regarding any potential impacts to historic properties and/or archaeological resources within and/or near the project area. This includes any potential impacts to the historic viewshed of the Beaufort Historic District and Fort Macon.

- Consider impacts of the potential development to the continued use of other properties on Radio Island, including the Radio Island Public Beach Access and multiple private businesses on Radio Island.

- Include a review for consistency with the most up-to-date Morehead City CAMA Land Use Plan (LUP) certified by the NC Coastal Resources Commission (CRC). Please note that the town is currently working on a new CAMA LUP. During the CAMA major permit application review process, a DCM District Planner will include a review of all relevant certified CAMA LUP(s) that are in effect at the time of permit application to ensure that the project is consistent with the CAMA LUP(s). Therefore, it is recommended that the North Carolina Ports coordinate with DCM and the Town of Morehead City throughout environmental analysis to ensure it has the most up-to-date information.

In summary, DCM supports the environmental analysis as an important source of information to guide the state's decision-making process for this potential project. During any future permitting process, DCM may have additional comments on the project's environmental impacts and may place conditions on a permit decision to minimize environmental impacts. The information provided in this letter shall not preclude DCM from requesting additional information throughout the permitting process and following normal procedures.

Thank you for your consideration of the North Carolina Coastal Management Program. Please contact me at Cathy.Brittingham@ncdenr.gov, or Stephen Lane, DCM Field Representative for Transportation Projects, at Stephen.Lane@ncdenr.gov if you have any questions or concerns.

Sincerely,

Cathy Brittingham

Cathy Brittingham
Transportation Project Coordinator
N.C. Division of Coastal Management

Cc: Jonathan Howell, DCM
Daniel Govoni, DCM
Stephen Lane, DCM
Rachel Love-Adrick, DCM
Rebecca Ellin, DCM

# North Carolina Wildlife Resources Commission

Cameron Ingram, Executive Director

**MEMORANDUM**

**TO:** Lyn Hardison, Environmental Assistance Coordinator
NCDEQ Division of Environmental Assistance and Outreach (DEAO)

**FROM:** Maria T. Dunn, Coastal Habitat Coordinator
Habitat Conservation Division

**DATE:** May 20, 2022

**SUBJECT**: The North Carolina Ports Radio Island Multi-Use Terminal and Related Infrastructure, Carteret County, North Carolina.
**OLIA No. 22-0215**

Biologists with the North Carolina Wildlife Resources Commission (NCWRC) have reviewed the subject document and are familiar with the habitat values of the area. Our comments are provided in accordance with provisions of the Coastal Area Management Act (G.S. 113A-100 through 113A-128), as amended, Sections 401 and 404 of the Clean Water Act, as amended, the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Magnuson-Stevens Fishery Conservation and Management Act (FCMA), as amended (16 U.S.C. 1801 et seq.), and the Migratory Bird Treaty Act (16 U.S.C. 703-712 et seq.) and North Carolina Environmental Policy Act (G.S. 113A-1 through 113A-10; 1 NCAC 25).

The North Carolina Ports (Ports) has issued a scoping request for the development of the proposed Radio Island multi-use terminal and its associated infrastructure needed to develop an automotive and offshore wind manufacturing and operations site. Radio Island is a 253-acre island within the Newport River/AIWW area adjacent to the Morehead City Ports between Morehead City and Beaufort, NC. Approximately 154 acres of the island is undeveloped and is proposed to be improved to facilitate automotive and offshore wind manufacturing and operation. The scoping request includes the 154 acres of undeveloped area and 31 acres within the Newport River and their use for a 200,000 $ft^2$ manufacturing facility, 100,000 $ft^2$ warehouse, pier modification to accommodate roll on and roll off vessels, a new 1600' berthing facility, and new rail spurs. Improvements to existing rail and road are included in the request. A traffic impact study is being conducted but is not included in this request since the study is incomplete.

The NCWRC has reviewed the maps and basic description of the project proposal. The information provided is minimal and while we understand the nature of scoping requests, we feel that due to the size of the project area, the sensitive environments within and adjacent to the project proposal, and the overall

project scope, the proposal would benefit from a scoping meeting with state and federal regulatory and resource agencies. This meeting would not necessarily be a substitute for formal comments but would provide opportunity for discussion that may expedite project review. Until a time when a meeting can be conducted, site specific information beneficial for the review of this development is provided below:

1. Radio Island is surrounded by federally maintained channels. Information should be provided to determine if the project would have an impact on the maintenance of these channels and if so, measures taken to ensure channels remain navigable.

2. The applicant should state if the currently permitted water depths for the federal channel are adequate or if the channel needs expansion.

3. Public and private facilities are located on Radio Island. Information and discussion regarding impacts to these facilities should be presented. Removal or compromise of public use should be avoided.

4. Military operations occur on Radio Island. Consultation should occur with the appropriate installations to determine if project development is in line with military missions.

5. The Rachel Carson Reserve is immediately adjacent to the project area. This Reserve provides numerous wildlife habitat opportunities for various species, including some federally listed as threatened or endangered. In addition to the habitat opportunities, several research projects are conducted on and within the adjacent waters of the Reserve. Project development and operation should not compromise the integrity of the Reserve. Areas of concerns include noise and light pollution that may affect wildlife use.

6. Several public access areas are within and adjacent to Radio Island, including areas in the Town of Beaufort, the Town of Morehead City, Radio Island, the Rachel Carson Reserve, and Fort Macon State Park. An analysis should be conducted to determine the impact the project may have on the use of these facilities as well as overall public access and enjoyment of the area.

In addition to the site-specific information listed above, the general requests, comments, concerns, and recommendations below should be noted:

1. Include descriptions of fish and wildlife resources within the project area, and a listing of federally or state designated threatened, endangered, or special concern species. When practicable, potential borrow areas to be used for project construction should be included in the inventories. A listing of designated species can be developed by consulting information from:
   The Natural Heritage Program
   http://www.ncnhp.org/

2. Include descriptions of any waterbodies or wetlands affected by the project.

3. Include project maps identifying wetland areas. Identification of wetlands may be accomplished through coordination with the U.S. Army Corps of Engineers (USACE). If the USACE is not consulted, the person delineating wetlands should be identified and their credentials listed.

4. Provide a description of project activities that will occur within wetlands and water bodies, such as fill or channel alteration. Acreage of wetlands and water bodies impacted by alternative project designs should be listed. Any fill or change in wetland substrate that would affect hydrology should be discussed.

5. Avoid or minimize impacts to wetlands. In addition to providing wildlife habitat, wetland areas perform important functions of flood control and water quality protection. USACE Section 404 permits and NCDWR Section 401 Certifications are required for any impacts to jurisdictional streams or wetlands. Distinction should be made between Section 404 wetlands and coastal wetlands.

6. Include waterbody classifications and designations within the project area as described by the NCDWR, the NC Division of Marine Fisheries (NCDMF), Shellfish Sanitation, and NCWRC.

7. Include information whether important habitat areas are within the project area. This may include shellfish resources or submerged aquatic vegetation (SAV) and may require surveys to determine presence.

8. Installation of utility lines should be done in areas with minimal impact, including highway right-of-ways and previously disturbed areas. Wetland and stream crossings should be directionally bored to minimize turbidity and other impacts to aquatic resources.

9. Pesticides or chemicals should not be used for site maintenance, especially in areas near wetlands and water courses. If used on parts of the property, stormwater runoff from the site should be directed to bio-retention areas prior to discharge to streams or wetlands to provide additional protection for water quality and aquatic and terrestrial wildlife habitats.

10. Sediment and erosion control measures should be installed prior to any land clearing or construction. The use of biodegradable and wildlife-friendly sediment and erosion control devices is strongly recommended. Silt fencing, fiber rolls and/or other products should have loose-weave netting that is made of natural fiber materials with movable joints between the vertical and horizontal twines. Silt fencing or similar materials that have been reinforced with plastic or metal mesh should be avoided as they impede the movement of terrestrial wildlife species. All sediment and erosion control measures should be routinely inspected and properly maintained. Excessive silt and sediment loads can have numerous detrimental effects on aquatic resources including destruction of spawning habitat, suffocation of eggs, and clogging of gills of aquatic species.

11. Due to the potential presence of sensitive species, specific conservation measures to minimize impacts to the species and their habitats may be requested. These conservation methods may include buffers, moratoria, mitigation, or a combination of several measures depending on the environmental resources present and impacts sustained from project development. More direct guidance will be provided as information requested is received and project details are provided.

12. The development of this site has the potential for secondary and cumulative impacts in the area and should be discussed in any forthcoming documentation. Measures to mitigate secondary and cumulative impacts can be found in NCWRC's *Guidance Memorandum to Address and Mitigate Secondary and Cumulative Impacts to Aquatic and Terrestrial Wildlife Resources and Water Quality* (August 2002; http://www.ncwildlife.org/Portals/0/Conserving/documents/2002_GuidanceMemorandumforSecondaryandCumulativeImpacts.pdf)

Thank you for the opportunity to provide comments during this scoping process. Our agency looks forward to future information as it becomes available. If our agency can be of further assistance, please contact me at (252) 948-3916 or at maria.dunn@ncwildlife.org

ROY COOPER
*Governor*
MICHAEL S. REGAN
*Secretary*
BRAXTON C. DAVIS
*Director*

NORTH CAROLINA
***Environmental Quality***

MEMORANDUM:

TO: Lynn Hardison, Environmental Assistance and SEPA Coordinator

FROM: Gregg Bodnar, DCM Assistant Major Permits Coordinator

SUBJECT: 22-0215 NC State Ports

DATE: 4/13/22

I have reviewed the proposed development of the NC State Ports proposal concerning a Radio Island Multi-Use Terminal and Related Infrastructure, and the Coastal Area Management Act (CAMA). After review of the location of proposed development, Division of Coastal Management (DCM) Staff has determined that the proposed development activities are within CAMA jurisdiction and will require a CAMA Major Permit application. The applicant his strongly encouraged to contact the Division's Morehead City office at (252) 515-5400 to schedule a scoping meeting with relevant resource agencies to discuss any proposal. This will allow a cursory review of the project by those agencies and the ability to receive feedback concerning the proposal.

Thank you for the opportunity to review the project and provide comment.

Contact Gregg Bodnar at (252) 515-5416 or gregg.bodnar@ncdenr.gov with further questions or concerns.

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: Wilmington
Project Number: 22-0215 Due Date: 05/20/2022
County: Carteret

After review of this project, it has been determined that the DEQ permit(s) and/or approvals indicated may need to be obtained for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

| | PERMITS | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS | Normal Process Time (Statutory time limit) |
|---|---|---|---|
| ☐ | Permit to construct & operate wastewater treatment facilities, non-standard sewer system extensions & sewer systems that do not discharge into state surface waters. | Application 90 days before begins construction or award of construction contracts. On-site inspection may be required. Post-application technical conference usual. | 30 days (90 days) |
| ☒ | Permit to construct & operate, sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system | Fast-Track Permitting program consists of the submittal of an application and an engineer's certification that the project meets all applicable State rules and Division Minimum Design Criteria. | 30 days (N/A) |
| ☐ | NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters. | Application 180 days before begins activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later. | 90-120 days (N/A) |
| ☐ | Water Use Permit | Pre-application technical conference usually necessary. | 30 days (N/A) |
| ☐ | Well Construction Permit | Complete application must be received, and permit issued prior to the installation of a groundwater monitoring well located on property not owned by the applicant, and for a large capacity (>100,000 gallons per day) water supply well. | 7 days (15 days) |
| ☐ | Dredge and Fill Permit | Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit. | 55 days (90 days) |
| ☐ | Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.O100 thru 2Q.0300) | Application must be submitted, and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113). | 90 days |
| ☒ | Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900 | N/A | 60 days (90 days) |
| ☒ | Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950 | Please Note - The Health Hazards Control Unit (HHCU) of the N.C. Department of Health and Human Services, must be notified of plans to demolish a building, including residences for commercial or industrial expansion, even if no asbestos is present in the building. | 60 days (90 days) |
| ☒ | The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres are to be disturbed. Plan must be filed with and approved by applicable Regional Office (Land Quality Section) at least 30 days before beginning activity. A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements. A fee of $100 for the first acre or any part of an acre. An express review option is available with additional fees. | | 20 days (30 days) |
| ☐ | Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets. | | (30 days) |
| ☐ | Sedimentation and erosion control must be addressed in accordance with _____ Local Government's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets. | | Based on Local Program |
| ☐ | Compliance with 15A NCAC 04B .0125 – Buffers Zones for Trout Waters shall have an undisturbed buffer zone 25 feet wide or of sufficient width to confine visible siltation within the twenty-five percent (25%) of the buffer zone nearest the land-disturbing activity, whichever is greater. | | |
| ☐ | Compliance with 15A NCAC 2H .0126 - NPDES Stormwater Program which regulates three types of activities: Industrial, Municipal Separate Storm Sewer System & Construction activities that disturb ≥1 acre. | | 30-60 days (90 days) |
| ☒ | Compliance with 15A NCAC 2H 1000 -State Stormwater Permitting Programs regulate site development and post-construction stormwater runoff control. Areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the state. | | 45 days (90 days) |

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: Wilmington
Project Number: 22-0215 Due Date: 05/20/2022
County: Carteret

| | PERMITS | SPECIAL APPLICATION PROCEDURES or REQUIREMENTS | Normal Process Time (Statutory time limit) |
|---|---|---|---|
| ☐ | Mining Permit | On-site inspection usual. Surety bond filed with DEQ Bond amount varies with type mine and number of acres of affected land. Affected area greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued. | 30 days (60 days) |
| ☐ | Dam Safety Permit | If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to prepare plans, inspect construction, and certify construction is according to DEQ approved plans. May also require a permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage, or the total project cost will be required upon completion. | 30 days (60 days) |
| ☐ | Oil Refining Facilities | N/A | 90-120 days (N/A) |
| ☐ | Permit to drill exploratory oil or gas well | File surety bond of $5,000 with DEQ running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DEQ rules and regulations. | 10 days N/A |
| ☐ | Geophysical Exploration Permit | Application filed with DEQ at least 10 days prior to issue of permit. Application by letter. No standard application forms. | 10 days N/A |
| ☐ | State Lakes Construction Permit | Application fee based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property | 15-20 days N/A |
| ☐ | 401 Water Quality Certification | Compliance with the T15A 02H .0500 Certifications are required whenever construction or operation of facilities will result in a discharge into navigable water as described in 33 CFR part 323. | 60 days (130 days) |
| ☐ | Compliance with Catawba, Goose Creek, Jordan Lake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Buffer requirements: http://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits/401-riparian-buffer-protection-program | | |
| ☐ | Nutrient Offset: Loading requirements for nitrogen and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jordan and Falls Lake watersheds, as part of the nutrient-management strategies in these areas. DWR nutrient offset information: http://deq.nc.gov/about/divisions/water-resources/planning/nonpoint-source-management/nutrient-offset-information | | |
| ☒ | CAMA Permit for MAJOR development | $250.00 - $475.00 fee must accompany application | 75 days (150 days) |
| ☐ | CAMA Permit for MINOR development | $100.00 fee must accompany application | 22 days (25 days) |
| ☒ | Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100. | | |
| ☒ | Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation. | | |
| ☒ | Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the Division of Water Resources/Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C .0300 et. seq., Plans and specifications should be submitted to 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. All public water supply systems must comply with state and federal drinking water monitoring requirements. For more information, contact the Public Water Supply Section, (919) 707-9100. | | 30 days |
| ☒ | If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. For more information, contact the Public Water Supply Section, (919) 707-9100. | | 30 days |
| ☐ | Plans and specifications for the construction, expansion, or alteration of the _____ water system must be approved through the _____ delegated plan approval authority. Please contact them at _____ for further information. | | |

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: Wilmington
Project Number: 22-0215 Due Date: 05/20/2022
County: Carteret

Other Comments (attach additional pages as necessary, being certain to comment authority)

| Division | Initials | No comment | Comments | Date Review |
|---|---|---|---|---|
| DAQ | | ☐ | | / / |
| DWR-WQROS (Aquifer & Surface) | & | ☐ | Suggested to have a scoping meeting to include State and Federal regulatory and resource agencies to gain input and guidance to prevent unnecessary violations and environmental impacts. Contact Cameron Weaver at 910-796-7265 or cameron.weaver@ncdenr.gov<br><br>It is recommended to schedule a site visit with 401 Water quality staff to discuss the proposal and to ensure compliance will be maintained per 401 surface Water requirements, surface water standards and buffer rules.<br><br>If wetland, riparian buffers or stream impacts are proposed, this project will need to comply with/secure a 404 permit from the USACE, obtain a 401 Water Quality Certification authorization and a riparian buffer authorization. & | / / |
| DWR-PWS | | ☐ | | / / |
| DEMLR (LQ & SW) | | ☐ | If greater than one acre of disturbance is proposed, an approved Sedimentation and Erosion Control and State Stormwater permit will be required prior to any land disturbance. | / / |
| DWM – UST | | ☐ | | / / |
| Other Comments | | ☐ | Per our Major permits coordinator, applicants cannot file until 30 days from the date they receive the return email. We can accept applications as complete two weeks after the date of this email. The applicant must again include the pre-filing meeting request language in their project narrative. | / / |

**REGIONAL OFFICES**

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211
Phone: 828-296-4500
Fax: 828-299-7043

☐ **Fayetteville Regional Office**
225 Green Street, Suite 714,
Fayetteville, NC 28301-5043
Phone: 910-433-3300
Fax: 910-486-0707

☐ **Mooresville Regional Office**
610 East Center Avenue, Suite 301,
Mooresville, NC 28115
Phone: 704-663-1699
Fax: 704-663-6040

☐ **Raleigh Regional Office**
3800 Barrett Drive,
Raleigh, NC 27609
Phone: 919-791-4200
Fax: 919-571-4718

☐ **Washington Regional Office**
943 Washington Square Mall,
Washington, NC 27889
Phone: 252-946-6481
Fax: 252-975-3716

☒ **Wilmington Regional Office**
127 Cardinal Drive Ext.,
Wilmington, NC 28405
Phone: 910-796-7215
Fax: 910-350-2004

☐ **Winston-Salem Regional Office**
450 Hanes Mill Road, Suite 300,
Winston-Salem, NC 27105
Phone: 336-776-9800
Fax: 336-776-9797

ROY COOPER
*Governor*
ELIZABETH S. BISER
*Secretary*
MICHAEL SCOTT
*Director*

NORTH CAROLINA
*Environmental Quality*

# MEMORANDUM

TO: Michael Scott, Division Director through Sharon Brinkley

FROM: Drew Hammonds, Eastern District Supervisor - Solid Waste Section

DATE: April 28, 2022

SUBJECT: Review: SW 22-0215 – Carteret County (Scoping – NC Ports – Proposed project is for the Radio Island Multi-use Terminal and Related Infrastructure)

The Division of Waste Management, Solid Waste Section (Section) has reviewed the documents submitted for the subject project in Carteret County, NC. Based on the information provided in this document, the Section at this time does not see an adverse impact on the surrounding communities and likewise knows of no situations in the communities, which would affect this project.

For any planned or proposed projects, it is recommended that during any land clearing, demolition, and construction, that the NC Ports and/or its contractors would make every feasible effort to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable. **Any waste generated by and of the projects that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility permitted by the Division. The Section strongly recommends that the NC Ports require all contractors to provide proof of proper disposal for all generated waste to permitted facilities.**

Permitted solid waste management facilities are listed on the Division of Waste Management, Solid Waste Section portal site at: https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/solid-waste-management-annual-reports/solid-waste-permitted-facility-list

Questions regarding solid waste management for this project should be directed to Mr. Ray Williams, Environmental Senior Specialist, Solid Waste Section, at (252) 948-3955.

cc: Ray Williams, Environmental Senior Specialist

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*Governor*
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*Secretary*
MICHAEL SCOTT
*Director*

NORTH CAROLINA
*Environmental Quality*

Date: May 9, 2022

To: Michael Scott, Director
Division of Waste Management

Through: Janet Macdonald
Inactive Hazardous Sites Branch

From: Bonnie S. Ware
Inactive Hazardous Sites Branch

Subject: NEPA Project # 22-0215, North Carolina Ports, Carteret County, North Carolina

The Superfund Section has reviewed the proximity of sites under its jurisdiction to the North Carolina Ports project. The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure. Project is for the development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry. Infrastructure development would include the paving of the majority of the 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 200,000 square foot manufacturing facility with office space, approximately 100,000 square feet of warehouse with office space, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

One (1) Superfund Section site was identified within one mile of the project as shown on the attached report. The Superfund Section recommends that site files be reviewed to ensure that appropriate precautions are incorporated into any construction activities that encounter potentially contaminated soil or groundwater. Superfund Section files can be viewed at: http://deq.nc.gov/waste-management-laserfiche.

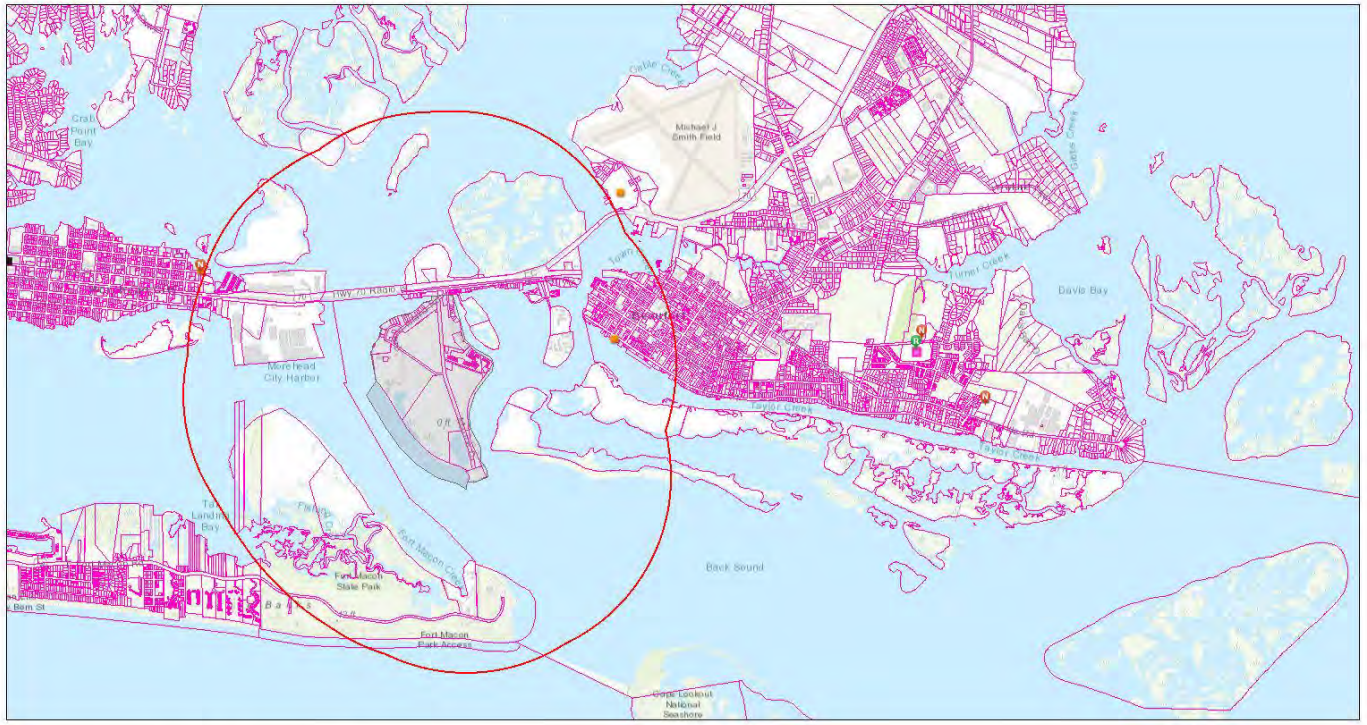
Please contact Janet Macdonald at 919.707.8349 if you have any questions concerning the Superfund Section review portion of this SEPA/NEPA inquiry.

