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

# ADMINISTRATIVE ACTION FINAL ENVIRONMENTAL IMPACT STATEMENT January 2024

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

#### FINAL ENVIRONMENTAL IMPACT STATEMENT

ADMINISTRATIVE ACTION

January 2024

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#### 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

BA-Biological Assessment

**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** 

Leg-Equivalent noise

level

LiMWA-Limit of

Moderate Wave Action LOS-Level of Service

Tank
MGD-Million gallons

LST-Landing Ship

MGD-M 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

Ro-Ro-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 Sections 4.15, 4.16, and 4.17 will be followed and relayed to contractors for the project.
- Construction activities in-water will not occur until a determination is received from National Marine Fisheries Service (NMFS) on impacts, if any, to essential fish habitat and the Atlantic surgeon.
- Construction activities in-water will not occur until submerged aquatic vegetation areas are verified.
- 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:
  - Section 9 Permit from the United States Coast Guard
  - Section 10 Permit (Nationwide or Individual) from the USACE
  - Section 10 approval as part of the above
  - Section 404 Individual Permit from USACE
  - Section 401 Certification from the NCDWR
  - Section 408 Permit from the USACE
  - NCDWQ Isolated Wetland Permit
  - Coastal Area Management Act (CAMA) Major Permit
  - 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.
  - 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.
- 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.
- 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

[ ] Draft [X] 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 Environmental Impact Statement (EIS):

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 G).

#### 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 Chapter 2.3 of this EIS.

#### S.7 Preferred Alternative

Build Alternative B, described in Chapter 2.2 and shown in Figure 3B in Appendix G 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 Red Knot- MANLAA Northern Long-Eared Bat- MANLAA Tricolored Bat- MANLAA West Indian Manatee- MANLAA 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:

- Section 9 Permit from the United States Coast Guard
- Section 10 Permit (Nationwide or Individual) from the USACE
- Section 10 approval as part of the above
- Section 404 Individual Permit from USACE
- Section 401 Certification from the NCDWR
- Section 408 Permit from the USACE
- NCDWQ Isolated Wetland Permit
- Coastal Area Management Act (CAMA) Major Permit
- 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.
- 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.

#### PURPOSE OF AND NEED FOR PROJECT

#### 1.1 Type of Action

This environmental document is an Environmental Impact Statement (EIS) 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 areas, 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 G).

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<sup>1</sup>. 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

<sup>&</sup>lt;sup>1</sup> Source: Building North Carolina's Offshore Wind Supply Chain, BVG Associates, LLC, March 2021, available at <a href="https://www.commerce.nc.gov/report-building-north-carolinas-offshore-wind-supply-chain/download">https://www.commerce.nc.gov/report-building-north-carolinas-offshore-wind-supply-chain/download</a>.

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 G).

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 G).

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 (State Road 1205) is classified as a local roadway providing eastwest 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 2-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<sup>2</sup> roadway (i.e. private, municipal etc.). It is used several times a year for military purposes to reach the landing craft area.<sup>3</sup>
- 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 Towne 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 Executive Orders (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.

<sup>&</sup>lt;sup>2</sup> Source: NCDOT Public Street Information Database Map (HB620) https://ncdot.maps.arcgis.com/apps/webappviewer/index.html?id=9ddc945069a0497cbc3587c64b442f31

<sup>&</sup>lt;sup>3</sup> Source: Duke Energy Site Evaluation Report, Radio Island Site; Carteret County NC, 2019

Helping NC transition to a clean energy economy by 2030.

#### 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. Chapter 3.13.1 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.<sup>4</sup> 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<sup>5</sup>. The presentation noted that the Port of Morehead City is well suited to support the OSW industry currently developing off the US East Coast.<sup>6</sup>

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.*<sup>7</sup> 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,

<sup>&</sup>lt;sup>4</sup> Source; US Bureau of Labor Statistics website https://www.bls.gov/green/wind\_energy/

<sup>&</sup>lt;sup>5</sup> Source: NCTowers Quarterly Meeting, November 1, 2022, Offshore Wind-Related Activities PowerPoint presentation available at <a href="https://www.commerce.nc.gov/media/6389/open">https://www.commerce.nc.gov/media/6389/open</a>

<sup>&</sup>lt;sup>6</sup> Source: NC Department of Commerce, Key Findings and Recommendations from the 2021 NC Offshore Wind Supply Chain Report, available on the NC TOWERS website <a href="https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers">https://www.nccommerce.com/about-us/boards-commissions/nc-taskforce-offshore-wind-economic-resource-strategies-nc-towers</a>

<sup>&</sup>lt;sup>7</sup> 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 <a href="https://www.bls.gov/opub/btn/volume-10/solar-and-wind-generation-occupations-a-look-at-the-next-decade.htm">https://www.bls.gov/opub/btn/volume-10/solar-and-wind-generation-occupations-a-look-at-the-next-decade.htm</a>

and repair them. This occupation is projected to grow much faster than the average for all 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 (Ro-Ro) cargo includes wheeled equipment that may be rolled onto a specialized vessel. Ro-Ro cargo requires no cargo handling equipment at the berth. The Ro-Ro 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 Ro-Ro or oversize cargo on Radio Island would ensure the fast and efficient shipping of goods over long distances. Ro-Ro vessels offer a more efficient means of transporting wheeled cargo than other methods, reducing the time a vessel remains at the dock.

A Ro-Ro 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 Ro-Ro 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.

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) <sup>1</sup>
Radio Island Road (SR 1175)	2-lane undivided	NCDOT (Secondary Route)	Not posted	1,300 vpd <sup>2</sup>

Table 1. Existing Roadway Inventory

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

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

Table 3 Weekday PM Peak Hour Level of Service

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

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

<sup>1.</sup> 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)

<sup>2.</sup> Based on data collection, assuming the weekday PM peak hour represents 10% of daily traffic

#### 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 CAMA Land Use Plan Update, Carteret County North Carolina (Amended October 2023, Certified November 2023)

- 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) (September 2014)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.

#### 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 December 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.

<sup>&</sup>lt;sup>8</sup> 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		Under
D-0000	(SR 1182) over the Bogue Sound		Construction
HS-2002U	SR 1310 (Lennoxville Rd) at Carteret Avenue in Beaufort.		Under
ПЗ-20020	Install crosswalk signalization		Construction
R-5777D	Install broadband fiber along US 70 from I-40 to Port of		Under
K-3/1/D	Morehead City		Construction
R-5945	On US 70 incorporate access management techniques	2027	2029
K-0940	from NC 101 to Olga Road (SR 1429)	2021	2029
R-5946	On US 70 upgrade the intersection with Lennoxville Road	2027	2029
K-3940	(SR 1310)	2021	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	Funded for	Funded for
0-3676	(SR 1175)	PE Only	PE Only
U-6058	On US 70 construct a roundabout at NC 101	In Progress	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 underway with construction scheduled to begin in 2024.

#### 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 EIS 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 Chapter 1.5.3. Elements of the two alternatives, A and B, are described below and shown in Figures 3A and 3B in Appendix G.

#### Alternative A consists of:

Improvements for the automotive industry:

- Approximately 4,000-parking space asphalt storage lot (40 acres) for Ro-Ro 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 Ro-Ro 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.

 Land side ingress/egress could be from new rail spurs that would tie into the existing rail and Radio Island Road.

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 Ro-Ro dock with a footprint of 360 feet by 75 feet is proposed approximately 550 feet south of the existing T-head dock. The Ro-Ro 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 Appendix E.

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 and Estimated Employment

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 chapter describes the existing conditions and characteristics of the project study area that could be affected by the proposed action. In accordance with 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 G 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."

#### **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.

<sup>\*</sup> ACS 2006-2010 and 2011-2015 population data has been re-appropriated to the 2020 census boundaries

**Table 7. Minority Population** 

Соодиольи	Total	White, Non-	Hispanic	Minority Population*		
Geography	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."

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	Below Poverty Level		Under 50% of Poverty Level		Between 100% and 149% of Poverty Level	
	Determined	#	%	#	%	#	%
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)

	Total Adult	Primary Language Group of Persons Who Speak English Less than Very Well							
Geography	Population 18 years and older	Spanish		Other Indo-Euro		Asian/Pacific		Other	
	and older	#	%	#	%	#	%	#	%
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)<sup>9</sup> 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

<sup>\*</sup> Minority population includes all races that are Non-White and Hispanic populations that are also White.

<sup>&</sup>lt;sup>9</sup> 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 2023 (Q2). By a large margin the top three employers are in the public sector.

Table 10. Top 10 Employers in Carteret County-2023 Q2

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 October 2023 unemployment rate (not seasonally adjusted) for Carteret County as 3.2 percent, compared to the state rate of 3.3 percent. Across NC the county unemployment rates ranged from 2.6 to 5.9 percent for the same timeframe.

The NC Department of Commerce's October 2023 County Profile for Carteret reports that 37 percent of commuters worked outside Carteret County and that the median household income is \$67,806.

The proposed project would add jobs and increase economic development in the surrounding area. As noted in Chapter 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. <sup>10</sup> 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 Chapter 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. <sup>11</sup>

#### 3.1.3 Community Facilities and Resources

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

 $<sup>^{10}</sup>$  Source: https://files.nc.gov/nccommerce/documents/Research-Publications/2021-Tiers-memo\_asPublished\_113020.pdf

<sup>&</sup>lt;sup>11</sup> 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 roadway with a 4-lane divided boulevard from 4<sup>th</sup> 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 G, 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

<sup>&</sup>lt;sup>12</sup> 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 CAMA 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 plan 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 G).

The Port Mixed Use classification, as described in the Plan are areas that 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 G).

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 Portowned properties.

#### Morehead City's Unified Development Ordinance

Zoning is detailed in Morehead City's Unified Development Ordinance (UDO)<sup>13</sup>. 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.

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<sup>&</sup>lt;sup>13</sup> Source:

#### 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 and November 20, 2023 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. SHPO will offer specific comments as planned actions are developed. Copies of the SHPO letters are located in Appendix B.

#### 3.4.2 Archaeological Resources

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

<sup>&</sup>lt;sup>14</sup> Source: US Department of the Interior, National Park Service, National Register of Historic Places Nomination Form <a href="https://files.nc.gov/ncdcr/nr/CR0001.pdf">https://files.nc.gov/ncdcr/nr/CR0001.pdf</a>

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 Chapter 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).<sup>15</sup>

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<sup>16</sup> 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)<sup>17</sup>.

#### 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 scoping meeting minutes is 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.

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

<sup>&</sup>lt;sup>15</sup> Source: <a href="https://data-ncdenr.opendata.arcgis.com/apps/ncdenr::shellfish-sanitation-temporary-closure-public-viewer/explore">https://data-ncdenr.opendata.arcgis.com/apps/ncdenr::shellfish-sanitation-temporary-closure-public-viewer/explore</a>

<sup>&</sup>lt;sup>16</sup> Source:

<sup>&</sup>lt;sup>17</sup> 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: <u>15A NC Administrative Code 10C.0502</u>.

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

Table 11: Federal Protected Species Listed in the Study Area

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. The Biological Assessment for NOAA National Marine Fisheries Services Species is located in Appendix C.

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. A copy of the consultation package is available in Appendix B. The NMFS Essential Fish Habitat Biological Assessment (BA) is located in Appendix D.

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

PE = Proposed Endangered

MANLAA= May Affect, Not Likely to Adversely Affect
\*Protected under the Bald and Golden Eagle Protection Act

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 G.

**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 G 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 (03) 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 a noise analysis, applicable noise rules, the noise study area, and existing noise levels.

#### Acoustical Concepts

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

An HDR acoustic 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 G).

#### **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 G 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 <sub>dn</sub> )
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	СМ	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	СМ	430	60
16	Resort	СМ	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
PMS—Posidential Multifamily R15+=Single-Family Residential

PM=Port Maritime

#### 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.<sup>18</sup>

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 US Environmental Protection Agency and Public Water Supply Section of the NC Department of Environmental Quality are constantly revising guidelines to protect the water supply.

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 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 US Environmental Protection Agency Cleanups in My Community map. A site reconnaissance was

<sup>&</sup>lt;sup>18</sup> Source: Duke Energy Site Readiness Program, Radio Island Site, Carteret County, NC, July 23, 2019, PowerPoint

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 "Report of Post Soil Remediation Groundwater Monitoring" (Report) was prepared by Wood Environment & Infrastructure Solutions, Inc. (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, and purging and sampling six monitoring wells for semi-volatile organic compounds (SVOCs) and biological parameters used to evaluate monitored natural attenuation. The sampling was conducted after soil removal activities in April 2003 and February 2008, and was part of a longterm 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 one well 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. 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. Files available through NCDEQ indicate that the USCG 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 improvements to the Authority's property are 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.<sup>19</sup>

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 projected North Carolina sea level could rise by one foot within 30 years.<sup>20</sup>

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. 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 G 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. In tax year 2023, North Carolina had an individual income tax rate of 4.75 percent.<sup>22</sup> 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.

<sup>&</sup>lt;sup>19</sup>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

<sup>&</sup>lt;sup>20</sup> Source: https://coastalreview.org/2022/02/new-report-projects-sea-levels-to-rise-a-foot-in-30-years/#

<sup>&</sup>lt;sup>21</sup> 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)

<sup>&</sup>lt;sup>22</sup> Source: <a href="https://www.ncdor.gov/taxes-forms/tax-rate-schedules">https://www.ncdor.gov/taxes-forms/tax-rate-schedules</a>

For Fiscal Year ending June 30, 2022, Carteret County's property tax rate was 0.33 which led to \$54.74 million in property tax revenue.<sup>23</sup>

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 with site access from Radio Island Road.

#### 4.2 Recreation Areas

The 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

Consistency with land use and transportation 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 and the NCDOT's Statewide Multimodal Freight Plan.

#### 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, it is concluded that the undertaking would have no effect on previously recorded landside historic properties in the APE.

As described in Chapter 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 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

<sup>&</sup>lt;sup>23</sup> Source: Carteret County, North Carolina Annual Comprehensive Financial Report For the Fiscal Year Ended June 30, 2022 <a href="https://www.carteretcountync.gov/852/ACFR">https://www.carteretcountync.gov/852/ACFR</a>

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 or 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. Eight 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, a Biological Assessment was prepared for NOAA Fisheries to address potential effects of the project on threatened and endangered species listed under Section 7(c) of the US Endangered Species Act of 1973, amended. A BA for essential fish habitat was also prepared for the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) to address effects of the project. The Biological Assessments are located in Appendix C and D, respectively.

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.

The possibility of waves near the south end of Radio Island may necessitate scour and slope protection for the proposed offshore wind facility. The landside finished surface for the 1600-foot long dock can be stone or aggregate fill and will need to provide a design bearing pressure of 3,000 pounds per square foot for operations. Localized hardpoints can be added during design if needed to accommodate higher loads for landside construction or assembly operations.

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 G 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 Ro-Ro vehicles,
- Modifying the existing pier for Ro-Ro 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** 

	Hours			Horse-	Total	SPL (dBA) at distance (feet)			
Equipment	Qty.	/day	Utilization	power	SWL	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					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	Combined level of two noisiest equipment 134 96 90 82 76						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 OSW lay-down area,
- Ro-Ro and potentially rail car and vehicle trailer truck loading and unloading,
- Vessel idling at Ro-Ro,
- 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, or 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 and 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 Ro-Ro activities would consist of cars, trucks, vehicle trailer trucks and potentially other vehicles driving on-site at approximately 10 mph. Noise from Ro-Ro 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 EIS. 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 Alternatives, 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, as described in section 3.13.2; 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 Alternatives 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. A 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- 5<sup>th</sup> District
- US National Marine Fisheries Service
- US Navv
- 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.

On October 3, 2023 the draft EIS was submitted to the State Environmental Review Clearinghouse, in the NC Department of Administration. The Clearinghouse forwarded the draft to various governmental organizations for review and comment. A Webex call was held on Friday, November 3, 2023 for agencies to discuss the draft.

The following agencies were on the call: USFWS, NCDEQ, NOAA, NC Wildlife Resources Commission, and CAMA, Comments received from government agencies on the draft EIS, included in the meeting minutes from November 3, 2023, are available in Appendix B.

#### 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 F.

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 was 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.

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

#### 6. LIST OF PREPARERS AND EIS DISTRIBUTION

#### 6.1 Preparers

The following list of preparers helped to develop the 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 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 BA, Biology	36
Mark Filardi	HazMat	MS, Geology BS, Geology	22
Joshua Fletcher, RPA	Historic Resources, Section 4(f) and 6(f), Visual and Aesthetic Resources	MA, Archaeology BS, Architectural Design	24
Jessica Forbes	Architectural Historian	MA, History/ Public History BA History	9
Jackson Garvey	Environmental Scientist	BS, Natural Resources	6
Cheryl Hannah	Author EIS	BA, Political Science	25
Jennifer Mathis, ENV SP	Air Quality Analysis	BS, Chemistry	22
Vickie Miller, AICP, PWS	Project Manager	MS, Natural Resource Management 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 BS, Environmental Sciences	16
Karsen Williams	Biological Resources	MS, Coastal, Marine, and Wetland Studies 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 are included in Appendix B.

**Table 17. Draft EIS Recipients** 

Name	Agency	Email				
Sarah Hair	USACE	sarah.e.hair@usace.army.mil				
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Crystal Best	NC State Environmental Review Clearinghouse	state.clearinghouse@doa.nc.gov				

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### **APPENDICES**

Appendix A Executive Orders

Appendix B Comments Received from State and Local Agencies

Appendix C Biological Assessment for NOAA National Marine Fisheries Service Species

Appendix D Biological Assessment of Essential Fish Habitat

Appendix E Marine Study Summary Report

Appendix F Public Meeting Documentation and Comments

**Appendix G** Figures





# 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 29<sup>th</sup> day of October, in the year of our Lord two thousand eighteen.

Roy Copper

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 9<sup>th</sup> day of June in the year of our Lord two thousand and twenty-one.

Roy Coop€ Governor

ATTEST:

Elaine F. Marshall Secretary of State





Roy Cooper Pamela B. Cashwell Governor Secretary

November 6, 2023

Vickie Miller North Carolina State Ports Authority c/o HDR, Inc. 555 Fayetteville Street, Suite 900 Raleigh, NC 27601-

Re: SCH File # 24-E-4620-0112 Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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 C

Dear Vickie Miller:

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 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.

If you have any questions, please do not hesitate to contact me at (984) 236-0000.

Sincerely,

KADISHA MOLYNEAUX State Environmental Review Clearinghouse

**Attachments** 

Mailing 1301 Mail Service Center | Raleigh, NC 27699-1301



County.: **CARTERET** Agency Response: 11/2/2023 Review Closed: 11/2/2023 LYN BILES **CLEARINGHOUSE COORDINATOR DEPT OF ENVIRONMENTAL QUALITY Project Information** National Environmental Policy Act ping Type: Applicant: North Carolina State Ports Authority Project Desc.: Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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. As a result of this review the following is submitted: ☐ No Comment ✓ Documents Attached Comments Below

Date Received: 10/3/2023

Reviewed By: LYN BILES Date: 11/2/2023

Control No.:

24-E-4620-0112



ROY COOPER Governor ELIZABETH S. BISER Secretary

To: Kadisha Molyneaux

State Clearinghouse

NC Department of Administration

From: Lyn Biles

Division of Environmental Assistance and Customer Service

Washington Regional Office

Re: 24-0112

Scoping - Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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.

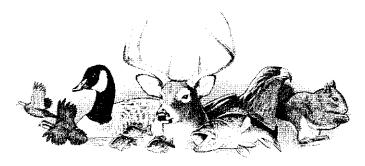
Date: November 2, 2023

The Department of Environment Quality has reviewed the proposal for the referenced project. Based on the information provided, 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 Department will continue to be available to assist the applicant with any questions or concerns.

Thank you for the opportunity to respond.

Attachments



# 

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:** November 2, 2023

SUBJECT: Scoping - Radio Island Multi-Use Terminal, Morehead City, Carteret County, North

Carolina.

OLIA No. 24-0112

Biologists with the North Carolina Wildlife Resources Commission (NCWRC) have reviewed the subject document and we 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).

To entice and accommodate industry, a multi-use terminal is proposed on Radio Island to support industrial activities for automotive and offshore wind construction / production. Improvements to the site and adjacent areas include terminal / berth establishment, road and rail improvements on the island as well as the mainland, and utility improvement / installation including natural gas lines. Impacts from the development on environmental resources would include manipulation of uplands on the site, impacts to wetlands on the site, and in water dredging and construction for the terminal.

The NCWRC is familiar with the site and the numerous projects that likely will be associated with the multi-use terminal development. Several direct and indirect impacts to environmental resources may occur as a result of site development and associated forthcoming industry. We intend to participate in an upcoming scoping meeting with representatives of the project proposal, state and federal agencies. Information presented at this time will be beneficial to our review and will provide an opportunity to present comments, questions and concerns. Subsequent agency involvement will occur as we review

Mailing Address: Habitat Conservation • 1721 Mail Service Center • Raleigh, NC 27699-1721

**Telephone:** (919) 707-0220 • **Fax:** (919) 707-0028

permit applications during state and federal permit review processes. Concerns presented will be focused on direct impacts associated with the Radio Island terminal development, as well as the subsequent secondary and cumulative impacts that may include increased channel, rail, road, and utility development within, adjacent to and well outside the immediate project area. As a guide, the NCWRC offers a guidance memorandum for consideration on any development proposals to aid in the understanding of secondary and cumulative impact,

http://www.ncwildlife.org/Portals/0/Conserving/documents/2002\_GuidanceMemorandumforSecondaryandCumulativeImpacts.pdf).

Thank you for the opportunity to review this proposal at this time. We look forward to forthcoming communications and information as the project develops. Please do not hesitate to contact me at <a href="mailto:maria.dunn@ncwildlife.org">maria.dunn@ncwildlife.org</a> or (252) 495-5554 if I can be of additional assistance.

ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



Date: October 9, 2023

To: Michael Scott, Director

Division of Waste Management

Through: Janet Macdonald

Inactive Hazardous Sites Branch

From: Katie C Tatum

Inactive Hazardous Sites Branch

Subject: SEPA Project # 24-0112 NC State Ports Authority, Carteret County, North Carolina

The Superfund Section has reviewed the proximity of sites under its jurisdiction to the NC State Ports Authority project. Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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.

One (1) Superfund Section sites and one (1) Brownfields Program Sites were 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://deg.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.

10/9/23, 4:02 PM about:blank



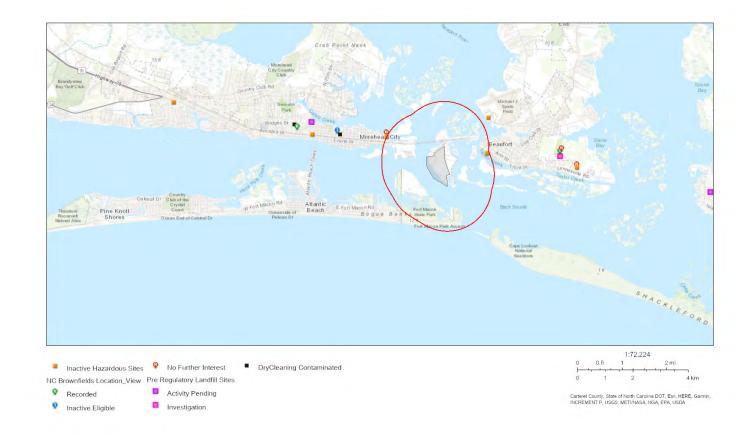
# Superfund & Brownfield Sites SEPA/NEPA Review Report

### Area of Interest (AOI) Information

**Carteret County SEPA project 24-0112** 

Area: 3,650.92 acres

Oct 9 2023 16:01:20 Eastern Daylight Time



10/9/23, 4:02 PM about:blank

Superfund and Brownfield Sites Carteret County SEPA project 24-0112

# 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	1	N/A	N/A

### **Inactive Hazardous Sites**

#	EPAID	SITENAME	Count
1	NCSFN0407074	NC MARITIME MUSEUM	1

## **Brownfields Program Sites**

#	BF_ID	BF_Name	Count
1	802104016	Morehead Machine Shop	1

about:blank 2/2

ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



October 25, 2023

To: Lyn Hardison, Environmental Assistance and SEPA Coordinator

Division of Environmental Assistance and Customer Service

From: Melodi Deaver, Administrative Specialist

Division of Waste Management, Hazardous Waste Section

RE: SEPA Review, Project# 24-0112, NC State Ports Authority (Carteret Co.)

The Hazardous Waste Section has reviewed the proposed project to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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. The Hazardous Waste Section would like to make the following comment:

Any hazardous waste generated from the demolition, construction, operation, maintenance, and/or remediation (e.g. excavated soil) from the proposed project must be managed in accordance with the North Carolina Hazardous Waste Rules. The demolition, construction, operation, maintenance, and remediation activities conducted will most likely generate a solid waste, and a determination must be made whether it is a hazardous waste. If a project site generates more than 220 pounds of hazardous waste in a calendar month, the HWS must be notified, and the site must comply with the small quantity generator (SQG) requirements. If a project site generates more than 2200 pounds of hazardous waste in a calendar month, the HWS must be notified, and the facility must comply with the large quantity generator (LQG) requirements.

Generators are required to determine their generator status and both SQGs & LQGs are required to obtain a site EPA Identification number for the generation of hazardous waste.

Should any questions arise, please contact Melodi Deaver at 919-707-8204 or Heather Goldman at 919-270-2186.

Respectfully,

Melodi Deaver

Compliance Branch Hazardous Waste Section



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

Reviewing Regional Office:  $\underline{\text{WiRO}}$ 

Project Number: <u>24-0112</u> Due Date: <u>10/30/2023</u>

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.

		Normal Process			
PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	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. Postapplication 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. Preapplication 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.					
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, 30-60 days					
	water Permitting Programs regulate site development and post- bject to these permit programs include all 20 coastal counties, and	(90 days) 45 days (90 days)			

Reviewing Regional Office: WiRO

Project Number: <u>24-0112</u> Due Date: <u>10/30/2023</u>

County: <u>Carteret</u>

			Normal Process Time			
	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	(Statutory time limit)			
		On-site inspection usual. Surety bond filed with DEQ Bond amount varies with type mine and number of acres of affected land. Affected	30 days			
	Mining Permit	area greater than one acre must be permitted. The appropriate bond	(60 days)			
		must be received before the permit can be issued.	(22.22)			
		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				
	Down Cafaty, Daywait	plans. May also require a permit under mosquito control program. And	30 days			
	Dam Safety Permit	a 404 permit from Corps of Engineers. An inspection of site is necessary	(60 days)			
		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.				
	Oil Refining Facilities	N/A	90-120 days (N/A)			
	Dormit to drill ovaloratory siles assessed	File surety bond of \$5,000 with DEQ running to State of NC conditional	10 days			
	Permit to drill exploratory oil or gas well	that any well opened by drill operator shall, upon abandonment, be plugged according to DEQ rules and regulations.	N/A			
		Application filed with DEQ at least 10 days prior to issue of permit.	10 days			
	Geophysical Exploration Permit	Application by letter. No standard application forms.	N/A			
		Application fee based on structure size is charged. Must include	15-20 days			
	State Lakes Construction Permit	descriptions & drawings of structure & proof of ownership of riparian property	N/A			
		Compliance with the T15A 02H .0500 Certifications are required	60.1			
$\boxtimes$	401 Water Quality Certification	whenever construction or operation of facilities will result in a	60 days (130 days)			
	discharge into navigable water as described in 33 CFR part 323.  Compliance with Catawba, Goose Creek, Jordan Lake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Buffer requirements:					
		es/water-resources-permits/wastewater-branch/401-wetlands-buffer-perm				
	buffer-protection-program					
	Nutrient Offset: Loading requirements for nitroge	en and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jor	dan and Falls Lake			
		strategies in these areas. DWR nutrient offset information:				
	http://deq.nc.gov/about/divisions/water-resource	es/planning/nonpoint-source-management/nutrient-offset-information				
	CAMA Permit for MAJOR development	\$250.00 - \$475.00 fee must accompany application	75 days			
	CAMA FERRITION WASON development	\$250.00 - \$475.00 fee must accompany application	(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	a accordance with Title 15A. Subchapter 2C.0100.	(25 days)			
Ш						
		equested if "orphan" underground storage tanks (USTS) are discovered durin operation.	ng any excavation			
	Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the					
$\boxtimes$	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, 30 days					
_	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.					
$\boxtimes$	-	construction, plans for the water line relocation must be submitted to pply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-	30 days			
	1634. For more information, contact the Public W		20 34,5			
	Plans and specifications for the construction, exp		thedelegated			
Ш	plan approval authority. Please contact them at	for further information.				

Reviewing Regional Office: WiRO

Project Number: <u>24-0112</u> Due Date: <u>10/30/2023</u>

County: Carteret

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

Division	Initials	No	Comments	Date
		comment		Review
DAQ				/ /
DWR-WQROS			&	/ /
(Aquifer & Surfa	ice) &			
DWR-PWS	HLC		See above comments; Also if the facility will be served by a well, p contact the Public Water Supply Section at (910) 796-7215 for we approval prior to drilling the well. If the facility will be served by a water system and the water main will be extended to this address submittal and approval is required prior to construction.	ll site another
DEMLR (LQ & SV	N)			/ /
DWM – UST				/ /
Other Comment	ts GW		Impacts to wetlands and/or surface waters will require a 401 Wat Certification.	er Quality 10/31/2023
Asheville Regional Office 2090 U.S. 70 Highway Swannanoa, NC 28778-82 Phone: 828-296-4500		1	225 Green Street, Suite 714, 610 East Ce	e Regional Office nter Avenue, Suite 301, e, NC 28115 -663-1699
Fax: 828	-299-7043		Fax: 910-486-0707 Fax: 704-66	3-6040
3800 Ba Raleigh, Phone: 9	Regional Office rrett Drive, NC 27609 919-791-4200 I-571-4718	[		-796-7215
			Winston-Salem Regional Office 450 Hanes Mill Road, Suite 300,	

Winston-Salem, NC 27105 Phone: 336-776-9800 Fax: 336-776-9797

## Department of Environmental Quality Project Review

Project Number: 24-0112 County: Carteret

<u>Due Date: 10-30-2023</u>

Date Received: 10-3-2023

**Project Description:** 

Scoping - Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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.