# SUPERFUND SECTION SITES ONLY : SEPA/NEPA

## Area of Interest (AOI) Information

Area : 4,125.62 acres

May 9 2022 13:31:44 Eastern Daylight Time



Superfund Section Sites Only : 22-0215 Carteret County

## Summary

| Name | Count | Area(acres) | Length(mi) |
|---|---|---|---|
| Certified DSCA Sites | 0 | N/A | N/A |
| Federal Remediation Branch Sites | 0 | N/A | N/A |
| Inactive Hazardous Sites | 1 | N/A | N/A |
| Pre-Regulatory Landfill Sites | 0 | N/A | N/A |
| Brownfields Program Sites | 0 | N/A | N/A |

## Inactive Hazardous Sites

| # | EPAID | SITENAME | Count |
|---|---|---|---|
| 1 | NCSFN0407074 | NC MARITIME MUSEUM | 1 |

# Department of Environmental Quality
# Project Review Form

**Project Number: 22-0215** **County: Carteret** **Date Received: 4-13-2022**

## Due Date: 5-11-2022

**Project Description:** *Scoping - The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure. Project is for the development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry. Infrastructure development would include the paving of the majority of the 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 200,000 square foot manufacturing facility with office space, approximately 100,000 square feet of warehouse with office space, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.*

This Project is being reviewed as indicated below:

| Regional Office | Regional Office Area | In-House Review | |
|---|---|---|---|
| ___ Asheville | ✓ Air | ___ Air Quality | ✓ Coastal Management |
| ___ Fayetteville | ✓ DWR | ___ Parks & Recreation | ✓ Marine Fisheries |
| ___ Mooresville | ✓ DWR - Public Water | ✓ Waste Mgmt | ___ Military Affairs |
| ___ Raleigh | ✓ DEMLR (LQ & SW) | ✓ Water Resources Mgmt (Public Water, Planning & Water Quality Program) | ✓ DMF-Shellfish Sanitation |
| ___ Washington | ✓ DWM | ✓ DWR-Transportation Unit Garcy | ✓ Wildlife Maria |
| ✓ Wilmington | | | ✓ Wildlife/DOT Travis |
| ___ Winston-Salem | | | |

| Manager Sign-Off/Region: | Date: | In-House Reviewer/Agency: |
|---|---|---|
| | 5/6/2022 | DWR/WRM David Wainwright |

Response (check all applicable)

___ No objection to project as proposed. X No Comment

___ Insufficient information to complete review ___ Other (specify or attach comments)

If you have any questions, please contact:

**Lyn Hardison at lyn.hardison@ncdenr.gov or (252) 948-3842**
**943 Washington Square Mall Washington NC 27889**
**Courier No. 16-04-01**

Control No.: 22-E-4620-0215

County.: CARTERET

Date Received: 4/13/2022

Agency Response: 5/13/2022

Review Closed: 5/13/2022

JINTAO WEN

CLEARINGHOUSE COORDINATOR

DPS - DIV OF EMERGENCY MANAGEMENT

Project Information

Type: National Environmental Policy Act ping

Applicant: North Carolina Ports

Project Desc.: The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure. Project is for the development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry. Infrastructure development would include the paving of the majority of the 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 200,000 square foot manufacturing facility with office space, approximately 100,000 square feet of warehouse with office space, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

As a result of this review the following is submitted:

☐ No Comment ☑ Comments Below ☐ Documents Attached

From the information provided it appears the proposed project is in close vicinity of Special Flood Hazard Area (SFHA). If there is any encroachment, grading, fill or placement of equipment or materials in the SFHA, a floodplain development permit issued by Town Of Morehead City will be required. Please coordinate with the Town's Floodplain Administrator for permitting if needed.

Reviewed By: JINTAO WEN Date: 5/2/2022

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Raleigh ES Field Office
551-F Pylon Drive
Raleigh, North Carolina 27606

April 27, 2022

Cheryl Hannah
HDR Engineering Inc.
101 N. 3rd Street, Suite 201, Suite 900
Wilmington, NC 28401

Re: Radio Island Multi-Use Terminal – Carteret County

Dear Mrs. Hannah:

This letter is to inform you that the Service has established an on-line project planning and consultation process which assists developers and consultants in determining whether a federally-listed species or designated critical habitat may be affected by a proposed project. For future projects, please visit the Raleigh Field Office's project planning website at https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation. If you are only searching for a list of species that may be present in the project's Action Area, then you may use the Service's Information, Planning, and Consultation System (IPaC) website to determine if any listed, proposed, or candidate species may be present in the Action Area and generate a species list. The IPaC website may be viewed at https://ipac.ecosphere.fws.gov/. The IPaC web site contains a complete and frequently updated list of all endangered and threatened species protected by the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)(Act), a list of federal species of concern[1] that are known to occur in each county in North Carolina, and other resources.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, ensure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation and can be found on our web page at https://fws.gov/office/eastern-north-carolina. Please check the web site often for updated information or changes.

[1] The term "federal species of concern" refers to those species which the Service believes might be in need of concentrated conservation actions. Federal species of concern receive no legal protection and their designation does not necessarily imply that the species will eventually be proposed for listing as a federally endangered or threatened species. However, we recommend that all practicable measures be taken to avoid or minimize adverse impacts to federal species of concern.

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

With regard to the above-referenced project, we offer the following remarks. Our comments are submitted pursuant to, and in accordance with, provisions of the Endangered Species Act.

Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites. We believe that the requirements of section 7(a)(2) of the Act have been satisfied for your project. Please remember that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

However, the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.

The North Carolina Wildlife Resources Commission (NCWRC) has developed a Guidance Memorandum (found at https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve) to address and mitigate secondary and cumulative impacts to aquatic and terrestrial wildlife resources and water quality. We recommend that you consider this document and the NCWRC's other conservation recommendations in the development of your projects and in completing an initiation package for consultation (if necessary).

We hope you find our web page useful and informative and that following the process described above will reduce the time required, and eliminate the need, for general correspondence for species' lists. If you have any questions or comments, please contact John Ellis of this office at (919) 856-4520 ext. 26.

Sincerely,

Pete Benjamin

Field Supervisor

Control No.: 22-E-4620-0215

County.: CARTERET

Date Received: 4/13/2022

Agency Response: 5/13/2022

Review Closed: 5/13/2022

JEANNE STONE
CLEARINGHOUSE COORDINATOR
DEPT OF TRANSPORTATION

Project Information

Type: National Environmental Policy Act ping

Applicant: North Carolina Ports

Project Desc.: The proposed project is for the Radio Island Multi-Use Terminal and Related Infrastructure. Project is for the development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind industry. Infrastructure development would include the paving of the majority of the 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 200,000 square foot manufacturing facility with office space, approximately 100,000 square feet of warehouse with office space, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

As a result of this review the following is submitted:

☑ No Comment ☐ Comments Below ☑ Documents Attached

Reviewed By: JEANNE STONE Date: 4/14/2022

# North Carolina Department of Natural and Cultural Resources

**State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.


May 25, 2022

Cheryl Hannah
HDR Engineering, Inc. of the Carolinas
101 North 3rd Street, Suite 201
Wilmington, NC 27601

Cheryl.Hannah@hdrinc.com

Re: Construct multi-use terminal and related infrastructure, Radio Island, Carteret County, ER 22-1161

Dear Ms. Hannah:

We have received notification of the above-referenced undertaking from the State Clearinghouse. Please accept our apology for this delayed response and the following comments.

Given the scope of work and potential size of future buildings and structures, the proposed undertaking may adversely affect the National Register-listed Beaufort Historic District (CR0001) as well as submerged resources in the water study areas. We will look forward to additional information concerning the undertaking to best offer recommendations for necessary survey work and findings of effects upon submerged and land-based historic resources.

While the Area of Potential Effect (APE) of the proposed Radio Island infrastructure project will occur on an island comprised primarily of dredge spoil, the Water Study Area of the APE contains site CR317, A potentially historic shipwreck site located in a previous survey. Due to advancement in technology since the previous survey along with the significance of the artifacts already found at CR317, we recommend a comprehensive archaeological survey be undertaken within the outlined Water Study Areas prior to any ground disturbing activities, and any potentially significant anomalies, sub-bottom profiler images and/or sonar targets be investigated by archaeological divers.

The purpose of this survey is to identify archaeological sites and make recommendations regarding their eligibility status in terms of the National Register of Historic Places. This work should be conducted by an experienced archaeologist who meets the Secretary of the Interior Professional Qualifications Standards. A list of archaeological consultants who have conducted or expressed an interest in contract work in North Carolina is available at https://archaeology.ncdcr.gov/archaeological-consultant-list. The archaeologists listed, or any other experienced archaeologist, may be contacted to conduct the recommended survey. ***Please note that our office requests consultation with the Office of State Archaeology Review Archaeologist to discuss appropriate field methodologies prior to the archaeological field investigation.***

One paper copy and one digital copy (PDF) of all resulting archaeological reports, as well as a digital copy (PDF) of the North Carolina Site Form for each site recorded, should be forwarded to the Office of State Archaeology (OSA) through this office, for review and comment as soon as they are available and in

advance of any construction or ground disturbance activities. OSA's Archaeological Standards and Guidelines for Background Research, Field Methodologies, Technical Reports, and Curation can be found online at: https://files.nc.gov/dncr-arch/OSA_Guidelines_Dec2017.pdf.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comments, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona Bartos, Deputy
State Historic Preservation Officer

cc: Crystal Best, North Carolina State Clearinghouse crystal.best@doa.nc.gov
Cameron Luck, DCM Cameron.Luck@ncdenr.gov

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Raleigh ES Field Office
551-F Pylon Drive
Raleigh, North Carolina 27606

April 27, 2022

Cheryl Hannah
HDR Engineering Inc.
101 N. 3rd Street, Suite 201, Suite 900
Wilmington, NC 28401

Re: Radio Island Multi-Use Terminal – Carteret County

Dear Mrs. Hannah:

This letter is to inform you that the Service has established an on-line project planning and consultation process which assists developers and consultants in determining whether a federally-listed species or designated critical habitat may be affected by a proposed project. For future projects, please visit the Raleigh Field Office's project planning website at https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation. If you are only searching for a list of species that may be present in the project's Action Area, then you may use the Service's Information, Planning, and Consultation System (IPaC) website to determine if any listed, proposed, or candidate species may be present in the Action Area and generate a species list. The IPaC website may be viewed at https://ipac.ecosphere.fws.gov/. The IPaC web site contains a complete and frequently updated list of all endangered and threatened species protected by the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)(Act), a list of federal species of concern[1] that are known to occur in each county in North Carolina, and other resources.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, ensure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation and can be found on our web page at https://fws.gov/office/eastern-north-carolina. Please check the web site often for updated information or changes.

[1] The term "federal species of concern" refers to those species which the Service believes might be in need of concentrated conservation actions. Federal species of concern receive no legal protection and their designation does not necessarily imply that the species will eventually be proposed for listing as a federally endangered or threatened species. However, we recommend that all practicable measures be taken to avoid or minimize adverse impacts to federal species of concern.

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With regard to the above-referenced project, we offer the following remarks. Our comments are submitted pursuant to, and in accordance with, provisions of the Endangered Species Act.

Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites. We believe that the requirements of section 7(a)(2) of the Act have been satisfied for your project. Please remember that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

However, the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.

The North Carolina Wildlife Resources Commission (NCWRC) has developed a Guidance Memorandum (found at https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve) to address and mitigate secondary and cumulative impacts to aquatic and terrestrial wildlife resources and water quality. We recommend that you consider this document and the NCWRC's other conservation recommendations in the development of your projects and in completing an initiation package for consultation (if necessary).

We hope you find our web page useful and informative and that following the process described above will reduce the time required, and eliminate the need, for general correspondence for species' lists. If you have any questions or comments, please contact John Ellis of this office at (919) 856-4520 ext. 26.

Sincerely,

Pete Benjamin

Field Supervisor

# North Carolina Department of Cultural Resources

James B. Hunt Jr., Governor
Betty Ray McCain, Secretary

Division of Archives and History
Jeffrey J. Crow, Director

August 26, 1998

Ron Hairr
Project Manager
Rust Environment & Infrastructure, Inc.
5510 Six Forks Road, Suite 200
Raleigh NC 27609

Re: Port of Morehead City, Radio Island expansion, Carteret County, ID No. 4696100062A, 98-E-4620-0216, ER 99-7148

Dear Mr. Hairr:

Thank you for your letter of July 21, 1998, transmitting the archaeological survey report by Tidewater Atlantic Research, Inc., concerning the above project.

During the course of the survey ten anomalies were located within the project area. The sources of all anomalies represented modern debris with the exception of the olive jar and ballast, which was determined to be an isolated find. Gordon Watts, principal investigator, has recommended that no further archaeological investigation be conducted in connection with this project. We concur with this recommendation since this project will not involve significant archaeological resources.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

David Brook
Deputy State Historic Preservation Officer

DB:slw

cc: Steve Benton, Division of Coastal Management
Gordon Watts
State Clearinghouse

# SECTION 106 COMPLIANCE REPORT FOR HISTORIC RESOURCES

## RADIO ISLAND EXPANSION
## PORT OF MOREHEAD CITY
## CARTERET COUNTY, NORTH CAROLINA

**N.C. S.P.A. Project No. A/E 159(m), I.D. No. 4696100052A**

**Prepared by:**

**Mattson, Alexander and Associates, Inc.**
**2228 Winter Street**
**Charlotte, North Carolina**

**Prepared for:**

**Earth Tech**
**(Formerly Rust Environment and Infrastructure, Inc.)**
**701 Corporate Center Drive**
**Suite 475**
**Raleigh, North Carolina 27607**

**January 1999**

# Underwater Archaeological Remote Sensing Survey and Site Investigation Adjacent to Radio Island Morehead City, North Carolina

Submitted to:

RUST Environment & Infrastructure Inc.
5310 Six Forks Road, Suite 200
Raleigh, North Carolina 27609

Submitted by:

Tidewater Atlantic Research
P. O. Box 2494
Washington, North Carolina 27889

5 October 1998

North Carolina Department of Environmental Quality
SCOPING MEETING REQUEST

*Please complete all the information below. Call and email the appropriate coordinator with the completed form.*

- *Asheville Region - Alison Davidson 828-296-4698; alison.davidson@ncdenr.gov*
- *Fayetteville and Raleigh Regions - David Lee 919-791-4204; david.lee@ncdenr.gov*
- *Mooresville and Winston-Salem Regions – Paul Williams 336-776-9631*; paul.e.williams@ncdenr.gov
- *Washington Region - Lyn Hardison 252-948-3842; lyn.hardison@ncdenr.gov*
- *Wilmington Region - Cameron Weaver 910-796-7303; cameron.weaver@ncdenr.gov*

Project Name: Radio Island Multi-Use Terminal County: Carteret

Applicant: Todd Walton Company: North Carolina Ports

Address:2202 Burnett Blvd City: Wilmington State: NC Zip: 28401

Phone: 910-746-6460 Fax: Email: todd.walton@ncports.com

Physical Location of Project: Radio Island Road, Beaufort, NC 28516

Engineer/Consultant: Vickie Miller / Cheryl Hannah Company: HDR Engineering

Address:555 Fayetteville Street, Suite 900 City: Raleigh State: NC Zip: 27601

Phone: 919-232-6637 Fax: Email: vickie.miller@hdrinc.com

Please provide a DETAILED project narrative, pdf site plan and a vicinity map with road names along with this Request form.
The project narrative should include the following when available:

Existing Conditions- List of existing permits, previous project name(s) or owner name(s), existing compliance or pollution incidents, current conditions or development on site, size of tract, streams or wetlands on site*, stream name and classification, historical significance of property, seasonal high water table elevation, riparian buffers, areas of environmental concern, setbacks

Proposed- **Full scope of project** with development phase plan, acreage to be disturbed, wetlands to be disturbed, waste treatment & water supply proposed, soils report availability, % impervious surface, stormwater treatment and number of bmps, public or private funding.
**Relative To Wetlands – Federal and coastal wetlands must be delineated by a US Army Corps Regulatory Official, Coastal Management Field Rep or a qualified environmental consultant prior to undertaking work such as filling, excavating or land clearing. The delineations must be approved by the US Army Corps of Engineers (USACE) and/or the Division of Coastal Management. Wetland delineations are valid for a period not to exceed five years from date of USACE approval.*

Please provide estimated investment & expected employment numbers: $ 180-250M+, ~150-400+ Jobs

For the scoping meeting, it is best to provide a list of questions and topics of concern. It is helpful to know what you hope to gain from the meeting. Please have thoughts and presentations organized as much as possible to make the best use of time.

Agencies Involved: Check all agencies that may be involved with project:

☒ Marine Fisheries ☒ National Marine Fisheries ☒ U.S. Fish & Wildlife ☒ NC Wildlife Resources

☒ Coastal Management ☒ Land Resources ☒ Stormwater ☒ Erosion Control) ☒ U.S. Army Corps of Engineers

☐ Shellfish Sanitation ☒ Water Resources: (☒ 401/buffer ☒ NPDES ☐ Non-discharge ☐ Public Water Supply)

☒ Air Quality ☒ Solid Waste ☒ UST ☒ Hazardous Waste

☐ Other ☐ Other

☐ Other ☐ Other

☐ Other

## Existing Conditions

List of existing permits, previous project name(s) or owner name(s), existing compliance or pollution incidents, current conditions or development on site, size of tract, streams or wetlands on site*, stream name and classification, historical significance of property, seasonal high water table elevation, riparian buffers, areas of environmental concern, setbacks

The North Carolina Ports Authority proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County, North Carolina. Additional actions include roadway and rail improvements. The rail improvements include spurs on the NC Port-owned Class 3 rail line located on Radio Island.

Radio Island is a spoil-created island of approximately 253 acres situated between the mainland municipalities of Morehead City and Beaufort in Carteret County. The island is surrounded by the Intracoastal Waterway, which includes the Newport River to the north, and Bogue Sound to the west. Additionally, the Beaufort and Morehead City channels are located to the immediate east and west of Radio Island, respectively. The NC State Ports Authority owns both the Port of Morehead City, located west of Radio Island, and approximately 200 acres on the west side of Radio Island. Approximately 154 acres of the port-owned land on Radio Island is undeveloped. Radio Island is wholly within the municipal limits of Morehead City (Figure 1- Vicinity Map).

The Port of Morehead City is identified as a Strategic Seaport for military use. Strategic Seaports are key facilities that enable rapid deployments and responses to national security and the Department of Defense. Radio Island has direct access to the ocean with no bridge or overhead obstruction. However, height restrictions exist on Radio Island due to the proximity to Marine Corps Air Station Cherry Point in Havelock, NC, approximately 25 miles northwest of the island.

US Highway 70 travels along the northern boundary of Radio Island and provides good access to major interstates located west of Carteret County and to the Outer Banks National Scenic Byway in Beaufort beginning at the intersection with NC 12. The project study area includes approximately 154 acres of the island and 31 acres within the Newport River, as shown on Figure 2- Environmental Features Map.

Carolina Coastal Railway (CLNA) operates the NC State Ports Authority trackage serving the Port of Morehead City. This rail corridor is stubbed west of Beaufort at Town Creek and travels westward across Radio Island on the 1/3-mile long railroad bridge across the Newport River. The railroad connects with the Norfolk Southern Railway (NS) system west of the Port of Morehead City. The distance from Radio Island to the NS interchange is approximately 1.5 miles. NS receives and delivers the rail business from the Port with CLNA performing rail operations on the tracks in the State Ports. The Radio Island switching yards for CLNA are located between US 70 and Old Causeway Road. On Radio Island there are five at-grade crossings, three leads, and two spurs for the out-of-service rail line.

Immediately south of the project study area, at the island's southern tip, is a 3.9 acre federally-owned parcel which includes three landing-ship-tank (LST) ramps and a large, paved staging area. This area is used by the US Navy for the embarking and debarking of troops and equipment based in eastern North Carolina at Marine Corps Base Camp Lejeune and Marine Corps Air Station Cherry Point.

Radio Island port infrastructure includes an existing bulkhead and related liquid loading/unloading equipment for six above ground storage tanks, an aviation fuel terminal, approximately 320-foot long barge dock, and administrative offices. The storage tanks are leased to private companies but are currently empty. The T-head pier on the west side of the island can accommodate barges and vessels up to 600 feet in length. Vessel access to the Radio Island terminal is via the T-head pier near the terminus of the existing rail tracks, inside the Port security zone for the terminal.

The port has a channel depth of 45 feet at Radio Island. The ocean channel has a 47-foot depth in the approach to the port. The ocean channel is four miles away. There is no air draft restriction in the channel. One turning basin is located within the northwest leg of the harbor channel and has a water depth of approximately 35 feet and radius of 1,100 feet. The other turning basin, located at the 'Y' of the navigation channel and the Newport River, has a water depth of 45 feet and radius of 1,350 feet.