This Project is being reviewed as indicated below:

Regional Office	Regional Office Area	In-House Review	
Asheville	Air	Air Quality	Coastal Management
Fayetteville	DWR	Waste Mgmt	Marine Fisheries
Mooresville	DWR - Public Water	Water Resources Mgmt (P Water, Planning & Water	rublic CC & PS Div. of Emergency Mgmt
Raleigh	DEMLR (LQ & SW) DWM	Quality Program)	DMF-Shellfish Sanitation
Washington Wilmington	DWW	DWR-Transportation Unit Wildlife Maria Hannah	
Winston Salem			Wildlife/DOT <u>Travis</u>
Manager Sign-Off/Region:		Date: 10/10/2023	In-House Reviewer/Agency:  Andrew Haines for Shannon Jenkins
Response (check all appli	cable)		
No obje	ction to project as proposed.	X No Comment	
Insuffic	ient information to complete review	Other (specify or attach con	mments)

**CARTERET** Agency Response: 11/2/2023 County.: Review Closed: 11/2/2023 JINTAO WEN **CLEARINGHOUSE COORDINATOR DPS - DIV OF EMERGENCY MANAGEMENT Project Information** National Environmental Policy Act ping Type: Applicant: North Carolina State Ports Authority Project Desc.: Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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. As a result of this review the following is submitted: ✓ No Comment Documents Attached Comments Below

Date Received: 10/3/2023

Reviewed By: JINTAO WEN Date: 10/30/2023

Control No.:

24-E-4620-0112

**CARTERET** Agency Response: 11/2/2023 County.: Review Closed: 11/2/2023 JESSICA MOSLEY **CLEARINGHOUSE COORDINATOR DEPT OF TRANSPORTATION Project Information** National Environmental Policy Act ping Type: Applicant: North Carolina State Ports Authority Project Desc.: Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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. As a result of this review the following is submitted: ✓ No Comment Documents Attached Comments Below

Date Received: 10/3/2023

Reviewed By: JESSICA MOSLEY Date: 10/18/2023

Control No.:

24-E-4620-0112



# 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 Date Received: 4/13/2022 County.: **CARTERET** Agency Response: 5/13/2022 Review Closed: 5/13/2022 LYN HARDISON **CLEARINGHOUSE COORDINATOR DEPT OF ENVIRONMENTAL QUALITY Project Information** National Environmental Policy Act ping Type: North Carolina Ports Applicant: 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

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



May 18, 2022

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

<u>RE:</u> 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 <u>Cathy.Brittingham@ncdenr.gov</u>, or Stephen Lane, DCM Field Representative for Transportation Projects, at <u>Stephen.Lane@ncdenr.gov</u> if you have any questions or concerns.

Sincerely,

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





# 

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 ft² manufacturing facility, 100,000 ft² 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 <a href="http://www.ncnhp.org/">http://www.ncnhp.org/</a>

- 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 <u>required</u> 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-ofways 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; <a href="http://www.ncwildlife.org/Portals/0/Conserving/documents/2002\_GuidanceMemorandumforSecondar-yandCumulativeImpacts.pdf">http://www.ncwildlife.org/Portals/0/Conserving/documents/2002\_GuidanceMemorandumforSecondar-yandCumulativeImpacts.pdf</a>)

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 <a href="mailto:m



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

#### 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 <a href="mailto:gregg.bodnar@ncdenr.gov">gregg.bodnar@ncdenr.gov</a> with further questions or concerns.



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

Reviewing Regional Office: <u>Wilmington</u>
Project Number: <u>22-0215</u> Due Date: <u>05/20/2022</u>

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.

			Normal Process		
	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	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. Postapplication 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. Preapplication 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		
$\boxtimes$	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)		
$\boxtimes$	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				
	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular				
	Sedimentation and erosion control must be addressed in accordance withLocal 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.				
	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.  (90 days)				
$\boxtimes$	Compliance with 15A NCAC 2H 1000 -State Storm	water Permitting Programs regulate site development and post- bject to these permit programs include all 20 coastal counties, and	45 days (90 days)		

Reviewing Regional Office: <u>Wilmington</u>
Project Number: <u>22-0215</u> Due Date: <u>05/20/2022</u>

County: <u>Carteret</u>

	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.				
	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			
	Application fee based on structure size is charged. Must include State Lakes Construction Permit 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)			
		ake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Bu es/water-resources-permits/wastewater-branch/401-wetlands-buffer-perm				
	watersheds, as part of the nutrient-management	n and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jor strategies in these areas. DWR nutrient offset information: es/planning/nonpoint-source-management/nutrient-offset-information	dan and Falls Lake			
$\boxtimes$	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)			
$\boxtimes$	Abandonment of any wells, if required must be in	·				
$\boxtimes$		quested if "orphan" underground storage tanks (USTS) are discovered durin operation.	ng any excavation			
$\boxtimes$	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.					
$\boxtimes$	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.					
	Plans and specifications for the construction, expanding plan approval authority. Please contact them at _	ansion, or alteration of the water system must be approved through	the delegated			

Reviewing Regional Office: <u>Wilmington</u>
Project Number: <u>22-0215</u> Due Date: <u>05/20/2022</u>

County: Carteret

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

Division	Initials	No	Comments	Date
		comment		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  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.  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.	/ /

	<b>'</b>		1 0 0 1	<u> </u>	, ,	
<b>REGIONAL OFFICES</b> 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



### **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: <a href="https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/solid-waste-management-annual-reports/solid-waste-permitted-facility-list">https://deq.nc.gov/about/divisions/waste-management/waste-management-annual-reports/solid-waste-permitted-facility-list</a>

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

ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



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://deg.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.

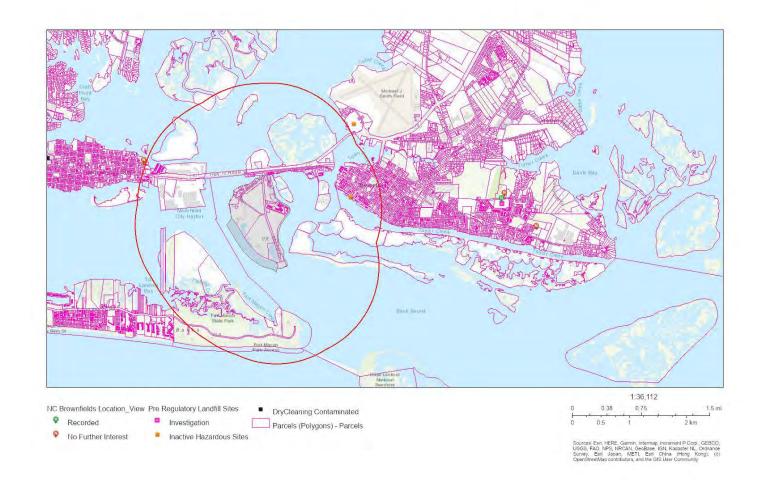


# SUPERFUND SECTION SITES ONLY: SEPA/NEPA

### 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 Date Received: 4-13-2022 County: Carteret** 

**Due Date: 5-11-2022** 

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 Project Description: 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 Fayetteville Mooresville Raleigh Washington Wilmington Winston-Salem		Air QualityParks & RecreationWaste MgmtWater Resources Mgmt(Public Water, Planning & WQuality Program)DWR-Transportation Unit	✓ Coastal Management ✓ Marine Fisheries  Military Affairs ✓ DMF-Shellfish Sanitation ✓ Wildlife Maria ✓ Wildlife/DOT Travis				
Manager Sign-Off/Region:		Date: 5/6/2022	In-House Reviewer/Agency: DWR/WRM David Wainwright				
Response (check all applicable)							
	ent information to complete review	X No Comment Other (specify or attach con	mments)				
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							

County.: **CARTERET** Agency Response: 5/13/2022 Review Closed: 5/13/2022 JINTAO WEN CLEARINGHOUSE COORDINATOR **DPS - DIV OF EMERGENCY MANAGEMENT Project Information** National Environmental Policy Act ping Type: North Carolina Ports Applicant: 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.

Date Received: 4/13/2022

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

Control No.:

22-E-4620-0215



## 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. 3<sup>rd</sup> 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 <a href="https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation">https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation</a>. 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 <a href="https://ipac.ecosphere.fws.gov/">https://ipac.ecosphere.fws.gov/</a>. 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 concern¹ 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 <a href="https://fws.gov/office/eastern-north-carolina">https://fws.gov/office/eastern-north-carolina</a>. Please check the web site often for updated information or changes.

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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 <a href="https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve">https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve</a>) 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,

John Ellistor Pete Benjamin

Field Supervisor

Control No.: 22-E-4620-0215 Date Received: 4/13/2022 County.: **CARTERET** Agency Response: 5/13/2022 Review Closed: 5/13/2022 JEANNE STONE **CLEARINGHOUSE COORDINATOR DEPT OF TRANSPORTATION Project Information** National Environmental Policy Act ping Type: North Carolina Ports Applicant: 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 <a href="https://archaeology.ncdcr.gov/archaeological-consultant-list">https://archaeology.ncdcr.gov/archaeological-consultant-list</a>. 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: <a href="https://files.nc.gov/dncr-arch/OSA">https://files.nc.gov/dncr-arch/OSA</a> 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 <a href="mailto:environmental.review@ncdcr.gov">environmental.review@ncdcr.gov</a>. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,

Ramona Bartos, Deputy

State Historic Preservation Officer

Rence Bledhill-Earley

cc: Crystal Best, North Carolina State Clearinghouse

Cameron Luck, DCM

crystal.best@doa.nc.gov 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. 3<sup>rd</sup> Street, Suite 201, Suite 900 Wilmington, NC 28401

Re: Radio Island Multi-Use Terminal – Carteret County

Dear Mrs. Hannah:

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Sincerely,

John Ellistor Pete Benjamin

Field Supervisor



REC'D

**AUG** 3 1 1998

RUST E 4 )

# North Carolina Department of Cultural Resources

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

August 26, 1998

Division of Archives and History leffrey J. Crow, Director

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

# 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. 5510 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; <a href="mailto:lyn.hardison@ncdenr.gov">lyn.hardison@ncdenr.gov</a>
  Wilmington Region Cameron Weaver 910-796-7303; <a href="mailto:cameron weaver@ncden">cameron weaver@ncden</a>

Project Name: Radio Island Mu	lti-Use Terminal	County: Cartere	et	
Applicant: Todd Walton		Company: N	lorth Carolina Ports_	
Address:2202 Burnett Blvd		City: Wilmington	State: NC	Zip: 28401
Phone: 910-746-6460	Fax:	Email: todd.w	valton@ncports.com	
Physical Location of Project: Rad	dio Island Road, Beaufort, NC	28516		
Engineer/Consultant: Vickie Mille	er / 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@hd	rinc.com	
Please provide a DETAILED project The project narrative should include		cinity map with road names along with	this Request form.	
		(s) or owner name(s), existing compliant		
development on site, size of tract, st elevation, riparian buffers, areas of			ignificance of property, se	easonal high wat
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#### **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)	Т	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	Ţ	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	Amaranthus pumilus Seabeach Amaranth		Yes	No Effect
Chelonia mydas	Chelonia mydas Green Sea Turtle		No	No Effect
Acipenser brevirostrum	Acipenser brevirostrum Shortnose Sturgeon		Yes	MANLAA
Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	E	Yes	MANLAA
Danaus plexippus	Monarch Butterfly	С	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 (If)	Permanent Impacts (If)
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.

#### **Existing Permits**

There are no existing permits for the <u>proposed</u> 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.

<sup>&</sup>lt;sup>1</sup> Source: NC Division of Waste Management Site Locator Tool website <a href="https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebfa49fc383f688">https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebfa49fc383f688</a>
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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:
  - o Avoidance and minimization of temporary impacts to waters and wetland vegetation for BMP control structures installation;
  - o 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;
  - o 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 NCDEQ Scoping Meeting Request

Radio Island Multi-Use Terminal

5
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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 highquality 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

### <u>Scoping Meeting – Radio Island – Radio Island Road Beaufort, NC 28516</u>

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

	1	Allenuee List	
Name	Agency	Phone	Email
Vickie Miller/Cheryl	Engineer/Consultant	(919) 232-6637	vickie.miller@hdrinc.com
Hannah			
			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
cameron weaver	52,163	(310) 730 7203	cameron.weaver@neachi.gov
Johnathan Watts	DEACS	(910) 433-3353	johnathan.watts@ncdenr.gov
Andrew Haines	Supervisor (Shellfish)	(252) 726-8149	andrew.haines@ncdenr.gov
Andrew Hames	Supervisor (Shellish)	(232) 720-8149	and ew. names which em. gov
James Harrison	Marine Fisheries	(252) 040 2025	iamos harrison@nedonr gov
Jailles Haillson	I Iviai ille Fisheries	(252) 948-3835	james.harrison@ncdenr.gov
Brad Connell	Coastal Management	(252) 909 2909	hrad cannall@nedonr.gov
Brau Commen	Coastal Management	(252) 808-2808	<u>brad.connell@ncdenr.gov</u>
Sarah Liz	USACE		carab a bair@usaga army mil
Saran Liz	USACE		sarah.e.hair@usace.army.mil
Dean Carroll	DAG	(010) 706 7242	doon consul One doon con
Dean Carroll	DAQ	(910) 796-7242	dean.carroll@ncdenr.gov
Hardhar Chara	DCMANA	(252) 545 5447	hadha and an Oadaa
Heather Styron	DCM Manager	(252) 515-5417	heather.m.styron@ncdenr.gov
144 11	Harris Maria	(040) 442 0022	
Wes Hare	Hazardous Waste	(910) 442-0922	wes.hare@ncdenr.gov
	201		
Jonathan Howell	DCM		jonathan.howell@ncdenr.gov
		(252) 222 222	
Brad Connell	Coastal Management	(252) 808-2808	<u>brad.connell@ncdenr.gov</u>
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.



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 Required Habitat Status		Habitat Present	Record Status <sup>1</sup>	Biological Conclusion			
	Mammals							
Myotis septentrionalis	Northern long-eared bat	Е	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	Т	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 <sup>2</sup>	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	Т	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	Т	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	Т	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 <sup>1</sup>	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
	l		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	Е	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 <sup>1</sup>	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	Т	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.

PE (Proposed Endangered)

MANLAA – "May affect, not likely to adversely affect"

<sup>1</sup>NHP County Status (updated January 31, 2023)

\*Previously on the IPAC list in 2022/2023

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".

<sup>&</sup>lt;sup>2</sup>Protected under the Bald and Golden Eagle Protection Act

<sup>\*</sup>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.



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 <a href="mailto:Jessica.tisdale@hdrinc.com">Jessica.tisdale@hdrinc.com</a>.

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** 

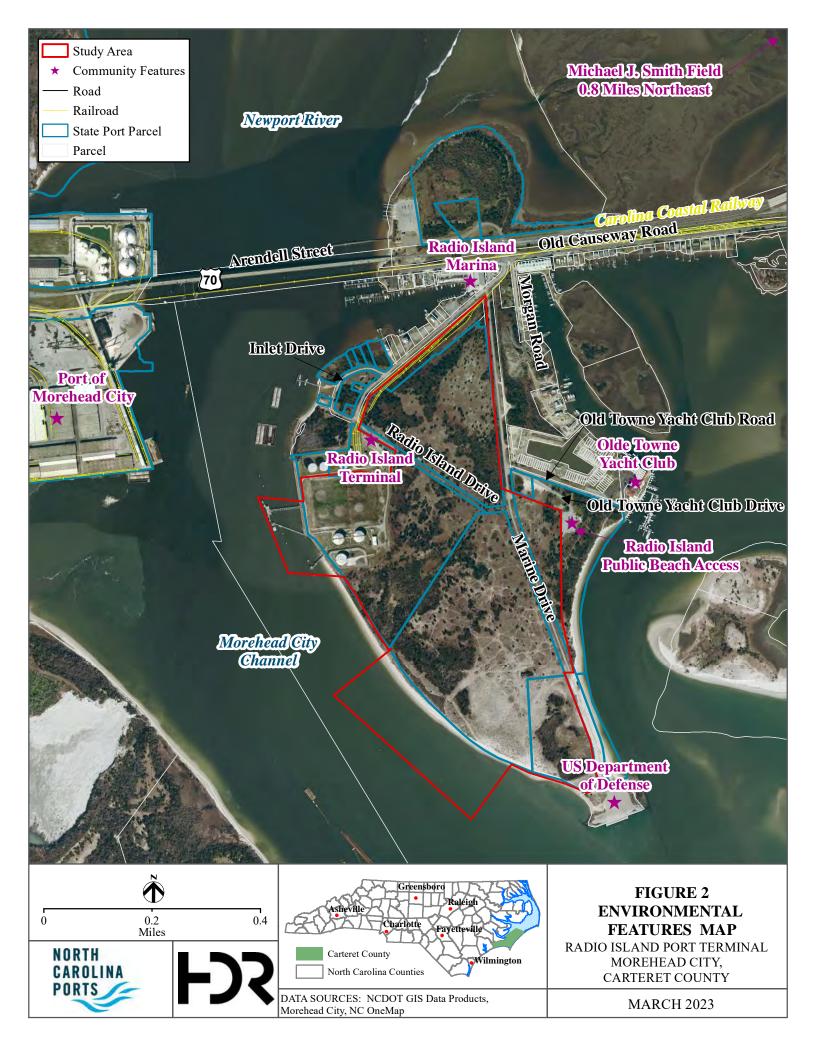
USFWS NLAA Northern long-eared bat (dated: March 31, 2023)

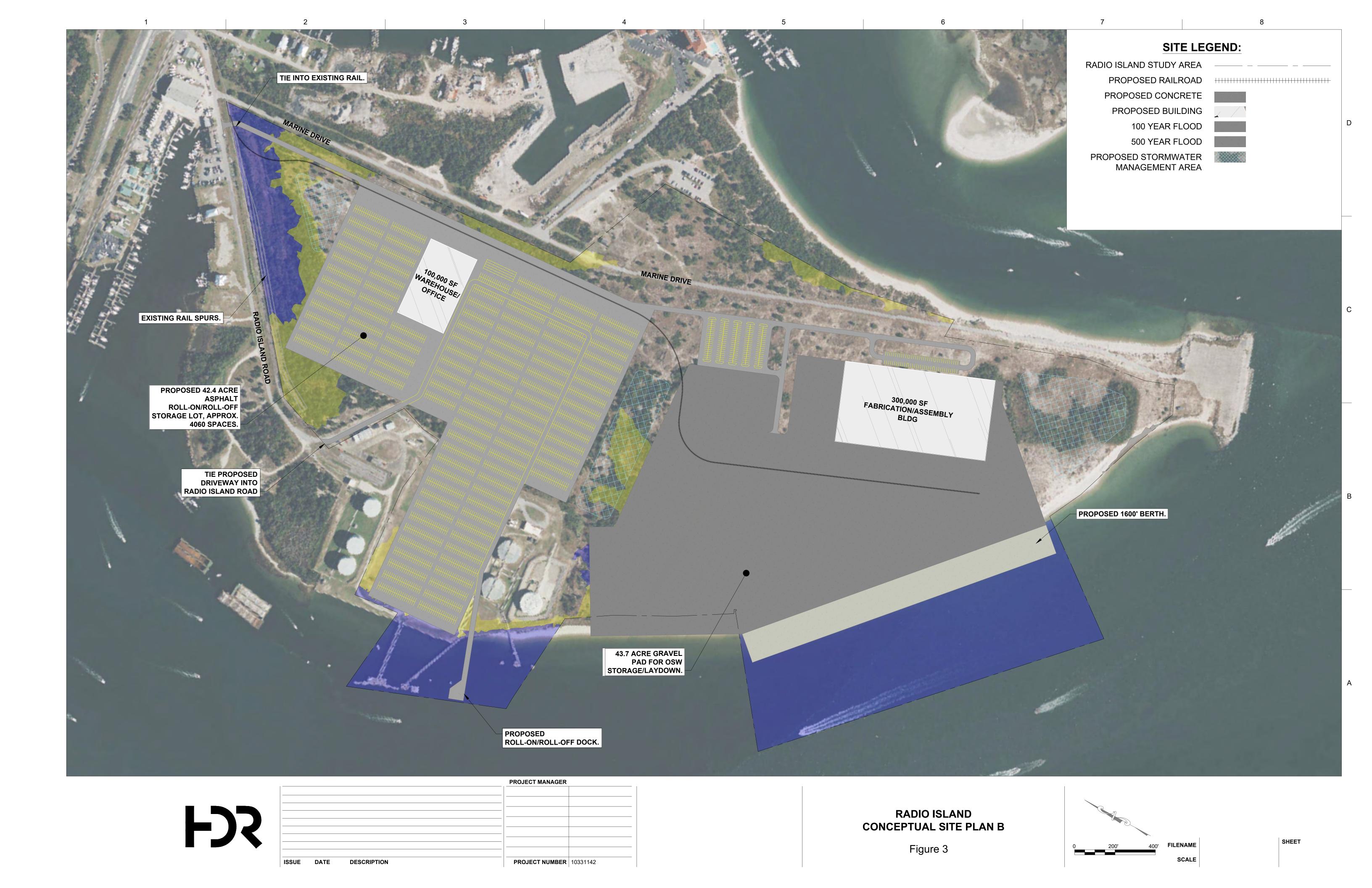
USFWS Scoping Comments (dated: April 27, 2022)

Jan J. Vishel

NC Natural Heritage Program Element Occurrence Report









# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

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

Date:
Self-Certification Letter

Project Name			
-			

#### 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:

"no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or

"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 longeared 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;

"no Eagle Act permit required" determinations for eagles.

Applicant Page 2

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 Ieucocephalus	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 <i>Lepidochelys kempii</i>	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 11 <sup>th</sup> , 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.

Jean J. Sishel	Jessica Tisdale, Environmental Scientist	
		7/10/2023
Signature /Title		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

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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.

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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

07/10/2023

# **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 07/10/2023 2

# **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: <a href="https://www.google.com/maps/@34.7133123,-76.68617120286703,14z">https://www.google.com/maps/@34.7133123,-76.68617120286703,14z</a>



Counties: Carteret County, North Carolina

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# **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<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### **MAMMALS**

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species.	Endangered
Species profile: https://ecos.fws.gov/ecp/species/9045	
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat. *This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.* 

Species profile: https://ecos.fws.gov/ecp/species/4469

**BIRDS** 

NAME **STATUS** Threatened Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477 Piping Plover Charadrius melodus Threatened Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6039

Threatened Red Knot Calidris canutus rufa There is **proposed** critical habitat for this species.

Species profile: https://ecos.fws.gov/ecp/species/1864

Red-cockaded Woodpecker Picoides borealis Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614

REPTILES

NAME **STATUS** Similarity of American Alligator *Alligator mississippiensis* No critical habitat has been designated for this species. Appearance Species profile: https://ecos.fws.gov/ecp/species/776 (Threatened)

Threatened

Threatened

Candidate

Green Sea Turtle Chelonia mydas Population: North Atlantic DPS

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6199

Kemp's Ridley Sea Turtle Lepidochelys kempii Endangered

There is **proposed** critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5523">https://ecos.fws.gov/ecp/species/5523</a>

Leatherback Sea Turtle Dermochelys coriacea Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493

Loggerhead Sea Turtle Caretta caretta Population: Northwest Atlantic Ocean DPS

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/1110">https://ecos.fws.gov/ecp/species/1110</a>

**INSECTS** 

NAME **STATUS** 

Monarch Butterfly *Danaus plexippus* 

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743

## **FLOWERING PLANTS**

NAME

Rough-leaved Loosestrife Lysimachia asperulaefolia

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2747">https://ecos.fws.gov/ecp/species/2747</a>

## **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<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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.

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

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

NAME	BREEDING SEASON
Eastern Whip-poor-will <i>Antrostomus vociferus</i> 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 <i>Puffinus gravis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Gull-billed Tern <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9501">https://ecos.fws.gov/ecp/species/9501</a>	Breeds May 1 to Jul 31
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8936">https://ecos.fws.gov/ecp/species/8936</a>	Breeds May 1 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Long-tailed Duck Clangula hyemalis  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. <a href="https://ecos.fws.gov/ecp/species/7238">https://ecos.fws.gov/ecp/species/7238</a>	Breeds elsewhere
Manx Shearwater <i>Puffinus puffinus</i> 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 <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds elsewhere
Painted Bunting <i>Passerina ciris</i> 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 <i>Stercorarius pomarinus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Prairie Warbler <i>Dendroica discolor</i> 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 <i>Protonotaria citrea</i> 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 <i>Calidris maritima</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Razorbill <i>Alca torda</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jun 15 to Sep 10
Red-breasted Merganser <i>Mergus serrator</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> 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 <i>Gavia stellata</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Ring-billed Gull <i>Larus delawarensis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Roseate Tern <i>Sterna dougallii</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds May 10 to Aug 31
Royal Tern <i>Thalasseus maximus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Apr 15 to Aug 31
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird <i>Euphagus carolinus</i> 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 <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
South Polar Skua <i>Stercorarius maccormicki</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Surf Scoter <i>Melanitta perspicillata</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
White-winged Scoter <i>Melanitta fusca</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Willet <i>Tringa semipalmata</i> 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 <i>Charadrius wilsonia</i> 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 <i>Oceanites oceanicus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> 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 (|)

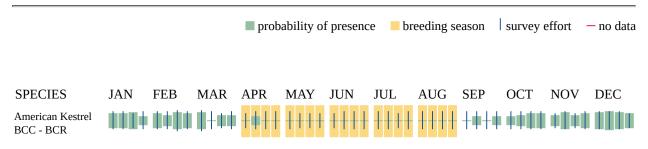
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

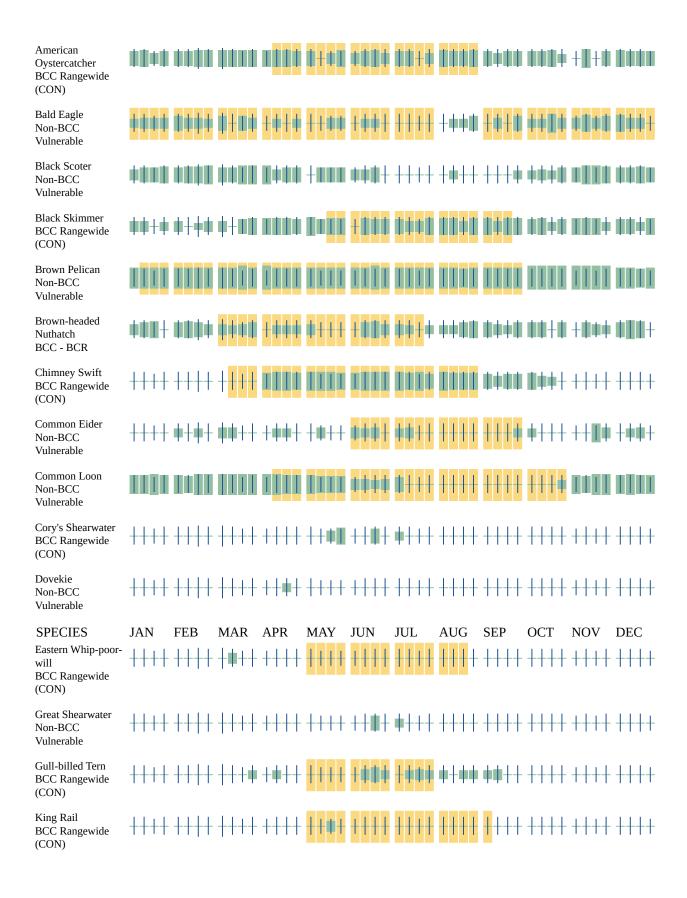
#### No Data (-)

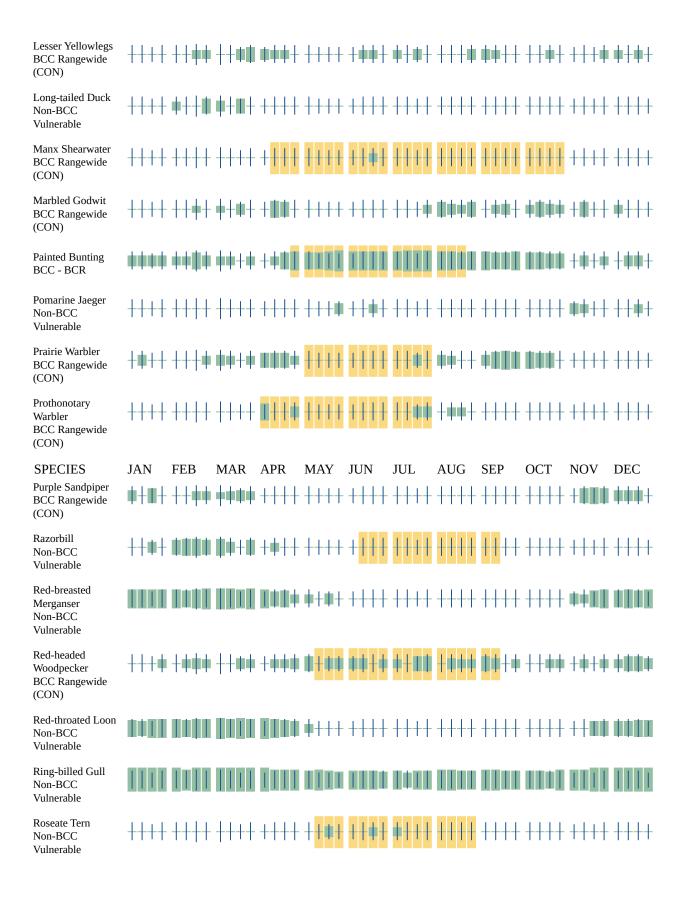
A week is marked as having no data if there were no survey events for that week.

#### **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.









Additional information can be found using the following links:

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

## **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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <a href="Rapid Avian Information">Rapid Avian Information</a> 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 <u>Avian Knowledge Network (AKN)</u>. 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 <u>Birds of Conservation Concern</u> (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 <a href="Eagle Act">Eagle Act</a> 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 <a href="Northeast Ocean Data Portal">Northeast Ocean Data Portal</a>. 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 <a href="NOAA NCCOS Integrative Statistical Modeling">NOAA NCCOS Integrative Statistical Modeling</a> and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic <a href="Outer Continental Shelf">Outer Continental Shelf</a> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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 <u>Marine Mammal Protection Act</u>. Some are also protected under the Endangered Species Act<sup>1</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>2</sup>.

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<sup>3</sup> [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 <u>Marine Mammals</u> page of the NOAA Fisheries website.

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

- 1. The Endangered Species Act (ESA) of 1973.
- 2. The <u>Convention on International Trade in Endangered Species of Wild Fauna and Flora</u> (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
- 3. <u>NOAA Fisheries</u>, 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**

Agency: North Carolina Department of Transportation

Name: Jessica Tisdale

Address: 555 Fayetteville Street

Address Line 2: Suite 900
City: Raleigh
State: NC
Zip: 27601

Email jessica.tisdale@hdrinc.com

Phone: 9192326654

## LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

Name: Sarah E. Hair

Email: sarah.e.hair@usace.army.mil

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# 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: <a href="https://www.google.com/maps/@34.7137641">https://www.google.com/maps/@34.7137641</a>,-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.

Νo

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

Address: 555 Fayetteville Street

Address Line 2: Suite 400
City: Raleigh
State: NC
Zip: 27601

Email jessica.tisdale@hdrinc.com

Phone: 9192326654

## 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. 3<sup>rd</sup> 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 <a href="https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation">https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation</a>. 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 <a href="https://ipac.ecosphere.fws.gov/">https://ipac.ecosphere.fws.gov/</a>. 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 concern¹ 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 <a href="https://fws.gov/office/eastern-north-carolina">https://fws.gov/office/eastern-north-carolina</a>. Please check the web site often for updated information or changes.

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<sup>&</sup>lt;sup>1</sup> 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 <a href="https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve">https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve</a>) 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,

John Ellistor Pete Benjamin

Field Supervisor



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: <a href="https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37">https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37</a>.

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 <u>rodney.butler@ncdcr.gov</u> 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 <a href="https://ncnhde.natureserve.org/help">https://ncnhde.natureserve.org/help</a>. 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

			ne-mile Radius of the Pro							
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	Н	3-Medium			GNR	S3
Animal Assemblage	7771	Waterbird Colony	Waterbird Colony	1988-05-30	Χ	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 caudacut	a Saltmarsh Sparrow	2017-12-04	Е	3-Medium		Significantly Rare	G2	SUB,S2 N
Bird	40360	Calidris canutus rufa	Red Knot - rufa subspecies	2018-03-09	Е	3-Medium	Threatened	Threatened	G4T2	S2N
Bird	7916	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2021	Е	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	41007	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2021-05-13	Е	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	40366	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2018-03-09	Е	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	6218	Charadrius wilsonia	Wilson's Plover	2019-06-09	Е	3-Medium		Special Concern	G5	S2B
Bird	14954	Egretta caerulea	Little Blue Heron	1991-05-16	Н	3-Medium		Special Concern	G5	S3B,S3 N
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	Н	3-Medium		Special Concern	G5	S2B,S3 N

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State		State
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Bird	2416	Gelochelidon nilotica	Gull-billed Tern	1988	Н	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	В	3-Medium		Special Concern	G5	S2S3B, S3N
Bird	7119	Himantopus mexicanu	sBlack-necked Stilt	1983-07	Н	4-Low		Significantly Rare	G5	S1B
Bird	36705	Nyctanassa violacea	Yellow-crowned Night- Heron	1976-07-16	Н	6-Unkno wn		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,S5 N
Bird	16216	Rynchops niger	Black Skimmer	1988	Н	3-Medium		Special Concern	G5	S2B,S3 N
Bird	36408	Rynchops niger	Black Skimmer	2021-05-20	Е	3-Medium		Special Concern	G5	S2B,S3 N
Bird	5207	Rynchops niger	Black Skimmer	1988-05-30	X	3-Medium		Special Concern	G5	S2B,S3 N
Bird	12917	Rynchops niger	Black Skimmer	1997-06-09	H?	4-Low		Special Concern	G5	S2B,S3 N
Bird	36412	Rynchops niger	Black Skimmer	1991-05-30	H?	3-Medium		Special Concern	G5	S2B,S3 N
Bird	23960	Rynchops niger	Black Skimmer	2004-06-22	F	3-Medium		Special Concern	G5	S2B,S3 N
Bird	36409	Sterna hirundo	Common Tern	2021-05-20	Е	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	Н	3-Medium		Special Concern	G4	S3B
Bird	35775	Sternula antillarum	Least Tern	2004-06-02	F	3-Medium		Special Concern	G4	S3B

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Bird	23702	Sternula antillarum	Least Tern	1977	Χ	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	А	3-Medium		Significantly Rare	G1	S1
Butterfly	10143	Heraclides cresphonte	sEastern Giant Swallowtail	2016-07-28	Е	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	h24086	Acipenser brevirostrum	Shortnose Sturgeon	1999-01-28	H?	5-Very Low	Endangered	Endangered	G3	S1
Freshwater Fisl	h38939	Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	2004-11-28	Е	4-Low	Endangered	Endangered	G3T3	S2
Grasshopper or Katydid	r 34586	Mermiria bivittata	Two-striped Mermiria	2004-09-10	Е	2-High		Significantly Rare	G5	S2S3
Mammal	9806	Trichechus manatus	West Indian Manatee	2008-06-13	Е	5-Very Low	Threatened	Threatened	G2G3	S1N
Moss	23678	Tortula plinthobia	A Chain-teeth Moss	1989-11-13	Е	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	Е	2-High		Significantly Rare	G5	S2S3

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Natural Community	32942	Brackish Marsh (Salt Meadow Cordgrass Subtype)		2012-05-03	С	3-Medium			G4G5	S4
Natural Community	1542	Dune Grass (Bluestem Subtype)		2019-02-27	В	2-High			G3	S1
Natural Community	32940	Dune Grass (Southern Subtype)		2012-05-03	С	2-High			G3	S2
Natural Community	39622	Maritime Evergreen Forest (Mid Atlantic Subtype)		2019-02-27	С	2-High			G2	S2
Natural Community	16055	Maritime Shrub (Stunted Tree Subtype)		2019-02-27	С	2-High			G3	S2
Natural Community	16844	Salt Flat			NR	4-Low			G5	S4
Natural Community	32939	Salt Flat		2012-05-03	С	3-Medium			G5	S4
Natural Community	4733	Salt Marsh (Carolinian Subtype)		2012-05-03	С	2-High			G5	S4
Natural Community	10811	Salt Marsh (Carolinian Subtype)		2019-02-27	В	2-High			G5	S4
Natural Community	39623	Salt Shrub (High Subtype)		2019-02-27	С	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	Е	3-Medium	Threatened	Threatened	G3	S1B
Reptile	34583	Crotalus horridus	Timber Rattlesnake	2011-07-17	Е	2-High		Special Concern	G4	S3

Element Occurrences Documented Within a One-mile Radius of the Project Area Scientific Name Common Name Federal Global State Taxonomic EO ID Last Element Accuracy State Observation Occurrence Status Status Rank Rank Group Date Rank 3-Medium Endangered Reptile 37965 Dermochelys coriacea Leatherback Seaturtle 2005-05-27 Ε G2 S1B.SU Endangered Ν Reptile 37971 Lepidochelys kempii Kemp's Ridley 2017-06-18 Е 4-Low Endangered Endangered S1B,SU G1 Seaturtle Ν 15254 Diamondback Terrapin В 3-Medium Special G4 S3 Reptile Malaclemys terrapin 2022-05-15 ---Concern 13517 Diamondback Terrapin 2019-04-21 В 3-Medium Special G4 S3 Reptile Malaclemys terrapin Concern Reptile 37448 Ophisaurus attenuatus Eastern Slender Glass 1950-07 Н 3-Medium Special G5T5 S1 ---Ionaicaudus Concern Lizard Megachile integra SH Sawfly, Wasp. 40240 a leafcutter bee 1941-08-17 4-Low Significantly G2G3 Н ---Bee, or Ant Rare Vascular Plant 17109 Amaranthus pumilus Seabeach Amaranth 2016-08-19 X? 2-Hiah G2 S1 Threatened Threatened Vascular Plant 4359 Amaranthus pumilus Seabeach Amaranth 1991-01-26 F 3-Medium Threatened Threatened G2 S1 Vascular Plant 41262 Four-angled Flatsedge 2021-11-19 Α 2-High ---Special G4 S2 Cyperus tetragonus Concern Vulnerable Vascular Plant 14038 Erythrina herbacea Coralbean 1950-08-07 Н 3-Medium Endangered G5 S2 ---Euphorbia bombensis Southern Seaside Ε Vascular Plant 28781 2006-08-15 2-High Significantly G4G5 S2? ---Rare Spurge Throughout Vascular Plant 7348 4-Low Significantly Parietaria praetermissa Large-seed Pellitory 1962-05-06 Н G3G4 S1 Rare Peripheral Vascular Plant 6466 Parietaria praetermissa Large-seed Pellitory 1984-05-15 Ε 3-Medium Significantly G3G4 S1 ---Rare Peripheral Vascular Plant 6446 Polygonum glaucum Seabeach Knotweed 2021-05 A? 3-Medium Endangered G3 S1 Polygonum glaucum Seabeach Knotweed S1 Vascular Plant 16095 1967-07-29 Н 3-Medium G3 ---Endangered Vascular Plant 1995 Polygonum glaucum Seabeach Knotweed 2007-09-15 3-Medium Endangered G3 S1 D ---Ε G5 Vascular Plant 38710 S1 Sesuvium maritimum Slender Sea-purslane 1998-08-18 3-Medium Endangered Shoreline Sea-purslane S1 Vascular Plant 35161 Sesuvium G5 1993-07-16 Ε 4-Low ---Endangered portulacastrum Vascular Plant 34587 Ε S1 Solanum Graceful Nightshade 2017-10-16 2-High Significantly G4 Rare pseudogracile Throughout

Element Occurrences Documented Within	n a One-mile	Radius of	the Project Area
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Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	State
Group				Observation	Occurrence		Status	Status	Rank	Rank
				Date	Rank					
Vascular Plant	41276	Steironema hybridum	Lowland Loosestrife	1919-07-19	Н	5-Very		Significantly	G5	S2?
						Low		Rare Peripheral		
Vascular Plant	1109	Trichostema	Dune Bluecurls	2019-05-18	А	3-Medium		Special	G2	S2
		nesophilum						Concern		
								Vulnerable		
Vascular Plant	37015	Trichostema	Dune Bluecurls	2016-09-20	С	3-Medium		Special	G2	S2
		nesophilum						Concern		
								Vulnerable		
Vascular Plant	12649	Yucca gloriosa	Moundlily Yucca	2020-01-30	В	3-Medium		Significantly Rare	G4?	S2?
								Peripheral		
Vascular Plant	23508	Yucca gloriosa	Moundlily Yucca	2005-03-26	Е	3-Medium		Significantly	G4?	S2?
								Rare		
								Peripheral		

## 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

Tranaged / treas Becamented Within a ene innertal	aras or error rojoce, 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	n State
Port of Morehead City	NC State Ports Authority	State
Rachel Carson Component of the North Carolina	NC DEQ, Division of Coastal Management	State
National Estuarine Research Reserve		
Town of Morehead City Open Space	Town of Morehead City	Local Government
Town of Morehead City Open Space - Sugarloaf	Town of Morehead City	Local Government
Island		
US Army Reserve Center	US Department of Defense	Federal
Mountains-to-Sea Trail	NC DNCR, Division of Parks and Recreation	n State
USFWS Critical Habitat - Loggerhead Seaturtle	US Fish and Wildlife Service	Federal

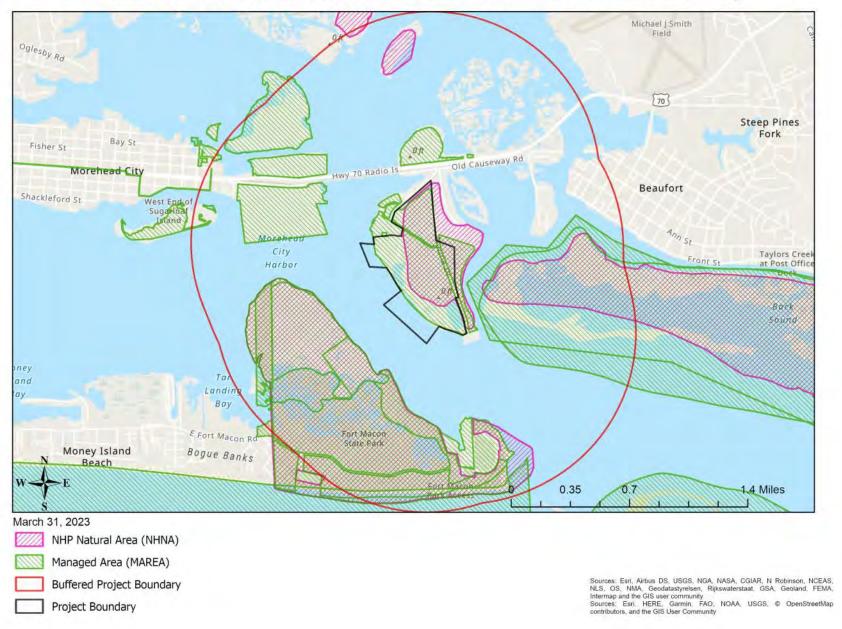
Managed Areas Documented Within a One-mile Radius of the Project Area

Nature Preserve

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	NC DNCR, Natural Heritage Program	State
National Estuarine Research Reserve Dedicated		

Definitions and an explanation of status designations and codes can be found at <a href="https://ncnhde.natureserve.org/help">https://ncnhde.natureserve.org/help</a>. 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



Appendix C Biological Assessment for NOAA National Marine Fisheries Service Species



# Radio Island Multi-Use Terminal

Biological Assessment for NOAA National Marine Fisheries Service Species

Prepared for: North Carolina State Ports Authority PO Box 9002 Wilmington, North Carolina 28402

Prepared by: HDR Raleigh, North Carolina

December 2023



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## **Appendices**

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## **Acronyms and Abbreviations**

°F degrees Fahrenheit (°F)

Authority North Carolina State Ports Authority

BA Biological Assessment
BMP Best Management Practice
CFR Code of Federal Regulations

dB Decibels

DO Dissolved Oxygen

DPS Distinct Population Segment

EFH Essential Fish Habitat

EIS Environmental Impact Statement

ESA Endangered Species Act

HDR Engineering of the Carolinas

MANLAA May Effect, Not Likely to Adversely Affect

Magnuson-Stevens Act Magnuson-Stevens Fishery Conservation and Management Act

MLLW Mean Lower Low Water

NCDEQ North Carolina Department of Environmental Quality
NCDMF North Carolina Department of Marine Fisheries
NCWRC North Carolina Wildlife Resources Commission

NMFS National Marine Fisheries Service

NOAA National Oceanic and Atmospheric Administration

OSW Offshore Wind

Project Radio Island Multi-Use Terminal

PSA Project Study Area
RoRo Roll-on Roll-off

SAV Submerged Aquatic Vegetation

SEL sound exposure level TSS Total Suspended Solids

USFWS United States Fish and Wildlife Service



# 1 Introduction

The North Carolina State Ports Authority (the Authority) is proposing to construct the Radio Island Multi-use Terminal and associated infrastructure facilities (Project) to support automotive and wind energy industries and complementary manufacturing in the Town of Morehead City in Carteret County, North Carolina.

An environmental assessment is being prepared for the Project in compliance with the National Environmental Policy Act. The purpose of this Biological Assessment (BA) is to address potential effects of the Project on threatened and endangered species listed under Section 7(c) of the U.S. Endangered Species Act (ESA) of 1973, as amended. Section 7 of the ESA requires that, through consultation (or conferencing for proposed species) with the U.S. Fish and Wildlife Service (USFWS) and/or the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS), federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat.

This BA evaluates the potential effects of the proposed Radio Island Project on species that are federally listed under the ESA and under the jurisdiction of NOAA-NMFS. Separate consultations have been filed to determine the potential effects of the Project to species under the jurisdiction of the USFWS and also for potential effects on Essential Fish Habitat with NOAA Fisheries (Appendix A and B). Specific project design elements are identified that avoid or minimize adverse effects of the proposed project on listed species and/or critical habitat.

# 2 Project Area and Description of Proposed Action

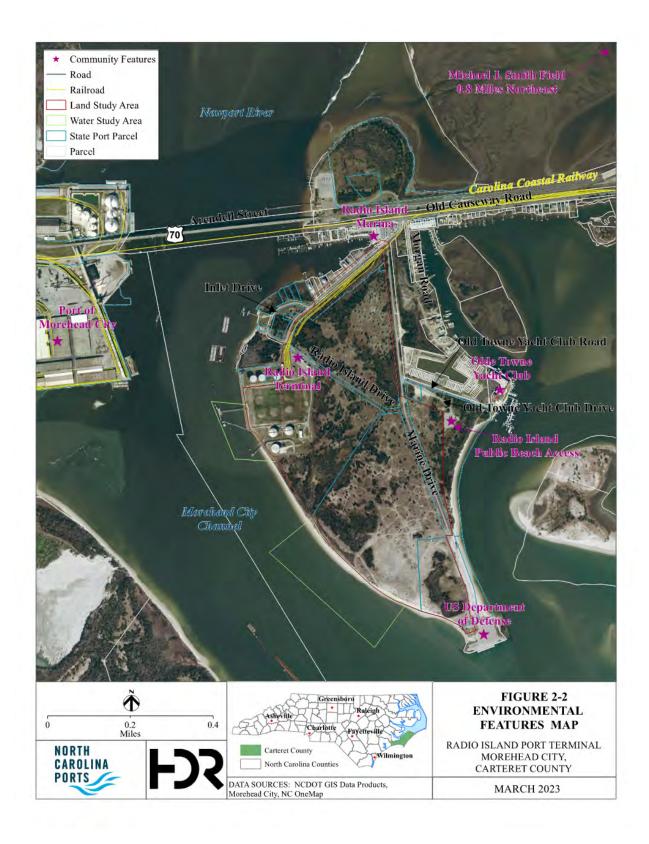
# 2.1 Project Setting

Radio Island is a spoil-created island of approximately 253 acres located within the Newport River/Intracoastal Waterway in eastern North Carolina (Figure 2-1). 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 Authority-owned land. 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 beginning at the intersection with NC 12. The Project study area (PSA) includes approximately 168 acres of the island and 31 acres within the Newport River (Figure 2-2). PSA is also referred to as the study area.











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 Authority-owned property includes an existing bulkhead and related liquid loading/unloading equipment for above ground storage tanks, an aviation fuel terminal, an 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.

## 2.2 Description of Proposed Action

The purpose of the Project is to support new industry opportunities to the state. 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.

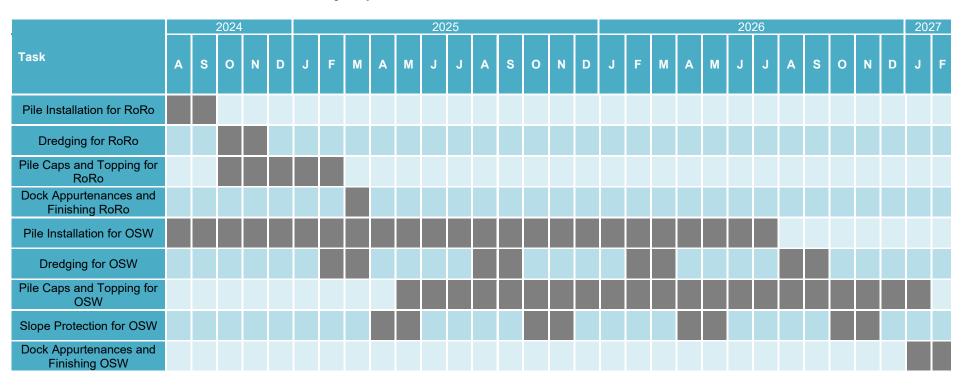
The proposed Project includes development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operations in the automotive and offshore wind (OSW) industries. Infrastructure development would include gravel or paving the majority of 154 acres of undeveloped 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. The berth will be designed for a 2.5 horizontal distance:1 vertical distance dredge slope and will likely need riprap and/or concrete matting to provide slope and scour protection. The dredge slope is designed so that the waterside dock platform can be limited to 150 feet wide.

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 safety standards. The terminal switching railroad provides access to a Class 1 rail line, operated by Norfolk Southern, that parallels US 70.

Project construction is estimated to commence in 2024 with an anticipated timeline of 31 months to complete the marine portion of construction. A tentative and high-level schedule of Project-phase durations is depicted in Table 2-1.



Table 2-1. Estimated Project-phase Durations for the Radio Island Multi-Use Terminal



Source: HDR Estimation

Hydraulic (cutterhead) or mechanical dredging would be utilized during Project construction, with dredging anticipated to last one month. The dredged materials will consist of a mixture of sand, mud, and marine clay. The area slated for dredging currently slopes from a depth of -40 feet mean lower low water (MLLW) at the channel toe to a depth of 0 feet at the shorelines. The maximum depth to be removed would take the current mudline of -9 feet MLLW to -45 feet MLLW. Dredged material would be placed in one of the existing Authority-owned confined disposal facilities, which includes Brandt Island, and North Radio Island disposal areas or offshore. Disposal operations for cutterhead dredging would involve direct hydraulic delivery to the disposal area via floating and/or submerged pipeline. In the case of mechanical dredging, disposal would involve the transport of dredged material via scow to the disposal area for placement via mechanical means or hydraulic offloading. Post-construction, an Authority-owned water injection dredge would be used for maintenance dredging purposes.

A mooring and berthing analysis (HDR 2023) 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-footlong 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.

Impact pile driving will be required for the installation of 1,298 54-inch spun-cast concrete cylindrical piles for the OSW facility. The anticipated duration of impact pile driving will vary based on the installation rate and number of crews operating, with an expected minimum rate of one pile installed daily with the use of a crane barge. There is potential to have 3 cranes mobilized simultaneously with 2 crane barges installing the outermost piles and 1 landside crane installing piles near the existing shoreline, resulting in approximately 430 days of pile driving. A fixed ringer crane would most likely be utilized on a 600-tone (4600 Ringer Class) floating crane barge.

Assuming pile installation commences before dredging occurs, then the mudline for pile driving will range from -10 feet MLLW and +4 feet MLLW; the maximum water column depth would be approximately 10 feet for pile installation with the final two rows of piles installed above the waterline on shore. Following pile installation pre-cast or cast-in-place pile caps will be installed to serve as structural beams for the top deck to span.

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 Roll-on Roll-off (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 offloading ramp will require the use of 59 24-inch pre-cast/pre-stressed concrete square piles installed via vibratory hammer. Piles are expected to be installed at a rate of 1.5 piles per day over a 2-month installation period. Piles will be installed with either the use of a smaller ringer crane (4100 Ringer Class) or a 250-ton track-mounted floating crane barge, based on contractor preference. The mudline at pile installation will range from -25 feet MLLW to +4 feet MLLW; the

maximum water column depth would be approximately 25 feet for pile installation with the final four rows of piles installed above the waterline on shore.

In addition to the dredge and crane barges, the use of additional marine vessels may include a Seajacks *Charybdis* design vessel to accommodate the OSW loading and unloading operations, and a break-bulk cargo carrier. The Seajacks *Charybdis* design vessel is 473-feet long by 184-feet wide vessel with a draft up to 25 feet and would be used for transporting OSW turbines via the dredged channel (Figure 2-3). The Seajacks *Charybdis* is expected to transport 83 turbines over an 18-month period; with an anticipated installation of 1 turbine per week minimum, the Seajacks *Charybdis* is expected to make a minimum of 2 trips per week. The Seajacks *Charybdis* is expected to travel at slow speeds of 5 knots or less.

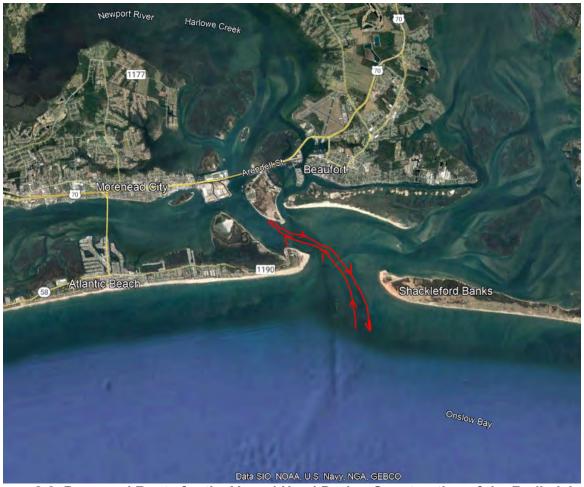


Figure 2-3. Proposed Route for the Vessel Used During Construction of the Radio Island
Multi-Use Terminal or OSW Turbines

The break-bulk cargo carrier would also bring components to be assembled to the OSW facility. A typical break-bulk vessel would be Panamax class with an overall length of 750 feet, a beam

(width) of 106 feet, and a deep draft up to 42 feet. Being a larger vessel, the break-bulk carrier will have to enter further into the Port to access the turning basin and will head back in order to dock "bow-out" towards the sea (Figure 2-4). The break-bulk carrier is expected to make one trip per week during Project construction.

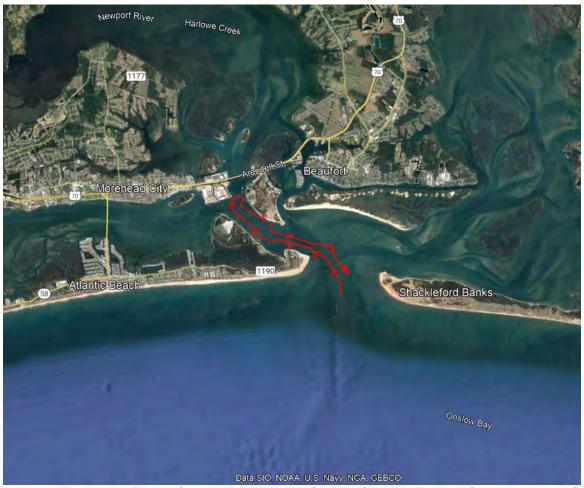


Figure 2-4. Proposed Route for the Break-Bulk Carrier for Use During Construction of the Radio Island Multi-Use Terminal

Appropriate best management practices (BMPs) will be implemented throughout Project construction. Additional details regarding potential effects of the Project on protected species and conservation measures are presented in this report.

## 3 Environmental Baseline

Radio Island is surrounded by the Intracoastal Waterway, which includes the Newport River to the north and Bogue Sound to the west (Figure 2-1). Additionally, the Beaufort and Morehead City channels are located to the immediate east and west of Radio Island, respectively. The southernmost point of Radio Island is approximately 0.75 mile from the mouth of the Newport

River at its nexus with Beaufort Inlet and the Atlantic Ocean. There are no dams or other barriers to hydrologic connection between the PSA and the surrounding water bodies.

The PSA consists primarily of upland (approximately 85 percent) habitat with the remaining portion located within the Newport River. The lower Newport River consists of a relatively small (approximately 63 square miles), tidally controlled estuary (Kirby-Smith and Costlow 1989). The Newport River Estuary is very shallow with an average depth of 3.3 feet, a maximum depth in natural channels of approximately 20 feet, and a depth of 40 feet in dredged channels. Hydrography of the Newport River Estuary is influenced by semi-diurnal tides approximately 3 feet in height. An estimated 43 percent of the total high tide volume of water ebbs and flows in and out of the estuary with each tide cycle.

The Newport River Estuary is mostly vertically homogenous and well-mixed with the exception of the river headwaters where a salt wedge exists (Kirby-Smith and Costlow 1989). In the upper estuary salinity ranges from 0 parts per thousand (ppt) following periods of heavy rainfall and exceeding 36 ppt during drought. In the lower estuary in the vicinity of the PSA, salinities are higher and less variable, typically maintaining that of seawater salinity (34 ppt); however, tidal action can result in a salinity fluctuations of 3 to 5 ppt. Salinities in Bogue Sound are generally even greater and less variable than those of the lower Newport River Estuary.

Water temperatures within the Newport River Estuary vary with air temperatures on a seasonal basis reaching a mean minimum temperature of approximately 40°F in late January and early February (Kirby-Smith and Costlow 1989). Mean maximum temperature of approximately 86°F is usually experienced in late July and early August. Dissolved oxygen is typically at or near saturation due to tidal and wind mixing, although some low oxygen values may occur in bottom waters or protected bays during summer months.

Marshes and intertidal shoals are common in the lower estuary and along edges of the upper estuary, although no marsh habitat or tidal creeks have been identified within the PSA (Kirby-Smith and Costlow 1989). Substrate throughout the estuary consists of an unconsolidated mixture of sand, silt, and clay, with oyster reefs providing the only natural hard substrate. Oysters are ecosystem engineers, building reefs, beds, or banks throughout intertidal habitats. These habitats provide essential habitat for fish and benthic organisms, provide foraging grounds for various shorebirds, provide substrate for additional oyster colonization, and facilitate shoreline stabilization and marsh creation. Oysters also enhance local water quality through filtration. The North Carolina Department of Environmental Quality (NCDEQ) online Coastal Habitat Mapper indicated an approximate 0.2-acre area of intertidal hard vegetated shell exists off the northwest coastline of Radio Island outside of the PSA boundary (NCDEQ 2023a). Fouling species including the Eastern Oyster (Crassostrea virginica) were noted sparsely on the coquina riprap along the existing concrete sheetpile bulkhead in the northwest of the PSA and on limited debris and concrete pieces within the subtidal and intertidal zones along the western shoreline of the PSA during field reconnaissance surveys performed on April 18 and 19, May 3 and 4, and August 11, 2022.

The portion of the PSA within the Newport River is considered essential fish habitat (EFH), which, defined by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-

Stevens Act) of 1976, as amended in 1996 are 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.

Essential fish habitat within the PSA includes 1.1 acres of unconsolidated shore and shallow water habitat and 26.8 acres of unconsolidated bottom habitat. Unconsolidated shore is characterized by sandy beach within the intertidal zone that experiences regular flooding and exposure from tidal action. Shallow water habitats are defined as areas between the shore and deeper water (i.e., a depth of 15 feet or less) that provide habitat for water-dependent wildlife such as migratory shorebirds, waterfowl, reptiles, amphibians and aquatic mammals. Unconsolidated bottom habitats are defined as wetlands or open water (i.e., deepwater) habitat with at least 25 percent cover of particles smaller than stone and less than 30 percent vegetative cover as they lack large, stable surfaces for plants or animals to attach (FGDC 2013). These environments can be subtidal; permanently, intermittently, or semi-permanently flooded; or permanently or semi-permanently floodedtidal The between unconsolidated shore and unconsolidated fresh. boundary 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.