Pivers Island is located between the Town of Beaufort on the east and Radio Island on the west. This island includes Duke University's Marine Lab and the National Oceanic and Atmospheric Administration's (NOAA) Beaufort Lab. The island includes boat docks however, they appear to be for use by the research facilities.

The Rachel Carson Coastal Estuarine Reserve is a collection of islands, saltwater marshes, and surrounding water encompassing 2,315 acres. The Reserve is located east of Radio Island between the mouths of the Newport and North Rivers, west of the Town of Beaufort. Access to the island is only by water transport.

Fort Macon State Park is located south of Radio Island across the Morehead City shipping channel. The Park is open year-round for visitors to enjoy fishing, swimming, and hiking activities. Seasonal education events are scheduled between April and October.

## Natural Resources

Radio Island is located in the White Oak River Basin (HUC Code 03-05-03). Areas of impaired water include the Newport River and its tributaries. The main cause of impairment for waters in this subbasin is fecal coliform bacterial contamination, resulting from runoff from urbanized areas and subdivisions.

The project study area does not contain primary nursery areas (PNA), outstanding resource waters/high quality waters (ORW/HQW) or submerged aquatic vegetation (SAV).

Data from the US Fish & Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) and NC Natural Heritage Program were reviewed to determine Federally listed endangered species within a one-mile radius of the project study area in Carteret County. Table 1 lists the 16 endangered species, presence of habitat, and the biological conclusion for each species.

Table 1: Federal Protected Species Listed for Carteret County

| Scientific Name | Common Name | Federal Status | Habitat Present | Biological Conclusion |
|---|---|---|---|---|
| *Laterallus jamaicensis ssp. jamaicensis* | Eastern Black Rail | T | No | No Effect |
| *Caretta caretta* | Loggerhead Sea Turtle | T | No | No Effect |
| *Myotis septentrionalis* | Northern Long-Eared Bat (NLEB) | T | No | No Effect |
| *Alligator mississippiensis* | American Alligator | T(S/A) | No | No Effect |
| *Dermochelys coriacea* | Leatherback Sea Turtle | E | No | No Effect |
| *Trichechus manatus* | West Indian Manatee | T | Yes | MANLAA |
| *Lysimachia asperulaefolia* | Rough-leaved Loosestrife | E | No | No Effect |
| *Lepidochelys kempii* | Kemp's Ridley Sea Turtle | E | No | No Effect |
| *Charadrius melodus* | Piping Plover | T | Yes | MANLAA |
| *Calidris canutus rufa* | Red Knot | T | Yes | MANLAA |
| *Picoides borealis* | Red-cockaded Woodpecker | E | No | No Effect |
| *Amaranthus pumilus* | Seabeach Amaranth | T | Yes | No Effect |
| *Chelonia mydas* | Green Sea Turtle | T | No | No Effect |
| *Acipenser brevirostrum* | Shortnose Sturgeon | E | Yes | MANLAA |
| *Acipenser oxyrinchus oxyrinchus* | Atlantic Sturgeon | E | Yes | MANLAA |
| *Danaus plexippus* | Monarch Butterfly | C | Yes | MANLAA |

T (S/A) = Threatened due to similarity of appearance
T = Threatened E = Endangered C=Candidate
MANLAA = May affect, not likely to adversely affect

While the Bald Eagle (*Haliaeetus leucocephalus*) is no longer on the Endangered Species list it must be adequately protected against threats that can disturb or affect their survival. Suitable habitat for bald eagle was identified in the study area, however the project is expected to have no effect on these species as no bald eagles or active nests were observed during the field reconnaissance survey. Although bald eagles may hunt or scavenge withing the study area, based on the limited availability of suitable habitat in the study area, bald eagle nesting is unlikely. Monitoring for new, active nests within 660 feet of the study area is recommended throughout the duration of construction.

Research on the USFWS critical habitat mapper indicates there is no USFWS critical habitat present for any species.

Essential Fish Habitat (EFH) is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1802, 50 CFR § 600.10). The preliminary study area is an 8.7-acre area that includes four sections of shoreline and four potential access roads to the shoreline. EFH within the study area includes 0.88 acre of unconsolidated shore and 1.76 acres of unconsolidated bottom habitat primarily associated with the intertidal zone of the Bogue Sound. The Snapper-Grouper Complex and Penaeid Shrimp Habitat Area of Particular Concern (HAPC), of the South Atlantic Region fishery management plans (FMPs), overlap with the study area. Additionally, the federally managed Smoothhound Shark Complex and other migratory species have the potential to utilize EFH within the study area.

Carteret is a designated Coastal Area Management Area (CAMA) county. The seasonal high water table elevation is dependent on the tides. No jurisdictional streams were identified in the study area.

Three jurisdictional wetlands were identified within the project study area. Wetland classifications are presented in Table 2. All wetlands in the project study area are within the White Oak River Basin (HUC Code 03-05-03).

Table 2: Jurisdictional Characteristics and Impacts of Wetlands in the Study Area

| Map ID | NCWAM Classification | Hydrologic Classification | Acres in Study | Temporary Impacts (lf) | Permanent Impacts (lf) |
|---|---|---|---|---|---|
| WA | Pocosin | PFO/PSS | 0.249 | Currently Unknown | Currently Unknown |
| WB | Basin | PFO/PSS | 0.170 | Currently Unknown | Currently Unknown |
| WC | Pocosin | PEM/PSS | 2.527 | Currently Unknown | Currently Unknown |

The Carteret County Soil survey identifies one soil unit type within Radio Island. The soil series prevalent in the project study area is Newhan fine sand, dredged with 2 to 30 percent slopes.

### Hazardous Materials

Hazardous materials are any material that have a harmful effect on humans or the natural environment. Examples of potentially hazardous materials and waste sites include service stations, regulated landfills, unregulated dumpsites, salvage yards, industrial sites, and aboveground and underground storage tanks (USTs).

Six aboveground storage tanks are located at the southern end of Radio Island Road. The tanks to the N contained liquid fertilizer but have been empty for 6+yrs,and the tanks to the south contained sulfur but have not been used in 4+yrs and were decommissioned in 2021. The tanks are located on Port-owned property. There are no active underground storage tanks within 100 feet of the project study area. No Brownfield sites or landfills are located within the project study area. There are no current compliance issues with the project study area[1].

### Existing Permits

There are no existing permits for the proposed project.

### Proposed Improvements

Full scope of project with development phase plan, acreage to be disturbed, wetlands to be disturbed, waste treatment & water supply proposed, soils report availability, % impervious surface, stormwater treatment and number of bmps, public or private funding.

On June 9, 2021, North Carolina Governor Roy Cooper issued Executive Order (EO) No. 218 to advance offshore wind (OSW) power in an effort to help secure the jobs and economic development associated with wind power, and transition to a clean energy economy. The need to be addressed by the project is to expand the capacity of the NC Ports to include automotive and wind energy industries and complementary manufacturing in support of EO 218.

The proposed action for the Radio Island multiuse terminal includes development of facilities and infrastructure necessary to support manufacturing and operation in the automotive and offshore wind (OSW) industries as shown on Figure 3 – Project Layout. Infrastructure development would include the paving of the majority of 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 200,000 square foot manufacturing facility with office space, approximately 100,000 square feet of warehouse with office space, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

In addition to the multi-use terminals, future planned improvements within the Radio Island port facility would replace existing tracks on a terminal-switching railroad with upgraded rail infrastructure that meets Federal Railroad Administration (FRA) safety standards. The terminal switching railroad provides access to a Class 1 rail line, operated by Norfolk Southern, that parallels US 70. Construction of these improvements would run parallel with the multi-use terminals.

On December 23, 2021 a US Department of Transportation 2021 Port Infrastructure Development Program (PIDP) grant was awarded to the NC Ports for the Radio Island Rail Improvements Project. The project includes improvements within the Radio Island port facility to replace existing tracks with rail infrastructure that meets federal track safety standards. Development of the environmental document and permitting for these rail improvements is scheduled for 2022 with construction scheduled to begin in the 1st quarter of 2023.

[1] Source: NC Division of Waste Management Site Locator Tool website https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebfa49fc383f688

A tenant has not been announced for the multiuse terminal however, NC Ports is desirous to construct infrastructure related to the project that can immediately support new industries on the port-owned property. The proposed project will be funded by the NC State Ports Authority from operating revenues.

### Proposed Waste Treatment and Water Supply

The Morehead Water and Sewer Department in the Public Works Department are responsible for providing wastewater treatment and water to Radio Island. There are no proposed expansion plans for these services at this time.

The Waste Treatment Plan (1000 Treatment Plant Road) is permitted to receive up to 2.5 million gallons per day (MGD). The system has an average estimated flow of approximately 1.4 MGD since 2019, with less than a 10 percent average increase during summer months. Daily water use for Morehead City is approximately 1 million gallons per day (MGD), which is supplied by groundwater from five wells.

### Conservation Measures and BMPs

The NC Ports commits to implementing conservation measures or actions to minimize or compensate for potential effects to protected species in the Action Area. In general, the contractor would adhere to National Pollutant Discharge Elimination System (NPDES) permit conditions including the following BMPs:

- Standard sediment and erosion control practices will be applied, including (but not limited to) the following:
  - Avoidance and minimization of temporary impacts to waters and wetland vegetation for BMP control structures installation;
  - No permanent bank erosion or decreased stabilization;
  - To the maximum extent practicable, the Project will be implemented in stages of development so that only areas that are in active construction are exposed. All other areas should have good cover of either temporary or permanent vegetation (using native seed mixtures), or bioengineering material;
  - Grading will be completed as soon as possible following commencement;
  - Runoff velocities will be kept as low as possible and retained on-site using sediment and erosion control BMPs; and
  - Appropriate sediment and erosion controls will be used and maintained in effective operating condition throughout the duration of the Project;
- Raw or live concrete may not come into contact with wetlands or open water until cured;
- All steps will be taken to prevent pollutants from entering waterways or wetlands;
- Use of “soft-starts” while boating to deter animals from the area and minimize disturbance; and
- Siltation barriers will be made of material in which a sea turtle or other aquatic life cannot become entangled; barriers will be properly secured and regularly monitored to avoid protected species entrapment.
- Water quality monitoring and possible installation of aeration devices if dissolved oxygen concentration decline to levels insufficient for aquatic life.

The NC Ports commits to following the Protected Species Construction Conditions per the NOAA Fisheries Southeast Regional Office. Contractors would also adhere to all conservation measures and conditions detailed in the NOAA-NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS 2006).

Impacts to EFH are anticipated during construction and may include direct, permanent impacts from fill as well as indirect and temporary impacts, such as a temporary increase in turbidity. Impacts are anticipated to be minimal or short-term in nature; as design progresses, efforts will be made to avoid, minimize, and mitigate these impacts. The project will be designed to minimize impacts to wetlands and waters of the U.S. to the maximum extent practicable. Coordination will occur with the U.S. Army Corps of Engineers Wilmington District, N.C. Division of Water Resources, N.C. Division of Marine Fisheries, N.C. Wildlife Resources Commission, and N.C. Division of Coastal Management.

Monitoring for new, active bald eagle nests within 660 feet of the study area is recommended throughout the duration of the construction.

Suitable habitat for West Indian Manatee was identified within the study area. Since suitable habitat for the West Indian Manatee is present, contractors will adhere to the established USFWS Standard Manatee Condition for in-water work during Project construction to eliminate the possibility of construction-related manatee injury or death. The Project manager and/or contractor would inform all project personnel that manatees may be present in the Project area (during warmer summer months). Due to these results, a biological conclusion of “May Affect, Not Likely to Adversely Affect” was reached for this species. Cumulative and indirect impacts to West Indian manatee within the Radio Island project area will be further assessed once the construction design has been finalized.

Suitable habitat for Atlantic sturgeon was identified within the study area. Although the likelihood of Atlantic sturgeon to occur in the study area is rare, past monitoring by through the NCNHP has recently observed their presence in the water of Carteret County. Due to these results, a biological conclusion of “May Affect, Not Likely to Adversely Affect” was reached for this species. The benthic habitat suitable for foraging by

migrating Atlantic sturgeon adjacent to the study area may be temporarily disturbed through the suspension of bottom sediments and the deposition of fill materials. Additional cumulative and indirect impacts to Atlantic sturgeon within the Radio Island project area will be further assessed once the construction design has been finalized.

Suitable habitat for shortnose sturgeon was identified within the study area. Although the likelihood of shortnose sturgeon to occur in the study area is rare, past monitoring by through the NCNHP has indicated their historical presence in the waters of Carteret County. The benthic habitat suitable for foraging by migrating shortnose sturgeon adjacent to the study area may be temporarily disturbed through the suspension of bottom sediments and the deposition of fill materials. Additional cumulative and indirect impacts to shortnose sturgeon within the Radio Island project area will be further assessed once the construction design has been finalized.

Suitable foraging habitat for piping plover was identified within the study area, which consists of sandy beach and intertidal habitat. Additionally, monitoring through the NCNHP has recently observed their presence in Carteret County. Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for this species. Cumulative and indirect impacts within the Radio Island study area may include temporary disturbance of piping plover foraging habitat and temporary displacement of this species; however, there is additional high-quality coastal habitat in the surrounding area to support the piping plover.

### Proposed Permits

It is anticipated that the following permits/approvals will be necessary to impact wetlands and waters including those caused by dredging:

- A Section 404 Permit (Nationwide or Individual),
- A Section 10 approval as part of the above,
- A Section 401 Water Quality Certification
- An NCDWQ Isolated Wetland Permit
- A Coastal Area Management Act (CAMA) Major Permit

# SIGN UP SHEET
# INTERAGENCY/SCOPING MEETING

Scoping Meeting – Radio Island – Radio Island Road Beaufort, NC 28516

Purpose of this meeting is to discuss a proposed project and provide environmental permitting and regulatory information which will improve communications and the permitting processes.

---

November 4, 2022 at 11:00 am
Webex

Attendee List

| Name | Agency | Phone | Email |
|---|---|---|---|
| Vickie Miller/Cheryl Hannah | Engineer/Consultant | (919) 232-6637 | vickie.miller@hdrinc.com<br><br>cheryl.hannah@hdrinc.com |
| Todd Walton | Applicant | (910) 746-6460 | todd.walton@ncports.com |
| Fritz Rhode | National Marine Fisheries | 252-666-7429 | fritz.rohde@noaa.gov |
| Cameron Weaver | DEACS | (910) 796-7265 | cameron.weaver@ncdenr.gov |
| Johnathan Watts | DEACS | (910) 433-3353 | johnathan.watts@ncdenr.gov |
| Andrew Haines | Supervisor (Shellfish) | (252) 726-8149 | andrew.haines@ncdenr.gov |
| James Harrison | Marine Fisheries | (252) 948-3835 | james.harrison@ncdenr.gov |
| Brad Connell | Coastal Management | (252) 808-2808 | brad.connell@ncdenr.gov |
| Sarah Liz | USACE | | sarah.e.hair@usace.army.mil |
| Dean Carroll | DAQ | (910) 796-7242 | dean.carroll@ncdenr.gov |
| Heather Styron | DCM Manager | (252) 515-5417 | heather.m.styron@ncdenr.gov |
| Wes Hare | Hazardous Waste | (910) 442-0922 | wes.hare@ncdenr.gov |
| Jonathan Howell | DCM | | jonathan.howell@ncdenr.gov |
| Brad Connell | Coastal Management | (252) 808-2808 | brad.connell@ncdenr.gov |
| Davis Braxton | | | |
| Wayne Hall | DCM | (252) 726-7021 | wayne.hall@ncdenr.gov |
| Ken Pearce | | | |

**SIGN UP SHEET**
**INTERAGENCY/SCOPING MEETING**

NOTES:

DMF will likely request an in-water work moratorium if it's not included in the proposal.

# Meeting Minutes

| | |
|---|---|
| Project: | Radio Island |
| Subject: | Scoping Meeting Notes from 11/4/2022 |
| Date: | Wednesday, November 09, 2022 |
| Location: | Online Meeting |
| Attendees: | See attached from Cameron Weaver |

| | *Topic* | *Facilitator* |
|---|---|---|
| 1 | Introductions (see meeting attendees) | Cameron Weaver |
| 2 | Project overview and description | Vickie Miller/ Todd Walton |
| 3 | Asked about the amount of new dredging, impact to shallow habitat is expected to be minimal, does not see the project as a big issue for NOAA Fisheries<br><br>Noted the scoping letter mentioned short nose sturgeon but stated that they are unlikely, and the Atlantic sturgeon would be most likely to be in area. But critical habitat is not designated for them in this area.<br><br>Todd noted that the water is deep just off the shoreline. | Fritz Rohde |
| 4 | Asked about impacts due to the new berthing area.<br><br>Todd/Vickie noted the bulkhead or pier with ramps have not yet been determined for connection to the channel. | Jonathan Watts |
| 5 | Shared that the new berth cannot extend into the channel water body for than a quarter of the distance of the opening. | Heather Styron |
| 6 | Hazardous Waste had no comments to discuss. | Wes Hare |
| 7 | Air Quality – setting of the terminal will not be a stationary facility. Unsure about the offshore wind business/startup at terminal for Air Quality Permit. | Dean Carroll |

| | | |
|---|---|---|
| 8 | Noted shallow water and dredging impacts. There is a record of SAV on the NW side of the island. Said he could double check the area. For the document consider SAV being nearby. | Jimmy Harrison |
| 9 | Surrounding waters are closed to shell fishing. Want to know where any spoils will be deposited. No other comments. | Andy Haines |
| 10 | Requested information about the location of facilities and paving the entire 154 acres. Todd shared that there may be 150-175K vehicles a year at the RORO area.<br><br>Noted State Stormwater and Erosion Control Permits would be necessary | Jonathan Howell |
| 11 | Suggested having the wetland delineation verified. Noted there are a couple of acres of wetland on the property. Assumes a standard permit would be needed.<br><br>EFH (Essential Fish Habitat Assessment) to NOAA Fisheries as potential habitat assumed. Need to involve WRC and USFWS. Currently expect a BA with the application. Sturgeon habitat needs to be addressed for ESA.<br><br>Need to see the dredging and new docking proximity to the existing channel. | Liz Hair |
| 12 | Dredging windows and moratorium. Assumes the typical dredging moratorium of April 1 – Sept. 30.<br><br>Regarding the high ground development – avoid stormwater drains to the east side due to the swimming beach. The in-water work should be standard. Todd noted that the Port owns that property and leases it to the town. The intent is to keep it open to the public. | Jonathan Howell/ Andy Haines |
| 13 | Todd mentioned that he talked with Liz Hair and the USACE will be the lead agency for the project. Funding is from the Ports and individual companies when they come to the site. | Todd Walton |
| 14 | Clarification about the impacts to the existing rail. Any thoughts about the rail line bridging the Newport River related to closures, timing, etc. Suggested closures be kept to specific times of the day. Noted the public will ask questions regarding the rail bridge when public involvement occurs.<br><br>Discuss impacts to navigation in the environmental document.<br><br>Also discuss train and truck traffic in general. | Jonathan Howell |
| 15 | Suggested to follow up with the agencies that are not on the call: NC DWR, WRC and USFWS prior to the next meeting. | Cameron Weaver |

July 10, 2023

Mr. Pete Benjamin
U.S. Fish and Wildlife Service
Raleigh Ecological Services Field Office
551 Pylon Drive
Suite F
Raleigh, NC 27606

RE: Threatened and Endangered Species Survey
Radio Island Multi-Use Terminals and Associated Infrastructure Improvements
Carteret County, NC

Dear Mr. Benjamin,

The North Carolina Ports (Ports) has retained HDR Engineering, Inc. of the Carolinas (HDR) to prepare environmental documentation, in accordance with the State Environmental Policy Act (SEPA), and Clean Water Act (CWA) permitting for the proposed Radio Island multi-use terminal and associated infrastructure needed for development of Port of Morehead City facilities and economic development initiatives. The Ports has proposed to construct the Radio Island multi-use terminal to include automotive and wind energy industries and complementary manufacturing in the Town of Morehead City in Carteret County, North Carolina (Figures 1, 2 & 3). HDR has completed a threatened and endangered species survey for the construction activities associated with the proposed multi-use terminal of the Port of Morehead City at Radio Island as regulated under Section 7 and 9 of the Endangered Species Act of 1973, as amended. The purpose of this letter is to report the biological evaluation for federally protected species listed within the study area.

Radio Island is a spoil-created island of approximately 253 acres, located within the Newport River/Intracoastal Waterway in eastern North Carolina. The island is situated between the mainland municipalities of Morehead City and Beaufort in Carteret County. Radio Island is wholly within the municipal limits of Morehead City and includes approximately 154 acres of undeveloped Port-owned land. US Highway 70 travels along the northern boundary of Radio Island and provides good access to major interstates located west of Carteret County and to the Outer Banks National Scenic Byway in Beaufort beginning at the intersection with NC 12. In addition to the multi-use terminals, future planned improvements within the Radio Island port facility would replace existing tracks on a terminal-switching railroad with upgraded rail infrastructure that meets Federal Railroad Administration (FRA) safety standards. The terminal switching railroad provides access to a Class 1 rail line, operated by Norfolk Southern, that parallels US 70. Construction of these improvements would run parallel with the multi-use terminals. The project study area includes approximately 168 acres of the island and 31 acres within the Newport River.

The Port of Morehead City is identified as a Strategic Seaport for military use. Strategic Seaports are key facilities that enable rapid deployments and responses to national security and the

Department of Defense. Radio Island has direct access to the ocean with no bridge or overhead obstruction. However, height restrictions exist on Radio Island due to the proximity to Marine Corps Air Station Cherry Point in Havelock, NC, approximately 25 miles northwest of the island.

Radio Island port infrastructure includes an existing bulkhead and related liquid loading/unloading equipment for above ground storage tanks, an aviation fuel terminal, approximately 320-foot long barge dock, and administrative offices. The storage tanks are leased to private companies but are currently empty.

An IPaC resource list (July 10, 2023) was pulled from the federal ECOS IPaC for the study area. Table 1 represents federally listed species within the study area.