# 4 Federally Proposed and Listed Species and Designated Critical Habitat

Federally listed species under NOAA-NMFS jurisdiction with the potential to occur in the PSA are presented in Table 4-1.

Table 4-1. Summary of Threatened or Endangered Species under NMFS Jurisdiction for the Radio Island Multi-Use Terminal Action Area

the Radio Island Multi-Ose Terminal Action Area					
Species Common and Scientific Name	Federal Designation	Required Habitat	Designated Critical Habitat <sup>1</sup>	Suitable Habitat within the PSA	Effects Determination
Atlantic Sturgeon (Acipenser oxyrhynchus oxyrhynchus)	Endangered	Inhabit open ocean, coastal bays, and rivers along the U.S. East Coast; adults spawn in freshwater where offspring are born, then make migratory trips to the sea.	Yes <sup>2</sup>	Yes	MANLAA
Shortnose Sturgeon ( <i>Acipenser</i> brevirostrum)	Endangered	Inhabit coastal bays and rivers along the U.S. East Coast; adults spawn in freshwater where offspring are born, then make migratory trips to the sea.	No	Yes	MANLAA
Giant Manta Ray ( <i>Mobula</i> <i>birostris</i> )	Threatened	Prefer offshore, oceanic waters near productive coastlines and have been observed in estuarine waters near oceanic inlets, commonly found in water ranging from 66-72 degrees Fahrenheit (°F).	No	Yes	MANLAA
Oceanic Whitetip Shark (Carcharhinus Iongimanus)	Threatened	Generally remain offshore in open ocean at depths greater than 600 feet; strong preference for mixed surface layer of warm waters above 68°F.	No	No	No effect
Green Sea Turtle (Chelonia mydas)	Threatened	Found in shallow waters in coastal bays, reefs, and inlets with an abundance of marine grass and algae; nest on open, undisturbed sandy beaches.	Yes <sup>2</sup>	Yes <sup>3</sup>	MANLAA
Hawksbill Sea Turtle (Eretmochelys imbricata)	Endangered	Prefer rocky or coral substrates in oceanic water less than 65 feet deep; also inhabit shallow coastal areas including lagoons and narrow creeks.	Yes <sup>2</sup>	Yes <sup>3</sup>	MANLAA
Kemp's Ridley Sea Turtle (Lepidochelys kempii)	Endangered	Migrate through open oceans. Found in nearshore coastal habitats that typically contain muddy or sandy bottoms. Hatchlings inhabit offshore waters. Juveniles associated with floating Sargassum.	No	Yes <sup>3</sup>	MANLAA
Leatherback Sea Turtle (Dermochelys coriacea)	Endangered	Mostly pelagic; female adults nest on dry, sandy beaches adjacent to deep and rough seas.	Yes <sup>2</sup>	Yes <sup>3</sup>	MANLAA
Loggerhead Sea Turtle ( <i>Caretta</i> caretta)	Threatened	Wide habitat range including pelagic ocean, inshore bays, lagoons, salt marshes, creeks, and mouths of large rivers; trans-oceanic migration and nest on sandy beaches.	Yes²	Yes <sup>3</sup>	MANLAA

Species Common and Scientific Name	Federal Designation	Required Habitat	Designated Critical Habitat <sup>1</sup>	Suitable Habitat within the PSA	Effects Determination
Blue Whale (Balaenoptera musculus)	Endangered	Found in all oceans except the Arctic; may visit shelf waters of eastern U.S. during seasonal migration.	No	No	No effect
Fin Whale (Balaenoptera physalus)	Endangered	Deep, offshore waters of all major oceans in temperate to polar latitudes.	No	No	No effect
North Atlantic Right Whale ( <i>Eubalaena</i> glacialis)	Endangered	Occur in coastal waters or close to continental shelf, may migrate to deep offshore waters; calving areas specifically in shallow coastal waters of southeast Atlantic.	Yes <sup>2</sup>	No	No effect
Sei Whale (Balaenoptera borealis)	Endangered	Globally distributed throughout subtropical, temperate, and subpolar water; primarily inhabit deeper waters far from coastlines.	No	No	No effect
Sperm Whale (Physeter macrocephalus)	Endangered	Globally distributed in oceanic waters with no clear migratory patterns.	No	No	No effect

Source: NMFS 2023a, 2023b

MANLAA = May affect, not likely to adversely affect

1 Under the Endangered Species Act of 1973, critical habitat designated by NOAA Fisheries for the conservation of threatened and endangered species under its jurisdiction (NMFS 2023c).

2 Critical habitat has been designated for this species but occurs outside of the boundaries of the PSA.

3 The PSA contain habitat suitable for foraging but does not contain nesting beaches.



The NOAA-NMFS and USFWS share jurisdictional responsibility for sea turtles under the ESA (USFWS-NMFS 2015). The USFWS has responsibility in the terrestrial environment (e.g., nesting beaches), while NOAA-NMFS has responsibility in the marine environment.

Including the shared jurisdiction of sea turtles, a total of 14 species were included on the threatened and endangered species list with jurisdiction under NOAA-NMFS for North Carolina, comprising two fish, two sharks and/or rays, five sea turtles, and five whales Federally listed species under NOAA-NMFS jurisdiction with the potential to occur in the PSA are presented in Table 4-1. No designated critical habitat was identified within the PSA.

Whale species require deep oceanic waters and are therefore not expected to be present in the PSA. Similarly, the primary habitat of the Oceanic Whitetip Shark (*Carcharhinus longimanus*) is described as offshore waters greater than 600 feet (NMFS 2023b). The relatively shallow coastal zone of the PSA surrounding Radio Island do not provide suitable habitat for these species, therefore, these species are not considered further in this BA.

## 4.1 Atlantic Sturgeon

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) originating from the New York Bight, Chesapeake Bay, South Atlantic, and Carolina Distinct Population Segments (DPS) are listed as federally endangered, while those originating from the Gulf of Maine DPS are listed as federally threatened (NMFS 2017). Atlantic sturgeon from these five DPS have the potential to occur in the Newport River and Back Sound; however, most of the spawning adults are likely to originate from the Carolina DPS. The Carolina DPS includes approximately 1,200 river miles of aquatic habitat throughout North and South Carolina, with the closest being Neuse and Pamlico Rivers to the north of the PSA or the Cape Fear River to the south (NMFS 2017).

Atlantic sturgeon are a long-lived, late-maturing, estuarine dependent, anadromous species. Adults spend most of their life in the marine environment but migrate upriver in the spring/early summer to spawn (NMFS 2023b). Atlantic sturgeon spawning is believed to occur in flowing water between the salt front and fall line of large rivers, where optimal flows are 46–76 centimeters/second with depths of 11–27 meters. Atlantic sturgeon likely do not spawn every year. Studies have shown that spawning intervals range from 1–5 years for males and 2–5 years for females (NMFS 2023b). Sturgeon eggs are adhesive and demersal and occur only on the spawning grounds (Hildebrand and Schroeder 1928). No spawning or juvenile populations, or necessary habitat for these life stages have been identified in waters within the PSA or surrounding Radio Island (NMFS 2017).

Based on the identified critical habitat and known locations of the Carolina DPS of Atlantic sturgeon, the potential exists for this species to occur in the Newport River north of Radio Island. However, the coastal waters in the vicinity of the PSA do not provide the habitat conditions required for Atlantic sturgeon spawning (as described above) as these areas are in close proximity to the open ocean and likely experience saltwater concentrations similar to the marine environment. While spawning habitat does not appear to be present in the vicinity of the Project, the Atlantic sturgeon may enter the coastal waters of the PSA surrounding Radio Island for foraging as they migrate up the Neuse River, and juvenile sturgeon may similarly pass through



the PSA on their outmigration from upriver spawning grounds.

While Atlantic sturgeon could be found in the vicinity of the Project, the PSA in the waters surrounding Radio Island is relatively limited with abundant high quality habitat adjacent to the PSA; therefore, it is unlikely for this species to be present in the PSA during construction. No Atlantic sturgeon were observed in the PSA from the shoreline during walking field surveys (spring and summer 2022).

## 4.2 Shortnose Sturgeon

The federally and state endangered shortnose sturgeon (*Acipenser brevirostrum*) are anadromous species that live in rivers and coastal environments from Canada to Florida (NMFS 2023b). They are similar to Atlantic sturgeon in that they are slow-growing and late to reach reproductive maturity; however, unlike the Atlantic sturgeon, the shortnose sturgeon spends relatively little time in the ocean and typically remains in riverine or nearshore marine waters.

Historically, shortnose sturgeon were found in coastal rivers and major estuaries throughout the U.S. East Coast. Currently, they may be found in 41 bays and rivers, but their distribution is segmented, with a 250-mile gap separating the northern and mid-Atlantic metapopulations from the southern metapopulation (NMFS 2023b). The southern metapopulation, also known as the Carolinian Province, includes habitat in the Cape Fear River and Pamlico and Albemarle sounds in North Carolina. Although shortnose sturgeon were thought to be extirpated from North Carolina waters, an individual was captured in the Brunswick River in 1987 and subsequent gill-net studies (1989-1993) confirmed the presence of a small population in the lower Cape Fear River (Ross et al. 1988; Moser and Ross 1995). Additionally, an individual shortnose sturgeon was reported in western Albemarle Sound by the North Carolina Division of Marine Fisheries (NCDMF) in 1988 (Armstrong and Hightower 1999). The current distribution of shortnose sturgeon in NC is thought to include only the Cape Fear and Pee Dee Rivers, and no spawning populations have been confirmed in the state (SSSRT 2010).

Shortnose sturgeon habitat varies depending on their life stage. Adults spawn in freshwater and juvenile fish remain in their natal river, making trips to estuarine or saltwater occasionally to feed on bottom-dwelling marine invertebrates, such as crustaceans, worms, and mollusks (NMFS 2023). Shortnose sturgeon prefer deep water environments with soft, vegetated substrates and generally visit the ocean less frequently than Atlantic sturgeon (SCDNR 2015). In the Carolinian Province, spawning migrations typically occur from January to April when water temperatures reach 48-53°F. Spawning occurs primarily at night over submerged timber and substrates consisting of scoured sand, clay, and/or gravel.

Occurrence data of shortnose sturgeon in the vicinity of the PSA are limited. While transient individuals have the potential to move through the PSA, it is unlikely for this species to be present in the PSA due to its restriction to large rivers (specifically riverine waters above the saltwater-freshwater interface) and avoid the high salinity waters surrounding Radio Island (i.e., lower Newport River Estuary and Beaufort Inlet). Additionally, the PSA does not contain the necessary spawning habitat (described above), therefore, shortnose sturgeon spawning is not anticipated in the vicinity of the Project. No shortnose sturgeon were observed in the PSA from the shoreline



during walking field surveys (spring and summer 2022).

## 4.3 Giant Manta Ray

The giant manta ray (*Mobula birostris*) is the world's largest species of ray and is listed as threatened throughout its range (NMFS 2023b). Information on the global distribution of the giant manta ray is limited, but regional populations are estimated to be small, ranging from 1,000 to 1,500 individuals. Giant manta rays are vulnerable to population depletion based on their slow growth and low fecundity. They are also susceptible to threats by overfishing for commercial purposes and bycatch.

The giant manta ray is a migratory species which visits productive coastlines with regular upwelling, oceanic island groups, and near offshore pinnacles and seamounts (NMFS 2023b). The timing of visits to these environments tends to be seasonal and corresponds with zooplankton movement, current circulation and tidal patterns, seasonal upwelling, water temperature, and possibly mating behavior. Although commonly found offshore in oceanic and productive coastal waters, they have been observed in estuarine waters, oceanic inlets, and within bays and intercoastal waterways.

Based on its habitat requirements, the giant manta ray could be found in the PSA in the coastal waters surrounding Radio Island during periods when the water temperature is between 66 and 72°F. Based on historical surface water temperature data for Beaufort Inlet from NOAA station at the Duke Marine Lab on Pivers Island (Station 8656483), located approximately 0.3 mi east of Radio Island, this temperature range typically occurs between April and May and between October and November each year. Given that these windows are relatively short periods of time, the giant manta ray has reduced potential to be present in the PSA for most of the year. No individuals were observed in the PSA from the shoreline during walking land field surveys (spring and summer 2022).

## 4.4 Green Sea Turtle

In 1978, the green sea turtle (*Chelonia mydas*) was listed under the ESA as a threatened species throughout its range except for the Central Pacific DPS and South Pacific DPS, which were listed as endangered (NMFS 2023b). In the United States, nesting green sea turtles are found in the waters of the Pacific, Puerto Rico, the Virgin Island, and the East Coast of Florida, but nests are also occasionally found in Georgia, South Carolina, and North Carolina. Critical habitat has been designated for this species in the coastal waters surrounding Culebra Island, Puerto Rico; there is no designated critical habitat for Green Sea Turtle located within the PSA.

Adult and juvenile green sea turtle habitat typically includes nearshore waters as well as bays and lagoons, particularly in areas with seagrass beds to support their diet (NMFS 2023b). Juveniles are prevalent in coastal areas throughout the species' entire range, as well as the Gulf of Mexico. Green sea turtles become reproductively mature between 25 and 40 years old. Adults may migrate up to 1,850 miles between their breeding habitats on beaches and feeding habitats. Adults prefer shallow, low energy waters with adequate submerged vegetation, mollusks, sponges, crustaceans, and jellyfish for feeding. Eggs and hatchlings generally experience high



mortality resulting from aquatic and terrestrial predators, tidal extremes, and beach erosion. In North Carolina, the sea turtle nesting and hatching season occurs between early May and late October (NCWRC 2023).

The closest known green sea turtle nesting beach is located on Atlantic Beach (5 miles), where one nest was reported in 2021 and two nests were reported in 2022 (Seaturtle.org Inc. 2023). Additionally, 4 green sea turtle nests have been documented at Pine Knoll Shores (9 miles) in the last ten years. The PSA does not contain critical habitat or suitable nesting habitat for green sea turtles; however, this species may use the estuarine waters and sounds surrounding Radio Island for foraging and developmental habitat. Historic data (1981) from the North Carolina Department of Environmental Quality (NCDEQ) online submerged aquatic vegetation (SAV) mapper reported 1.56 acres of SAV on the northwest side of Radio Island and 2.36 acres of SAV on the northern side of Fort Macon State Park; approximately 0.5 mile from Radio Island (NCDEQ 2023). No green sea turtles or current SAV beds were observed in the PSA during walking land field surveys (spring and summer 2022).

### 4.5 Hawksbill Sea Turtle

The hawksbill sea turtle (*Eretmochelys imbricata*) is listed as endangered throughout its range, which includes tropical waters of the Atlantic, Pacific, and Indian Oceans (NMFS 2023b). Degradation of coral reef habitat and overharvesting have led to the species' decline. Critical habitat has been designated in Puerto Rico; there is no critical habitat within the PSA.

Hawksbill sea turtles have a mixed migratory strategy; some migrate over 1,000 miles between nesting beaches and foraging habitat while only travel between 50 and 100 miles (NMFS 2023b). Nesting beaching in the continental U.S. are typically restricted to southeast Florida and the Florida Keys. They are commonly found among coral reefs which support their preferred food source (sea sponges), although they inhabit a variety of environments throughout different life stages. Hatchlings and young juveniles are primarily pelagic but after several years in the open ocean juveniles may enter shallower coastal areas for feeding. They are often found around rock formations and high energy shoals in shallow water, which provide shelter and support sponge growth.

There have been no nesting activities of hawksbill sea turtles documented near the proposed Project, and no nests have been reported at Fort Macon State Park (0.8 mile), Atlantic Beach (5 miles), or Pine Knoll Shores (9 miles) in the last ten years (Seaturtle.org Inc. 2023). The PSA does not contain suitable nesting habitat for hawksbill sea turtles and, although unlikely given their preference for deeper, offshore waters, this species may use the estuarine waters and sounds surrounding Radio Island for foraging and developmental habitat. No hawksbill sea turtles were observed in the PSA during walking land field surveys (spring and summer 2022).

# 4.6 Kemp's Ridley Sea Turtle

The Kemp's ridley sea turtle (*Lepidochelys kempii*) was listed as endangered in 1970 and no critical habitat has been designated (NMFS 2023b). Like most sea turtles, Kemp's ridley sea turtles are migratory and inhabit different environments based on their life stage. This species



spends the first few years of life in deep oceanic water in the Gulf of Mexico while adults inhabit nearshore costal water with muddy or sandy bottoms where their preferred prey (crabs) are found. Juvenile Kemp's ridley sea turtles are associated with floating Sargassum algae in the open ocean, which they use for refuge and feeding until they reach approximately 8 inches in length, then migrate to nearshore waters to mature.

Breeding strategies may vary between populations and determine the migration routes that adults follow. Females nest on sandy beaches with 95 percent of nesting occurring in Tamaulipus, Mexico, but occasional nesting has been reported in North Carolina, South Carolina, and Florida.

The closest known Kemp's ridley sea turtle nesting beach is at Atlantic Beach (5 miles); however, only one active nest for this species has been reported in the last ten years (2022) (Seaturtle.org Inc. 2023). Additionally, 3 nests were reported at Pine Knoll Shores (9 miles) between 2018 and 2021. While the PSA does not contain suitable nesting habitat for Kemp's ridley sea turtles, the species may use the estuarine waters and sounds surrounding Radio Island for foraging and developmental habitat. No Kemp's Ridley Sea Turtles were observed in the PSA during walking land field surveys (spring and summer 2022).

### 4.7 Leatherback Sea Turtle

The leatherback sea turtle (*Dermochelys coriacea*) was ESA listed in 1970 as endangered throughout its range (NMFS 2023b). It is estimated that the global population has declined 40 percent over the last 3 generations, primarily due to habitat loss, bycatch in fishing gear, egg harvest, and marine pollution and debris. Critical habitat is not located within the PSA but has been designated in the U.S. Virgin Islands.

Considered almost entirely pelagic, leatherback sea turtles move from the open ocean to the edge of continental shelves, and consistently make dives to depths of 4,200 feet (NatureServe 2023). Their pelagic lifestyle limits their diet to primarily jellyfish, although some fish, invertebrates, and seaweed are also consumed. Leatherback sea turtles prefer the open ocean, particularly the warmer parts of the Atlantic Ocean; however, they occasionally forage in shallow bays, estuaries, and the mouths of rivers.

On the Atlantic Coast of the U.S., Leatherbacks are found ranging from New England to the Caribbean (NMFS 2023b). Adults have been documented migrating between hundreds and thousands of miles between nesting and feeding waters. Preferred nesting habitat includes sloping continental beaches with the absence of a fringing reef, often near deep and/or rough ocean waters. Leatherback sea turtles nesting in the Caribbean migrate north along the Atlantic Coast, reaching New England by late summer. In North Carolina, their nesting and hatching season is from early May to late October (NCWRC 2023).

There have been no nesting activities of leatherback sea turtles documented near the proposed Project, and no nests have been reported at Fort Macon State Park (0.8 mile), Atlantic Beach (5 miles), or Pine Knoll Shores (9 miles) in the last ten years (Seaturtle.org Inc. 2023). The PSA does not contain suitable nesting habitat for leatherback sea turtles and, although unlikely given their preference for deeper, offshore waters, this species may use the estuarine waters and sounds surrounding Radio Island for foraging and developmental habitat. No leatherback sea



turtles were observed in the PSA during walking land field surveys (spring and summer 2022).

## 4.8 Loggerhead Sea Turtle

Although the loggerhead sea turtle (*Caretta caretta*) is the most abundant species of sea turtle that nests in the U.S., they were listed under the ESA in 1978 (NMFS 2023b). In 2011, a final rule was issued to list four DPS as endangered and five DPS as threatened. The Northwest Atlantic Ocean DPS, which includes individuals that nest along the Atlantic coast of Florida, Georgia, South Carolina, and North Carolina, is designated as threatened. The primary threats to loggerhead sea turtles are anthropogenic impacts such as injury and mortality by fishing gear (as bycatch), habitat loss, pollution, and vessel strikes, but also natural causes such as egg morality, hatchling disorientation, and hatchling predation.

Loggerhead sea turtles are highly migratory and inhabit different environments during different life stages. Adults live in coastal waters including intracoastal waterways and estuarine rivers. Females return to their natal beaches to nest (NMFS 2023b). Hatchlings and juveniles spend up to 15 years in the open ocean before migrating to coastal areas where they continue to grow and forage. Growth is slow and females do not reach reproductive maturity until approximately 35 years of age. Adults may then migrate thousands of miles from their foraging grounds to their nesting beaches. In the Northern Hemisphere, mating occurs between March and June, and females nest between late April and early September.

While the PSA does not contain suitable nesting habitat for loggerhead sea turtles nor does it contain any critical habitat for this species, the beaches of on the Atlantic-facing side of Bogue Banks (the eastern end of Fort Macon State Park to the western end of Hammocks Beach State Park) contain approximately 29 square miles of critical nesting habitat and have supported hundreds of active nests over the past ten years (NMFS 2023b; Seaturtlle.org Inc 2023). The closest nests have been documented at Fort Macon State Park (0.8 mile), with 7 active nests reported in 2023 to date. Although there have been no documented nests within the PSA, there is potential for this species to utilize the estuarine waters and sounds surrounding Radio Island for foraging and developmental habitat. No loggerhead sea turtles were observed in the PSA during walking land field surveys (spring and summer 2022).

# 5 Potential Effects of the Proposed Action

There are several types of effects to species that may occur as a result of the proposed Project, including permanent or temporary impacts with direct or indirect effects. 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). A general summary of the types of potential effects is described in the following sections.

### 5.1 Habitat Resource Alteration

Construction activities have the potential to alter both the physical environment as well as the habitat resources (i.e., food resources and shelter) available. Dredging within the PSA would



directly impact the soft bottom habitat in the area. While deepening the PSA would not directly impact larger marine species, dredging events associated with the initial construction and subsequent maintenance would remove the existing benthic infaunal invertebrate community, thereby temporarily reducing the availability of potential prey higher trophic levels organisms. However, studies of benthic community recovery in shallow estuarine navigation channels in the southeast have reported rapid recovery of benthic communities within two to six months (Stickney 1972; Stickney and Perlmutter 1975; Van Dolah et al. 1984, 1979). These studies indicate that recolonization via slumping of adjacent undisturbed sediments into the dredged channel is an important recovery mechanism. The relatively rapid recovery on benthic infauna may also be attributed to the rapid infilling by sediments that were similar in composition to the extracted material, as well as avoidance of spring benthic invertebrate recruitment periods (Van Dolah et al. 1984).

The addition of fill materials such as riprap or concrete also has the potential to alter the local environment. Shoreline stabilization measures such as these may reduce or eliminate sediment yield and generate scour (Fischenich 2003). Hardened shorelines could also potentially reduce potential available habitat for SAV, which serves as a food source for many marine animals, provides habitat for lower trophic level organisms, and provide valuable ecosystem services such as improving local water quality. Alternatively, hard substrate provides suitable habitat for biofouling organisms, such as oysters. One other potential impact associated with riprap or concrete addition is the potential for these materials to retain heat and increase water temperatures in local, shallow areas; this, in turn, could potentially result in thermal pollution which can be harmful to aquatic life.

## 5.2 Turbidity

Elevated turbidity levels and increased total suspended solids (TSS) may occur during dredging and the installation of the piles required for the OSW facility and RoRo dock. This could potentially reduce the visual abilities of fish and sea turtles, which could impact foraging, predator avoidance, and habitat selection. Alternatively, predation risks may also be temporarily decreased if turbidity disrupts hunting by visual predators. While the increase in suspended sediments may alter their normal movements or behavior, these movements are typically too small to be meaningfully measured or detected (NMFS 2023d). Short term declines in local water quality may also be experienced due to elevated turbidity levels, which in turn could affect the physiological processes or health or marine animals.

Cutterhead dredges use suction to entrain sediment for pumping through a pipeline to a designated discharge site. Production rates vary greatly based on pump capacities and the type (size and rotational speed) of cutter used, as well as distance between the cutterhead and the substrate (NMFS 2023d). Sediments are re-suspended during lateral swinging of the cutterhead as the dredge progresses forward; however, sediment suspension by cutterhead dredges is generally confined to the near bottom water column in the immediate vicinity of the rotating cutterhead assembly (LaSalle et al. 1991). Based on sediment resuspension data collected during navigation dredging projects, the average cutterhead dredge sediment resuspension rates range from 0.003 to 0.135 percent of the fine silt/clay fraction (Hayes et al. 2000). As described in



Section 3, sediments to be excavated from the new dredging area consist predominantly of relatively coarse sands and marine clays that would rapidly resettle to the superficial substrate.

A comparable rate of sediment resettlement would also be expected following disturbance to the substrate from pile driving and other construction activities. Like dredging, sediment suspension by pile driving or other construction activities is expected to primarily be limited to the immediate vicinity of the activity. Increased turbidity levels and elevated TSS are not expected to be long-term as finer sediments would be rapidly dispersed by currents and larger sediments typically dissipate over a matter of hours; as such, no long-term or permanent effects to local quality conditions are anticipated.

The use of BMPs to control such as turbidity curtains could help mitigate the potential impacts of turbidity; however, certain sediment-control devices could create entanglement issues for aquatic animals.

## 5.3 Physical Harm

The potential for direct physical harm or mortality by Project construction activities includes physical strikes during pile driving and vessel traffic and takes or entrainment caused by dredging. Direct contact by pile driving and dredging poses a greater risk to demersal (bottom-dwelling) animals while vessel traffic poses a greater physical strike risk to species that spend time at the surface such as marine mammals and sea turtles.

## 5.4 Noise and Sound Pressure

Marine mammals, sea turtles, and fishes are susceptive to impacts from underwater noises caused by natural and anthropogenic activities (CSA 2021). The marine environment contains naturally occurring, ambient noise through which animals adapted to living in these conditions send and receive acoustic signals. Sound is important species communication, individual recognition, predator avoidance, prey capture, orientation, navigation, mate selection, and parent-offspring bonding. Changes to the acoustic environment can therefore disrupt biological functions or alter an animal's ability to function within its given acoustic habitat.

Construction noises are generally classified as either impulsive or non-impulsive and generated from either stationary or moving sources over a specified period of time. Impulsive sounds are transient, brief (less than 1 second), and typically consist of high peak pressure with rapid rise time and rapid decline (ANSI 1986; NIOSH 1998; ANSI 2005). Examples of impulsive sounds include air guns, explosions, or impact pile drivers. Noise caused by pile driving is expected to produce the most severe impacts during construction relative to other noise producing activities and has the potential to cause permanent or temporary impacts to species in the area (CSA 2021).

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 (ANSI 1995; NIOSH 1998). Examples of non-impulsive activities include sonar, drilling, vessels, and vibratory pile drivers. Vessel noise is characterized low frequency, typically less than 1,000 hertz (Hz) with peak frequencies between 10 and 50 Hz, although the acoustic signature is variable depending on the type of vessel and



vessel characteristics (i.e., engine specification, propeller size and number, length, draft, hull shape, gross tonnage, and speed) (CSA 2021).

Acoustic impacts can be generalized for marine mammals, sea turtles, and sturgeon. Potential impacts from underwater noise include:

- Hearing threshold shifts, which can be temporary (also known as auditory fatigue) or permanent;
- Barotrauma, which is defined as tissue injury resulting from rapid changes in pressure;
- Auditory masking, which can partially or completely reduce an animal's ability to effectively communicate, detect predatory/prey signal, and detect important environmental features associated with spatial orientation;
- Stress (physiological) and behavioral responses; and
- Reduction of prey availability susceptible to sound disturbance.

## 5.5 Lighting

The existing infrastructure on and surrounding Radio Island is currently equipped with permanent artificial lighting. Additional lighting will likely be added to the buildings, docks, and parking lots constructed as part of the Project. Marine vessels are also required to be outfitted with navigational lighting. The greatest risk posed by artificial lighting to marine animals is disorientation. Artificial light also has the potential to impact marine animals by influencing or disrupting "biological clocks" and routine behaviors such as navigation, predatory-prey interactions, spawning and mating, and daily and/or seasonal migrations.

# 6 Effects Analysis

# 6.1 Fish and Rays

#### 6.1.1 Habitat Resources Alteration

Atlantic and shortnose sturgeon and the giant manta ray may occur within the PSA; however, they are unlikely to be permanently affected by impacts to the available habitat and associated resources (prey) within the PSA due to the impacts of construction activities, such as dredging or the addition of fill materials (riprap and concrete), which may alter the depth and/or composition of the sea floor bottom. Although unlikely to affect large organisms such as adult sturgeon or giant manta ray, the addition of riprap and/or concrete has the potential to change local species composition within the PSA which could have cascading effects to the trophic food chain that support these species.

Similar to the placement of riprap and concrete, dredging could disrupt the local benthic community, which serves as a food source for sturgeon; however, these organisms have demonstrated a relatively rapid recovery following bioturbation, as discussed in Section 5.1. Additionally, the benthic community impacted within the PSA accounts for only a small fraction of



the available food resources in the area; as Atlantic and shortnose sturgeon are likely to relocate away from the PSA due to noise and other construction-related disturbances, they should have access to ample prey sources in the surrounding waterways. Giant manta ray are planktonic filter feeders and would not be affected by changes to the benthic community.

#### 6.1.2 Turbidity

Dredging or pile driving-induced sediment suspension results in increased local turbidity and TSS. Such elevated turbidity may temporarily reduce local water quality, specifically decreased dissolved oxygen (DO), and foraging efficacy of sturgeon and giant manta ray. Elevated turbidity levels can also result in physiological effects to fish species, such as changes to the gill structure and reduced respiration. In turn, this could potentially alter physiological functions such as growth and development. Both Atlantic and shortnose sturgeon are known to become distressed when oxygen levels fall below certain thresholds, with juvenile sturgeon being more susceptible to reduced oxygen levels than older individuals (Jenkins et al. 1993). The TSS levels expected for pile driving (5.0 to 10.0 milligrams/liter [mg/L]) are below those known to have adverse effects on fish (typically up to 1,000 mg/L) (NMFS 2023d).

There is limited information available on the direct effects of TSS or turbidity plumes on giant manta ray, but as they are large, capable swimmers they will be able to swim through or avoid areas of increased turbidity. As filter feeders, giant manta ray could indirectly be affected by long-term elevated turbidity levels if their lower trophic level food sources are impacted.

Based on swimming capabilities and the abundance of high quality habitat and food resources surrounding the PSA, Atlantic sturgeon, shortnose sturgeon, and giant manta ray are not expected to be adversely impacted by short-term increases in turbidity. Long-term increases in turbidity and TSS may affect but are not likely to affect these species.

#### 6.1.3 Physical Harm

Hydraulic dredging operations can potentially impact Atlantic and shortnose sturgeon directly through entrainment in the dredge intake pipe; however, an analysis of cutterhead dredge intake velocities and sturgeon swimming capabilities indicated that the risk of entrainment is limited to juveniles within 1.0 meter of the dredge pipe intake (NMFS 2012). Any occurrences of Atlantic and shortnose sturgeon in the vicinity of the action area would likely consist of adults or subadults that would be able to avoid the dredge pipeline suction. Additionally, there is no suitable juvenile sturgeon nursery habitat within the PSA or nearby waterways; therefore, is unlikely that sturgeon would be directly impacted by cutterhead dredging. Limited information is available on dredge interactions and giant manta ray, but based on the large body size and strong swimming capability of this species, they are also unlikely to be affected by dredging.

Although the potential exists for incidental physical strike by pile driving or marine vessels, based on the rarity of sturgeon documented in the vicinity of the PSA and limited suitable habitat for both sturgeon and giant manta ray, these species are not expected to be physically harmed by these activities.



#### 6.1.4 Noise and Sound Pressure

Construction activities could disturb sturgeon and giant manta ray by generating a temporary increase in underwater noise. Construction noise from pile driving could harm fish if they are close to the noise source for prolonged periods (Table 6-1). for generalist fish (which includes Atlantic and shortnose sturgeon), this threshold is 203 decibels (dB) for 24 hours (cumulative sound exposure level [SELc]). Injury or mortality can occur at levels above 207 dB at peak SEL (SELp), and 210 dB at SELc. (Table 6-1) (CalTrans 2015). This auditory injury is defined as "harm" in the ESA.

Table 6-1. NOAA-NMFS In-Water Noise Thresholds for Generalist Fish > 2 grams

Effect	Metric	Noise Threshold (dB)
	Peak Sound Pressure Levels	206
Onset of physical injury	Single-Strike SEL	187
	Cumulative SEL	187
Behavioral Disturbance  Root Mean Square Pressure		150

Source: CalTrans 2015

No information is available for vibratory threshold criteria; however, it can be assumed that because this method results in a low-level, non-impulsive noise, it has a lower sound pressure level than impact driving. Additionally, limited data exists on the hearing range of cartilaginous fishes including sharks and rays. NOAA-NMFS and USFWS generally have used 150 dB as the threshold for behavioral disturbance to ESA-listed fish species, citing that sound pressure levels in excess of 150 dB can cause temporary behavioral changes, including startle and stress (CalTrans 2015).

It is unlikely that sturgeon or giant manta ray would be in the area to experience a direct injury or mortality due to the noise associated with pile installation; however, pile driving may result in an avoidance response or behavioral disturbance to these species if they are present in the area during construction.

#### 6.1.5 Lighting

Artificial light used during construction and operation of the Project has the potential to disrupt the behavior of sturgeon species and giant manta ray within the PSA. However, as these species are primarily demersal, light attenuation through the water column will dissipate and not pose as great a risk as to surface-dwelling animals. Additionally, the area surrounding the PSA currently contains numerous sources of artificial lighting to which resident species may already be habituated. Further, as the PSA does not contain sturgeon or ray spawning habitat, there is no



risk of disruption to spawning activities or early life stage individuals.

### 6.2 Sea Turtles

#### 6.2.1 Habitat Resource Alterations

There is no nesting habitat in the PSA for green, hawksbill, Kemp's ridley, leatherback, or loggerhead sea turtles. The turtles may enter the PSA for developmental habitat or foraging, although there is no documented SAV for herbivorous species and the addition of riprap and/or concrete materials will further reduce the amount of available foraging habitat. Additionally, there is an abundance of high quality foraging and developmental habitat throughout the broader extent of the waterways surrounding the PSA and Radio Island. Based on this analysis and expansive surrounding estuarine and marine habitat, it is unlikely the limited in-water area of the PSA provides a substantial or an important resource to sea turtles that would be susceptible to loss or modification of habitat resource.

#### 6.2.2 Turbidity

Elevated turbidity levels may occur during dredging and the installation of the piles required for the OSW facility and RoRo dock. Such elevated turbidity may temporarily reduce local water quality and the foraging/hunting efficacy of sea turtles, which are visual foragers and predators. While no information is available on the physiological effects of TSS on juvenile or adult sea turtles. Sea turtles breathe air and are not expected to experience any adverse physiological impacts from increased turbidity levels (NOAA 2023d). Additionally, increased turbidity is expected to dissipate over a matter of hours following and would not permanently degrade water quality conditions or sea turtles' ability to forage. Sea turtles are also highly mobile and capable of swimming through or avoiding a turbidity plume.

Turbidity plumes will be reduced by the implementation of appropriate BMP measures. These measures will minimize effects of construction runoff and the extent of elevated turbidity levels in surface waters for on-shore construction activities, including the use of turbidity curtains during construction. For additional details, see Section 7.

#### 6.2.3 Physical Harm

The greatest risk of physical harm or mortality to sea turtles in the PSA is direct contact by marine vessels, also known as vessel strike. Sea turtles are especially vulnerable to vessel strikes as they surface to breathe, bask near the surface, and forage in shallow areas or prey near in surface waters (NMFS 2023e). Juveniles and subadults may be at greater risk for vessel strike as they are harder for vessel operators to see, and adults may be at increased risk during breeding and nesting season. Although the likelihood of vessel strikes is reduced based on the small area of the PSA, the use of BMPs such as slow starts and vessel lookouts may further reduce the potential risk of vessel strike to sea turtles.

Although the potential exists for incidental physical strike by pile, the noise and other disturbances caused by pile driving would likely cause sea turtles to leave the area. There have been no documented sea turtle takes by cutterhead dredging along the southeastern coast and only take



reported by mechanical dredging over the past several decades (NMFS 2012). Therefore, it is expected that the risk of interactions and physical harm to sea turtles by pile driving or dredging is negligible.

#### 6.2.4 Noise and Sound Pressure

Sea turtle hearing is limited to low-frequency sounds, which may be used as guideposts during migration and to identify nesting beaches (Lenhardt et al. 1983). Possible effects of sound from pile driving range from behavioral disturbance such as startle reactions and behavioral changes to injurious effects such as temporary or permanent loss of hearing (threshold shifts) and damage to internal organs (barotrauma). The in-water noise thresholds for sea turtles are described in Table 6-2.

Table 6-2. NOAA-NMFS In-Water Noise Thresholds for Sea Turtles

Effect	Disturbance	Noise Threshold (dB)
	Peak Sound Pressure Levels	207
Onset of physical injury	Single-Strike SEL	203
	Cumulative SEL	203
Behavioral Disturbance	Root Mean Square Pressure	160

Source: Popper et al. 2014; CalTrans 2015

While auditory injury would not be expected to occur, construction noise may cause behavioral disturbance to sea turtles. NOAA-NMFS uses 160 dB as the threshold for behavioral disturbance to sea turtles, such as moving from preferred sites for feeding and reproduction or alteration of migration patterns (Popper et al. 2014; CalTrans 2015).

The potential for impacts is greatest during the nesting and hatching season from early May to late October; however, as stated previously, there is no nesting habitat in the PSA. Sea turtles may avoid the construction areas while foraging if disturbed by noise and seek habitat elsewhere in the Newport River Estuary, Bogue Sound, or surrounding waterways.

#### 6.2.5 Lighting

Artificial light used during construction and operation of the Project has the potential to disrupt the behavior of sea turtle within the PSA. Artificial light near nesting beaches poses the greatest risk of disorientation to hatchlings, but may also deter females from coming ashore to nest as they typically seek dark places for egg deposition (NFWF 2023). As previously state, the PSA does not contain known sea turtle nesting habitat and the closest known nesting beach is located approximately 0.8 mile away at the interface of Fort Macon State Park and the Atlantic Ocean.

Although the area surrounding the PSA currently contains numerous sources of artificial lighting to which resident turtles may already be habituated, BMPs should be employed to reduce the impacts of artificial lighting on sea turtles. This includes minimizing the amount of artificial light



used during nesting and hatching season (May through October),

# 7 Conservation Measures and Environmental Commitments

The Authority commits to implementing the following conservation measures, or actions, to minimize or compensate for effects to protected species. In general, the contractor would also adhere to 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 would result during from the proposed action;
  - 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 "slow-starts" while pile driving to deter animals from the area and minimize disturbance;
- 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;
- Good engineering practices and BMPS would be applied to all dredging activity;
- All marine vessels including those used for dredged material delivery would be routinely inspected for leaks; and
- Dredging contractors would be required to maintain spill control plans and waste management plans for all dredging fleet equipment.

Other conservation measures and conditions are detailed in the NOAA-NMFS Sea Turtle



Construction Conditions (NMFS 2006) and National Pollutant Discharge Elimination System permit conditions.

## 8 Conclusions and Effect Determinations

This BA analyzes the proposed action to determine the potential adverse effects to ESA listed species as a result of the Project. Risk factors include being struck by construction equipment (piles) or marine vessels, entrainment by dredging, construction-associated noise, turbidity, and lighting, and temporary or permanent loss of habitat or habitat resources. Because of the limited impacts detailed in the previous sections, as well as the limited extent of the PSA and proposed conservation measures, the proposed Project **may affect**, **but is not likely to adversely affect** the Atlantic sturgeon, shortnose sturgeon, giant manta ray, green sea turtle, Kemp's ridley sea turtle, hawksbill sea turtle, leatherback sea turtle, and loggerhead sea turtle (Table 8-1). Short-term behavioral changes in response to construction activities, or avoidance, are the impacts most likely to be experienced by these animals. The remaining shark and whale species are expected to experience **no effect** from this Project.

**Table 8-1. Effect Determination** 

Common Name	Federal ESA Designation	Effect Determination	Justification	
Atlantic Sturgeon	Endangered	May Affect, Not Likely to Adversely Affect	Project area may contain migratory	
Shortnose Sturgeon	Endangered	May Affect, Not Likely to Adversely Affect	habitat. In-water construction nois may cause behavioral disturbances. Slow starts would	
Giant Manta Ray	Threatened	May Affect, Not Likely to Adversely Affect	minimize disturbances.	
Oceanic Whitetip Shark	Threatened	No Effect	Required habitat not found in the Project area	
Green Sea Turtle	Threatened	May Affect, Not Likely to Adversely Affect	Drainet area doos not contain	
Kemp's Ridley Sea Turtle	Endangered	May Affect, Not Likely to Adversely Affect	Project area does not contain nesting habitat but contains suitable foraging habitat. In-water	
Hawksbill Sea Turtle	Endangered	May Affect, Not Likely to Adversely Affect	construction noise may cause behavioral disturbances. NOAA- NMFS Sea Turtle Construction	
Loggerhead Sea Turtle	Threatened	May Affect, Not Likely to Adversely Affect	Conditions would be followed to minimize impact to turtles in the aquatic environment.	
Leatherback Sea Turtle	Endangered	May Affect, Not Likely to Adversely Affect	aquatic environment.	
Blue Whale	Endangered	No Effect		
Fin Whale	Endangered	No Effect	Paguired habitat not found in the	
North Atlantic Right Whale	Endangered	No Effect	Required habitat not found in the Project area	
Sei Whale	Endangered	No Effect		



Common Name	Federal ESA Designation	Effect Determination	Justification
Sperm Whale	Endangered	No Effect	



## 9 References

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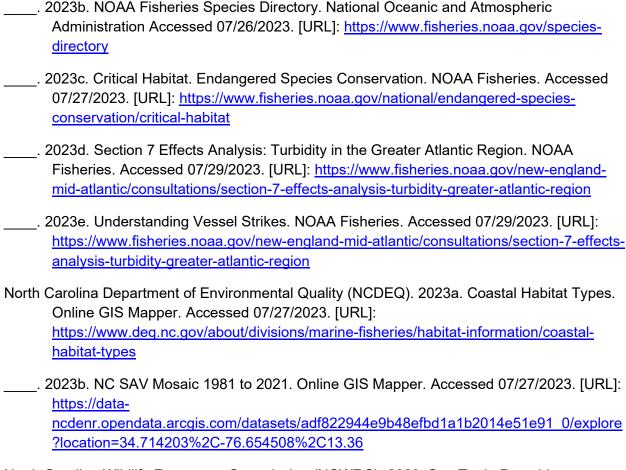
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Appendix A – USFWS Coordination



August 8, 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 <sup>1</sup>	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	Т	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 <sup>2</sup>	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	Т	Found in salt and brackish marshes with dense cover but can also be found in upland areas of the marshes	No	Current	No Effect
Charadrius melodus	Piping plover	Т	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	Т	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 <sup>1</sup>	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	L		
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	Е	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
	l		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 <sup>1</sup>	Biological Conclusion
			Flowering Plants			
Lysimachia asperulaefolia	Rough-leaved Loosestrife	Е	Typically found on edges of longleaf pine uplands and pond pine pocosins	No	Current	No Effect
*Amaranthus pumilus	Seabeach amaranth	Т	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.

PE (Proposed Endangered)

MANLAA – "May affect, not likely to adversely affect"

<sup>1</sup>NHP County Status (updated January 31, 2023)

\*Previously on the IPAC list in 2022/2023

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".

<sup>&</sup>lt;sup>2</sup>Protected under the Bald and Golden Eagle Protection Act

<sup>\*</sup>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.



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, eastern black rail, 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 consistency letter (generated on August 7, 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.

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 <a href="mailto:Jessica.tisdale@hdrinc.com">Jessica.tisdale@hdrinc.com</a>.

Sincerely,

#### **Attachments:**

Figure 1 – Project Vicinity Map

Figure 2 – Environmental Feature Map

Figure 3 – Project Layout

USFWS Self-certification Letter (dated July 24, 2023)

USFWS Species Conclusion Table (dated July 24, 2023)

USFWS ECOS IPaC Report (dated July 28, 2023)

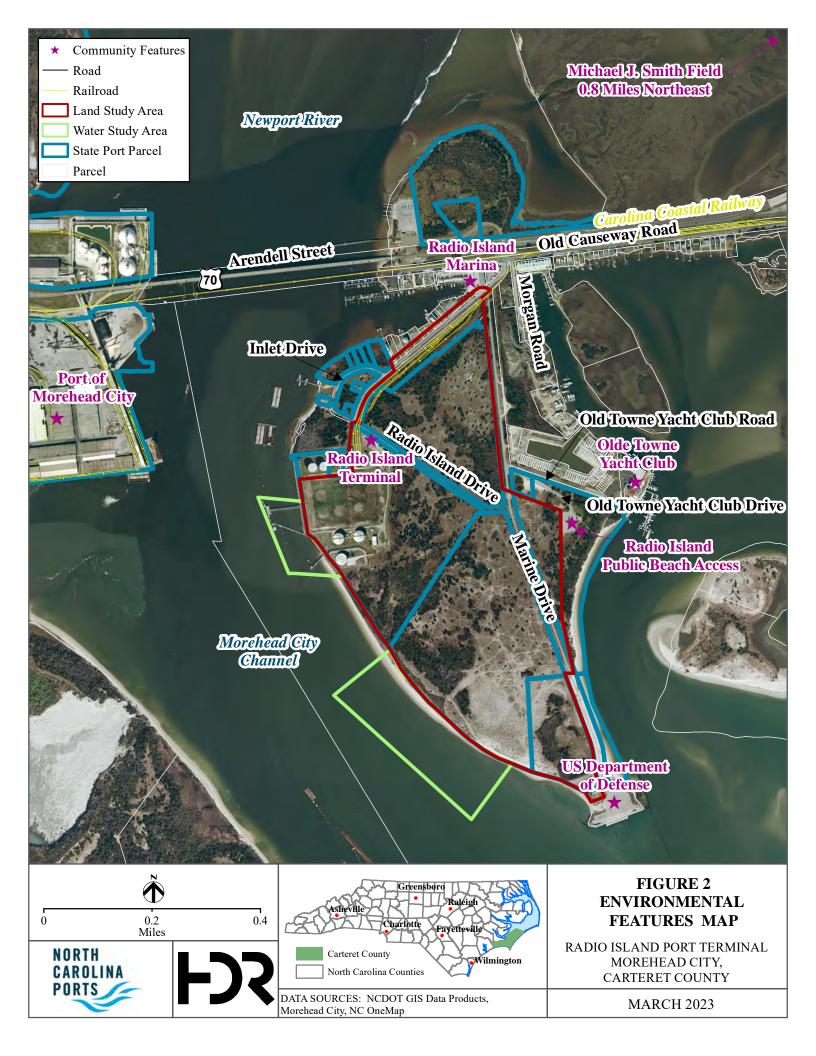
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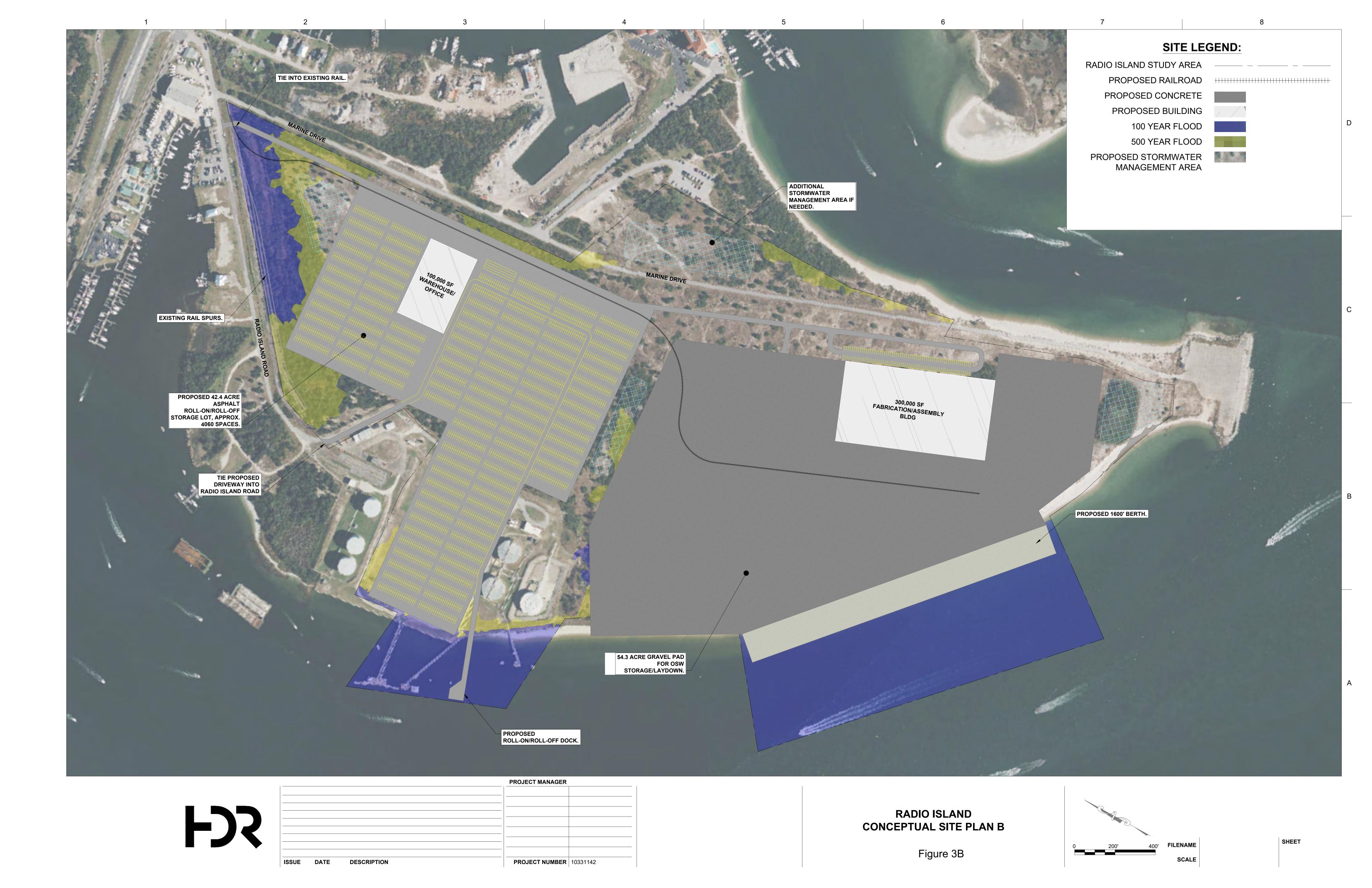
USFWS DKey Results Northern long-eared bat (dated: August 7, 2023)

USFWS Scoping Comments (dated: April 27, 2022)

NC Natural Heritage Program Element Occurrence Report (dated: March 31, 2023)









# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE

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

Date:
Self-Certification Letter

Project Name			
-			

### 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:

"no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or

"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 longeared 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;

"no Eagle Act permit required" determinations for eagles.

Applicant Page 2

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 24, 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 Ieucocephalus	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	No suitable foraging; no nesting habitat.	No effect	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 <i>Lepidochelys kempii</i>	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 11 <sup>th</sup> , 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.

Jan J. Vishel	Jessica Tisdale, Environmental Scientist		
		7/24/2023	
Signature /Title		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 28, 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

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# **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: <a href="https://www.google.com/maps/@34.7137641">https://www.google.com/maps/@34.7137641</a>,-76.68627032648715,14z



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<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

#### **MAMMALS**

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species.  Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i>	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat. *This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.* 

Species profile: https://ecos.fws.gov/ecp/species/4469

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**BIRDS** 

NAME **STATUS** Threatened Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477 Piping Plover Charadrius melodus Threatened Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except

those areas where listed as endangered.

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6039

Threatened Red Knot Calidris canutus rufa

There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864

Red-cockaded Woodpecker Picoides borealis Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614

REPTILES

NAME **STATUS** Similarity of American Alligator *Alligator mississippiensis* 

No critical habitat has been designated for this species. Appearance Species profile: https://ecos.fws.gov/ecp/species/776 (Threatened)

Threatened Green Sea Turtle Chelonia mydas

Population: North Atlantic DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6199

Kemp's Ridley Sea Turtle Lepidochelys kempii Endangered

There is **proposed** critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5523">https://ecos.fws.gov/ecp/species/5523</a>

Leatherback Sea Turtle Dermochelys coriacea Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493

Loggerhead Sea Turtle Caretta caretta Threatened

Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/1110">https://ecos.fws.gov/ecp/species/1110</a>

**INSECTS** NAME **STATUS** 

Candidate

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/9743

Monarch Butterfly *Danaus plexippus* 

# **FLOWERING PLANTS**

NAME

Rough-leaved Loosestrife Lysimachia asperulaefolia

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2747">https://ecos.fws.gov/ecp/species/2747</a>

# **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.

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# **MIGRATORY BIRDS**

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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.

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

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

NAME	BREEDING SEASON
Eastern Whip-poor-will <i>Antrostomus vociferus</i> 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 <i>Puffinus gravis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Gull-billed Tern <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9501">https://ecos.fws.gov/ecp/species/9501</a>	Breeds May 1 to Jul 31
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8936">https://ecos.fws.gov/ecp/species/8936</a>	Breeds May 1 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Long-tailed Duck <i>Clangula hyemalis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/7238">https://ecos.fws.gov/ecp/species/7238</a>	Breeds elsewhere
Manx Shearwater <i>Puffinus puffinus</i> 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 <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds elsewhere
Painted Bunting <i>Passerina ciris</i> 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 <i>Stercorarius pomarinus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Prairie Warbler <i>Dendroica discolor</i> 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 <i>Protonotaria citrea</i> 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 <i>Calidris maritima</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Razorbill <i>Alca torda</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jun 15 to Sep 10
Red-breasted Merganser <i>Mergus serrator</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> 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 <i>Gavia stellata</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Ring-billed Gull <i>Larus delawarensis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Roseate Tern <i>Sterna dougallii</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds May 10 to Aug 31
Royal Tern <i>Thalasseus maximus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Apr 15 to Aug 31
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird <i>Euphagus carolinus</i> 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 <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
South Polar Skua <i>Stercorarius maccormicki</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Surf Scoter <i>Melanitta perspicillata</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
White-winged Scoter <i>Melanitta fusca</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Willet <i>Tringa semipalmata</i> 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 <i>Charadrius wilsonia</i> 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 <i>Oceanites oceanicus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> 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 (|)

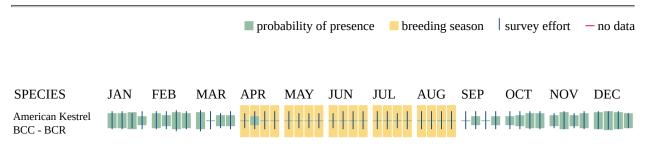
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

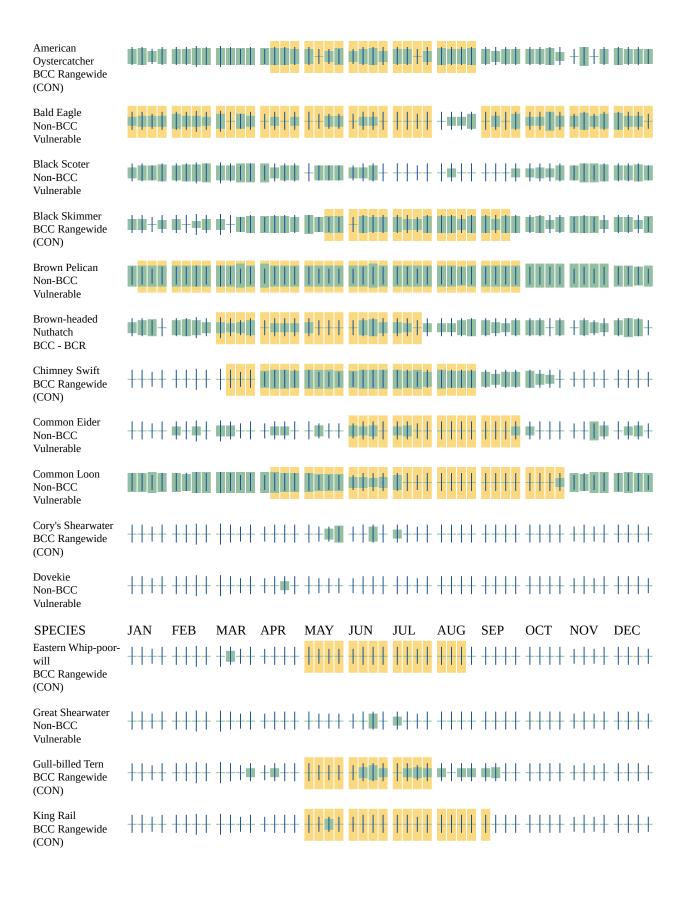
#### No Data (-)

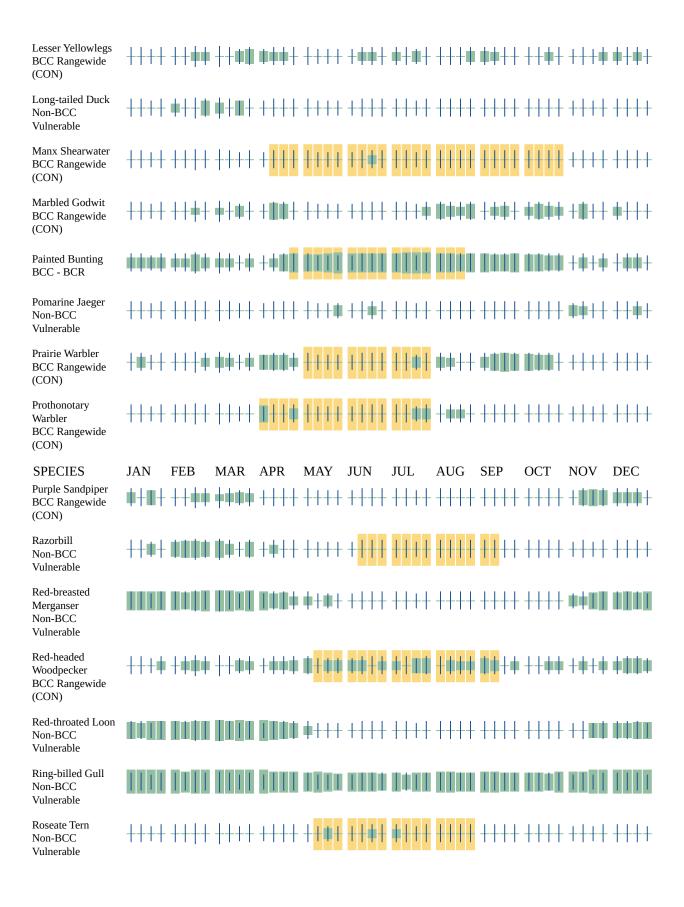
A week is marked as having no data if there were no survey events for that week.

#### **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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Additional information can be found using the following links:

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

# **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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <a href="Rapid Avian Information">Rapid Avian Information</a> 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 <u>Avian Knowledge Network (AKN)</u>. 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?

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

1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (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 <a href="Eagle Act">Eagle Act</a> 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 <a href="Northeast Ocean Data Portal">Northeast Ocean Data Portal</a>. 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 <a href="NOAA NCCOS Integrative Statistical Modeling">NOAA NCCOS Integrative Statistical Modeling</a> and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic <a href="Outer Continental Shelf">Outer Continental Shelf</a> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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.

07/28/2023

# MARINE MAMMALS

Marine mammals are protected under the <u>Marine Mammal Protection Act</u>. Some are also protected under the Endangered Species Act<sup>1</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>2</sup>.

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<sup>3</sup> [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 <u>Marine Mammals</u> page of the NOAA Fisheries website.