**Table 1.** Federally Listed Species within the Study Area in Carteret County, North Carolina

| Scientific Name | Common Name | Federal Status | Required Habitat | Habitat Present | Record Status[1] | Biological Conclusion |
|---|---|---|---|---|---|---|
| **Mammals** | | | | | | |
| *Myotis septentrionalis* | Northern long-eared bat | E | Hibernate in caves and mines. Roosts and forages in upland forests | Yes | Current | MANLAA |
| *Perimyotis subflavus* | Tricolored bat | PE | Hibernate in caves and mines. Roosts and forages in upland forests | Yes | Current | MANLAA |
| *Trichechus manatus* | West Indian manatee | T | Can be found in marine, brackish and freshwater in coastal and riverine systems with water temperatures above 68° Fahrenheit (F). Prefer areas with submerged aquatic vegetation. Often congregate in natural springs and near power plant outfalls | Yes | Current | MANLAA |
| **Birds** | | | | | | |
| *Haliaeetus leucocephalus* | Bald Eagle | BGEPA[2] | Typically nest in top of large trees near rivers, lakes, and marshes for preying on fish | Yes | Current | No Effect |
| *Laterallus jamaicensis* ssp. *jamaicensis* | Eastern black rail | T | Found in salt and brackish marshes with dense cover but can also be found in upland areas of the marshes | Yes | Current | MANLAA |
| *Charadrius melodus* | Piping plover | T | Inhabit wide open, sandy beaches with little grass or vegetation. Nesting territories include small creeks or wetlands | Yes | Current | MANLAA |
| *Calidris canutus rufa* | Red knot | T | Migratory species that utilize coastal areas for both foraging and roosting, | Yes | Current | MANLAA |

| Scientific Name | Common Name | Federal Status | Required Habitat | Habitat Present | Record Status[1] | Biological Conclusion |
|---|---|---|---|---|---|---|
| | | | generally characterized as sparsely vegetated coastal marine and estuarine habitats with large areas of exposed intertidal substrates | | | |
| *Picoides borealis* | Red-cockaded woodpecker | E | Found in mature pine forests, preferably among longleaf pines | No | Current | No Effect |
| **Fish** | | | | | | |
| *Acipenser oxyrinchus oxyrinchus* | Atlantic sturgeon | E | Inhabit open ocean, coastal bays and rivers along the East Coast; adults spawn in freshwater where offspring are born, then make migratory trips into saltwater bodies | Yes | Current | MANLAA |
| *Acipenser brevirostrum* | Shortnose sturgeon | E | Inhabit coastal bays and rivers along the East Coast; adults spawn in freshwater where offspring are born, then make migratory trips into saltwater bodies | Yes | Historical | No Effect |
| **Reptiles** | | | | | | |
| *Alligator mississippiensis* | American alligator | T(S/A) | Prefer slow-moving freshwater rivers but also inhabit swamps, marshes, and lakes | No | Current | No Effect |
| *Chelonia mydas* | Green sea turtle | T+ | Nest on open, undisturbed sandy beaches | No | Current | No Effect |
| *Lepidochelys kempii* | Kemp's ridley sea turtle | E+ | Nest on beaches in the western Gulf of Mexico | No | Current | No Effect |
| *Dermochelys coriacea* | Leatherback sea turtle | E+ | Nest on dry, sandy beaches adjacent to deep and rough seas | No | Current | No Effect |
| *Caretta caretta* | Loggerhead sea turtle | T+ | Nest on sandy beaches | No | Current | No Effect |

| Scientific Name | Common Name | Federal Status | Required Habitat | Habitat Present | Record Status[1] | Biological Conclusion |
|---|---|---|---|---|---|---|
| **Flowering Plants** | | | | | | |
| *Lysimachia asperulaefolia* | Rough-leaved Loosestrife | E | Typically found on edges of longleaf pine uplands and pond pine pocosins | No | Current | No Effect |
| **Amaranthus pumilus* | Seabeach amaranth | T | Typically found on upper beaches and overwash areas that are open and sparsely vegetated | Yes | Current | No Effect |

T (S/A) – threatened due to similarity of appearance. A taxon that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa as T(S/A) are not biologically E or T and not subject to Section 7 consultation.
T (Threatened) – A taxon "likely to become endangered within the foreseeable future throughout all or significant portion of its range"
E (Endangered) – A taxon "in danger of extinction throughout all or a significant portion of its range".
PE (Proposed Endangered)
MANLAA – "May affect, not likely to adversely affect"
[1]NHP County Status (updated January 31, 2023)
[2]Protected under the Bald and Golden Eagle Protection Act
[+]The USFWS shares jurisdiction of sea turtles with NOAA-NMFS. USFWS jurisdiction is over sea turtles on nesting beaches, therefore the Habitat Present and Biological Conclusion columns refer to nesting habitat. The absence of suitable or current nesting habitat within the study area limits ESA jurisdiction to NOAA-NMFS.
*Previously on the IPAC list in 2022/2023

According to the North Carolina Natural Heritage Program (NCNHP) biotic database report (dated March 31, 2023), sixteen federally listed species occurring in Carteret County have the potential to occur in the study area (Table 1). Sea turtles have shared jurisdiction between NOAA-NMFS and USFWS, where NOAA-NMFS leads the conservation and recovery of sea turtles in the marine environment and the USFWS has the lead for the conservation and recovery of turtles on nesting beaches. Therefore, for the purposes of this letter, the biological conclusion is made based on USFWS jurisdiction of sea turtles on nesting beaches.

On April 18 and 19, May 3 and 4, and August 11, 2022, a threatened and endangered species reconnaissance survey was carried out within the study area to identify suitable habitat and possible individuals of these protected species. No suitable habitat was identified in the study area for red-cockaded woodpecker, American alligator, green sea turtle, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, and rough-leaved loosestrife. Therefore, the project is expected to have no effect and these species are not discussed further.

Suitable habitat for bald eagle was identified in the study area, however the project is expected to have no effect on these species as no bald eagles or active nests were observed during the field reconnaissance survey. Although bald eagles may hunt or scavenge withing the study area, based on the limited availability of suitable habitat in the study area, bald eagle nesting is unlikely. Monitoring for new, active nests within 660 feet of the study area is recommended throughout the duration of construction.

Suitable habitat for northern long-eared bat and tricolored bat was identified mainly in the northwestern and western edges of the study area in the form of young patchy pine, and hardwood forests with a large amount of shrub/scrub vegetation interspersed throughout the forested areas. These forested areas total to 52.3 acres. Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for these two bat species. The northern long-eared bat consistence letter (generated March 31, 2023) is attached. Cumulative and indirect impacts to northern long-eared bat and tricolored bat within the Radio Island multi-use terminal project area are anticipated to be minimal due to the low-quality forested habitat on the spoil island and lack of freshwater resources.

Suitable habitat for West Indian Manatee was identified within the study area as it is hydrologically connected to the Neuse River and the Intracoastal Waterway system. Since suitable for habitat for the West Indian Manatee is present, contractors will adhere to the established USFWS Standard Manatee Condition for in-water work during Project construction to eliminate the possibility of construction-related manatee injury or death. The Project manager and/or contractor would inform all project personnel that manatees may be present in the Project area (during warmer summer months). Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for this species. Cumulative and indirect impacts to West Indian manatee within the Radio Island multi-use terminal project area are anticipated to be minimal and in-water work would stop if the species were spotted within 100 yards of the construction area. The USFWS *Guidelines for Avoiding Impacts to the West Indian Manatee, Precautionary*

*Measures for Construction Activities in North Carolina Waters* would be adhered to during construction.

Suitable habitat for Atlantic sturgeon was identified within the study area as it is hydrologically connected to the Neuse River and Intracoastal Waterway system, which are known bodies of water for the Carolina Distinct Population Segment. Although the likelihood of Atlantic sturgeon to occur in the study area is rare, data from the NCNHP has recently observed their presence in the waters of Carteret County. Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for this species. The benthic habitat suitable for foraging by migrating Atlantic sturgeon adjacent to the study area may be temporarily disturbed through the suspension of bottom sediments and the deposition of fill materials. Additional cumulative and indirect impacts to Atlantic sturgeon within the Radio Island multi-use terminal project area and vicinity would increase suspended solids and increase aquatic acoustics (noise impacts) from pile installation.

Suitable habitat for shortnose sturgeon was identified within the study area hydrologically connected to the Neuse River and Intracoastal Waterway system. Although the likelihood of shortnose sturgeon to occur in the study area is rare, NCNHP data indicates their historical presence in the waters of Carteret County. Due to these results, a biological conclusion of "No Effect" was reached for this species. The benthic habitat suitable for foraging by migrating shortnose sturgeon adjacent to the study area may be temporarily disturbed through the suspension of bottom sediments and the deposition of fill materials. Additional cumulative and indirect impacts to shortnose sturgeon would be the same as stated above for Atlantic sturgeon.

Suitable foraging habitat for piping plover was identified within the study area, which consists of sandy beach and intertidal habitat. Additionally, NCNHP data indicates their presence in Carteret County. Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for this species. Cumulative and indirect impacts within the Radio Island multi-use terminal project area may include temporary disturbance of piping plover foraging habitat and temporary displacement of this species; however, there is additional high-quality coastal habitat in the surrounding area to support the piping plover.

Suitable foraging habitat for red knot was identified within the study area, which consists of sandy beach and intertidal habitat. Additionally, NCNHP data indicates their presence in Carteret County. Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for this species. Cumulative and indirect impacts within the Radio Island multi-use terminal project area may include temporary disturbance of red knot foraging habitat and temporary displacement of this species; however, there is additional high-quality coastal habitat in the surrounding area to support the red knot.

Minimal suitable foraging habitat for eastern black rail was identified within the study area, which consists of small patches of wetland areas, there was no nesting habitat identified. Additionally, NCNHP data indicates their presence in Carteret County. Due to these results, a biological conclusion of "May Affect, Not Likely to Adversely Affect" was reached for this species. Cumulative and indirect impacts within the Radio Island multi-use terminal project area may

include temporary disturbance of eastern black rail foraging habitat and temporary displacement of this species; however, there is additional high-quality coastal habitat in the surrounding area to support the eastern black rail.

Limited suitable habitat for seabeach amaranth was identified within the study area which consists of sandy beach and upper beaches in overwash areas along the western shoreline of the study area. Additionally, NCNHP data noted two locations within one mile of the study area. A pedestrian walking survey was completed August 11, 2022, during the species' optimal survey window and no individuals were found. Due to these results, a biological conclusion of "No Effect" was reached for this species. Cumulative and indirect impacts within the Radio Island multi-use terminal project area may include temporary disturbance of sandy beach habitat; however, there is high-quality coastal barrier island habitat on adjacent Emerald Isle and Shackleford Island.

If you have any questions or concerns, please call or email me at your earliest convenience at 919-232-6654 or Jessica.tisdale@hdrinc.com.

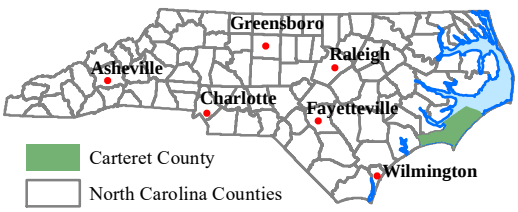
Sincerely,

**Attachments:**

Figure 1 – Project Vicinity Map
Figure 2 – Environmental Feature Map
Figure 3 – Project Layout
USFWS Self-certification Letter
USFWS Species Conclusion Table
USFWS ECOS IPaC Report
USFWS NLAA Northern long-eared bat (dated: March 31, 2023)
USFWS Scoping Comments (dated: April 27, 2022)
NC Natural Heritage Program Element Occurrence Report


N

0 1 2
Miles




NORTH CAROLINA PORTS

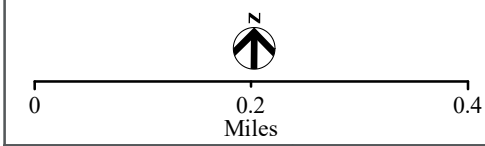
HDR

# FIGURE 1
# PROJECT VICINITY MAP

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY, CARTERET COUNTY

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

MARCH 2023

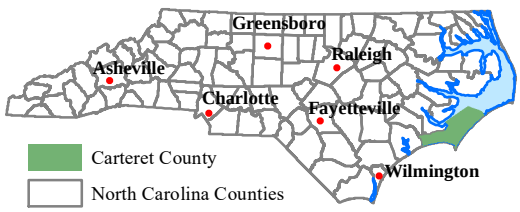




**FIGURE 2**
**ENVIRONMENTAL FEATURES MAP**
RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

MARCH 2023


| ISSUE | DATE | DESCRIPTION |
|---|---|---|

| | |
|---|---|
| PROJECT MANAGER | |
| PROJECT NUMBER | 10331142 |

**RADIO ISLAND**
**CONCEPTUAL SITE PLAN B**

Figure 3

0 200' 400'

FILENAME

SCALE

SHEET

# United States Department of the Interior

FISH AND WILDLIFE SERVICE

Raleigh Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Date: 04/03/2023

**Self-Certification Letter**

Project Name Radio Island Multi-Use Terminals and Associated Infrastructure Improvements

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Raleigh Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. Based on your analysis, mark all the determinations that apply:

- [x] "no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- [x] "may affect, not likely to adversely affect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- [ ] "may affect, likely to adversely affect" determination for the Northern long-eared bat (Myotis septentrionalis) and relying on the findings of the January 5, 2016, Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat;
- [x] "no Eagle Act permit required" determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the "no effect" or "not likely to adversely affect" determinations for proposed and listed species and proposed and designated critical habitat; the "may affect" determination for Northern long-eared bat; and/or the "no Eagle Act permit required" determinations for eagles. Additional coordination with this office is not needed. Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species. Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year. Information about the online project review process including instructions, species information, and other information regarding project reviews within North Carolina is available at our website http://www.fws.gov. If you have any questions, you can write to us at Raleigh@fws.gov or please contact Leigh Mann of this office at 919-856-4520, ext. 10.

Sincerely,

/s/Pete Benjamin

Pete Benjamin
Field Supervisor
Raleigh Ecological Services

Enclosures - project review package

**Species Conclusions Table**

Project Name: Radio Island Multi-Use Terminal – Port of Morehead City

Date: July 10, 2023

| Species / Resource Name | Conclusion | ESA Section 7 / Eagle Act Determination | Notes / Documentation |
|---|---|---|---|
| Northern Long-eared Bat *Myotis septentrionalis* | Suitable habitat for roosting in trees. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Tricolored Bat *Perimyotis subflavus* | Suitable habitat for roosting in trees. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| West Indian Manatee *Trichechus manatus* | Suitable habitat in the Newport River/Intracoastal Waterway. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Bald Eagle *Haliaeetus leucocephalus* | No suitable nesting habitat; suitable foraging habitat. | No effect | No Eagle Act Permit Required, no nests in or within 660' study area per field visit confirmation, 04/18-19/2022, 05/03-04/2022. |
| Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* | Suitable foraging; no nesting habitat. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Piping Plover *Charadrius melodus* | Suitable foraging habitat; limited suitable nesting habitat. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Red Knot *Calidris canutus rufa* | Suitable foraging habitat; no suitable nesting habitat. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Red-cockaded Woodpecker *Picoides borealis* | No suitable nesting or foraging habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Atlantic Sturgeon *Acipenser oxyrinchus oxyrinchus* | Suitable habitat the Newport River/Intracoastal Waterway. | May affect, not likely to adversely affect (MANLAA) | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Shortnose Sturgeon *Acipenser brevirostrum* | Suitable habitat in the Newport River/Intracoastal Waterway but species not reported in this area/basin. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |

| Species / Resource Name | Conclusion | ESA Section 7 / Eagle Act Determination | Notes / Documentation |
|---|---|---|---|
| American Alligator *Alligator mississippiensis* | No suitable habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Green Sea Turtle *Chelonia mydas* | No suitable nesting habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Kemp's Ridley Sea Turtle *Lepidochelys kempii* | No suitable nesting habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Leatherback Sea Turtle *Dermochelys coriacea* | No suitable nesting habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Loggerhead Sea Turtle *Caretta caretta* | No suitable nesting habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Rough-leaved Loosestrife *Lysimachia asperulaefolia* | No suitable habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022 |
| Seabeach Amaranth *Amaranthus pumilus* | Limited suitable habitat. | No effect | Field visit confirmation, 04/18-19/2022, 05/03-04/2022. Plant surveys were completed August 11th, 2022, with no individuals found. Not listed on IPAC for July 2023; listed in 2022/March 2023 |
| Critical habitat | No USFWS critical habitat present for any species. | No effect | USFWS critical habitat mapper |

Acknowledgement: I agree that the above information about my proposed project is true. I used all the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Jessica Tisdale, Environmental Scientist

Signature /Title

7/10/2023

Date

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556

In Reply Refer To: July 10, 2023
Project Code: 2023-0063173
Project Name: Radio Island Multi-Use Terminal - Port of Morehead City

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.*). If your project area contains suitable habitat for any of the federally-listed species on this species list, the proposed action has the potential to adversely affect those species. If suitable habitat is present, surveys should be conducted to determine the species' presence or absence within the project area. The use of this species list and/or North Carolina Natural Heritage program data should not be substituted for actual field surveys.

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 ECOS-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 ECOS-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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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/birds/policies-and-regulations.php.

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/birds/bird-enthusiasts/threats-to-birds.php.

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/birds/policies-and-regulations/executive-orders/e0-13186.php.

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
- Migratory Birds
- Marine Mammals

# 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:

**Raleigh Ecological Services Field Office**
Post Office Box 33726
Raleigh, NC 27636-3726
(919) 856-4520

# PROJECT SUMMARY

Project Code: 2023-0063173

Project Name: Radio Island Multi-Use Terminal - Port of Morehead City

Project Type: Port Development

Project Description: The NC Ports proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County, North Carolina. Additional actions include roadway and rail improvements. The rail improvements include spurs on the NC Port-owned Class 3 rail line located on Radio Island.

The proposed action includes development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind (OSW) industries. Infrastructure development would include gravel or paving the majority of 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 300,000 square foot manufacturing facility with office space for OSW, approximately 100,000 square feet of warehouse with office space for automotive industry use, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1,600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@34.7133123,-76.68617120286703,14z


Counties: Carteret County, North Carolina

# ENDANGERED SPECIES ACT SPECIES

There is a total of 14 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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.

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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 *Myotis septentrionalis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9045 | Endangered |
| Tricolored Bat *Perimyotis subflavus*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/10515 | Proposed Endangered |
| West Indian Manatee *Trichechus manatus*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>***This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.***<br>Species profile: https://ecos.fws.gov/ecp/species/4469 | Threatened |

## BIRDS

| NAME | STATUS |
|---|---|
| Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/10477 | Threatened |
| Piping Plover *Charadrius melodus*<br>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/6039 | Threatened |
| Red Knot *Calidris canutus rufa*<br>There is **proposed** critical habitat for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/1864 | Threatened |
| Red-cockaded Woodpecker *Picoides borealis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/7614 | Endangered |

## REPTILES

| NAME | STATUS |
|---|---|
| American Alligator *Alligator mississippiensis*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/776 | Similarity of Appearance (Threatened) |
| Green Sea Turtle *Chelonia mydas*<br>Population: North Atlantic DPS<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/6199 | Threatened |
| Kemp's Ridley Sea Turtle *Lepidochelys kempii*<br>There is **proposed** critical habitat for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/5523 | Endangered |
| Leatherback Sea Turtle *Dermochelys coriacea*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/1493 | Endangered |
| Loggerhead Sea Turtle *Caretta caretta*<br>Population: Northwest Atlantic Ocean DPS<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/1110 | Threatened |

## INSECTS

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus*<br>No critical habitat has been designated for this species.<br>Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

## FLOWERING PLANTS

| NAME | STATUS |
| --- | --- |
| Rough-leaved Loosestrife *Lysimachia asperulaefolia* | Endangered |

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2747

## 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.

# MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|---|---|
| American Kestrel *Falco sparverius paulus*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA<br>https://ecos.fws.gov/ecp/species/9587 | Breeds Apr 1 to Aug 31 |
| American Oystercatcher *Haematopus palliatus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/8935 | Breeds Apr 15 to Aug 31 |

| NAME | BREEDING SEASON |
|---|---|
| Bald Eagle *Haliaeetus leucocephalus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Sep 1 to Jul 31 |
| Black Scoter *Melanitta nigra*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Black Skimmer *Rynchops niger*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/5234 | Breeds May 20 to Sep 15 |
| Brown Pelican *Pelecanus occidentalis*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jan 15 to Sep 30 |
| Brown-headed Nuthatch *Sitta pusilla*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Mar 1 to Jul 15 |
| Chimney Swift *Chaetura pelagica*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Mar 15 to Aug 25 |
| Common Eider *Somateria mollissima*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jun 1 to Sep 30 |
| Common Loon *gavia immer*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.<br>https://ecos.fws.gov/ecp/species/4464 | Breeds Apr 15 to Oct 31 |
| Cory's Shearwater *Calonectris diomedea*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds elsewhere |
| Dovekie *Alle alle*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.<br>https://ecos.fws.gov/ecp/species/6041 | Breeds elsewhere |

| NAME | BREEDING SEASON |
|---|---|
| Eastern Whip-poor-will *Antrostomus vociferus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Aug 20 |
| Great Shearwater *Puffinus gravis*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Gull-billed Tern *Gelochelidon nilotica*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9501 | Breeds May 1 to Jul 31 |
| King Rail *Rallus elegans*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/8936 | Breeds May 1 to Sep 5 |
| Lesser Yellowlegs *Tringa flavipes*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9679 | Breeds elsewhere |
| Long-tailed Duck *Clangula hyemalis*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.<br>https://ecos.fws.gov/ecp/species/7238 | Breeds elsewhere |
| Manx Shearwater *Puffinus puffinus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 15 to Oct 31 |
| Marbled Godwit *Limosa fedoa*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9481 | Breeds elsewhere |
| Painted Bunting *Passerina ciris*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds Apr 25 to Aug 15 |
| Pomarine Jaeger *Stercorarius pomarinus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Prairie Warbler *Dendroica discolor*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 1 to Jul 31 |

| NAME | BREEDING SEASON |
|---|---|
| Prothonotary Warbler *Protonotaria citrea*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 1 to Jul 31 |
| Purple Sandpiper *Calidris maritima*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds elsewhere |
| Razorbill *Alca torda*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Jun 15 to Sep 10 |
| Red-breasted Merganser *Mergus serrator*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Red-headed Woodpecker *Melanerpes erythrocephalus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Sep 10 |
| Red-throated Loon *Gavia stellata*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Ring-billed Gull *Larus delawarensis*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Roseate Tern *Sterna dougallii*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds May 10 to Aug 31 |
| Royal Tern *Thalasseus maximus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds Apr 15 to Aug 31 |
| Ruddy Turnstone *Arenaria interpres morinella*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds elsewhere |
| Rusty Blackbird *Euphagus carolinus*<br>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA | Breeds elsewhere |

| NAME | BREEDING SEASON |
|---|---|
| Short-billed Dowitcher *Limnodromus griseus*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.<br>https://ecos.fws.gov/ecp/species/9480 | Breeds elsewhere |
| South Polar Skua *Stercorarius maccormicki*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Surf Scoter *Melanitta perspicillata*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| White-winged Scoter *Melanitta fusca*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Willet *Tringa semipalmata*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 20 to Aug 5 |
| Wilson's Plover *Charadrius wilsonia*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds Apr 1 to Aug 20 |
| Wilson's Storm-petrel *Oceanites oceanicus*<br>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. | Breeds elsewhere |
| Wood Thrush *Hylocichla mustelina*<br>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. | Breeds May 10 to Aug 31 |

# PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

**Probability of Presence (■)**

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see

below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

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

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

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

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

**No Data** (–)
A week is marked as having no data if there were no survey events for that week.

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

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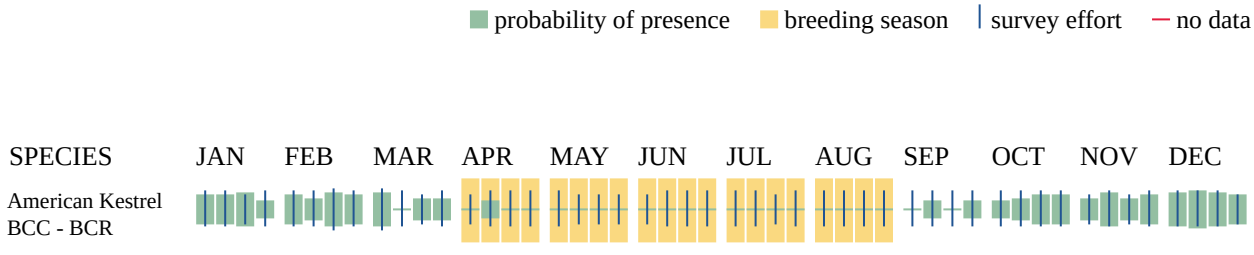

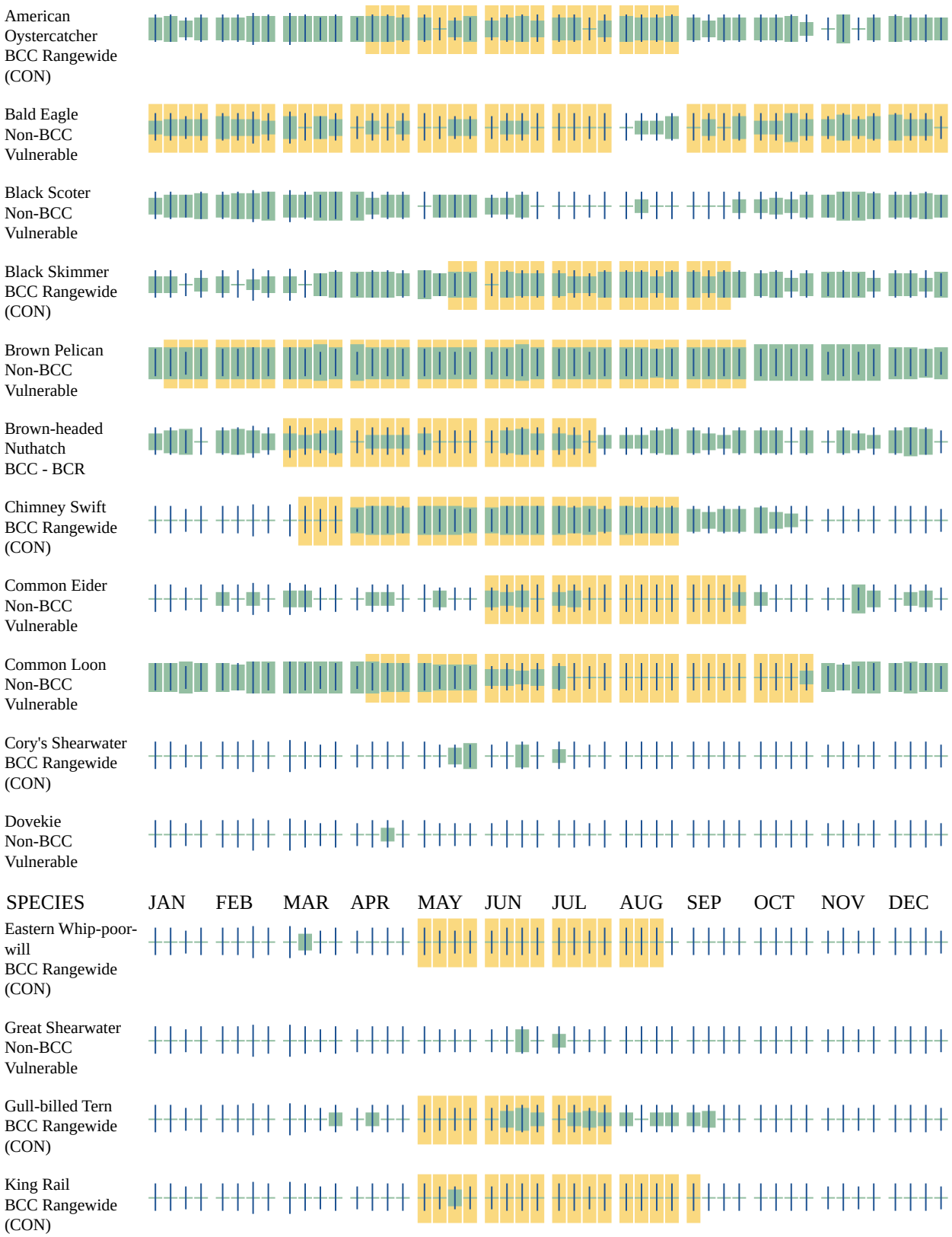
American Oystercatcher BCC Rangewide (CON)
Bald Eagle Non-BCC Vulnerable
Black Scoter Non-BCC Vulnerable
Black Skimmer BCC Rangewide (CON)
Brown Pelican Non-BCC Vulnerable
Brown-headed Nuthatch BCC - BCR
Chimney Swift BCC Rangewide (CON)
Common Eider Non-BCC Vulnerable
Common Loon Non-BCC Vulnerable
Cory's Shearwater BCC Rangewide (CON)
Dovekie Non-BCC Vulnerable
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Eastern Whip-poor-will BCC Rangewide (CON)
Great Shearwater Non-BCC Vulnerable
Gull-billed Tern BCC Rangewide (CON)
King Rail BCC Rangewide (CON)


Lesser Yellowlegs
BCC Rangewide
(CON)
Long-tailed Duck
Non-BCC
Vulnerable
Manx Shearwater
BCC Rangewide
(CON)
Marbled Godwit
BCC Rangewide
(CON)
Painted Bunting
BCC - BCR
Pomarine Jaeger
Non-BCC
Vulnerable
Prairie Warbler
BCC Rangewide
(CON)
Prothonotary
Warbler
BCC Rangewide
(CON)
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Purple Sandpiper
BCC Rangewide
(CON)
Razorbill
Non-BCC
Vulnerable
Red-breasted
Merganser
Non-BCC
Vulnerable
Red-headed
Woodpecker
BCC Rangewide
(CON)
Red-throated Loon
Non-BCC
Vulnerable
Ring-billed Gull
Non-BCC
Vulnerable
Roseate Tern
Non-BCC
Vulnerable


Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

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

**How do I know if a bird is breeding, wintering or migrating in my area?**
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

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

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

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

**What if I have eagles on my list?**
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

**Proper Interpretation and Use of Your Migratory Bird Report**
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# MARINE MAMMALS

Marine mammals are protected under the Marine Mammal Protection Act. Some are also protected under the Endangered Species Act[1] and the Convention on International Trade in Endangered Species of Wild Fauna and Flora[2].

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries[3] [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the Marine Mammals page of the NOAA Fisheries website.

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

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

NAME

West Indian Manatee *Trichechus manatus*

Species profile: https://ecos.fws.gov/ecp/species/4469

## IPAC USER CONTACT INFORMATION

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Address Line 2: Suite 900
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State: NC
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Email jessica.tisdale@hdrinc.com
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## LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers
Name: Sarah E. Hair
Email: sarah.e.hair@usace.army.mil
Phone: 9102514049

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556

In Reply Refer To: March 31, 2023
Project code: 2023-0063173
Project Name: Radio Island Multi-Use Terminal - Port of Morehead City
IPaC Record Locator: 264-124462551

Federal Action Agency (if applicable): Army Corps of Engineers

**Subject:** Technical assistance for 'Radio Island Multi-Use Terminal - Port of Morehead City'

Dear Jessica Tisdale:

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 March 31, 2023, for 'Radio Island Multi-Use Terminal - Port of Morehead City' (here forward, Project). This project has been assigned Project Code 2023-0063173 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

**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 the 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.

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

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

**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:

- American Alligator *Alligator mississippiensis* Similarity of Appearance (Threatened)
- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Green Sea Turtle *Chelonia mydas* Threatened
- Kemp's Ridley Sea Turtle *Lepidochelys kempii* Endangered
- Leatherback Sea Turtle *Dermochelys coriacea* Endangered
- Loggerhead Sea Turtle *Caretta caretta* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Piping Plover *Charadrius melodus* Threatened
- Red Knot *Calidris canutus rufa* Threatened
- Red-cockaded Woodpecker *Picoides borealis* Endangered
- Rough-leaved Loosestrife *Lysimachia asperulaefolia* Endangered
- Seabeach Amaranth *Amaranthus pumilus* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- West Indian Manatee *Trichechus manatus* Threatened

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

**Next Step**

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for 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 before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Raleigh Ecological Services Field Office and reference Project Code 2023-0063173 associated with this Project.

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

**1. Name**

Radio Island Multi-Use Terminal - Port of Morehead City

**2. Description**

The following description was provided for the project 'Radio Island Multi-Use Terminal - Port of Morehead City':

> The NC Ports proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County, North Carolina. Additional actions include roadway and rail improvements. The rail improvements include spurs on the NC Port-owned Class 3 rail line located on Radio Island.
> The proposed action includes development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operation in the automotive and offshore wind (OSW) industries. Infrastructure development would include gravel or paving the majority of 154 acres of undeveloped land for vehicle and wind energy lay down area, construction of a 300,000 square foot manufacturing facility with office space for OSW, approximately 100,000 square feet of warehouse with office space for automotive industry use, modifying the existing pier to accommodate roll on and roll off vessels, construction of a new southern 1,600 foot berthing facility to accommodate the berthing of larger or multiple vessels, and new rail spurs to provide access to both the manufacturing facility for offshore wind equipment and for the warehouse.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@34.7137641,-76.68627032648715,14z

# DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect, but not likely to adversely affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

# 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. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   *No*

3. Does any component of the action involve construction or operation of wind turbines?

   **Note:** For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   *Yes*

4. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

   **Note:** Suitable northern long-eared bat roost trees are live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

   *Yes*

# PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

*52.3*

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select ‘Yes’ if the cumulative extent of those areas meets or exceeds 0.1 acre.

*Yes*

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

*52.3*

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter ‘0’ if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

*52.3*

Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

*Yes*

## IPAC USER CONTACT INFORMATION

Agency: North Carolina Department of Transportation
Name: Jessica Tisdale
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## LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers
Name: Sarah E. Hair
Email: sarah.e.hair@usace.army.mil
Phone: 9102514049

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Raleigh ES Field Office
551-F Pylon Drive
Raleigh, North Carolina 27606

April 27, 2022

Cheryl Hannah
HDR Engineering Inc.
101 N. 3rd Street, Suite 201, Suite 900
Wilmington, NC 28401

Re: Radio Island Multi-Use Terminal – Carteret County

Dear Mrs. Hannah:

This letter is to inform you that the Service has established an on-line project planning and consultation process which assists developers and consultants in determining whether a federally-listed species or designated critical habitat may be affected by a proposed project. For future projects, please visit the Raleigh Field Office's project planning website at https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation. If you are only searching for a list of species that may be present in the project's Action Area, then you may use the Service's Information, Planning, and Consultation System (IPaC) website to determine if any listed, proposed, or candidate species may be present in the Action Area and generate a species list. The IPaC website may be viewed at https://ipac.ecosphere.fws.gov/. The IPaC web site contains a complete and frequently updated list of all endangered and threatened species protected by the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)(Act), a list of federal species of concern[1] that are known to occur in each county in North Carolina, and other resources.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, ensure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation and can be found on our web page at https://fws.gov/office/eastern-north-carolina. Please check the web site often for updated information or changes.

[1] The term "federal species of concern" refers to those species which the Service believes might be in need of concentrated conservation actions. Federal species of concern receive no legal protection and their designation does not necessarily imply that the species will eventually be proposed for listing as a federally endangered or threatened species. However, we recommend that all practicable measures be taken to avoid or minimize adverse impacts to federal species of concern.

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

With regard to the above-referenced project, we offer the following remarks. Our comments are submitted pursuant to, and in accordance with, provisions of the Endangered Species Act.

Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites. We believe that the requirements of section 7(a)(2) of the Act have been satisfied for your project. Please remember that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

However, the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.

The North Carolina Wildlife Resources Commission (NCWRC) has developed a Guidance Memorandum (found at https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve) to address and mitigate secondary and cumulative impacts to aquatic and terrestrial wildlife resources and water quality. We recommend that you consider this document and the NCWRC's other conservation recommendations in the development of your projects and in completing an initiation package for consultation (if necessary).

We hope you find our web page useful and informative and that following the process described above will reduce the time required, and eliminate the need, for general correspondence for species' lists. If you have any questions or comments, please contact John Ellis of this office at (919) 856-4520 ext. 26.

Sincerely,

Pete Benjamin

Field Supervisor

NC DEPARTMENT OF
NATURAL AND CULTURAL RESOURCES

Roy Cooper, **Governor**
D. Reid Wilson, **Secretary**
Misty Buchanan
**Deputy Director, Natural Heritage Program**

NCNHDE-21478

March 31, 2023

Jessica Tisdale
HDR
555 Fayetteville Street
Raleigh, NC 27601
RE: Radio Island Multi-Use Terminal – Port of Morehead City

Dear Jessica Tisdale:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

A query of the NCNHP database indicates that there are records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. These results are presented in the attached 'Documented Occurrences' tables and map.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is documented within the project area or indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

Also please note that the NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or an occurrence of a Federally-listed species is documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at rodney.butler@ncdcr.gov or 919-707-8603.

Sincerely,
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Intersecting the Project Area
Radio Island Multi-Use Terminal – Port of Morehead City
March 31, 2023
NCNHDE-21478

Element Occurrences Documented Within Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Bird | 35752 | Sternula antillarum | Least Tern | 1995-06-20 | H? | 3-Medium | --- | Special Concern | G4 | S3B |
| Butterfly | 14658 | Atrytonopsis quinteri | Crystal Skipper | 2015-04-21 | B? | 2-High | --- | Significantly Rare | G1 | S1 |

Natural Areas Documented Within Project Area

| Site Name | Representational Rating | Collective Rating |
|---|---|---|
| Radio Island | R2 (Very High) | C5 (General) |

Managed Areas Documented Within Project Area*

| Managed Area Name | Owner | Owner Type |
|---|---|---|
| Port of Morehead City | NC State Ports Authority | State |

* NOTE: If the proposed project intersects with a conservation/managed area, please contact the landowner directly for additional information. If the project intersects with a Dedicated Nature Preserve (DNP), Registered Natural Heritage Area (RHA), or Federally-listed species, NCNHP staff may provide additional correspondence regarding the project.

Definitions and an explanation of status designations and codes can be found at https://ncnhde.natureserve.org/help. Data query generated on March 31, 2023; source: NCNHP, Q4, Winter (January) 2023. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area
Radio Island Multi-Use Terminal – Port of Morehead City
March 31, 2023
NCNHDE-21478

Element Occurrences Documented Within a One-mile Radius of the Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Animal Assemblage | 7770 | Waterbird Colony | Waterbird Colony | 2004 | D | 3-Medium | --- | --- | GNR | S3 |
| Animal Assemblage | 6586 | Waterbird Colony | Waterbird Colony | 1983-05-22 | H | 3-Medium | --- | --- | GNR | S3 |
| Animal Assemblage | 7771 | Waterbird Colony | Waterbird Colony | 1988-05-30 | X | 3-Medium | --- | --- | GNR | S3 |
| Animal Assemblage | 36379 | Waterbird Colony | Waterbird Colony | 2011 | D | 3-Medium | --- | --- | GNR | S3 |
| Animal Assemblage | 4151 | Waterbird Colony | Waterbird Colony | 1997-07-07 | H? | 3-Medium | --- | --- | GNR | S3 |
| Animal Assemblage | 541 | Waterbird Colony | Waterbird Colony | 1991-05-30 | H? | 3-Medium | --- | --- | GNR | S3 |
| Animal Assemblage | 2551 | Waterbird Colony | Waterbird Colony | 2011-05-31 | D | 3-Medium | --- | --- | GNR | S3 |
| Bird | 40183 | Ammospiza caudacuta | Saltmarsh Sparrow | 2017-12-04 | E | 3-Medium | --- | Significantly Rare | G2 | SUB,S2N |
| Bird | 40360 | Calidris canutus rufa | Red Knot - rufa subspecies | 2018-03-09 | E | 3-Medium | Threatened | Threatened | G4T2 | S2N |
| Bird | 7916 | Charadrius melodus melodus | Piping Plover - Atlantic Coast subspecies | 2021 | E | 3-Medium | Threatened | Threatened | G3T3 | S1B,S1N |
| Bird | 41007 | Charadrius melodus melodus | Piping Plover - Atlantic Coast subspecies | 2021-05-13 | E | 3-Medium | Threatened | Threatened | G3T3 | S1B,S1N |
| Bird | 40366 | Charadrius melodus melodus | Piping Plover - Atlantic Coast subspecies | 2018-03-09 | E | 3-Medium | Threatened | Threatened | G3T3 | S1B,S1N |
| Bird | 6218 | Charadrius wilsonia | Wilson's Plover | 2019-06-09 | E | 3-Medium | --- | Special Concern | G5 | S2B |
| Bird | 14954 | Egretta caerulea | Little Blue Heron | 1991-05-16 | H | 3-Medium | --- | Special Concern | G5 | S3B,S3N |
| Bird | 15951 | Egretta thula | Snowy Egret | 1991-05-16 | H? | 3-Medium | --- | Special Concern | G5 | S2S3B,S3N |
| Bird | 16723 | Egretta tricolor | Tricolored Heron | 1991-05-16 | H | 3-Medium | --- | Special Concern | G5 | S2B,S3N |

Element Occurrences Documented Within a One-mile Radius of the Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Bird | 2416 | Gelochelidon nilotica | Gull-billed Tern | 1988 | H | 3-Medium | --- | Threatened | G5 | S1S2B |
| Bird | 13662 | Gelochelidon nilotica | Gull-billed Tern | 1988-05-30 | X | 3-Medium | --- | Threatened | G5 | S1S2B |
| Bird | 36411 | Gelochelidon nilotica | Gull-billed Tern | 1991-05-30 | H? | 3-Medium | --- | Threatened | G5 | S1S2B |
| Bird | 26020 | Haematopus palliatus | American Oystercatcher | 2019-07-18 | B | 3-Medium | --- | Special Concern | G5 | S2S3B, S3N |
| Bird | 7119 | Himantopus mexicanus | Black-necked Stilt | 1983-07 | H | 4-Low | --- | Significantly Rare | G5 | S1B |
| Bird | 36705 | Nyctanassa violacea | Yellow-crowned Night-Heron | 1976-07-16 | H | 6-Unknown | --- | Significantly Rare | G5 | S2B |
| Bird | 10588 | Passerina ciris | Painted Bunting | 2019-09-23 | AB | 3-Medium | --- | Special Concern | G5 | S2B |
| Bird | 1227 | Phalacrocorax auritus | Double-crested Cormorant | 1948 | X | 4-Low | --- | Significantly Rare | G5 | S1B,S5N |
| Bird | 16216 | Rynchops niger | Black Skimmer | 1988 | H | 3-Medium | --- | Special Concern | G5 | S2B,S3N |
| Bird | 36408 | Rynchops niger | Black Skimmer | 2021-05-20 | E | 3-Medium | --- | Special Concern | G5 | S2B,S3N |
| Bird | 5207 | Rynchops niger | Black Skimmer | 1988-05-30 | X | 3-Medium | --- | Special Concern | G5 | S2B,S3N |
| Bird | 12917 | Rynchops niger | Black Skimmer | 1997-06-09 | H? | 4-Low | --- | Special Concern | G5 | S2B,S3N |
| Bird | 36412 | Rynchops niger | Black Skimmer | 1991-05-30 | H? | 3-Medium | --- | Special Concern | G5 | S2B,S3N |
| Bird | 23960 | Rynchops niger | Black Skimmer | 2004-06-22 | F | 3-Medium | --- | Special Concern | G5 | S2B,S3N |
| Bird | 36409 | Sterna hirundo | Common Tern | 2021-05-20 | E | 3-Medium | --- | Endangered | G5 | S2B |
| Bird | 36417 | Sterna hirundo | Common Tern | 1988-05-30 | X | 3-Medium | --- | Endangered | G5 | S2B |
| Bird | 36413 | Sterna hirundo | Common Tern | 1991-05-30 | H? | 3-Medium | --- | Endangered | G5 | S2B |
| Bird | 23961 | Sterna hirundo | Common Tern | 2011-05-31 | F | 3-Medium | --- | Endangered | G5 | S2B |
| Bird | 23765 | Sternula antillarum | Least Tern | 2004-06-22 | D | 4-Low | --- | Special Concern | G4 | S3B |
| Bird | 35772 | Sternula antillarum | Least Tern | 1983-05-22 | H | 3-Medium | --- | Special Concern | G4 | S3B |
| Bird | 35775 | Sternula antillarum | Least Tern | 2004-06-02 | F | 3-Medium | --- | Special Concern | G4 | S3B |