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

- 1. The Endangered Species Act (ESA) of 1973.
- 2. The <u>Convention on International Trade in Endangered Species of Wild Fauna and Flora</u> (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
- 3. <u>NOAA Fisheries</u>, 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

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# **IPAC USER CONTACT INFORMATION**

Agency: Private Entity
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### LEAD AGENCY CONTACT INFORMATION

Lead Agency: North Carolina Department of Transportation

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# 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: August 07, 2023

Project code: 2023-0063173

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

Federal Nexus: yes

Federal Action Agency (if applicable): North Carolina Department of Transportation

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 August 07, 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 IPaC must accurately represent the full scope and details of the Project.

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

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

Based upon your IPaC submission and a standing analysis, your project 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 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
- 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**

<u>Consultation with the Service is necessary.</u> The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is <u>incomplete</u> and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

- 1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **264-130086083**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
- 2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
- 3. Click on Review/Finalize to convert the 'not likely to adversely affect' consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

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: <a href="https://www.google.com/maps/@34.7133123,-76.68617120286703,14z">https://www.google.com/maps/@34.7133123,-76.68617120286703,14z</a>



## **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.). *No* 

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

- 8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)? *No*
- 9. Have you determined that your proposed action will have no effect on the northern longeared bat? Remember to consider the <u>effects of any activities</u> that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer "No" below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project's action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a "no effect" determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer "No" and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of <a href="Effects of the Action">Effects of the Action</a> can be found here: <a href="https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions">https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</a>

No

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

No

12. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

13. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

(If unsure, answer "Yes.")

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <a href="https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions">https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</a>

Yes

14. Will the action cause effects to a bridge?

No

15. Will the action result in effects to a culvert or tunnel?

No

16. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

No

17. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?** *No* 

18. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

Yes

20. Will the increased vehicle traffic occur on any road that lies between any two areas of contiguous forest that are each greater than or equal to 10 acres in extent and are separated by less than 1,000 feet? Northern long-eared bats may cross a road by flying between forest patches that are up to 1,000 feet apart.

**Note:** "Contiguous forest" of 10 acres or more may includes areas where multiple forest patches are separated by less than 1,000 feet of non-forested area if the forested patches, added together, comprise at least 10 acres. *No* 

- 21. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)? *No*
- 22. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

  Yes
- 23. 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  $\ge 3$  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

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>inactive</u> (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <a href="https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas">https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</a>

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>active</u> (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <a href="https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas">https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</a>

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.

0

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?

No

Will all project activities by completed by April 1, 2024?

Yes

### **IPAC USER CONTACT INFORMATION**

Agency: North Carolina Department of Transportation

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### LEAD AGENCY CONTACT INFORMATION

Lead Agency: North Carolina Department of Transportation

Name: Todd Walton

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Phone: 9107466460



# 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. 3<sup>rd</sup> 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 <a href="https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation">https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation</a>. 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 <a href="https://ipac.ecosphere.fws.gov/">https://ipac.ecosphere.fws.gov/</a>. 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 concern¹ 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 <a href="https://fws.gov/office/eastern-north-carolina">https://fws.gov/office/eastern-north-carolina</a>. Please check the web site often for updated information or changes.

<sup>&</sup>lt;sup>1</sup> 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 <a href="https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve">https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve</a>) 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,

John Ellistor Pete Benjamin

Field Supervisor



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: <a href="https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37">https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37</a>.

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 <u>rodney.butler@ncdcr.gov</u> 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 <a href="https://ncnhde.natureserve.org/help">https://ncnhde.natureserve.org/help</a>. 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 Occur			ie-mile Radius of the Proj	ject 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	Н	3-Medium			GNR	S3
Animal Assemblage	7771	Waterbird Colony	Waterbird Colony	1988-05-30	Χ	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	a Saltmarsh Sparrow	2017-12-04	Е	3-Medium		Significantly Rare	G2	SUB,S2 N
Bird	40360	Calidris canutus rufa	Red Knot - rufa subspecies	2018-03-09	Е	3-Medium	Threatened	Threatened	G4T2	S2N
Bird	7916	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2021	E	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	41007	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2021-05-13	E	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	40366	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2018-03-09	E	3-Medium	Threatened	Threatened	G3T3	Ń
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	Н	3-Medium		Special Concern	G5	S3B,S3 N
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	Н	3-Medium		Special Concern	G5	S2B,S3 N

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State		State
Group				Observation Date	Occurrence Rank		Status	Status	Rank	
Bird	2416	Gelochelidon nilotica	Gull-billed Tern	1988	Н	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	В	3-Medium		Special Concern	G5	S2S3B, S3N
Bird	7119	Himantopus mexicanu	sBlack-necked Stilt	1983-07	Н	4-Low		Significantly Rare	G5	S1B
Bird	36705	Nyctanassa violacea	Yellow-crowned Night- Heron	1976-07-16	Н	6-Unkno wn		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,S5 N
Bird	16216	Rynchops niger	Black Skimmer	1988	Н	3-Medium		Special Concern	G5	S2B,S3 N
Bird	36408	Rynchops niger	Black Skimmer	2021-05-20	Е	3-Medium		Special Concern	G5	S2B,S3 N
Bird	5207	Rynchops niger	Black Skimmer	1988-05-30	X	3-Medium		Special Concern	G5	S2B,S3 N
Bird	12917	Rynchops niger	Black Skimmer	1997-06-09	H?	4-Low		Special Concern	G5	S2B,S3 N
Bird	36412	Rynchops niger	Black Skimmer	1991-05-30	H?	3-Medium		Special Concern	G5	S2B,S3 N
Bird	23960	Rynchops niger	Black Skimmer	2004-06-22	F	3-Medium		Special Concern	G5	S2B,S3 N
Bird	36409	Sterna hirundo	Common Tern	2021-05-20	Е	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	Н	3-Medium		Special Concern	G4	S3B
Bird	35775	Sternula antillarum	Least Tern	2004-06-02	F	3-Medium		Special Concern	G4	S3B

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global Rank	
Group				Observation Date	Occurrence Rank		Status	Status	Rank	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	А	3-Medium		Significantly Rare	G1	S1
Butterfly	10143	Heraclides cresphonte	sEastern Giant Swallowtail	2016-07-28	Е	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 Fis	h24086	Acipenser brevirostrum	Shortnose Sturgeon	1999-01-28	H?	5-Very Low	Endangered	Endangered	G3	S1
Freshwater Fis	h38939	Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	2004-11-28	Е	4-Low	Endangered	Endangered	G3T3	S2
Grasshopper o Katydid	r 34586	Mermiria bivittata	Two-striped Mermiria	2004-09-10	Е	2-High		Significantly Rare	G5	S2S3
Mammal	9806	Trichechus manatus	West Indian Manatee	2008-06-13	Е	5-Very Low	Threatened	Threatened	G2G3	S1N
Moss	23678	Tortula plinthobia	A Chain-teeth Moss	1989-11-13	Е	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

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Natural Community	32942	Brackish Marsh (Salt Meadow Cordgrass Subtype)		2012-05-03	С	3-Medium			G4G5	S4
Natural Community	1542	Dune Grass (Bluestem Subtype)		2019-02-27	В	2-High			G3	S1
Natural Community	32940	Dune Grass (Southern Subtype)		2012-05-03	С	2-High			G3	S2
Natural Community	39622	Maritime Evergreen Forest (Mid Atlantic Subtype)		2019-02-27	С	2-High			G2	S2
Natural Community	16055	Maritime Shrub (Stunted Tree Subtype)		2019-02-27	С	2-High			G3	S2
Natural Community	16844	Salt Flat			NR	4-Low			G5	S4
Natural Community	32939	Salt Flat		2012-05-03	С	3-Medium			G5	S4
Natural Community	4733	Salt Marsh (Carolinian Subtype)		2012-05-03	С	2-High			G5	S4
Natural Community	10811	Salt Marsh (Carolinian Subtype)		2019-02-27	В	2-High			G5	S4
Natural Community	39623	Salt Shrub (High Subtype)		2019-02-27	С	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	Е	3-Medium	Threatened	Threatened	G3	S1B
Reptile	34583	Crotalus horridus	Timber Rattlesnake	2011-07-17	Е	2-High		Special Concern	G4	S3

Element Occurrences Documented Within a One-mile Radius of the Project Area Scientific Name Common Name Federal Global State Taxonomic EO ID Last Element Accuracy State Observation Occurrence Status Status Rank Rank Group Date Rank 3-Medium Endangered Reptile 37965 Dermochelys coriacea Leatherback Seaturtle 2005-05-27 Ε G2 S1B.SU Endangered Ν Reptile 37971 Lepidochelys kempii Kemp's Ridley 2017-06-18 Е 4-Low Endangered Endangered S1B,SU G1 Seaturtle Ν 15254 Diamondback Terrapin В 3-Medium Special G4 S3 Reptile Malaclemys terrapin 2022-05-15 ---Concern 13517 Diamondback Terrapin 2019-04-21 В 3-Medium Special G4 S3 Reptile Malaclemys terrapin Concern Reptile 37448 Ophisaurus attenuatus Eastern Slender Glass 1950-07 Н 3-Medium Special G5T5 S1 ---Ionaicaudus Concern Lizard Megachile integra SH Sawfly, Wasp. 40240 a leafcutter bee 1941-08-17 4-Low Significantly G2G3 Н ---Bee, or Ant Rare Vascular Plant 17109 Amaranthus pumilus Seabeach Amaranth 2016-08-19 X? 2-Hiah G2 S1 **Threatened** Threatened Vascular Plant 4359 Amaranthus pumilus Seabeach Amaranth 1991-01-26 F 3-Medium Threatened Threatened G2 S1 Vascular Plant 41262 Four-angled Flatsedge 2021-11-19 Α 2-High ---Special G4 S2 Cyperus tetragonus Concern Vulnerable Vascular Plant 14038 Erythrina herbacea Coralbean 1950-08-07 Н 3-Medium Endangered G5 S2 ---Euphorbia bombensis Southern Seaside Ε Vascular Plant 28781 2006-08-15 2-High Significantly G4G5 S2? ---Rare Spurge Throughout Vascular Plant 7348 4-Low Significantly Parietaria praetermissa Large-seed Pellitory 1962-05-06 Н G3G4 S1 Rare Peripheral Vascular Plant 6466 Parietaria praetermissa Large-seed Pellitory 1984-05-15 Ε 3-Medium Significantly G3G4 S1 ---Rare Peripheral Vascular Plant 6446 Polygonum glaucum Seabeach Knotweed 2021-05 A? 3-Medium Endangered G3 S1 Polygonum glaucum Seabeach Knotweed S1 Vascular Plant 16095 1967-07-29 Н 3-Medium G3 ---Endangered Vascular Plant 1995 Polygonum glaucum Seabeach Knotweed 2007-09-15 3-Medium Endangered G3 S1 D ---Ε G5 Vascular Plant 38710 S1 Sesuvium maritimum Slender Sea-purslane 1998-08-18 3-Medium Endangered Shoreline Sea-purslane S1 Vascular Plant 35161 Sesuvium G5 1993-07-16 Ε 4-Low ---Endangered portulacastrum Vascular Plant 34587 Ε S1 Solanum Graceful Nightshade 2017-10-16 2-High Significantly G4 Rare pseudogracile Throughout

Element Occurrences Documented With	n a One-mile	Radius of	the Project Area
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Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	State
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Vascular Plant	41276	Steironema hybridum	Lowland Loosestrife	1919-07-19	Н	5-Very Low		Significantly Rare Peripheral	G5	S2?
Vascular Plant	1109	Trichostema nesophilum	Dune Bluecurls	2019-05-18	А	3-Medium		Special Concern Vulnerable	G2	S2
Vascular Plant	37015	Trichostema nesophilum	Dune Bluecurls	2016-09-20	С	3-Medium		Special Concern Vulnerable	G2	S2
Vascular Plant	12649	Yucca gloriosa	Moundlily Yucca	2020-01-30	В	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	n 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	n State
USFWS Critical Habitat - Loggerhead Seaturtle	US Fish and Wildlife Service	Federal

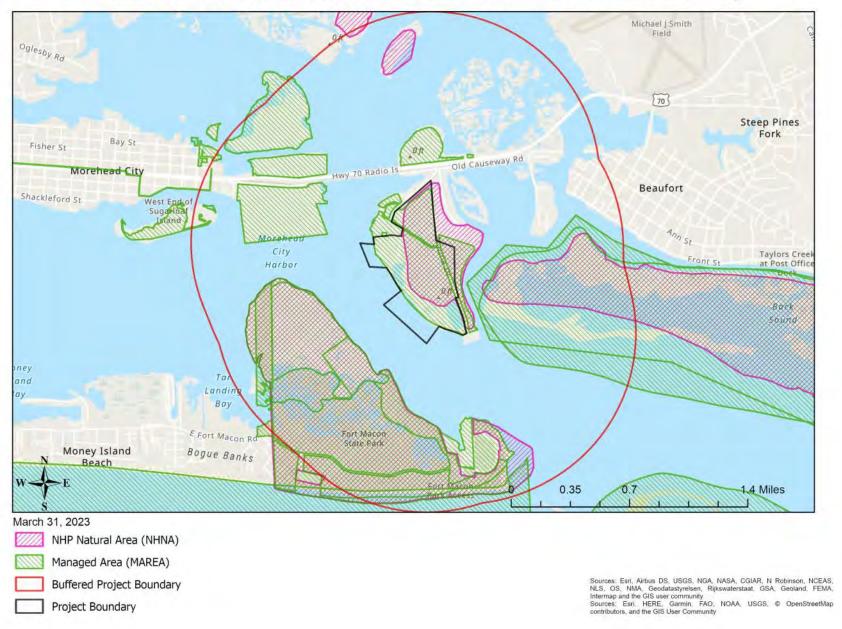
Managed Areas Documented Within a One-mile Radius of the Project Area

Nature Preserve

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	NC DNCR, Natural Heritage Program	State
National Estuarine Research Reserve Dedicated		

Definitions and an explanation of status designations and codes can be found at <a href="https://ncnhde.natureserve.org/help">https://ncnhde.natureserve.org/help</a>. 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



В

Appendix B – EFH Initial Consultation Letter and Biological Assessment



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



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

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### **Attachments:**

Figure 1 – Project Vicinity Map

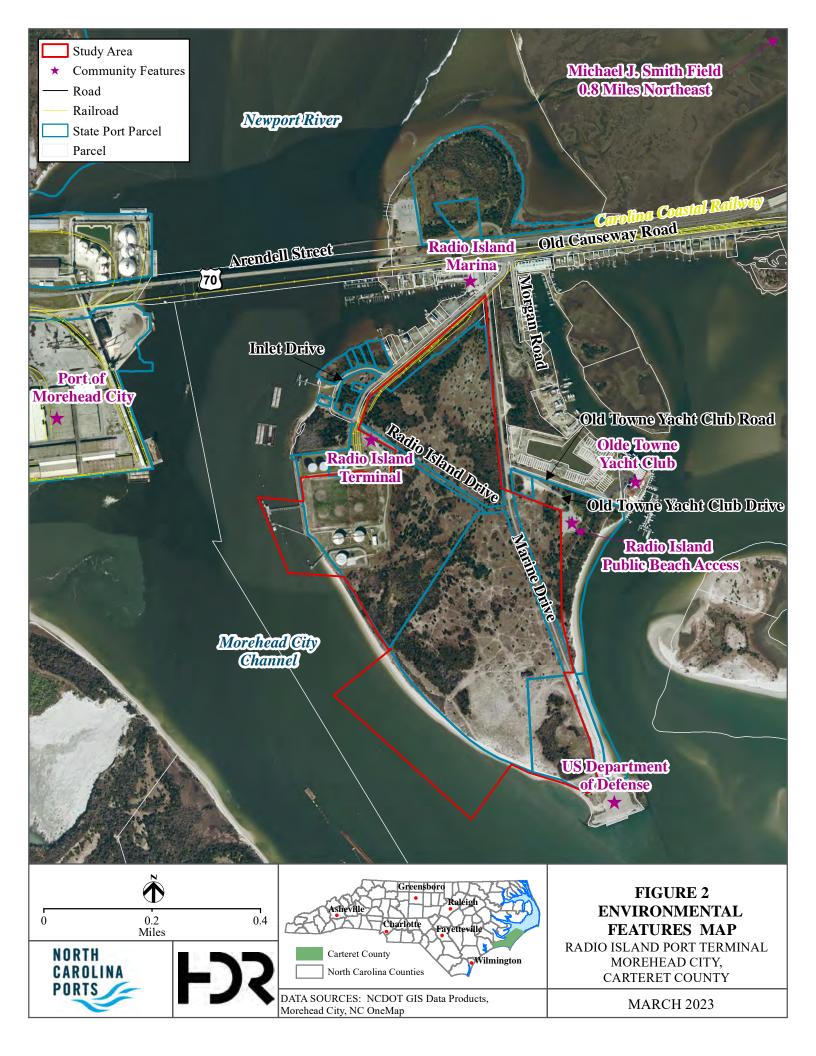
Figure 2 – Environmental Features Map

Figure 3 – Essential Fish Habitat Map

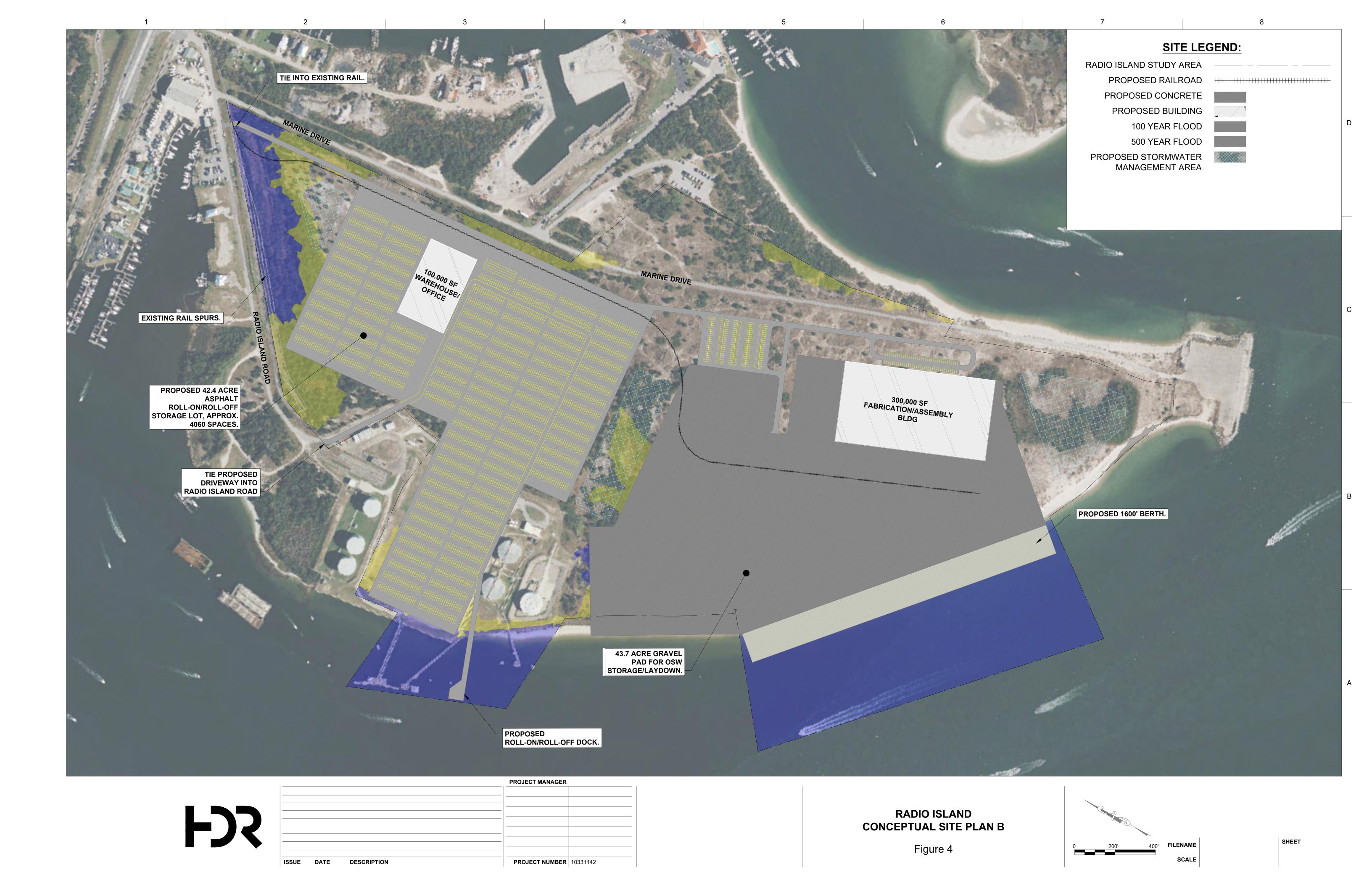
Figure 4 – Radio Island Conceptual Site Plan

Cc: Todd Walton, NCPSA Vickie Miller, HDR

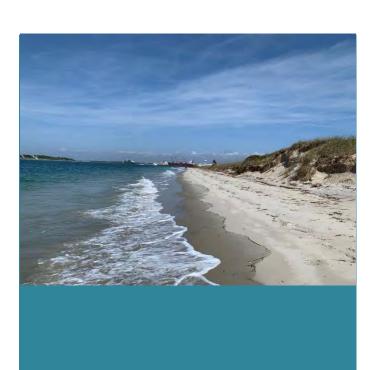












# Radio Island Multi-Use Terminal

# Biological Assessment of Essential Fish Habitat

Prepared for: North Carolina State Ports Authority PO Box 9002 Wilmington, North Carolina 28402

Prepared by: HDR Raleigh, North Carolina

December 2023



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# Appendices

Appendix A – USFWS Coordination Appendix B – NMFS Coordination



#### **Acronyms and Abbreviations**

°F degrees Fahrenheit (°F)

Authority North Carolina State Ports Authority

BA Biological Assessment
BMP Best Management Practice
CFR Code of Federal Regulations

EFH Essential Fish Habitat

HAPC Habitat Areas of Particular Concern

Magnuson-Stevens Act Magnuson-Stevens Fishery Conservation and Management Act

MLLW Mean Lower Low Water

NCDEQ North Carolina Department of Environmental Quality
NCDMF North Carolina Department of Marine Fisheries

NMFS National Marine Fisheries Service

NOAA National Oceanic and Atmospheric Administration

OSW Offshore Wind

Project Radio Island Multi-Use Terminal

PSA Project Study Area
RoRo Roll-on Roll-off

SAFMC South Atlantic Fisheries Management Council

SAV Submerged Aquatic Vegetation

USACE United States Army Corps of Engineers
USFWS United States Fish and Wildlife Service



# 1 Introduction

The North Carolina State Ports Authority (the Authority) is proposing to construct the Radio Island Multi-use Terminal and associated infrastructure facilities (Project) to support automotive and wind energy industries and complementary manufacturing in the Town of Morehead City in Carteret County, North Carolina.

An environmental assessment is being prepared for the Project in compliance with the National Environmental Policy Act. The purpose of this Biological Assessment (BA) is to address potential effects of the Project on Essential Fish Habitat (EFH). 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 the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (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.

Waters designated as EFH by the South Atlantic Fisheries Management Council (SAFMC) and the Mid-Atlantic Fisheries Management Council occur within the boundaries of the Project. This EFH assessment evaluates the potential effects of the Project on species that are under the jurisdiction of NOAA-NMFS. This includes a review of species under NOAA-NMFS jurisdiction and their associated habitats, as well as EFH and potential impacts from the Project. Separate consultations have been prepared for Endangered Species Act consultation to assess potential impacts to federally listed species under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS; Appendix A) and NOAA-NMFS (Appendix B).

# 2 Project Area and Description of Proposed Action

# 2.1 Project Setting

Radio Island is a spoil-created island of approximately 253 acres located within the Newport River/Intracoastal Waterway in eastern North Carolina (Figure 2-1). 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 Authority-owned land. 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 beginning at the intersection with NC 12. The Project study area (PSA) includes approximately 168 acres of the island and 31 acres within the Newport River (Figure 2-2).





Figure 2-1. Project Vicinity Map



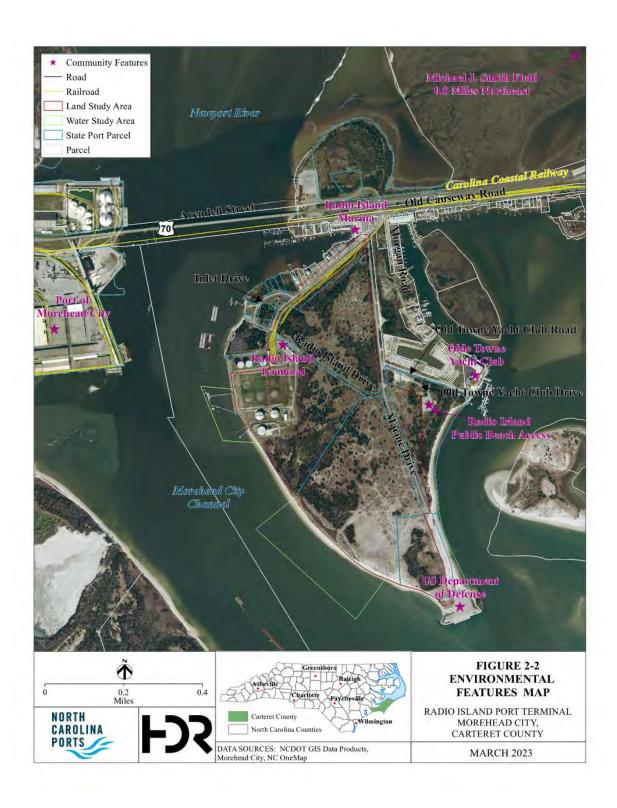


Figure 2-2. Environmental Features Map



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.

The existing infrastructure on Radio Island Authority-owned property includes an existing bulkhead and related liquid loading/unloading equipment for above ground storage tanks, an aviation fuel terminal, an 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.

## 2.2 Description of Proposed Action

The purpose of the Project is to support new industry opportunities to the state. 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.

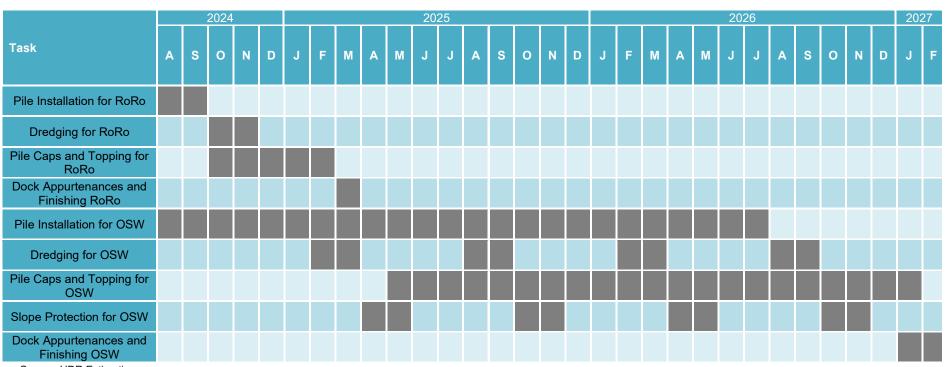
The proposed Project includes development of facilities and infrastructure necessary to create a multi-use terminal to support manufacturing and operations in the automotive and offshore wind (OSW) industries. Infrastructure development would include gravel or paving the majority of 154 acres of undeveloped 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. The berth will be designed for a 2.5 horizontal distance:1 vertical distance dredge slope and will likely need riprap and/or concrete matting to provide slope and scour protection. The dredge slope is designed so that the waterside dock platform can be limited to 150 feet wide.

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 safety standards. The terminal switching railroad provides access to a Class 1 rail line, operated by Norfolk Southern, that parallels US 70.

Project construction is estimated to commence in 2024 with an anticipated timeline of 31 months to complete the marine portion of construction. A tentative and high-level schedule of Project-phase durations is depicted in Table 2-1.



Table 2-1. Estimated Project-phase Durations for the Radio Island Multi-Use Terminal



Source: HDR Estimation



Hydraulic (cutterhead) or mechanical dredging would be utilized during Project construction, with dredging anticipated to last one month. The dredged materials will consist of a mixture of sand, mud, and marine clay. The area slated for dredging currently slopes from a depth of -40 feet mean lower low water (MLLW) at the channel toe to a depth of 0 feet at the shorelines. The maximum depth to be removed would take the current mudline of -9 feet MLLW to -45 feet MLLW. Dredged material would be placed in one of the existing Authority-owned confined disposal facilities, which includes Brandt Island, and North Radio Island disposal areas or offshore. Disposal operations for cutterhead dredging would involve direct hydraulic delivery to the disposal area via floating and/or submerged pipeline. In the case of mechanical dredging, disposal would involve the transport of dredged material via scow to the disposal area for placement via mechanical means or hydraulic offloading. Post-construction, an Authority-owned water injection dredge would be used for maintenance dredging purposes.

A mooring and berthing analysis (HDR 2023) 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-footlong 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.

Impact pile driving will be required for the installation of 1,298 54-inch spun-cast concrete cylindrical piles for the OSW facility. The anticipated duration of impact pile driving will vary based on the installation rate and number of crews operating, with an expected minimum rate of one pile installed daily with the use of a crane barge. There is potential to have 3 cranes mobilized simultaneously with 2 crane barges installing the outermost piles and 1 landside crane installing piles near the existing shoreline, resulting in approximately 430 days of pile driving. A fixed ringer crane would most likely be utilized on a 600-tone (4600 Ringer Class) floating crane barge.

Assuming pile installation commences before dredging occurs, then the mudline for pile driving will range from -10 feet MLLW and +4 feet MLLW; the maximum water column depth would be approximately 10 feet for pile installation with the final two rows of piles installed above the waterline on shore. Following pile installation pre-cast or cast-in-place pile caps will be installed to serve as structural beams for the top deck to span.

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 Roll-on Roll-off (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 offloading ramp will require the use of 59 24-inch pre-cast/pre-stressed concrete square piles installed via vibratory hammer. Piles are expected to be installed at a rate of 1.5 piles per day over a 2-month installation period. Piles will be installed with either the use of a smaller ringer crane (4100 Ringer Class) or a 250-ton track-mounted floating crane barge, based on contractor preference. The mudline at pile installation will range from -25 feet MLLW to +4 feet MLLW; the



maximum water column depth would be approximately 25 feet for pile installation with the final four rows of piles installed above the waterline on shore.