Element Occurrences Documented Within a One-mile Radius of the Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Bird | 23702 | Sternula antillarum | Least Tern | 1977 | X | 3-Medium | --- | Special Concern | G4 | S3B |
| Bird | 35773 | Sternula antillarum | Least Tern | 1997-07-07 | H? | 3-Medium | --- | Special Concern | G4 | S3B |
| Bird | 35774 | Sternula antillarum | Least Tern | 1991-05-30 | H? | 3-Medium | --- | Special Concern | G4 | S3B |
| Bird | 17566 | Sternula antillarum | Least Tern | 1995-06-08 | H? | 3-Medium | --- | Special Concern | G4 | S3B |
| Bird | 35752 | Sternula antillarum | Least Tern | 1995-06-20 | H? | 3-Medium | --- | Special Concern | G4 | S3B |
| Butterfly | 14658 | Atrytonopsis quinteri | Crystal Skipper | 2015-04-21 | B? | 2-High | --- | Significantly Rare | G1 | S1 |
| Butterfly | 11496 | Atrytonopsis quinteri | Crystal Skipper | 2019-07-27 | A | 3-Medium | --- | Significantly Rare | G1 | S1 |
| Butterfly | 10143 | Heraclides cresphontes | Eastern Giant Swallowtail | 2016-07-28 | E | 3-Medium | --- | Significantly Rare | G5 | S2S3 |
| Dragonfly or Damselfly | 32036 | Coryphaeschna ingens | Regal Darner | 2004-Pre | H? | 5-Very Low | --- | Significantly Rare | G5 | S2? |
| Dragonfly or Damselfly | 33787 | Triacanthagyna trifida | Phantom Darner | 2004-Pre | H? | 5-Very Low | --- | Significantly Rare | G5 | SH |
| Freshwater Fish | 24086 | Acipenser brevirostrum | Shortnose Sturgeon | 1999-01-28 | H? | 5-Very Low | Endangered | Endangered | G3 | S1 |
| Freshwater Fish | 38939 | Acipenser oxyrinchus oxyrinchus | Atlantic Sturgeon | 2004-11-28 | E | 4-Low | Endangered | Endangered | G3T3 | S2 |
| Grasshopper or Katydid | 34586 | Mermiria bivittata | Two-striped Mermiria | 2004-09-10 | E | 2-High | --- | Significantly Rare | G5 | S2S3 |
| Mammal | 9806 | Trichechus manatus | West Indian Manatee | 2008-06-13 | E | 5-Very Low | Threatened | Threatened | G2G3 | S1N |
| Moss | 23678 | Tortula plinthobia | A Chain-teeth Moss | 1989-11-13 | E | 3-Medium | --- | Significantly Rare Other | G4G5 | S1? |
| Moth | 34584 | Dargida aleada | an Armyworm Moth | 1996-07-21 | H? | 2-High | --- | Significantly Rare | GNR | S1S2 |
| Moth | 34585 | Dargida rubripennis | Pink Streak | 2006-09-10 | E | 2-High | --- | Significantly Rare | G3G4 | S2S3 |
| Moth | 34588 | Zale declarans | Dixie Zale | 2010-04-02 | E | 2-High | --- | Significantly Rare | G5 | S2S3 |

Element Occurrences Documented Within a One-mile Radius of the Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Natural Community | 32942 | Brackish Marsh (Salt Meadow Cordgrass Subtype) | --- | 2012-05-03 | C | 3-Medium | --- | --- | G4G5 | S4 |
| Natural Community | 1542 | Dune Grass (Bluestem Subtype) | --- | 2019-02-27 | B | 2-High | --- | --- | G3 | S1 |
| Natural Community | 32940 | Dune Grass (Southern Subtype) | --- | 2012-05-03 | C | 2-High | --- | --- | G3 | S2 |
| Natural Community | 39622 | Maritime Evergreen Forest (Mid Atlantic Subtype) | --- | 2019-02-27 | C | 2-High | --- | --- | G2 | S2 |
| Natural Community | 16055 | Maritime Shrub (Stunted Tree Subtype) | --- | 2019-02-27 | C | 2-High | --- | --- | G3 | S2 |
| Natural Community | 16844 | Salt Flat | --- | | NR | 4-Low | --- | --- | G5 | S4 |
| Natural Community | 32939 | Salt Flat | --- | 2012-05-03 | C | 3-Medium | --- | --- | G5 | S4 |
| Natural Community | 4733 | Salt Marsh (Carolinian Subtype) | --- | 2012-05-03 | C | 2-High | --- | --- | G5 | S4 |
| Natural Community | 10811 | Salt Marsh (Carolinian Subtype) | --- | 2019-02-27 | B | 2-High | --- | --- | G5 | S4 |
| Natural Community | 39623 | Salt Shrub (High Subtype) | --- | 2019-02-27 | C | 2-High | --- | --- | G5 | S4? |
| Natural Community | 16404 | Salt Shrub (Low Subtype) | --- | | C? | 4-Low | --- | --- | G4 | S4? |
| Natural Community | 32943 | Salt Shrub (Low Subtype) | --- | | NR | 3-Medium | --- | --- | G4 | S4? |
| Natural Community | 20144 | Upper Beach (Southern Subtype) | --- | 2012-05-13 | C? | 2-High | --- | --- | G3 | S3 |
| Reptile | 8569 | Alligator mississippiensis | American Alligator | 2017-08-14 | E | 4-Low | Threatened Similar Appearance | Threatened | G5 | S3 |
| Reptile | 4805 | Caretta caretta | Loggerhead Seaturtle | 2019-07-12 | CD | 3-Medium | Threatened | Threatened | G3 | S2B |
| Reptile | 34144 | Chelonia mydas | Green Seaturtle | 2018-04-18 | E | 3-Medium | Threatened | Threatened | G3 | S1B |
| Reptile | 34583 | Crotalus horridus | Timber Rattlesnake | 2011-07-17 | E | 2-High | --- | Special Concern | G4 | S3 |

Element Occurrences Documented Within a One-mile Radius of the Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Reptile | 37965 | Dermochelys coriacea | Leatherback Seaturtle | 2005-05-27 | E | 3-Medium | Endangered | Endangered | G2 | S1B,SUN |
| Reptile | 37971 | Lepidochelys kempii | Kemp's Ridley Seaturtle | 2017-06-18 | E | 4-Low | Endangered | Endangered | G1 | S1B,SUN |
| Reptile | 15254 | Malaclemys terrapin | Diamondback Terrapin | 2022-05-15 | B | 3-Medium | --- | Special Concern | G4 | S3 |
| Reptile | 13517 | Malaclemys terrapin | Diamondback Terrapin | 2019-04-21 | B | 3-Medium | --- | Special Concern | G4 | S3 |
| Reptile | 37448 | Ophisaurus attenuatus longicaudus | Eastern Slender Glass Lizard | 1950-07 | H | 3-Medium | --- | Special Concern | G5T5 | S1 |
| Sawfly, Wasp, Bee, or Ant | 40240 | Megachile integra | a leafcutter bee | 1941-08-17 | H | 4-Low | --- | Significantly Rare | G2G3 | SH |
| Vascular Plant | 17109 | Amaranthus pumilus | Seabeach Amaranth | 2016-08-19 | X? | 2-High | Threatened | Threatened | G2 | S1 |
| Vascular Plant | 4359 | Amaranthus pumilus | Seabeach Amaranth | 1991-01-26 | F | 3-Medium | Threatened | Threatened | G2 | S1 |
| Vascular Plant | 41262 | Cyperus tetragonus | Four-angled Flatsedge | 2021-11-19 | A | 2-High | --- | Special Concern Vulnerable | G4 | S2 |
| Vascular Plant | 14038 | Erythrina herbacea | Coralbean | 1950-08-07 | H | 3-Medium | --- | Endangered | G5 | S2 |
| Vascular Plant | 28781 | Euphorbia bombensis | Southern Seaside Spurge | 2006-08-15 | E | 2-High | --- | Significantly Rare Throughout | G4G5 | S2? |
| Vascular Plant | 7348 | Parietaria praetermissa | Large-seed Pellitory | 1962-05-06 | H | 4-Low | --- | Significantly Rare Peripheral | G3G4 | S1 |
| Vascular Plant | 6466 | Parietaria praetermissa | Large-seed Pellitory | 1984-05-15 | E | 3-Medium | --- | Significantly Rare Peripheral | G3G4 | S1 |
| Vascular Plant | 6446 | Polygonum glaucum | Seabeach Knotweed | 2021-05 | A? | 3-Medium | --- | Endangered | G3 | S1 |
| Vascular Plant | 16095 | Polygonum glaucum | Seabeach Knotweed | 1967-07-29 | H | 3-Medium | --- | Endangered | G3 | S1 |
| Vascular Plant | 1995 | Polygonum glaucum | Seabeach Knotweed | 2007-09-15 | D | 3-Medium | --- | Endangered | G3 | S1 |
| Vascular Plant | 38710 | Sesuvium maritimum | Slender Sea-purslane | 1998-08-18 | E | 3-Medium | --- | Endangered | G5 | S1 |
| Vascular Plant | 35161 | Sesuvium portulacastrum | Shoreline Sea-purslane | 1993-07-16 | E | 4-Low | --- | Endangered | G5 | S1 |
| Vascular Plant | 34587 | Solanum pseudogracile | Graceful Nightshade | 2017-10-16 | E | 2-High | --- | Significantly Rare Throughout | G4 | S1 |

Element Occurrences Documented Within a One-mile Radius of the Project Area

| Taxonomic Group | EO ID | Scientific Name | Common Name | Last Observation Date | Element Occurrence Rank | Accuracy | Federal Status | State Status | Global Rank | State Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| Vascular Plant | 41276 | Steironema hybridum | Lowland Loosestrife | 1919-07-19 | H | 5-Very Low | --- | Significantly Rare Peripheral | G5 | S2? |
| Vascular Plant | 1109 | Trichostema nesophilum | Dune Bluecurls | 2019-05-18 | A | 3-Medium | --- | Special Concern Vulnerable | G2 | S2 |
| Vascular Plant | 37015 | Trichostema nesophilum | Dune Bluecurls | 2016-09-20 | C | 3-Medium | --- | Special Concern Vulnerable | G2 | S2 |
| Vascular Plant | 12649 | Yucca gloriosa | Moundlily Yucca | 2020-01-30 | B | 3-Medium | --- | Significantly Rare Peripheral | G4? | S2? |
| Vascular Plant | 23508 | Yucca gloriosa | Moundlily Yucca | 2005-03-26 | E | 3-Medium | --- | Significantly Rare Peripheral | G4? | S2? |

Natural Areas Documented Within a One-mile Radius of the Project Area

| Site Name | Representational Rating | Collective Rating |
|---|---|---|
| Radio Island | R2 (Very High) | C5 (General) |
| Rachel Carson Estuarine Research Reserve | R2 (Very High) | C1 (Exceptional) |
| Phillips and Annex Islands | R4 (Moderate) | C4 (Moderate) |
| Fort Macon State Park/Brandt Island | R1 (Exceptional) | C1 (Exceptional) |

Managed Areas Documented Within a One-mile Radius of the Project Area

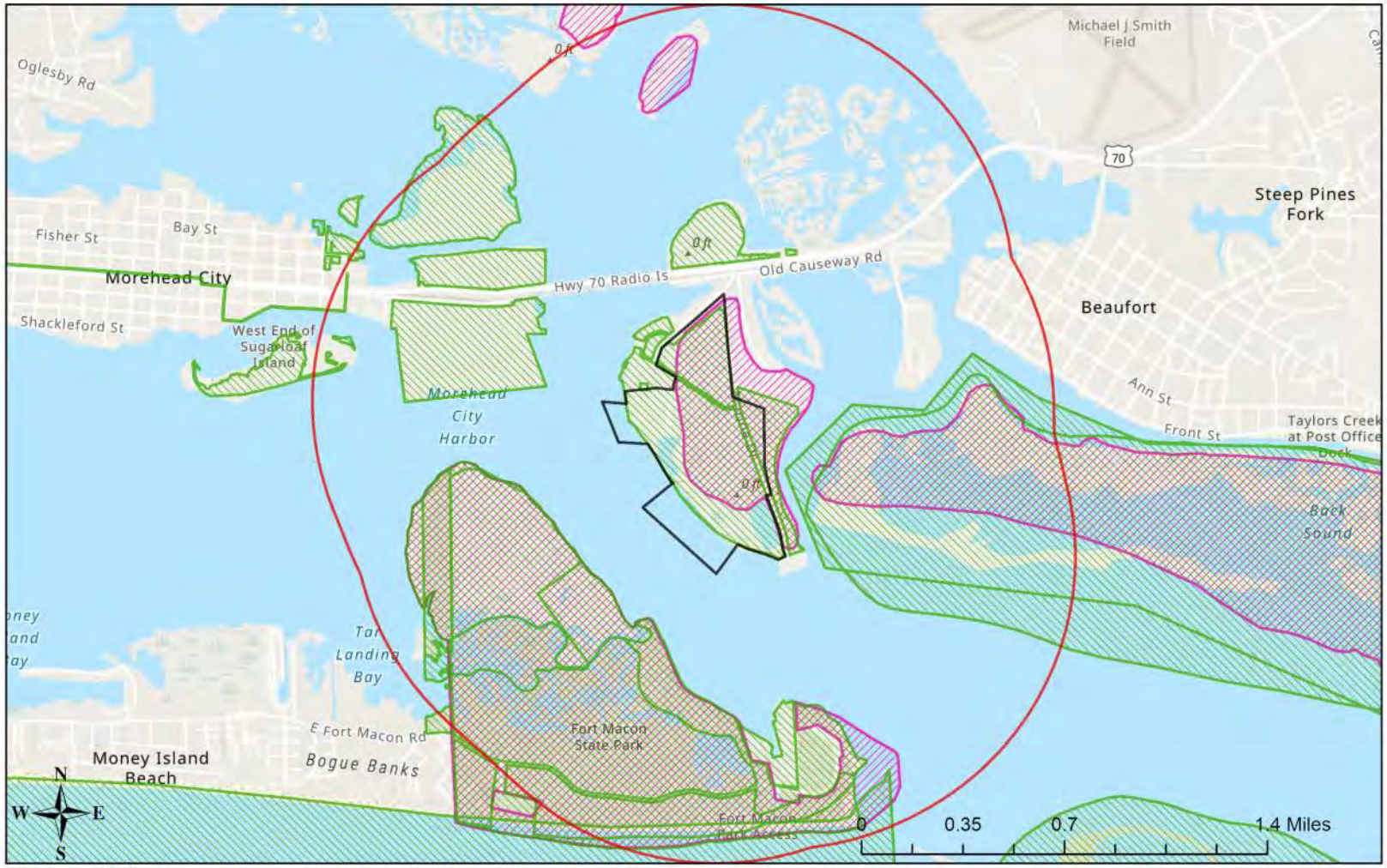
| Managed Area Name | Owner | Owner Type |
|---|---|---|
| Coast Guard Station Fort Macon | US Department of Homeland Security | Federal |
| Fort Macon State Park | NC DNCR, Division of Parks and Recreation | State |
| Port of Morehead City | NC State Ports Authority | State |
| Rachel Carson Component of the North Carolina National Estuarine Research Reserve | NC DEQ, Division of Coastal Management | State |
| Town of Morehead City Open Space | Town of Morehead City | Local Government |
| Town of Morehead City Open Space - Sugarloaf Island | Town of Morehead City | Local Government |
| US Army Reserve Center | US Department of Defense | Federal |
| Mountains-to-Sea Trail | NC DNCR, Division of Parks and Recreation | State |
| USFWS Critical Habitat - Loggerhead Seaturtle | US Fish and Wildlife Service | Federal |

Managed Areas Documented Within a One-mile Radius of the Project Area

| Managed Area Name | Owner | Owner Type |
|---|---|---|
| USFWS Critical Habitat - Piping Plover | US Fish and Wildlife Service | Federal |
| NC Land and Water Fund Conservation Agreement | NC DNCR, NC Land and Water Fund | State |
| Brant Island Registered Heritage Area | NC DNCR, Natural Heritage Program | State |
| Fort Macon State Park Dedicated Nature Preserve | NC DNCR, Natural Heritage Program | State |
| Rachel Carson Component of the North Carolina National Estuarine Research Reserve Dedicated Nature Preserve | NC DNCR, Natural Heritage Program | State |

Definitions and an explanation of status designations and codes can be found at https://ncnhde.natureserve.org/help. Data query generated on March 31, 2023; source: NCNHP, Q4, Winter (January) 2023. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

# NCNHDE-21478: Radio Island Multi-Use Terminal – Port of Morehead City




March 31, 2023

- NHP Natural Area (NHNA)
- Managed Area (MAREA)
- Buffered Project Boundary
- Project Boundary

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

July 24, 2023

Twyla Cheatwood, Fish Biologist
National Oceanic and Atmospheric Administration, Fisheries
Southeast Regional Office
Habitat Conservation Division

Submitted via email: Twyla.cheatwood@noaa.gov

RE: Radio Island Multi-Use Terminals and Associated Infrastructure Improvements
Essential Fish Habitat Consultation
Carteret County, North Carolina

Dear Ms. Cheatwood,

The North Carolina State Ports Authority (NCPSA) has retained HDR Engineering, Inc. of the Carolinas (HDR) to prepare environmental documentation and Clean Water Act (CWA) permitting, in accordance with the State Environmental Policy Act (SEPA), for the proposed Radio Island multi-use terminal and associated infrastructure needed for development of Port of Morehead City facilities and economic development initiatives. The Ports has proposed to construct the Radio Island multi-use terminal to include automotive and wind energy industries and complementary manufacturing in the Town of Morehead City in Carteret County, North Carolina. The purpose of this letter is to solicit information that you may have related to the potential essential fish habitat (EFH) impacts of the proposed project on the area.

Radio Island is a spoil-created island of approximately 253 acres, located within the Newport River/Intracoastal Waterway in eastern North Carolina. The island is situated between the mainland municipalities of Morehead City and Beaufort. Radio Island is wholly within the municipal limits of Morehead City and includes approximately 154 acres of undeveloped NCSPA-owned land. US Highway 70 travels along the northern boundary of Radio Island and provides good access to major interstates located west of Carteret County and to the Outer Banks National Scenic Byway in Beaufort beginning at the intersection with NC 12. In addition to the multi-use terminals, future planned improvements within the Radio Island port facility would replace existing tracks on a terminal-switching railroad with upgraded rail infrastructure that meets Federal Railroad Administration (FRA) safety standards. The terminal switching railroad provides access to a Class 1 rail line, operated by Norfolk Southern, that parallels US 70. The project study

hdrinc.com

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Wilmington, NC 28401-4034
(910) 398-9020

area includes approximately 168 acres of the island and 31 acres within the Newport River.

The Port of Morehead City is identified as a Strategic Seaport for military use. Strategic Seaports are key facilities that enable rapid deployments and responses to national security and the Department of Defense. Radio Island has direct access to the ocean with no bridge or overhead obstruction.

The existing infrastructure on Radio Island Port-owned property includes an existing bulkhead and related liquid loading/unloading equipment for above ground storage tanks, an aviation fuel terminal, approximately 320-foot long barge dock, and administrative offices. The storage tanks are leased to private companies but are currently empty.

The NCSPA will be evaluating the benefits and impacts from the proposed project, in accordance with SEPA and implementing regulations. As defined by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976, as amended in 1996, EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1802, 50 CFR § 600.10). The Magnuson-Stevens Act requires that NOAA-NMFS work with federal and state agencies, regional fishery management councils, and the fishing community to protect, conserve, and enhance EFH. The Magnuson-Stevens Act also mandates that consultation take place with the US Secretary of Commerce on all proposed activities authorized, funded, or undertaken by a federal agency which may adversely affect EFH.

Radio Island is surrounded by Intracoastal Waterway, which includes the Newport River to the north, and Bogue Sound to the west (Figures 1 and 2). Additionally, the Beaufort and Morehead City channels are located to the immediate east and west of Radio Island, respectively. EFH within the study area includes 1.1 acres of unconsolidated shore and 26.8 acres of unconsolidated bottom habitat primarily associated with the adjacent waterway (Figure 3). Unconsolidated shore is characterized by sandy beach within the intertidal zone that experiences regular flooding and exposure from tidal action, while unconsolidated bottom is characterized by estuarine habitat permanently (subtidal) beneath tidal waters. The boundary between unconsolidated shore and unconsolidated bottom in marine and estuarine systems coincides with the elevation of the extreme low water of spring tides, with all permanently flooded areas considered deepwater unconsolidated bottom. The Snapper-Grouper Complex and Penaeid Shrimp Habitat Area of Particular Concern (HAPC), of the South Atlantic Region fishery management plans

(FMPs), overlap with the study area. Additionally, the federally managed Smoothhound Shark Complex and other migratory species have the potential to utilize EFH within the study area.

The proposed project has the potential to result in permanent or temporary effects to EFH due from direct or indirect causes through the construction process. Temporary effects would be expected to remain for the duration of the project or project-phase for which the effect is associated (e.g., pile driving). Project areas experiencing temporary effects are expected to return to the existing (current) condition following completion of the project.

Permanent, direct effects include loss of EFH from the addition of concrete and riprap fill to support the construction of the offshore wind dredged berth basin, as well as construction of an Offshore Wind Dock and a Roll-on/Roll-off Offloading Dock. At the Offshore Wind Dock, the total area of the dredged berth basin footprint is 816,763 square feet with the anticipated dredge volume on the order of 900,000 cubic yards. The proposed footprint for the Offshore Wind Dock is approximately 1,600 feet long by 150 feet wide and includes 1,298 54-inch diameter spun-cast cylinder concrete piles. The proposed Roll-on/Roll-off Offloading Dock footprint is approximately 360 feet long by 75 feet wide and includes 59 24-inch square precast/prestressed concrete piles and 8 of these piles near the waterside face will be battered for stability in carrying lateral loads. See Figure 4 for the current Conceptual Site Plan.

The proposed action will require dredging from the face of the dock to the navigation channel limits for the construction of the offshore wind dock, which can result in both permanent and temporary direct impacts. Although mobile species would likely avoid the area during dredge activity, early and/or vulnerable life stages may be susceptible to hydraulic entrainment (direct mortality) from dredges. Dredging, and the subsequent placement of fill materials, can also result in permanent loss and/or conversion of EFH. Temporary impacts associated with dredging include the noise of dredging and suspended sediment.

Pile driving associated with the construction of the Offshore Wind Dock and roll-on/roll-off dock has the potential to cause permanent or temporary impacts to species in the area. Construction noise is generally considered to generate impulsive or non-impulsive sounds. Impulsive sounds are transient, brief (less than 1 second), and typically consist of high peak pressure with rapid rise time and rapid decline, such as those created by impact pile drivers. Non-impulsive sounds can be brief or prolonged and continuous or intermittent,

but typically do not have a high peak pressure with rapid rise time, such as those produced by sonar and vibratory pile drivers.

If an individual animal is close to the project during pile driving or dredging, there is potential for long-term or permanent auditory impacts (i.e., hearing loss). However, it is more likely that species within the project area may experience temporary effects of noise in the form of behavior changes (e.g., avoidance) and are unlikely to be directly harmed. The use of “slow-starts” while pile driving is recommended to deter animals from the area and minimize disturbance.

Siltation and/or turbidity due to dredging or the installation of piles and fill materials is expected to be minor, localized, and temporary. Siltation can cause increased thermal loading, increase in turbidity, alterations in nutrient distribution, affects to dissolved oxygen levels, and impact primary productivity. The settling of siltation on the estuary floor can also impact benthic organisms. The increase in turbidity and associated decrease in light attenuation can affect organisms in the area by limiting visual ability for feeding, movement, and predator avoidance.

As design progresses, efforts will be made to avoid, minimize, and mitigate these impacts. The project will be designed to minimize impacts to wetlands and waters of the U.S. Coordination will occur with the U.S. Army Corps of Engineers Wilmington District, N.C. Division of Water Resources, N.C. Division of Marine Fisheries, N.C. Wildlife Resources Commission, and N.C. Division of Coastal Management.

As an integral part of the environmental process, the NCSPA is soliciting input from NOAA Fisheries concerning the types of EFH in the study area and potential impacts of the proposed project. Please respond if you have any additional input. If you have any questions or concerns, please call or email me at your earliest convenience at 704-338-6839 or Jenessa.Kay@hdrinc.com.

Kind regards,

hdrinc.com

101 N 3rd Street, Suite 201
Wilmington, NC 28401-4034
(910) 398-9020

**Attachments:**
Figure 1 – Project Vicinity Map
Figure 2 – Environmental Features Map
Figure 3 – Essential Fish Habitat Map
Figure 4 – Radio Island Conceptual Site Plan

Cc: Todd Walton, NCPSA
Vickie Miller, HDR

hdrinc.com

101 N 3rd Street, Suite 201
Wilmington, NC 28401-4034
(910) 398-9020


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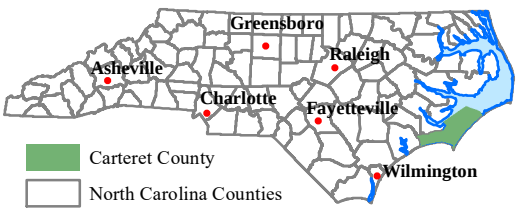


NORTH CAROLINA PORTS

HDR

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

**FIGURE 1**
**PROJECT VICINITY MAP**

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY, CARTERET COUNTY

MARCH 2023


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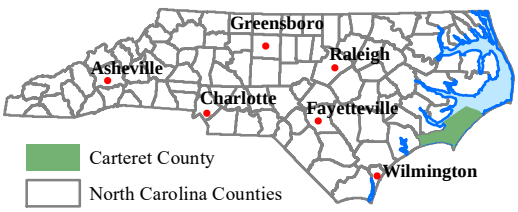


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**FIGURE 2**
**ENVIRONMENTAL FEATURES MAP**
RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

MARCH 2023


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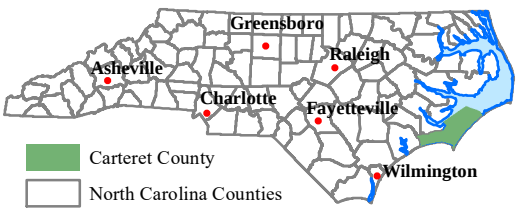


NORTH CAROLINA PORTS

HDR

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

**FIGURE 3**
**ESSENTIAL FISH HABITAT MAP**

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

MARCH 2023


| ISSUE | DATE | DESCRIPTION |
|---|---|---|

PROJECT MANAGER

PROJECT NUMBER 10331142

**RADIO ISLAND**
**CONCEPTUAL SITE PLAN B**

Figure 4

0 200' 400'

FILENAME

SCALE

SHEET

**Appendix C** Public Meeting Documentation and Comments

Draft EIS Meeting with Local Officials

Friday 8/11/2023

Morehead City Municipal Campus- City Hall 1100 Brides Street

Morehead City, NC 28557

10:00 to 11:00 am

NC State Port Authority: Doug Vogt, Todd Walton, Chip Killmeier

Town of Morehead City:

Jerry Jones – Mayor

Chris Turner – City Manager

Daniel Williams – Public Services Director

Anna Smith – Public Information Officer

Town of Beaufort:

Sharon Harker – Mayor

John Hagle – Mayor Pro Tem.

Buck Oliver – Commissioner

Todd Clark – Town Manager

Carteret County:

Tommy Burns – County Manager

Eugene Foxworth – Asst County Manager

Jimmy Farrington – Chairman, County Commissioners

Mark Mansfield – Vice Chairman, County Commissioners

NORTH CAROLINA PORTS

# PUBLIC MEETING

## RADIO ISLAND MULTI-USE TERMINAL

The North Carolina State Ports Authority (the Authority) proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County. Additional actions include roadway and rail improvements and a natural gas line to the island. The proposed project is to support new industry opportunities to the State and the Authority. Additionally, the proposed project is for the generation of jobs and labor income to improve unemployment, increase median income, decrease the poverty rate in Carteret County and the region, and assist in transitioning the state to a clean energy economy.

**You may submit comments or ask us questions by October 10, 2023 to :**

**vickie.miller@hdrinc.com**

**919.232.6637**

## YOU'RE INVITED

**Sept. 26, 2023** **4–6:00 p.m.**

**Crystal Coast Civic Center/ Main Hall**
**Bldg. 203 Carteret Community College**
**3505 Arendell Street**
**Morehead City, NC 28557**

If you require any accommodations under the Americans with Disabilities Act to participate contact:

**Cheryl Hannah**

**cheryl.hannah@hdrinc.com**

**910.398.9026**

c/o Vickie Miller
HDR
555 Fayetteville Street, Suite 900
Raleigh, NC 27601

Aquellas personas no hablan inglés, o tienen limitaciones para leer, hablar o entender inglés, podrían recibir servicios de interpretación si los solicitan antes de la reunión llamando al **1-800-481-6494**.

NORTH CAROLINA PORTS

# Radio Island Multi-Use Terminal on NC Ports Property Morehead City, Carteret County September 26, 2023

## Project Description

The North Carolina State Ports Authority (the Authority) proposes to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County. Additional actions include roadway and rail improvements and a natural gas line from Morehead City to Radio Island.

## Purpose and Need

The purpose of the Radio Island Multi-Use Terminal project is to support new industry opportunities to the state and the Authority. Additionally, the proposed project is for generation of jobs and labor income to improve unemployment, increase median income, decrease the poverty rate in Carteret County and the region, and transition NC to a clean energy economy.

The need to be addressed by the project is to comply with North Carolina Executive Order Nos. 80 and 218 by advancing a clean energy economy.


*The Mission of NC Ports is to be the gateway to global markets and to enhance the economy of North Carolina by supporting and improving the state's logistics network.*

The proposed action would expand the capability of the Authority to include wind energy industries and complementary manufacturing. The proposed project would provide waterside and landside facilities to support the automotive industry.

The proposed project is intended to address the following:
- Improving NC Port's ability to expand their customer base.
- Introducing new growth opportunities for automotive and wind power industries.
- Allowing the Authority to perform as an offshore wind hub.
- Supporting NC energy and economic development goals.
- Helping NC transition to a clean energy economy by 2030.

## Proposed Layout

Two Build Alternatives were considered. The alternatives differ in access to and within the site. Alternative A accesses the multi-use terminal from Marine Drive while Alternative B does so from Radio Island Road. The Authority selected Alternative B as the Preferred Alternative thus providing safer travel for local residents and users of the recreational area on the east side of the island. Alternative A was not selected as it would mix personal vehicles and truck traffic along Marine Drive. Design elements for the Preferred Alternative include:

**Improvements for the automotive industry:**
- Approximately 4,000-parking space asphalt storage lot for roll-on/roll-off (RoRo) uses located between the island's western edge and Marine Drive. Port-side ingress/egress for vehicles would be between the six existing storage tanks. Land-side ingress/egress could be from car carriers accessing the lot from Radio Island Road and/or new rail spurs that would tie into the existing rail, along Radio Island Road.
- Approximately 100,000 square foot warehouse/office space located on the northern end of the port property.
- Modifying the existing T-head pier to accommodate RoRo vessels.

**Improvements for the offshore wind (OSW) industry:**
- Approximately 300,000 square foot fabrication/assembly building, with office space, located on the southern end of the port property.
- Approximately 60-acre gravel pad in front of the fabrication/assembly building for storage/laydown.
- Constructing a new rail spur paralleling a portion of Marine Drive that would tie into the existing rail to the north of the project area and travel along the west side and in front of the fabrication/assembly building.
- Approximately 65 parking spaces for private vehicles between the fabrication/assembly building and Marine Drive.

**Improvements for both the automotive and OSW industries:**
- Constructing a southern 1,600-foot berthing facility to accommodate the berthing of larger or multiple vessels and associated heavy freight handling equipment.

## Additional Information

Comments can be mailed/emailed/or telephoned to:

**Vickie Miller**
HDR
555 Fayetteville Street, Suite 900
Raleigh, NC 27601
Phone: (919) 232-6637
Email: vickie.miller@hdrinc.com

**Comments are due by Oct. 10, 2023.**

| Next Steps | Date* |
|---|---|
| Complete Environmental Document | February 2024 |
| Utility Relocation Begins | TBD |
| Construction Begins | TBD |

*Schedules are subject to change.

| Cost Item | Estimated Cost |
|---|---|
| Utilities | TBD |
| Construction & Structures | $250-285 million |

The proposed design for the Preferred Alternative is shown below.

Notes:

NORTH CAROLINA PORTS®

2202 Burnett Boulevard
Wilmington, NC 28401

Vickie Miller, NC Environmental Lead
HDR
555 Fayetteville Street
Suite 900
Raleigh, NC 27601

NORTH CAROLINA PORTS

# Comment Form
# Radio Island Multi-Use Terminal on NC State Ports Authority Property Morehead City, Carteret County Public Meeting

Please take a few moments to fill out this comment form and share your thoughts about the Radio Island Multi-Use Terminal on NC State Ports Authority property. Place completed form in the comment box tonight, or send it no than **October 10, 2023.** Please note that providing your contact information will allow us to respond to any questions or concerns you raise. Your information will not be shared for any other purpose. *Please print.*

Your Name: _____

Company/Organization/Neighborhood: _____

Address: _____

City: _____ State: _____ Zip Code: _____

E-mail: _____

Please provide your comments on the project presented tonight:

_____

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For additional information, contact Vickie Miller at vickie.miller@hdrinc.com, by calling (919) 232-6637, or by mail at Vickie Miller, HDR, 555 Fayetteville Street, Suite 900, Raleigh, N.C. 27601. Please return comments by October 10, 2023.

NORTH CAROLINA PORTS

2202 Burnett Boulevard
Wilmington, NC 28401

**Attn: Vickie Miller, NC Environmental Lead**
**HDR**
**555 Fayetteville Street**
**Suite 900**
**Raleigh, NC 27601**

# TITLE VI PUBLIC INVOLVEMENT FORM

*Completing this form is **completely** voluntary. You are not required to provide the information requested in order to participate in this meeting.*

| | |
|---|---|
| **Meeting Type:** Public Information Meeting<br>**Location:** Crystal Coast Civic Center/ Main Hall<br>Building 203- Carteret Community College<br>3505 Arendell Street<br>Morehead City, NC 28557 | **Date**: September 26, 2023 |
| **Project Description:** Radio Island Multi-Use Terminal in the Town of Morehead City, Carteret County. | |

In accordance with Title VI of the Civil Rights Act of 1964 and related authorities, the North Carolina Department of Transportation (NCDOT) assures that no person(s) shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any of the Department's programs, policies, or activities, based on their race, color, national origin, disability, age, income, or gender.

**Completing this form helps meet our data collection and public involvement obligations under Title VI and NEPA and will improve how we serve the public**. Please place the completed form in the designated box on the sign-in table or mail it to the Environmental Analysis Unit, 1598 Mail Service Center, Raleigh, N.C. 27699-1598. All forms will remain on file at the NCDOT as part of the public record.

**Zip Code:** _____

**Street Name:**
**(i.e. Main Street)** _____

**Total Household Income:**

- ☐ Less than $12,000
- ☐ $12,000 – $19,999
- ☐ $20,000 – $30,999
- ☐ $31,000 – $46,999
- ☐ $47,000 – $69,999
- ☐ $70,000 – $93,999
- ☐ $94,000 – $117,999
- ☐ $118,000 or greater

**Gender:** ☐ Male ☐ Female

**Age:**

- ☐ Less than 18
- ☐ 18-29
- ☐ 30-44
- ☐ 45-64
- ☐ 65 and older

**Have a Disability:** ☐ **Yes** ☐ **No**

**Race/Ethnicity:**

- ☐ White
- ☐ Black/African American
- ☐ American Indian/Alaskan Native
- ☐ Native Hawaiian/Pacific Islander
- ☐ Other (please specify): _____
- ☐ Asian
- ☐ Hispanic/Latino

**National Origin:** (if born outside the U.S.)

- ☐ Mexican
- ☐ Central American: _____
- ☐ South American: _____
- ☐ Puerto Rican
- ☐ Chinese
- ☐ Other (please specify): _____
- ☐ Vietnamese
- ☐ Korean

How did you hear about this meeting? (newspaper advertisement, flyer, and/or mailing)

_____

For more information regarding Title VI or this request, please contact the NCDOT Title VI Section at (919) 508-1896 or toll free at 1-800-508-1886, or by email at **jarobbins@ncdot.gov**.

Thank you for your participation!

NORTH CAROLINA PORTS®

## WELCOME TO THE PORT OF MOREHEAD CITY

The Port of Morehead City, a breakbulk and bulk facility, is positioned just four miles from the Atlantic Ocean on the Intracoastal Waterway. It's also within 700 miles of more than 70% of the U.S. industrial base. Interstates 95 and 40 are easily accessed via U.S. Highways 70 and 17. And train service is provided by Norfolk Southern. Located across the Newport River from the Port of Morehead City is Radio Island, a 150-acre site suited for a port industrial development, supplied with municipal water and sewer.

## Capabilities:

- Bulk
- Breakbulk
- Roll-On/ Roll-Off
- Inland Transportation
- Foreign Trade Zone
- More Than One Million Sq. Ft. of Storage Space

## Record-Breaking Fiscal Year 2023 Performance:

- The Port of Morehead City handled 1.4 million short tons of general cargo in FY23
- NC Ports posted 12% year-over-year growth for general cargo volume, marking a record year for tonnage and revenue

NC Ports has the capabilities to address even the most complex of cargo handling needs. Our experienced labor force and innovative ideas take us beyond the primary products we often move. The products below might be what the Port of Morehead City is known for, but they are not what our team is limited to. We are the port of problem solved.

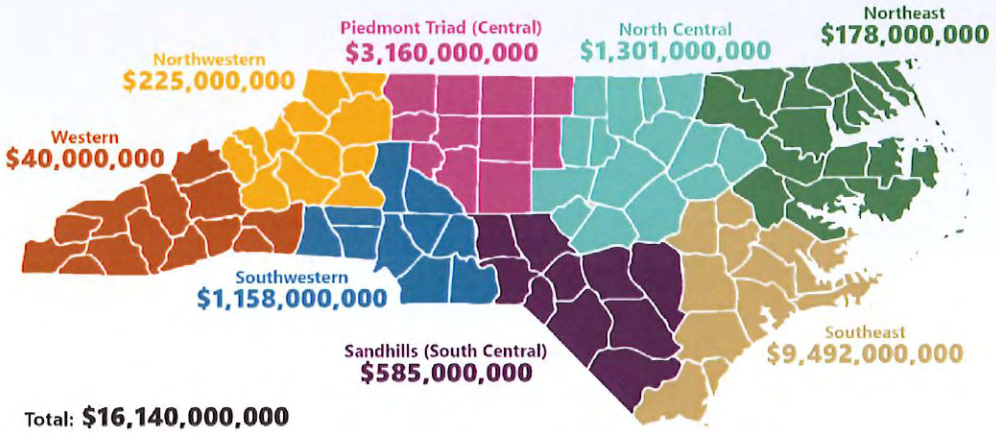
## Primary Products:

- Rubber
- Metal Products
- Aircraft Parts
- Grain
- Wood Chips
- Lumber
- Phosphate
- Fertilizer

**Did you know?** MHC is the #2 importer of raw rubber in the country

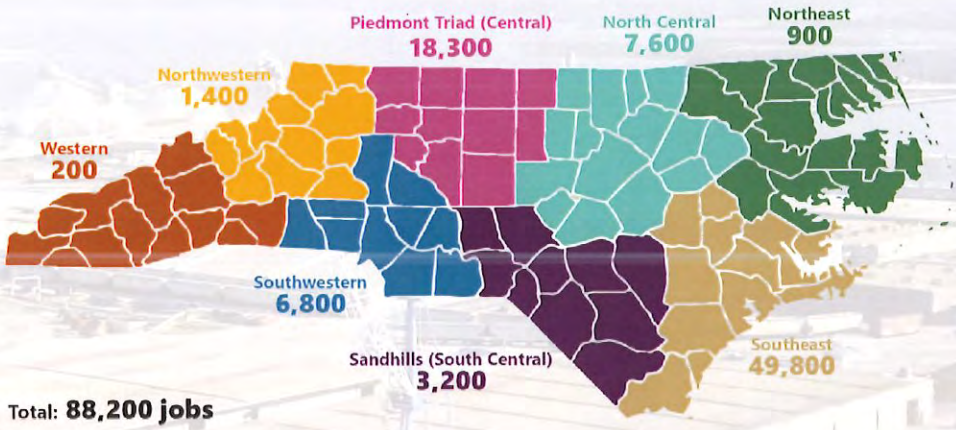
# NORTH CAROLINA PORTS
# ECONOMIC CONTRIBUTIONS

## Economic Activity (Output) by Region



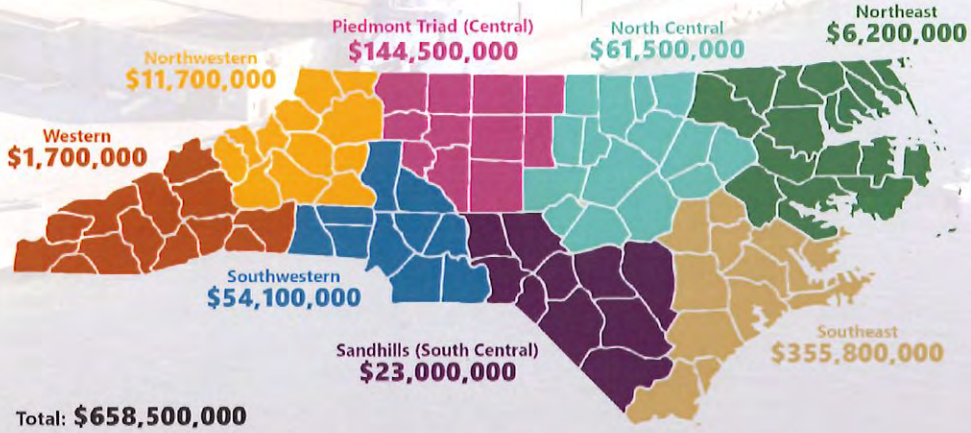

Total: **$16,140,000,000**

## Employment (Number of Jobs) by Region




Total: **88,200 jobs**

## State and Local Tax Revenue by Region




Total: **$658,500,000**

*2022 Economic Contribution of the North Carolina Ports*
Institute for Transportation Research and Education, N.C. State University

**From:** Joan Sugg
**To:** Miller, Vickie M. (Raleigh)
**Subject:** Radio Island Multi-Use Terminal
**Date:** Wednesday, September 6, 2023 11:13:48 AM



Dear Vickie,

How will this impact vacation rental properties on Radio Island and in Beaufort?

Joan Sugg
Tarboro, NC
Sent from Mail for Windows

**From:** Cathy Almon
**To:** Miller, Vickie M. (Raleigh)
**Subject:** Radio Island Multi-Use Terminal
**Date:** Wednesday, September 6, 2023 11:36:46 AM



Ms. Miller:
My family owns a condo at the Olde Towne Yacht Club and we have received the notice of the public meeting on the proposed multi-use terminal. Just exactly what is this proposal and where on Radio Island is it planned for? I am not sure that I can make the public meeting and would like to get information on the project so that I can understand the potential impacts/implications on Radio Island, Morehead City, and the Olde Towne Yacht Club area. Thank you in advance for your attention to my request.
Cathy L. Almon,
Vice President
Howard Healthcare Management

**From:** Miller, Vickie M. (Raleigh)
**To:** Hannah, Cheryl
**Subject:** FW: Sept 26th meeting
**Date:** Thursday, September 28, 2023 9:44:58 AM

---

Here you go.
Thank you!
Vickie

---

**From:** Kelly Riggan <kelly.riggan@duke.edu>
**Sent:** Tuesday, September 19, 2023 8:29 AM
**To:** Miller, Vickie M. (Raleigh) <vickie.miller@hdrinc.com>
**Subject:** Sept 26th meeting



Vickie,

Will this meeting be broadcasted or virtually offered?

**Kelly Riggan, IT Director**
Duke Health Technology Solutions|Customer Service Center
Asset Management|Ambulatory & Inpatient Device Support Services
14 Moore Drive
Durham, NC 27703
Office 919-668-2731

NORTH CAROLINA PORTS

# Comment Form
## Radio Island Multi-Use Terminal
## on NC State Ports Authority Property
## Morehead City, Carteret County
## Public Meeting

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Your Name: Chuck Ledford

Company/Organization/Neighborhood: Olde Towne Yacht Club.

Address: 100 Olde Towne Rd.

City: Morehead, Radio Island State: N.C. Zip Code:

E-mail: Chuck.WLedford@gmail.com

Please provide your comments on the project presented tonight:

Terrible Presentation, Not enough info that we could be positive or negative, Entrance in to Radio Island is critical, if DoT is not here to discuss these plan, then this is the Cart before the horse, Not impressed by the Planning on such a huge Change to a lot of People's life style and property Value.

For additional information, contact Vickie Miller at vickie.miller@hdrinc.com, by calling (919) 232-6637, or by mail at Vickie Miller, HDR, 555 Fayetteville Street, Suite 900, Raleigh, N.C. 27601. Please return comments by October 10, 2023.