In addition to the dredge and crane barges, the use of additional marine vessels may include a Seajacks *Charybdis* design vessel to accommodate the OSW loading and unloading operations, and a break-bulk cargo carrier. The Seajacks *Charybdis* design vessel is 473-feet long by 184-feet wide vessel with a draft up to 25 feet and would be used for transporting OSW turbines. The Seajacks *Charybdis* is expected to transport 83 turbines over an 18-month period via the dredged channel (Figure 2-3); with an anticipated installation of 1 turbine per week, the Seajacks *Charybdis* is expected to make a minimum of 2 trips per week. The Seajacks *Charybdis* is expected to travel at slow speeds of 5 knots or less.

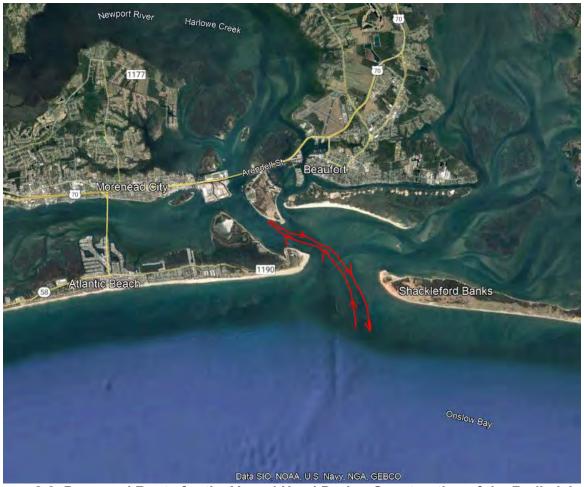


Figure 2-3. Proposed Route for the Vessel Used During Construction of the Radio Island Multi-Use Terminal or OSW Turbines

The break-bulk cargo carrier would also bring components to be assembled to the OSW facility. A typical break-bulk vessel would be Panamax class with an overall length of 750 feet, a beam



(width) of 106 feet, and a deep draft up to 42 feet. Being a larger vessel, the break-bulk carrier will have to enter further into the Port to access the turning basin and will head back in order to dock "bow-out" towards the sea (Figure 2-4). The break-bulk carrier is expected to make one trip per week during Project construction.

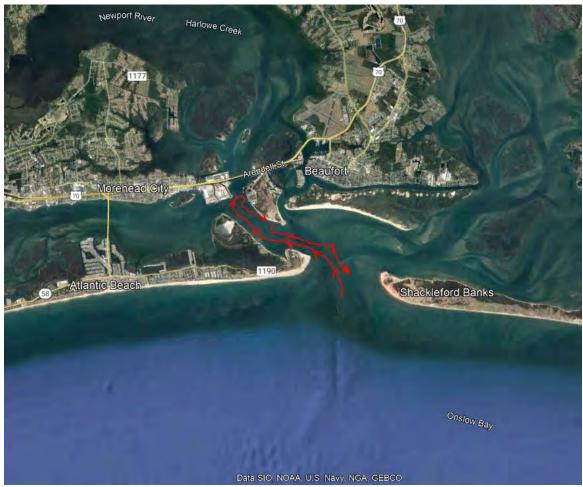


Figure 2-4. Proposed Route for the Break-Bulk Carrier for Use During Construction of the Radio Island Multi-Use Terminal or OSW Turbines

Appropriate best management practices (BMPs) will be implemented throughout Project construction. Additional details regarding potential effects of the Project on protected species and conservation measures are presented in this report.

# 3 Environmental Baseline

Radio 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 southernmost point of Radio Island is approximately 0.75 mile from the mouth of the Newport River at its nexus with



Beaufort Inlet and the Atlantic Ocean. There are no dams or other barriers to hydrologic connection between the PSA and the surrounding water bodies.

The PSA consists primarily of upland (approximately 85 percent) habitat with the remaining portion located within the Newport River. The lower Newport River consists of a relatively small (approximately 63 square miles), tidally controlled estuary (Kirby-Smith and Costlow 1989). The Newport River Estuary is very shallow with an average depth of 3.3 feet, a maximum depth in natural channels of approximately 20 feet, and a depth of 40 feet in dredged channels. Hydrography of the Newport River Estuary is influenced by semi-diurnal tides approximately 3 feet in height. An estimated 43 percent of the total high tide volume of water ebbs and flows in and out of the estuary with each tide cycle.

The Newport River Estuary is mostly vertically homogenous and well-mixed with the exception of the river headwaters where a salt wedge exists (Kirby-Smith and Costlow 1989). In the upper estuary salinity ranges from 0 parts per thousand (ppt) following periods of heavy rainfall and exceeding 36 ppt during drought. In the lower estuary in the vicinity of the PSA, salinities are higher and less variable, typically maintaining that of seawater salinity (34 ppt); however, tidal action can result in a salinity fluctuations of 3 to 5 ppt. Salinities in Bogue Sound are generally greater and less variable than those of the lower Newport River Estuary.

Water temperatures within the Newport River Estuary vary with air temperatures on a seasonal basis reaching a mean minimum temperature of approximately 40°F in late January and early February (Kirby-Smith and Costlow 1989). Mean maximum temperature of approximately 86°F is usually experienced in late July and early August. Dissolved oxygen is typically at or near saturation due to tidal and wind mixing, although some low oxygen values may occur in bottom waters or protected bays during summer months.

Marshes and intertidal shoals are common in the lower estuary and along edges of the upper estuary, although no marsh habitat or tidal creeks have been identified within the PSA (Kirby-Smith and Costlow 1989). Substrate throughout the estuary consists of an unconsolidated mixture of sand, silt, and clay, with oyster reefs providing the only natural hard substrate. Oysters are ecosystem engineers, building reefs, beds, or banks throughout intertidal habitats. These habitats provide essential habitat for fish and benthic organisms, provide foraging grounds for various shorebirds, provide substrate for additional oyster colonization, and facilitate shoreline stabilization and marsh creation. Oysters also enhance local water quality through filtration. The North Carolina Department of Environmental Quality (NCDEQ) online Coastal Habitat Mapper indicated an approximate 0.2-acre area of intertidal hard vegetated shell exists off the northwest coastline of Radio Island outside of the PSA boundary (NCDEQ 2023a). Fouling species including the Eastern Oyster (Crassostrea virginica) were noted sparsely on the coquina riprap along the existing concrete sheetpile bulkhead in the northwest of the PSA and on limited debris and concrete pieces within the subtidal and intertidal zones along the western shoreline of the PSA during field reconnaissance surveys performed on April 18 and 19, May 3 and 4, and August 11, 2022. Although EFH includes oyster reefs, the individual oysters observed in the PSA were not aggregated into reefs and do not qualify as EFH.



## 4 Essential Fish Habitats

The desktop analysis and subsequent field verification identified 27.9 acres of EFH within the PSA, including 1.1 acres of unconsolidated shore and shallow water habitat and 26.8 acres of unconsolidated bottom habitat (Figure 4-1). Essential fish habitat in the PSA appears to be of moderate to high quality, with minor impacts from prior development (adjacent roads construction/riprap installation), urban runoff, or litter. In addition to EFH, the PSA includes 199 acres of upland habitat. A brief description of each EFH type is provided in the following sections.





Figure 4-1. Essential Fish Habitat in the Radio Island Multi-Use Terminal PSA



#### 4.1 Unconsolidated Bottom Habitat

Unconsolidated bottom is defined as wetland and open water (i.e., deepwater) habitat with at least 25 percent cover of particles smaller than stone and less than 30 percent vegetative cover, as these habitats lack large, stable surfaces for plants or animals to attach (FGDC 2013). These environments can be subtidal; permanently, intermittently, or semi-permanently flooded; or permanently or semi-permanently flooded-tidal fresh (FGDC 2013). Unconsolidated bottom habitat within the PSA is characterized as permanently or semi-permanently flooded areas experiencing tidal fluctuations within the lower Newport River estuary. Unconsolidated bottoms in marine and estuarine systems are relatively stable compared to riverine systems substrates which are determined by flow velocity.

In open water estuarine systems, like the Newport River and other waterways surrounding Radio Island, the community structure and species diversity are strongly correlated with substrate type and complexity (FGDC 2013). Unconsolidated bottom substrates consisting primarily of sand intermixed with some mud and organic material, such as those found along the Radio Island shoreline, tend to contain epibenthic organisms adapted to lower oxygen concentrations. The plants and animals inhabiting this environment above the substrate are both morphologically and behaviorally adapted for changing water levels associated with the tides, as well as fluctuating salinity levels.

#### 4.2 Unconsolidated Shore and Shallow Water Habitat

Unconsolidated shores are characterized by substrates lacking vegetation except for pioneer plants (FGDC 2013). Erosion and deposition by waves and currents produce a number of landforms such as beaches, bars, and flats, all of which typify unconsolidated shores. Unconsolidated shores are commonly found adjacent to unconsolidated bottoms in many systems. Estuarine unconsolidated shores are often subcategorized by dominant substate types. In marine and estuarine systems where the substrate material is exposed to the sorting and washing action of waves, unconsolidated particles smaller than stones predominantly consist of sand, although finer or coarser sediments may be intermixed (FGDC 2013).

Unconsolidated shore habitat within the PSA is characterized by sandy beach within the intertidal zone that experiences regular flooding and exposure from tidal action. The boundary between unconsolidated shore and unconsolidated bottom (discussion in Section 4.1) 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. Shallow water habitats are defined as areas between the shore and deeper water (i.e., a depth of 15 feet or less) that provide habitat for water-dependent wildlife such as migratory shorebirds, waterfowl, reptiles, amphibians and aquatic mammals.

# 5 Managed Fisheries and Habitats

# 5.1 Habitat Areas of Particular Concern

Specific subsets of EFH that are considered high priorities for conservation, management, and/or research are categorized as Habitat Areas of Particular Concern (HAPC). These designations are assigned for habitats that are rare or sensitive, stressed, or critical for overall ecosystem



functioning (SAFMC 2016a). HAPC for a managed fishery can include intertidal, estuarine, or deep-water habitats that are used for migration, spawning, or development of early life stages.

#### 5.1.1 Penaeid Shrimp

Areas of HAPC defined for penaeid shrimp include all coastal inlets, state-designated nursery habitats, and state-identified overwintering areas (SAFMC 2016b). The Project is located in an area connected to coastal inlets and therefore the PSA is considered to fall within the HAPC for penaeid shrimp. Penaeid shrimp are also managed by the North Carolina Division of Marine Fisheries (NCDMF) as the Fisheries Reform Act of 1997 requires the NCDMF to prepare fishery management plans for all commercially and recreationally significant species or fisheries that comprise state marine and estuarine resources to ensure the long-term viability of these fisheries (NCDMF 2006; NCDEQ 2021).

Federally managed penaeid shrimp in North Carolina include brown shrimp (*Farfantepenaeus aztecus*), pink shrimp (*F. duorarum*), and white shrimp (*Litopenaeus setiferus*). Adults spawn offshore in high salinity oceanic waters during the winter or spring, and the ocean-spawned larvae and post-larvae are transported by currents to inshore estuarine nursery habitats where they maintain a benthic existence (SAFMC 1981).

Larval and post-larval estuarine recruitment periods vary among the three species (Table 5-1). Penaeid shrimp tolerate a wide range of salinities (Table 5-1) and are most abundant in shallow mud-silt habitats where they congregate at the highly productive marsh-water interface. As their size increases, shrimp move toward higher-salinity ocean waters, eventually migrating offshore in the fall. The PSA encompasses habitats that are designated as EFH and HAPCs for all life stages of penaeid shrimp; including estuarine tidal marshes, subtidal and intertidal non-vegetated flats, coastal inlets, submerged aquatic vegetation (SAV), and state designated Primary and/or Secondary Nursery Areas. Historic data (1981) from the NCDEQ online SAV mapper reported 1.56 acres of SAV on the northwest side of Radio Island and 2.36 acres of SAV on the northern side of Fort Macon State Park, approximately 0.5 mile from Radio Island (NCDEQ 2023b).

Table 5-1. Penaeid Shrimp Salinity Requirements and Juvenile Recruitment Period

Species	Salinity (ppt)	Juvenile Recruitment Period
Brown Shrimp	2-35	February - March
Pink Shrimp	0-35	June - October
White Shrimp	2-35	April - May

Source: NCDEQ 2016

# 5.2 Federally Managed Species

Federally managed fisheries were evaluated from the NOAA EFH Mapper (NOAA 2023), and those with habitat within the PSA or in the immediate vicinity (i.e., Newport River, Newport River Restricted Area (Morehead City Harbor), Bogue Sound) are detailed below.



#### 5.2.1 Snapper-Grouper Management Unit

The snapper-grouper management unit is managed by the SAFMC and consists of 59 species across ten families, including sea basses and groupers (Serranidae), wreckfish (Polyprionidae), snappers (Lutjanidae), porgies (Sparidae), grunts (Haemulidae), jacks (Carangidae), tilefishes (Malacanthidae), triggerfishes (Balistidae), wrasses (Labridae), and spadefishes (Ephippidae) (SAFMC 2016b). These species spawn offshore over areas of hard substrate and larvae are transported to estuaries which serve as nursery grounds until maturity. Estuarine nursery habitat is essential for providing refuge from predation as well as food sources, which typically consists of small fish and invertebrates. Many species of adult snapper-grouper also frequent estuaries and even tidal freshwaters for feeding.

Essential fish habitat for snapper-grouper species includes coral reefs, live/hard substrates, submerged aquatic vegetation, artificial reef habitat, and medium to high profile outcroppings on and around the continental shelf break zone ranging from shore to at least 600 feet (SAFMC 2016b). Spawning EFH includes the water column above adult habitat and the pelagic environment, including floating *Sargassum* which is essential for larval transport, survival, and growth. Snapper-grouper nearshore EFH (inshore of the 100-foot contour) for all life stages includes estuarine marshes, riverine and estuarine tidal creeks, oyster reefs and shell banks, unconsolidated bottom, and coastal inlets; all of which are included within or in the vicinity of the PSA. The fishery management plan for the snapper-grouper complex also includes oyster habitat as a HAPC.

#### 5.2.2 Coastal Migratory Pelagics Management Unit

The Coastal Migratory Pelagics Management Unit includes Spanish mackerel (*Scomberomorus maculatus*), king mackerel (S. *cavalla*), and cobia (*Rachycentron canadum*). These species are managed jointly by the SAFMC and the Gulf of Mexico Fisheries Management Council; the management area extends from the Mexico/Texas border to New York (NMFS 2023a). Coastal pelagic species are generally found in open waters near coastlines. The PSA and adjacent waterways encompass habitats designated as EFH and HAPCs for coastal migratory pelagics, including high salinity estuaries, coastal inlets, SAV, and state-designated Primary Nursery Areas and Secondary Nursery Areas.

Spanish mackerel form large, fast-swimming schools that range from New York to Mexico, preferring waters about 68 degrees Fahrenheit (°F) (SAFMC 2023). Adult Spanish mackerel spend most of their lives in the open ocean but are also found in tidal estuaries and coastal waters. Adults spawn in groups over the inner continental shelf off the North Carolina and Virginia coasts from April to September. Larvae are most commonly found in nearshore ocean waters at shallow depths less than 30 feet. Juveniles typically also remain in nearshore ocean waters, but some use high salinity estuaries, such as Bogue Sound, as nursery habitat.

King mackerel range from the Gulf of Maine to Brazil, are typically found in waters 115 to 600 feet deep, and are rarely found in waters below 68°F (NMFS 2023b; SAFMC 2023). Similar to Spanish mackerel, king mackerel form large schools and adults undergo extensive migrations throughout the southeastern U.S. driven by water temperatures and prey availability. Spawning occurs on



the outer continental from April to November. Little information is available regarding king mackerel early life stages.

Cobia have a circumtropical distribution, but in the United States are most abundant from Virginia to Florida and in the Gulf of Mexico (NMFS 2023b; SAFMC 2023). This species can be found over the continental shelf but also occurs in both inshore and nearshore habitats, such as inlets, bays, and high salinity estuaries. Cobia are often associated with reefs, artificial structures like wrecks, buoys, debris, or pilings, or large animals such as sharks, turtles, and stingrays. Spawning occurs in coastal bays and shallow estuaries from late June to mid-August. Cobia typically migrate offshore after hatching, and juveniles are often found among floating *Sargassum* where they feed and seek shelter from predators.

#### 5.2.3 Other Fishes

The waters of the Newport River, Bogue Sound, and the surrounding nearshore coastal areas contain EFH for several other species of migratory fishes and sharks, including bluefin tuna (*Thunnus thynnus*) and sharks of the smoothhound shark complex (*Mustelus* spp.). Although EFH for these species does not fall within the PSA, it is plausible that these species could occasionally enter Bogue Sound through the Beaufort Inlet and utilize the waters adjacent to the PSA for foraging purposes. Each of these species have unique Fishery Management Plans for the South Atlantic Region that define their EFH and HAPC (SAFMC 2016b; NOAA 2017).

# 6 Potential Effects of the Proposed Action

This assessment considers potential effects on EFH, HAPCs, and federally managed species that may occur as a result of Project activities. This includes physical disturbance and modification of the EFH within the dredging footprint, sediment suspension and redeposition, addition of fill materials, and larval entrainment. Analyses of potential effects on EFH, HAPCs, and federally managed species are discussed in the following sections according to habitat type.

#### 6.1 Essential Fish Habitat Alteration

Construction activities have the potential to alter the EFH physical environment via dredging and the addition of fill materials. Mechanical dredging is characterized by the extraction of substrate materials to a barge or disposal area (USACE 2023). Mechanical dredges are best suited for consolidated (i.e., hard-packed) materials, can be used to clear rock and debris, and have difficulty retaining loose, fine materials.

Dredging within the PSA would directly impact 21.5 acres of unconsolidated bottom habitat and unconsolidated shore combined. At the RoRo dock, existing bottom depths ranging from -23 to -40 feet MLLW would be increased to -38 feet MLLW to accommodate docking the Panamax class vessels. Water depths are currently deep in this area due to previous dredging for the existing abandoned oil terminal facility. These existing deep waters will be utilized for the RoRo dock and reduce the amount of dredging needed for the dock area. Dredge impacts at the RoRo dock would directly impact 2.75 acres (1,000 feet x 120 feet) of unconsolidated bottom habitat and would remove an estimated 20,000 to 30,000 cubic yards of material. At the OSW, existing bottom



depths ranging from -1 foot to -35 feet MLLW would be increased to -45 feet MLLW to accommodate the docking of cargo ships and jack-up installation vessels to build offshore wind farms. Dredge impacts at the OSW facility would directly impact 18.75 acres (2,100 feet x 535 feet) of unconsolidated bottom habitat and unconsolidated shore and would remove an estimated 900,000 cubic yards of material. The below OSW dock birthing area depth would be approximately -11 feet at the existing shoreline and the deepest depth of soil removed in any one location would be approximately 37 feet.

The addition of fill materials such as riprap or concrete also has the potential to alter EFH within the PSA. Shoreline stabilization measures such as these may reduce or eliminate sediment yield and generate scour (Fischenich 2003). Hardened shorelines could also potentially reduce potential available EFH, including the recruitment and colonization of SAV. Alternatively, hard substrate provides suitable habitat for biofouling organisms, such as oysters, which in turn could result in the creation of new EFH and associated resources. One other potential impact associated with riprap or concrete addition is the potential for these materials to retain heat and increase water temperatures in local, shallow areas; this, in turn, could potentially result in thermal pollution which can be harmful to aquatic life, particularly early life stages that may utilize EFH as breeding grounds or nursery habitat. Riprap placement would directly impact 6.5 acres (150 feet x 1,875 feet) of unconsolidated bottom habitat and unconsolidated shore as a result of the OSW proposed birthing area.

## 6.2 Sediment Suspension and Turbidity

Dredging and pile driving within the PSA would directly impact the unconsolidated bottom habitat during construction and maintenance operations. Dredging would result in the deepening of areas within the dredging footprint and would remove the existing benthic infaunal invertebrate community, thereby temporarily reducing the availability of potential prey for higher trophic levels organisms. However, studies of benthic community recovery in shallow estuarine navigation channels in the southeastern U.S, have reported rapid recovery of benthic communities within two to six months (Stickney 1972; Stickney and Perlmutter 1975; Van Dolah et al. 1984, 1979). These studies indicate that recolonization via slumping of adjacent undisturbed sediments into the dredged channel is an important recovery mechanism. The relatively rapid recovery on benthic infauna may also be attributed to the rapid infilling by sediments that were similar in composition to the extracted material, as well as avoidance of spring benthic invertebrate recruitment periods (Van Dolah et al. 1984).

Elevated turbidity levels and increased total suspended solids may occur during dredging and the installation of the piles required for the OSW facility and RoRo dock. This could potentially reduce the visual abilities of federally managed fish species, which could impact foraging, predator avoidance, and habitat selection. Alternatively, predation risks may also be temporarily decreased if turbidity disrupts hunting by visual predators. While the increase in suspended sediments may alter their normal movements or behavior, these movements are typically too small to be meaningfully measured or detected (NMFS 2023c). Short term declines in local water quality may also be experienced due to elevated turbidity levels, which in turn could affect the physiological processes or health of marine animals.



Cutterhead dredges use suction to entrain sediment for pumping through a pipeline to a designated discharge site. Production rates vary greatly based on pump capacities and the type (size and rotational speed) of cutter used, as well as distance between the cutterhead and the substrate (NMFS 2023c). Sediments are re-suspended during lateral swinging of the cutterhead as the dredge progresses forward; however, sediment suspension by cutterhead dredges is generally confined to the near bottom water column in the immediate vicinity of the rotating cutterhead assembly (LaSalle et al. 1991). Based on sediment resuspension data collected during navigation dredging projects, the average cutterhead dredge sediment resuspension rates range from 0.003 to 0.135 percent of the fine silt/clay fraction (Hayes et al. 2000).

Mechanical dredges (i.e., bucket and clamshell) are often associated with higher suspended sediment concentrations compared to hydraulic dredging methods. Mechanical dredging generates suspended sediments through impact of the bucket on the substrate as well as the excavation of bottom materials. Sediment resuspension also results when material is washed out of the bucket as it moves through the water column and above the water surface. The dredged material is also often lost during barge loading (Tavolaro et al. 2007; USACE 2015; SABEPSC 2018).

Based on all of the above considerations, anticipated impacts to unconsolidated bottom habitat and any federally managed species utilizing this habitat are expected to be temporary and minor. Construction-related sediment suspension and elevated turbidity levels are not expected to impact unconsolidated shore habitat within the PSA.

#### 6.3 Larval Entrainment

Cutterhead pipeline (hydraulic) dredges have the potential to entrain all life stages of fish and invertebrates. Among adult and juvenile fishes, demersal species that inhabit the near-bottom water column environment are most likely to be entrained, although studies have also reported the entrainment of pelagic fishes in small numbers (McGraw and Armstrong 1990; Reine and Clarke 1998). Entrainment studies indicate that dredging elicits an avoidance response by demersal and pelagic species and that most juvenile and adult fishes are successful at avoiding entrainment; however, eggs and planktonic larvae that lack avoidance capabilities are more vulnerable to entrainment by hydraulic dredges, especially during ingress periods when they are concentrated in inlets (Larson and Moehl 1990; McGraw and Armstrong 1990). A long-term sampling program at Beaufort Inlet indicated larval densities within the inlet are highest from late May to early June and lowest in November (Hettler and Chester 1990). Additionally, an entrainment modeling in Beaufort Inlet indicated that dredge entrainment rates are low regardless of larval concentrations and the distribution of larvae within the water column (Suttle 2003). Entrainment modeling results under "worst case model scenarios" (i.e., 24-hour dredge operation and all larvae assumed concentrated at the bottom of the dredge channel) projected entrainment rates of approximately 0.1 percent of the daily larval flux through the inlet.

Cutterhead pipeline dredging could affect federally managed species that utilize the inshore estuarine habitats by entraining planktonic early life stages if they are present in the vicinity of the



dredge pipe suction field. The area within the PSA where dredging will occur is located approximately 0.75 mile from the Beaufort Inlet where the distribution of eggs and larvae are expected to be diffuse; the presence of eggs and larvae of federally managed species in this area is even more unlikely. While entrainment impacts from cutterhead dredging within the PSA are expected to be minor, BMPs such as limiting the proposed dredging window to October 1 – January 31 to avoid peak larval densities would further reduce the likelihood of entrainment.

# 7 Conservation Measures and Environmental Commitments

The Authority commits to implementing the following conservation measures, or actions, to minimize or compensate for effects to EFH, HAPCs, and federally managed species. In general, the contractor would also adhere to 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 would result during from the proposed action;
  - 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 "slow-starts" while pile driving to deter animals from the area and minimize disturbance;
- 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;



- Good engineering practices and BMPS would be applied to all dredging activity;
- All marine vessels including those used for dredged material delivery would be routinely inspected for leaks; and
- Dredging contractors would be required to maintain spill control plans and waste management plans for all dredging fleet equipment.

### 8 Conclusions and Effect Determinations

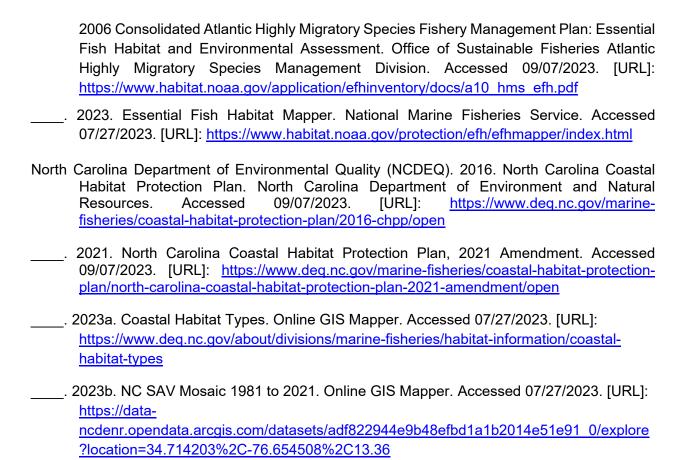
This BA analyzes the proposed action to determine the potential adverse effects to federally managed species that may occur as a result of Project activities. This includes physical disturbance and modification of EFH within the dredging footprint, sediment suspension and redeposition, and larval entrainment. Because of the limited impacts detailed in the previous sections, as well as the limited extent of the PSA and proposed conservation measures, the proposed Project may affect, but is not likely to adversely affect Essential Fish Habitat.



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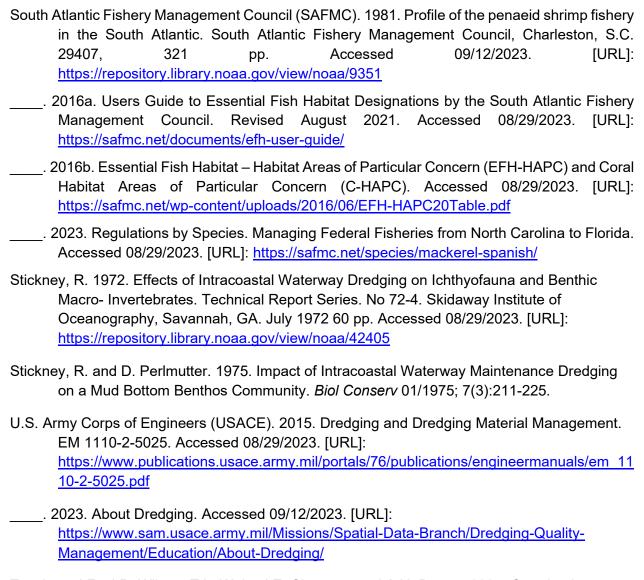
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Appendix A – USFWS Coordination



August 8, 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 <sup>1</sup>	Biological Conclusion	
Mammals							
Myotis septentrionalis	Northern long-eared bat	Е	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	Т	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 <sup>2</sup>	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	Т	Found in salt and brackish marshes with dense cover but can also be found in upland areas of the marshes	No	Current	No Effect	
Charadrius melodus	Piping plover	Т	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 <sup>1</sup>	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
	l		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 <sup>1</sup>	Biological Conclusion	
	Flowering Plants						
Lysimachia asperulaefolia	Rough-leaved Loosestrife	Е	Typically found on edges of longleaf pine uplands and pond pine pocosins	No	Current	No Effect	
*Amaranthus pumilus	Seabeach amaranth	Т	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.

PE (Proposed Endangered)

MANLAA – "May affect, not likely to adversely affect"

<sup>1</sup>NHP County Status (updated January 31, 2023)

\*Previously on the IPAC list in 2022/2023

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".

<sup>&</sup>lt;sup>2</sup>Protected under the Bald and Golden Eagle Protection Act

<sup>&</sup>lt;sup>+</sup>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.



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, eastern black rail, 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 consistency letter (generated on August 7, 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.

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 <a href="mailto:Jessica.tisdale@hdrinc.com">Jessica.tisdale@hdrinc.com</a>.