NORTH CAROLINA PORTS

# Comment Form
## Radio Island Multi-Use Terminal on NC State Ports Authority Property
## Morehead City, Carteret County
## Public Meeting

Please take a few moments to fill out this comment form and share your thoughts about the Radio Island Multi-Use Terminal on NC State Ports Authority property. Place completed form in the comment box tonight, or send it no than **October 10, 2023.** Please note that providing your contact information will allow us to respond to any questions or concerns you raise. Your information will not be shared for any other purpose. *Please print.*

Your Name: E Youngblood

Company/Organization/Neighborhood: _____

Address: 141 MORGAN ST

City: _____ State: _____ Zip Code: 28516

E-mail: eyoungblood3517@gmail.com

Please provide your comments on the project presented tonight: Remember:

- GIANT WASTE OF RESOURCES/GLOBAL TRADEPARK
- TRAFFIC (SURFACE & RAIL) IMPACT ON LOCAL PROPERTY OWNERS UNACCEPTABLE
- OFFSHORE WIND FOR NC NOT ECONOMICALLY FEASIBLE
- DOT NOT FIRM IN THEIR TRAFFIC MODS
- RESOURCES BETTER USED ON INSHORE MANUF. SITES

For additional information, contact Vickie Miller at vickie.miller@hdrinc.com, by calling (919) 232-6637, or by mail at Vickie Miller, HDR, 555 Fayetteville Street, Suite 900, Raleigh, N.C. 27601. Please return comments by October 10, 2023.

NORTH CAROLINA PORTS

# Comment Form
## Radio Island Multi-Use Terminal on NC State Ports Authority Property
## Morehead City, Carteret County
## Public Meeting

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Your Name: Chris Hardison

Company/Organization/Neighborhood: Morgan Creek Landing

Address: 212 Old Causeway Rd, Unit 108

City: Beaufort State: NC Zip Code: 28516

E-mail: chris.hardison@yahoo.com

Please provide your comments on the project presented tonight:

I'm quite concerned about the rail traffic since currently when empty rail cars are moved it rattles our building. The curred spur come very close to Morgan Creek Landing and I suspect it has never been used since that building was built. If loaded rail cars come that close it could cause damage to our building from vibrations.

For additional information, contact Vickie Miller at vickie.miller@hdrinc.com, by calling (919) 232-6637, or by mail at Vickie Miller, HDR, 555 Fayetteville Street, Suite 900, Raleigh, N.C. 27601. Please return comments by October 10, 2023.

**Appendix D** Figures


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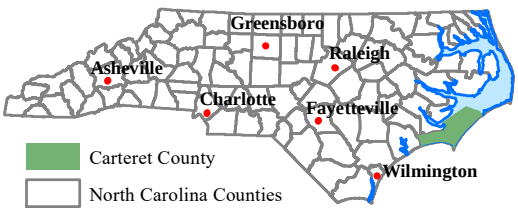



NORTH CAROLINA PORTS

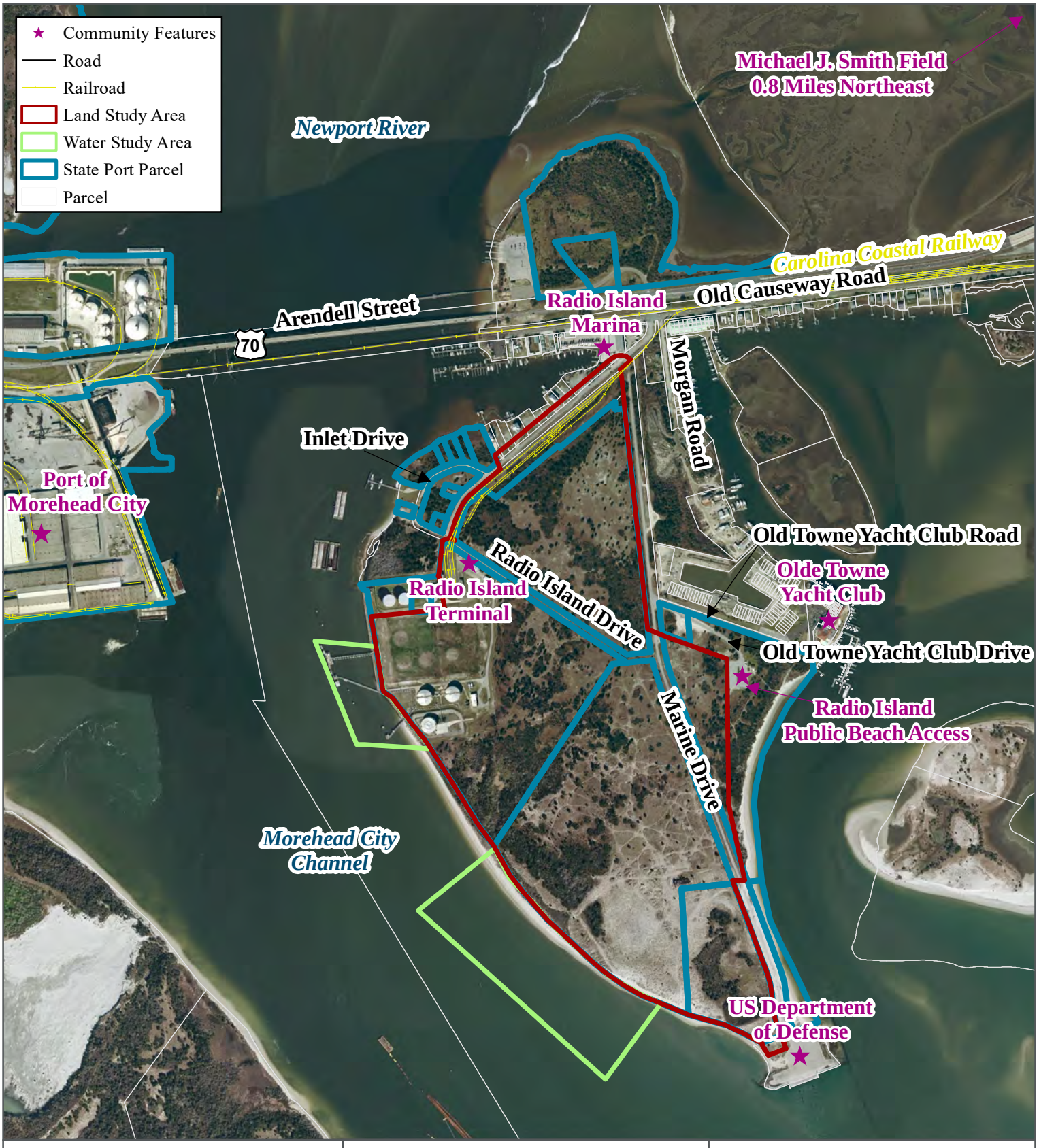
HDR

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

**FIGURE 1**
**PROJECT VICINITY MAP**

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY, CARTERET COUNTY

MARCH 2023

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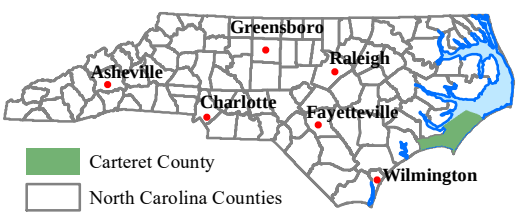


NORTH CAROLINA PORTS

HDR

**FIGURE 2**
**ENVIRONMENTAL FEATURES MAP**

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

MARCH 2023


PROJECT MANAGER

| ISSUE | DATE | DESCRIPTION |
|---|---|---|

PROJECT NUMBER 10331142

# RADIO ISLAND
# CONCEPTUAL SITE PLAN A

Figure 3 A

0 200' 400'

FILENAME

SCALE

SHEET


1 2 3 4 5 6 7 8

D C B A

HDR

| ISSUE | DATE | DESCRIPTION |
|---|---|---|

PROJECT MANAGER

PROJECT NUMBER 10331142

# RADIO ISLAND
# CONCEPTUAL SITE PLAN B

Figure 3 B

0 200' 400'

FILENAME

SCALE

SHEET


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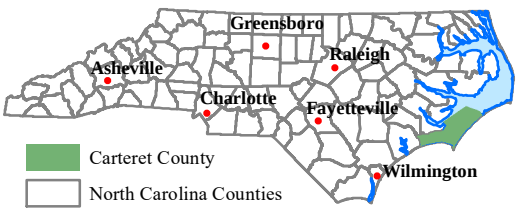
Miles




NORTH CAROLINA PORTS

HDR

# FIGURE 4
# DEMOGRAPHIC STUDY AREA MAP

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

MARCH 2023

# Carteret County, NC
# CAMA Future Land Use Map

**Legend**

- Roads
- Municipalities
- Conservation
- Developed
- Limited Transition
- Protected Lands
- Rural
- Rural With Services

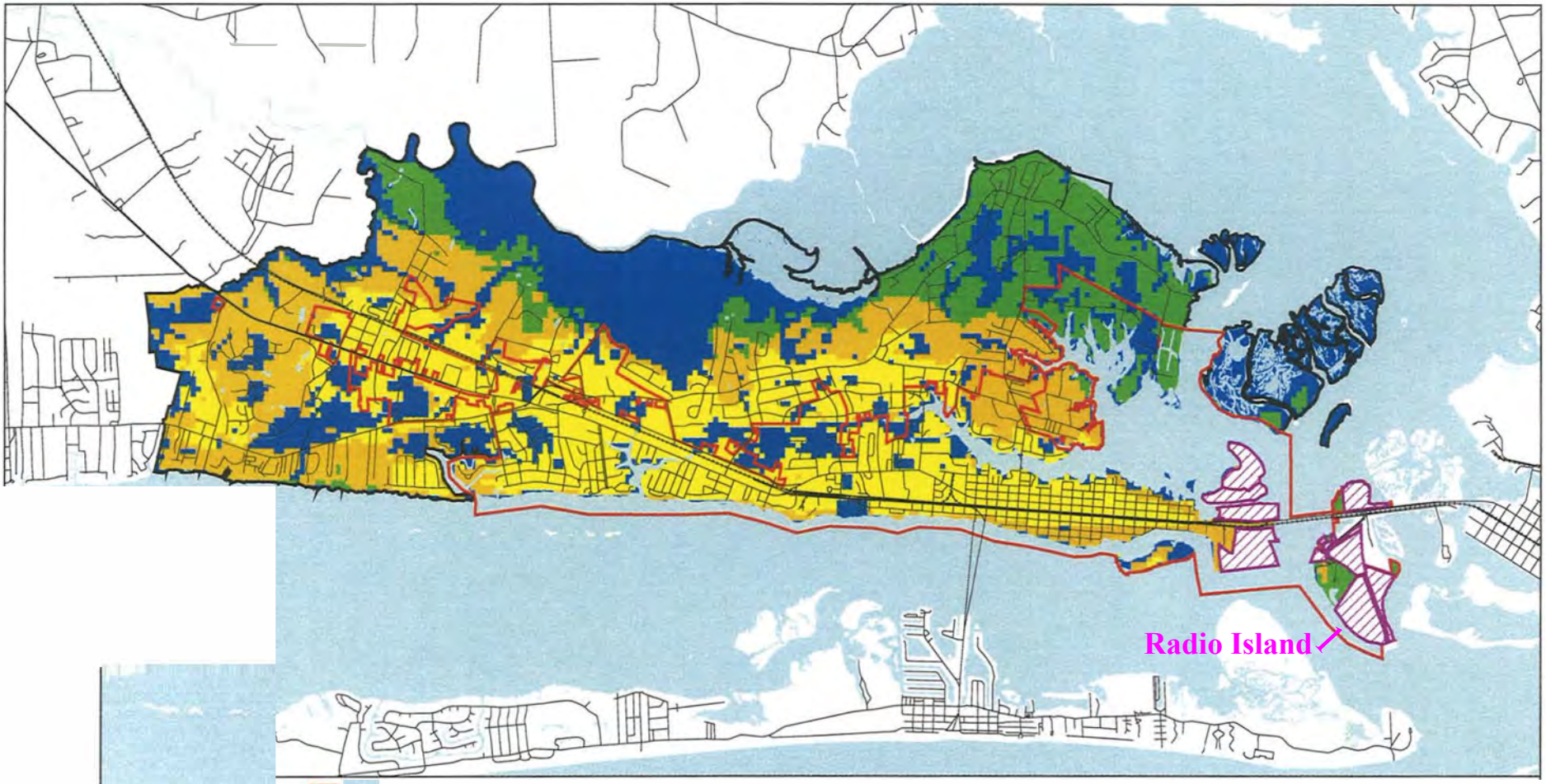
N

Miles
0 1.25 2.5 5 7.5 10

Figure 5

Carteret County Department of Planning and Development

Carteret County GIS, NC Onemap, NC DOT

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The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through the funds provided by the North Carolina Coastal Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

City Limits
ETJ
Railroads
Roads
Water
State Port
(not assessed as per Town of Morehead City)

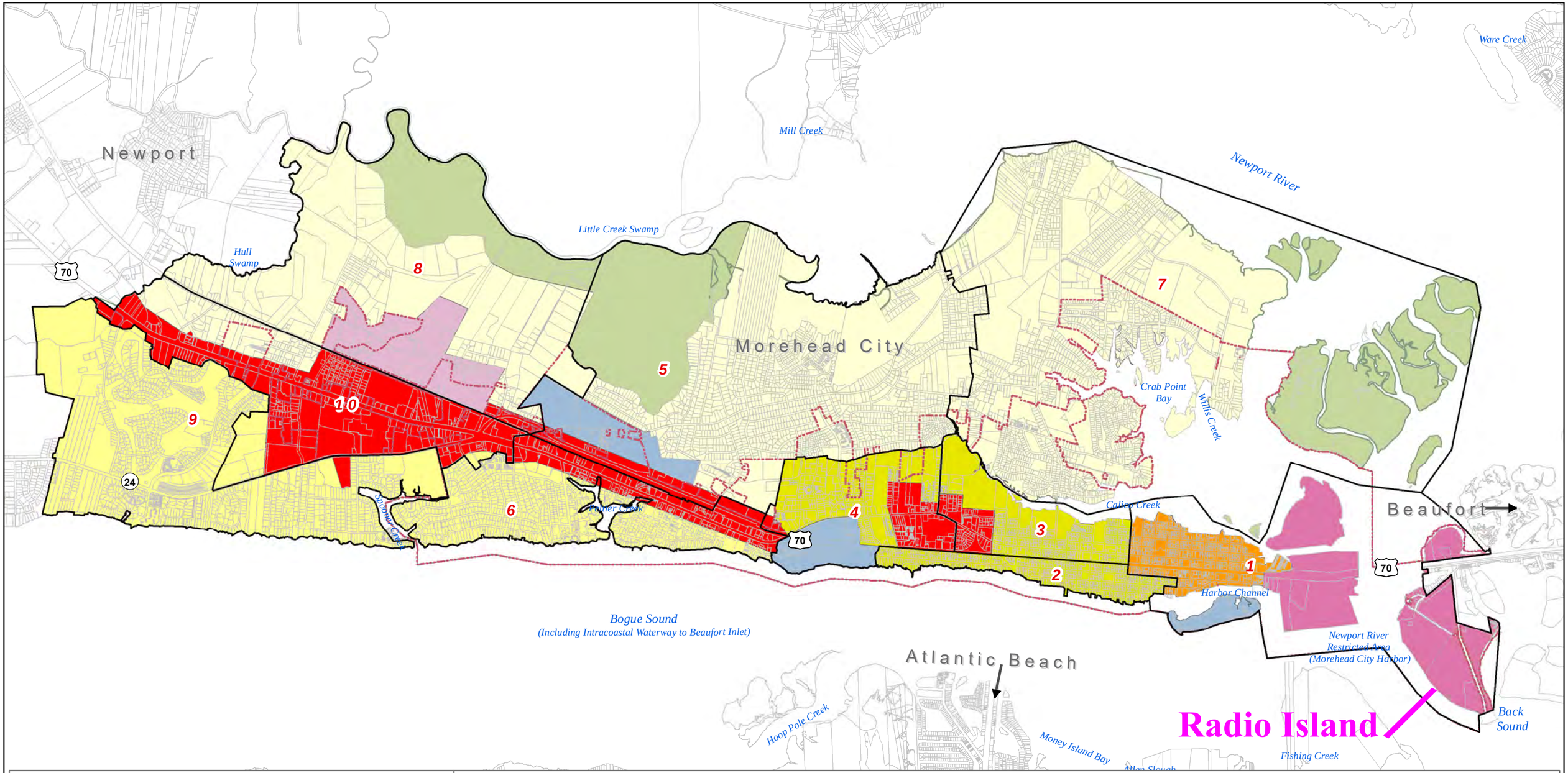
Land Suitability
least suitable
low suitability
medium suitability
high suitability

**Figure 6: Land Suitability Map**
**CAMA Land Use Update**
**Morehead City, NC**

Scale: 1" = 4000'

4000 0 4000 8000 Feet

MOREHEAD CITY, N.C.
INC. 1858






# MOREHEAD CITY, NC

## Figure 7: Future Land Use

- Morehead City Corporate Limits
- Morehead City ETJ
- Neighborhood Boundaries
- USDA Sub-watershed Boundary

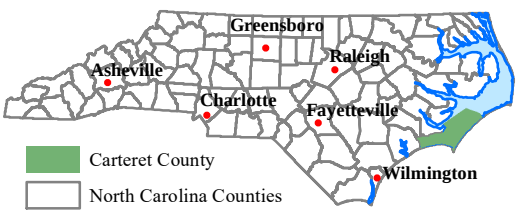
**Future Land Use**

- Low Density Residential
- Medium Density Residential
- High Density Residential
- General Commercial
- Downtown Mixed Use
- Public/ Institutional
- General Industrial
- Port Mixed Use
- Conservation/ Open Space

May, 2021

0 0.25 0.5 1 1.5 2 Miles


0 0.2 0.4
Miles




NORTH CAROLINA PORTS

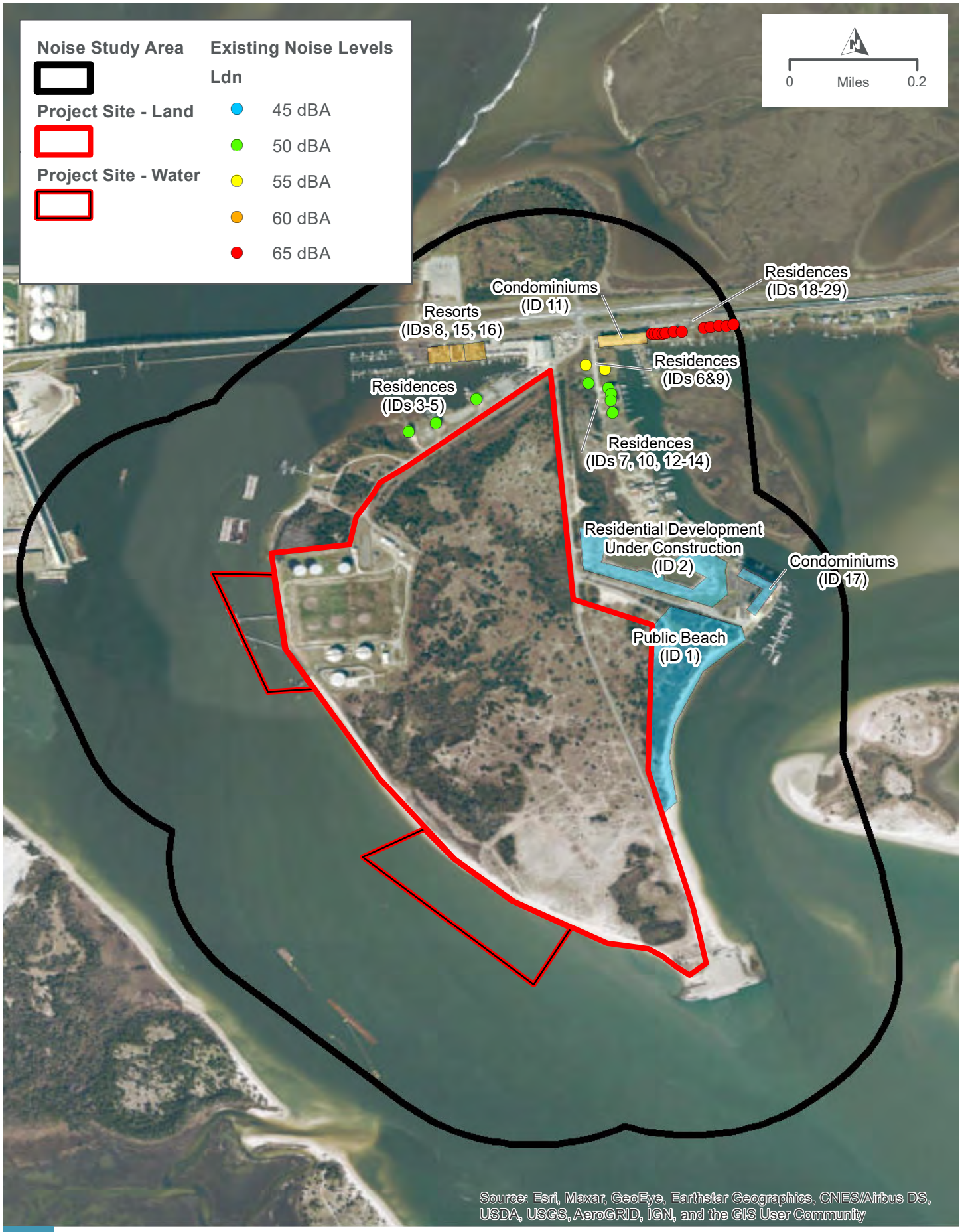
HDR

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

**FIGURE 8**
**NATURAL RESOURCES MAP**

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

MARCH 2023



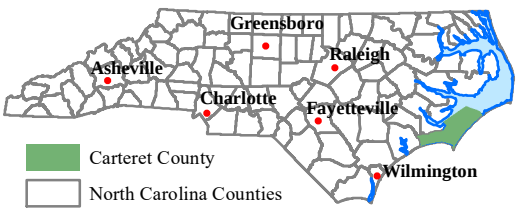

# RADIO ISLAND MULTI-USE TERMINAL

## NOISE STUDY AREA

FIGURE 9


N

0 0.2 0.4
Miles

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HDR

DATA SOURCES: NCDOT GIS Data Products, Morehead City, NC OneMap

**FIGURE 10**
**SEA LEVEL RISE MAP**

RADIO ISLAND PORT TERMINAL
MOREHEAD CITY,
CARTERET COUNTY

MARCH 2023