Sincerely,

#### **Attachments:**

Figure 1 – Project Vicinity Map

Figure 2 – Environmental Feature Map

Figure 3 – Project Layout

USFWS Self-certification Letter (dated July 24, 2023)

USFWS Species Conclusion Table (dated July 24, 2023)

USFWS ECOS IPaC Report (dated July 28, 2023)

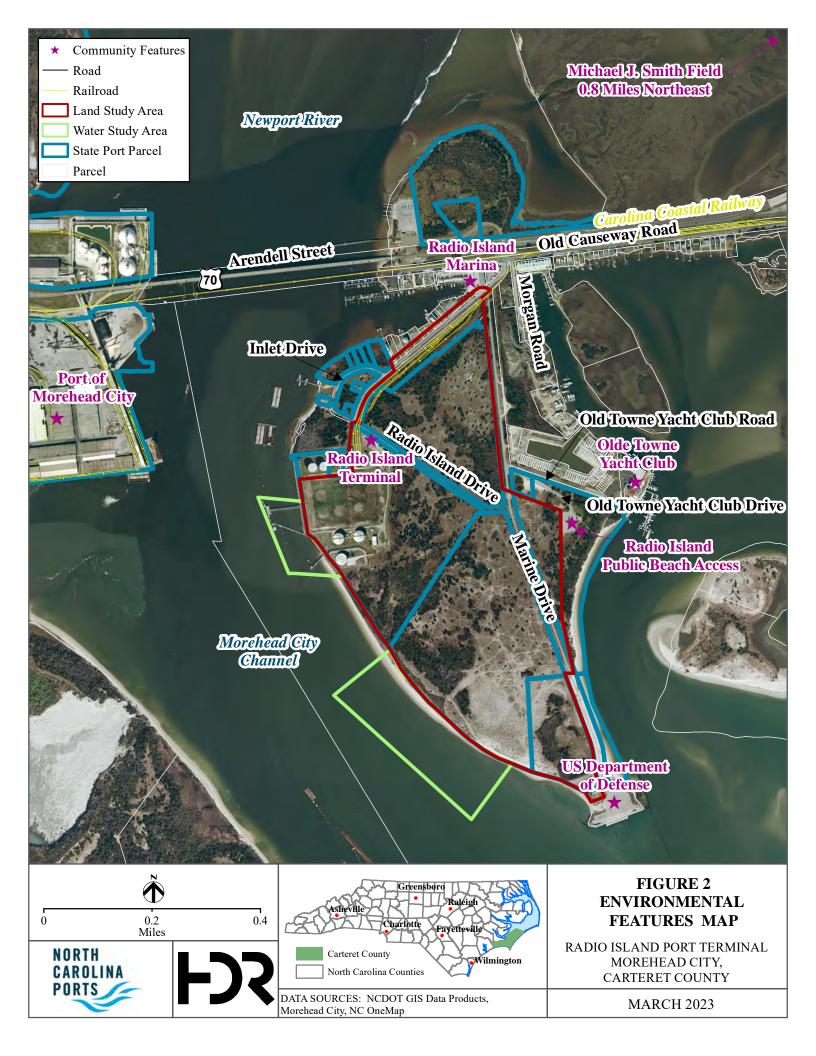
Jan J. Vishel

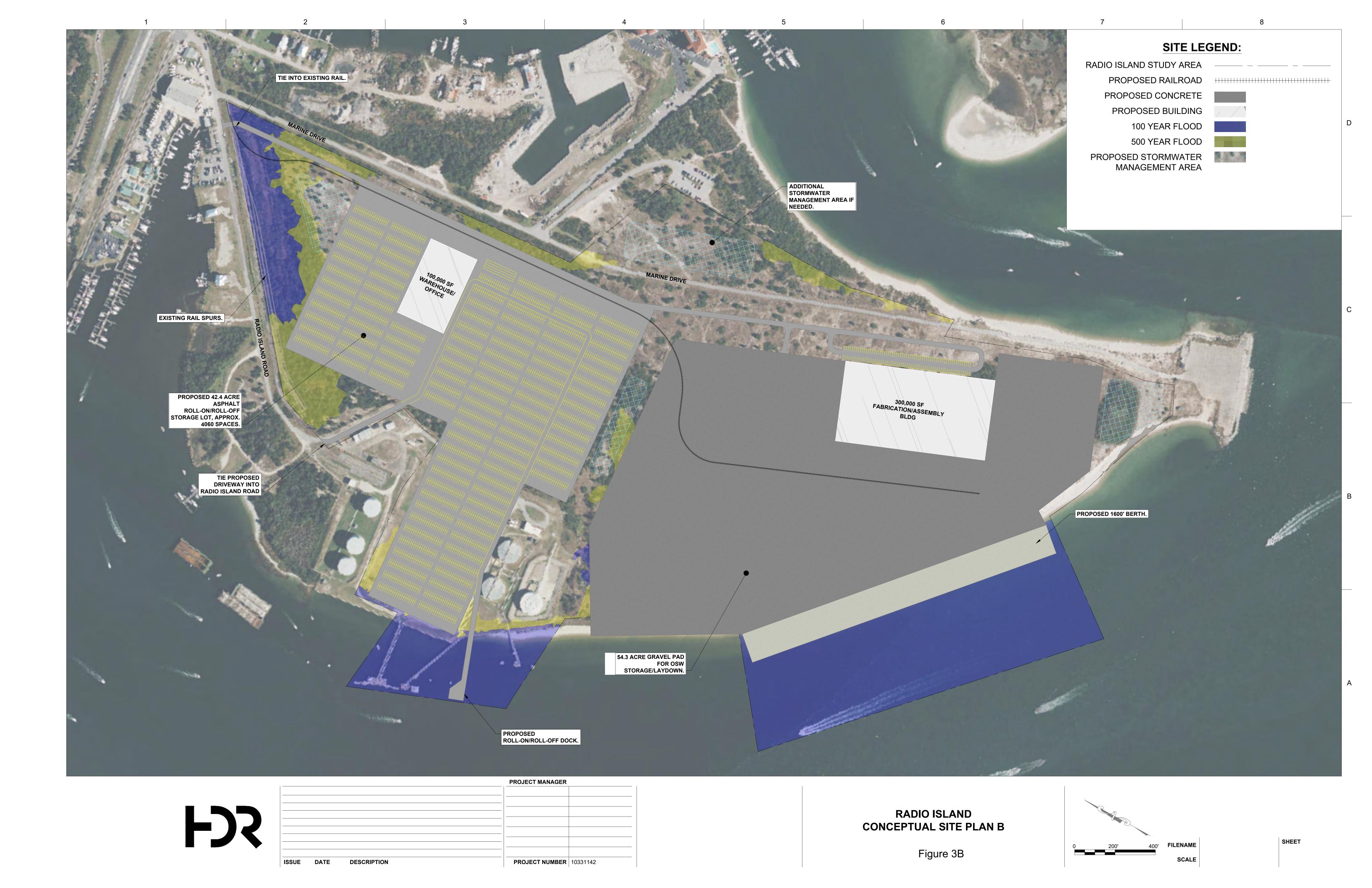
USFWS DKey Results Northern long-eared bat (dated: August 7, 2023)

USFWS Scoping Comments (dated: April 27, 2022)

NC Natural Heritage Program Element Occurrence Report (dated: March 31, 2023)









# United States Department of the Interior

### FISH AND WILDLIFE SERVICE

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

Date:
Self-Certification Letter
Sen-Cerunication Letter

Project Name			

### 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:

"no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or

"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 longeared 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;

"no Eagle Act permit required" determinations for eagles.

Applicant Page 2

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 24, 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 Ieucocephalus	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	No suitable foraging; no nesting habitat.	No effect	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 11 <sup>th</sup> , 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.

Jan J. Vishel	Jessica Tisdale, Environmental Scientist		
		7/24/2023	
Signature /Title		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 28, 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

07/28/2023

# **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: <a href="https://www.google.com/maps/@34.7137641">https://www.google.com/maps/@34.7137641</a>,-76.68627032648715,14z



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<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### **MAMMALS**

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species.  Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i>	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat. *This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.* 

Species profile: https://ecos.fws.gov/ecp/species/4469

07/28/2023 4

**BIRDS** 

NAME **STATUS** Threatened Eastern Black Rail Laterallus jamaicensis ssp. jamaicensis No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477 Piping Plover Charadrius melodus Threatened Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except

those areas where listed as endangered.

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6039

Threatened Red Knot Calidris canutus rufa

There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864

Red-cockaded Woodpecker Picoides borealis Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614

REPTILES

NAME **STATUS** Similarity of American Alligator *Alligator mississippiensis* 

No critical habitat has been designated for this species. Appearance Species profile: https://ecos.fws.gov/ecp/species/776 (Threatened)

Threatened Green Sea Turtle Chelonia mydas

Population: North Atlantic DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/6199

Kemp's Ridley Sea Turtle Lepidochelys kempii Endangered

There is **proposed** critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5523">https://ecos.fws.gov/ecp/species/5523</a>

Leatherback Sea Turtle Dermochelys coriacea Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493

Loggerhead Sea Turtle Caretta caretta Threatened

Population: Northwest Atlantic Ocean DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/1110">https://ecos.fws.gov/ecp/species/1110</a>

**INSECTS** NAME **STATUS** 

Candidate

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/9743

Monarch Butterfly *Danaus plexippus* 

## **FLOWERING PLANTS**

NAME

Rough-leaved Loosestrife Lysimachia asperulaefolia

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2747">https://ecos.fws.gov/ecp/species/2747</a>

## **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.

07/28/2023

# **MIGRATORY BIRDS**

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

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.

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

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

NAME	BREEDING SEASON
Eastern Whip-poor-will <i>Antrostomus vociferus</i> 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 <i>Puffinus gravis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Gull-billed Tern <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9501">https://ecos.fws.gov/ecp/species/9501</a>	Breeds May 1 to Jul 31
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8936">https://ecos.fws.gov/ecp/species/8936</a>	Breeds May 1 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
Long-tailed Duck <i>Clangula hyemalis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. <a href="https://ecos.fws.gov/ecp/species/7238">https://ecos.fws.gov/ecp/species/7238</a>	Breeds elsewhere
Manx Shearwater <i>Puffinus puffinus</i> 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 <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds elsewhere
Painted Bunting <i>Passerina ciris</i> 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 <i>Stercorarius pomarinus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Prairie Warbler <i>Dendroica discolor</i> 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 <i>Protonotaria citrea</i> 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 <i>Calidris maritima</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Razorbill <i>Alca torda</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jun 15 to Sep 10
Red-breasted Merganser <i>Mergus serrator</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> 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 <i>Gavia stellata</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Ring-billed Gull <i>Larus delawarensis</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Roseate Tern <i>Sterna dougallii</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds May 10 to Aug 31
Royal Tern <i>Thalasseus maximus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Apr 15 to Aug 31
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird <i>Euphagus carolinus</i> 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 <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
South Polar Skua <i>Stercorarius maccormicki</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Surf Scoter <i>Melanitta perspicillata</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
White-winged Scoter <i>Melanitta fusca</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Willet <i>Tringa semipalmata</i> 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 <i>Charadrius wilsonia</i> 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 <i>Oceanites oceanicus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> 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 (|)

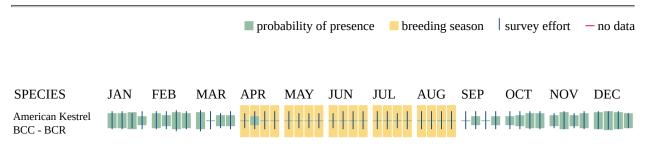
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

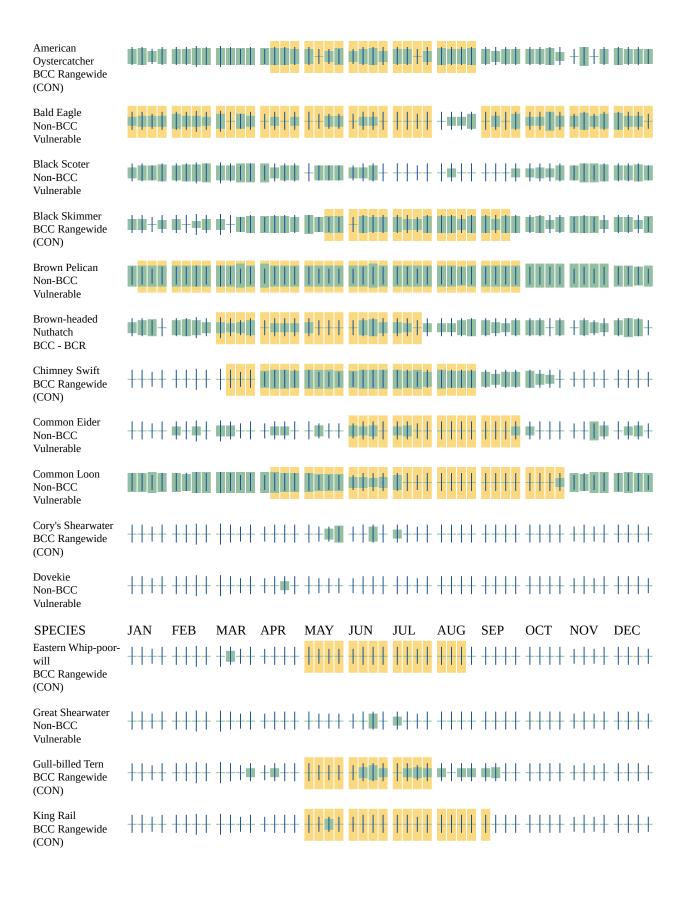
#### No Data (-)

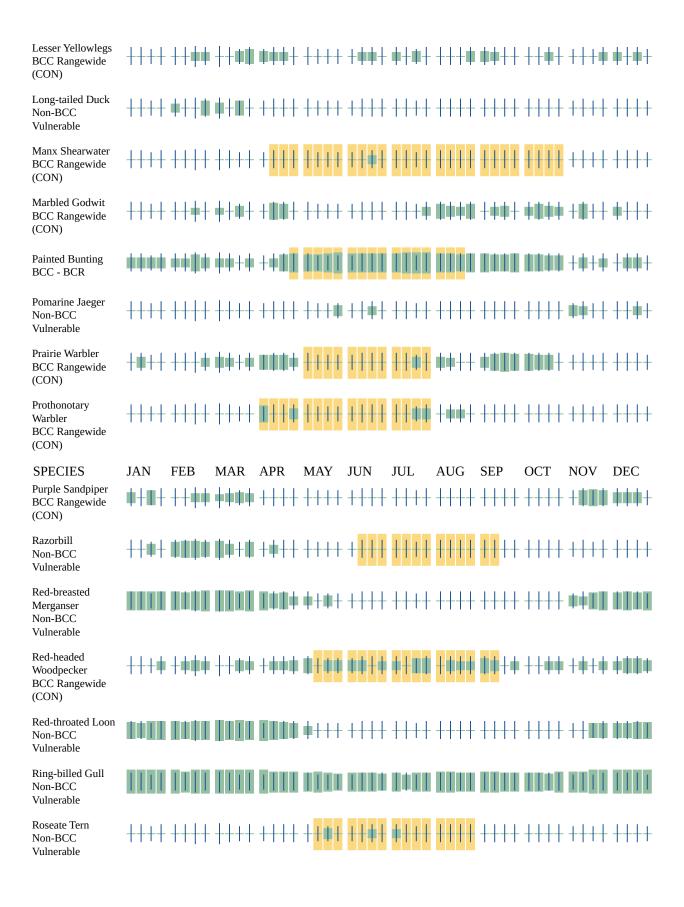
A week is marked as having no data if there were no survey events for that week.

### **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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Additional information can be found using the following links:

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

# **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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <a href="Rapid Avian Information">Rapid Avian Information</a> 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 <u>Avian Knowledge Network (AKN)</u>. 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?

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

1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (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 <a href="Eagle Act">Eagle Act</a> 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 <a href="Northeast Ocean Data Portal">Northeast Ocean Data Portal</a>. 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 <a href="NOAA NCCOS Integrative Statistical Modeling">NOAA NCCOS Integrative Statistical Modeling</a> and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic <a href="Outer Continental Shelf">Outer Continental Shelf</a> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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 <u>Marine Mammal Protection Act</u>. Some are also protected under the Endangered Species Act<sup>1</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>2</sup>.

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<sup>3</sup> [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 <u>Marine Mammals</u> page of the NOAA Fisheries website.

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

- 1. The Endangered Species Act (ESA) of 1973.
- 2. The <u>Convention on International Trade in Endangered Species of Wild Fauna and Flora</u> (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
- 3. <u>NOAA Fisheries</u>, 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**

Agency: Private Entity
Name: Jessica Tisdale

Address: HDR Engineering of the Carolinas, 555 Fayetteville Street

Address Line 2: Suite 900
City: Raleigh
State: NC
Zip: 27601

Email jessica.tisdale@hdrinc.com

Phone: 9192326654

## LEAD AGENCY CONTACT INFORMATION

Lead Agency: North Carolina Department of Transportation

Name: Todd Walton

Email: todd.walton@ncports.com

Phone: 9107466460



# 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: August 07, 2023

Project code: 2023-0063173

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

Federal Nexus: yes

Federal Action Agency (if applicable): North Carolina Department of Transportation

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 August 07, 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 IPaC must accurately represent the full scope and details of the Project.

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

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

Based upon your IPaC submission and a standing analysis, your project 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 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
- 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**

<u>Consultation with the Service is necessary.</u> The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is <u>incomplete</u> and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

- 1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **264-130086083**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
- 2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
- 3. Click on Review/Finalize to convert the 'not likely to adversely affect' consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

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: <a href="https://www.google.com/maps/@34.7133123,-76.68617120286703,14z">https://www.google.com/maps/@34.7133123,-76.68617120286703,14z</a>



# **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.

Νo

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.). *No* 

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

- 8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)? *No*
- 9. Have you determined that your proposed action will have no effect on the northern longeared bat? Remember to consider the <u>effects of any activities</u> that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer "No" below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project's action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a "no effect" determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer "No" and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of <a href="Effects of the Action">Effects of the Action</a> can be found here: <a href="https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions">https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</a>

No

10. [Semantic] Is the action area located within 0.5 miles of a known northern long-eared bat hibernaculum?

**Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

11. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

No

12. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

13. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

(If unsure, answer "Yes.")

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <a href="https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions">https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions</a>

Yes

14. Will the action cause effects to a bridge?

No

15. Will the action result in effects to a culvert or tunnel?

No

16. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

No

17. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?** *No* 

18. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

Yes

20. Will the increased vehicle traffic occur on any road that lies between any two areas of contiguous forest that are each greater than or equal to 10 acres in extent and are separated by less than 1,000 feet? Northern long-eared bats may cross a road by flying between forest patches that are up to 1,000 feet apart.

**Note:** "Contiguous forest" of 10 acres or more may includes areas where multiple forest patches are separated by less than 1,000 feet of non-forested area if the forested patches, added together, comprise at least 10 acres. *No* 

- 21. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)? *No*
- 22. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

  Yes
- 23. 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  $\ge 3$  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

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>inactive</u> (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <a href="https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas">https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</a>

0

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the <u>active</u> (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: <a href="https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas">https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas</a>

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.

0

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?

No

Will all project activities by completed by April 1, 2024?

Yes

#### **IPAC USER CONTACT INFORMATION**

Agency: North Carolina Department of Transportation

Name: Jessica Tisdale

Address: HDR Engineering of the Carolinas, 555 Fayetteville Street

Address Line 2: Suite 900
City: Raleigh
State: NC
Zip: 27601

Email jessica.tisdale@hdrinc.com

Phone: 9192326654

#### LEAD AGENCY CONTACT INFORMATION

Lead Agency: North Carolina Department of Transportation

Name: Todd Walton

Email: todd.walton@ncports.com

Phone: 9107466460



#### 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. 3<sup>rd</sup> 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 <a href="https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation">https://www.fws.gov/office/eastern-north-carolina/project-planning-and-consultation</a>. 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 <a href="https://ipac.ecosphere.fws.gov/">https://ipac.ecosphere.fws.gov/</a>. 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 concern¹ 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 <a href="https://fws.gov/office/eastern-north-carolina">https://fws.gov/office/eastern-north-carolina</a>. Please check the web site often for updated information or changes.

<sup>&</sup>lt;sup>1</sup> 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 <a href="https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve">https://www.ncwildlife.org/Conserving/Learn-Resources/Ways-to-Conserve</a>) 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,

John Ellistor Pete Benjamin

Field Supervisor



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: <a href="https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37">https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37</a>.

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 <u>rodney.butler@ncdcr.gov</u> 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 <a href="https://ncnhde.natureserve.org/help">https://ncnhde.natureserve.org/help</a>. 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 Occur			ie-mile Radius of the Proj	ject 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	Н	3-Medium			GNR	S3
Animal Assemblage	7771	Waterbird Colony	Waterbird Colony	1988-05-30	Χ	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	a Saltmarsh Sparrow	2017-12-04	Е	3-Medium		Significantly Rare	G2	SUB,S2 N
Bird	40360	Calidris canutus rufa	Red Knot - rufa subspecies	2018-03-09	Е	3-Medium	Threatened	Threatened	G4T2	S2N
Bird	7916	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2021	E	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	41007	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2021-05-13	E	3-Medium	Threatened	Threatened	G3T3	S1B,S1 N
Bird	40366	Charadrius melodus melodus	Piping Plover - Atlantic Coast subspecies	2018-03-09	E	3-Medium	Threatened	Threatened	G3T3	Ń
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	Н	3-Medium		Special Concern	G5	S3B,S3 N
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	Н	3-Medium		Special Concern	G5	S2B,S3 N

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State		State
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Bird	2416	Gelochelidon nilotica	Gull-billed Tern	1988	Н	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	В	3-Medium		Special Concern	G5	S2S3B, S3N
Bird	7119	Himantopus mexicanu	sBlack-necked Stilt	1983-07	Н	4-Low		Significantly Rare	G5	S1B
Bird	36705	Nyctanassa violacea	Yellow-crowned Night- Heron	1976-07-16	Н	6-Unkno wn		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,S5 N
Bird	16216	Rynchops niger	Black Skimmer	1988	Н	3-Medium		Special Concern	G5	S2B,S3 N
Bird	36408	Rynchops niger	Black Skimmer	2021-05-20	Е	3-Medium		Special Concern	G5	S2B,S3 N
Bird	5207	Rynchops niger	Black Skimmer	1988-05-30	X	3-Medium		Special Concern	G5	S2B,S3 N
Bird	12917	Rynchops niger	Black Skimmer	1997-06-09	H?	4-Low		Special Concern	G5	S2B,S3 N
Bird	36412	Rynchops niger	Black Skimmer	1991-05-30	H?	3-Medium		Special Concern	G5	S2B,S3 N
Bird	23960	Rynchops niger	Black Skimmer	2004-06-22	F	3-Medium		Special Concern	G5	S2B,S3 N
Bird	36409	Sterna hirundo	Common Tern	2021-05-20	Е	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	Н	3-Medium		Special Concern	G4	S3B
Bird	35775	Sternula antillarum	Least Tern	2004-06-02	F	3-Medium		Special Concern	G4	S3B

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Bird	23702	Sternula antillarum	Least Tern	1977	Χ	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	А	3-Medium		Significantly Rare	G1	S1
Butterfly	10143	Heraclides cresphonte	sEastern Giant Swallowtail	2016-07-28	Е	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 Fis	h24086	Acipenser brevirostrum	Shortnose Sturgeon	1999-01-28	H?	5-Very Low	Endangered	Endangered	G3	S1
Freshwater Fis	h38939	Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	2004-11-28	Е	4-Low	Endangered	Endangered	G3T3	S2
Grasshopper o Katydid	r 34586	Mermiria bivittata	Two-striped Mermiria	2004-09-10	Е	2-High		Significantly Rare	G5	S2S3
Mammal	9806	Trichechus manatus	West Indian Manatee	2008-06-13	Е	5-Very Low	Threatened	Threatened	G2G3	S1N
Moss	23678	Tortula plinthobia	A Chain-teeth Moss	1989-11-13	Е	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	Е	2-High		Significantly Rare	G3G4	S2S3
Moth	34588	Zale declarans	Dixie Zale	2010-04-02	E	2-High		Significantly Rare	G5	S2S3

Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	
Group				Observation Date	Occurrence Rank		Status	Status	Rank	
Natural Community	32942	Brackish Marsh (Salt Meadow Cordgrass Subtype)		2012-05-03	С	3-Medium			G4G5	S4
Natural Community	1542	Dune Grass (Bluestem Subtype)		2019-02-27	В	2-High			G3	S1
Natural Community	32940	Dune Grass (Southern Subtype)		2012-05-03	С	2-High			G3	S2
Natural Community	39622	Maritime Evergreen Forest (Mid Atlantic Subtype)		2019-02-27	С	2-High			G2	S2
Natural Community	16055	Maritime Shrub (Stunted Tree Subtype)		2019-02-27	С	2-High			G3	S2
Natural Community	16844	Salt Flat			NR	4-Low			G5	S4
Natural Community	32939	Salt Flat		2012-05-03	С	3-Medium			G5	S4
Natural Community	4733	Salt Marsh (Carolinian Subtype)		2012-05-03	С	2-High			G5	S4
Natural Community	10811	Salt Marsh (Carolinian Subtype)		2019-02-27	В	2-High			G5	S4
Natural Community	39623	Salt Shrub (High Subtype)		2019-02-27	С	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	Е	3-Medium	Threatened	Threatened	G3	S1B
Reptile	34583	Crotalus horridus	Timber Rattlesnake	2011-07-17	Е	2-High		Special Concern	G4	S3

Element Occurrences Documented Within a One-mile Radius of the Project Area Scientific Name Common Name Federal Global State Taxonomic EO ID Last Element Accuracy State Observation Occurrence Status Status Rank Rank Group Date Rank 3-Medium Endangered Reptile 37965 Dermochelys coriacea Leatherback Seaturtle 2005-05-27 Ε G2 S1B.SU Endangered Ν Reptile 37971 Lepidochelys kempii Kemp's Ridley 2017-06-18 Е 4-Low Endangered Endangered S1B,SU G1 Seaturtle Ν 15254 Diamondback Terrapin В 3-Medium Special G4 S3 Reptile Malaclemys terrapin 2022-05-15 ---Concern 13517 Diamondback Terrapin 2019-04-21 В 3-Medium Special G4 S3 Reptile Malaclemys terrapin Concern Reptile 37448 Ophisaurus attenuatus Eastern Slender Glass 1950-07 Н 3-Medium Special G5T5 S1 ---Ionaicaudus Concern Lizard Megachile integra SH Sawfly, Wasp. 40240 a leafcutter bee 1941-08-17 4-Low Significantly G2G3 Н ---Bee, or Ant Rare Vascular Plant 17109 Amaranthus pumilus Seabeach Amaranth 2016-08-19 X? 2-Hiah G2 S1 Threatened Threatened Vascular Plant 4359 Amaranthus pumilus Seabeach Amaranth 1991-01-26 F 3-Medium Threatened Threatened G2 S1 Vascular Plant 41262 Four-angled Flatsedge 2021-11-19 Α 2-High ---Special G4 S2 Cyperus tetragonus Concern Vulnerable Vascular Plant 14038 Erythrina herbacea Coralbean 1950-08-07 Н 3-Medium Endangered G5 S2 ---Euphorbia bombensis Southern Seaside Ε Vascular Plant 28781 2006-08-15 2-High Significantly G4G5 S2? ---Rare Spurge Throughout Vascular Plant 7348 4-Low Significantly Parietaria praetermissa Large-seed Pellitory 1962-05-06 Н G3G4 S1 Rare Peripheral Vascular Plant 6466 Parietaria praetermissa Large-seed Pellitory 1984-05-15 Ε 3-Medium Significantly G3G4 S1 ---Rare Peripheral Vascular Plant 6446 Polygonum glaucum Seabeach Knotweed 2021-05 A? 3-Medium Endangered G3 S1 Polygonum glaucum Seabeach Knotweed S1 Vascular Plant 16095 1967-07-29 Н 3-Medium G3 ---Endangered Vascular Plant 1995 Polygonum glaucum Seabeach Knotweed 2007-09-15 3-Medium Endangered G3 S1 D ---Ε G5 Vascular Plant 38710 S1 Sesuvium maritimum Slender Sea-purslane 1998-08-18 3-Medium Endangered Shoreline Sea-purslane S1 Vascular Plant 35161 Sesuvium G5 1993-07-16 Ε 4-Low ---Endangered portulacastrum Vascular Plant 34587 Ε S1 Solanum Graceful Nightshade 2017-10-16 2-High Significantly G4 Rare pseudogracile Throughout

Element Occurrences Documented With	n a One-mile	Radius of	the Project Area
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Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	State
Group				Observation Date	Occurrence Rank		Status	Status	Rank	Rank
Vascular Plant	41276	Steironema hybridum	Lowland Loosestrife	1919-07-19	Н	5-Very Low		Significantly Rare Peripheral	G5	S2?
Vascular Plant	1109	Trichostema nesophilum	Dune Bluecurls	2019-05-18	А	3-Medium		Special Concern Vulnerable	G2	S2
Vascular Plant	37015	Trichostema nesophilum	Dune Bluecurls	2016-09-20	С	3-Medium		Special Concern Vulnerable	G2	S2
Vascular Plant	12649	Yucca gloriosa	Moundlily Yucca	2020-01-30	В	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	n 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	n State
USFWS Critical Habitat - Loggerhead Seaturtle	US Fish and Wildlife Service	Federal

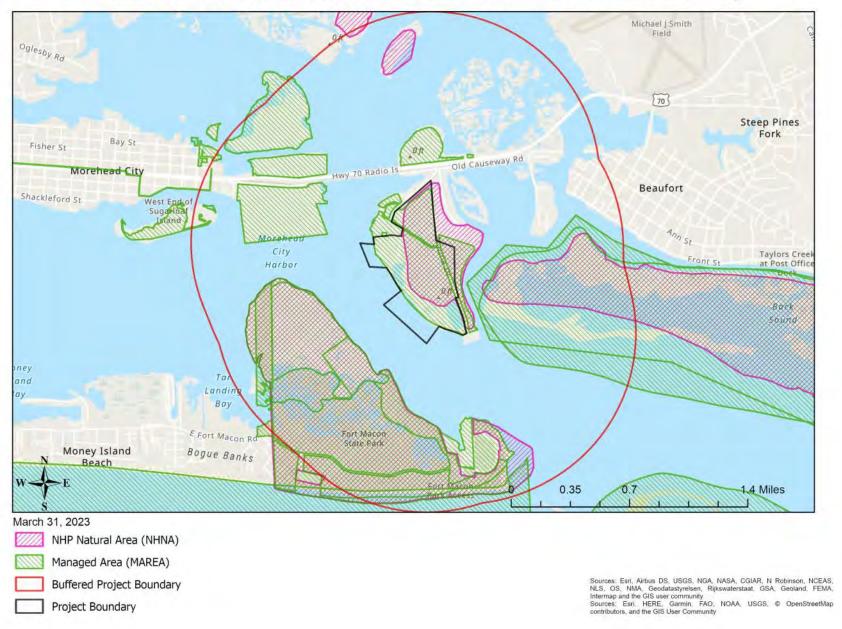
Managed Areas Documented Within a One-mile Radius of the Project Area

Nature Preserve

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	NC DNCR, Natural Heritage Program	State
National Estuarine Research Reserve Dedicated		

Definitions and an explanation of status designations and codes can be found at <a href="https://ncnhde.natureserve.org/help">https://ncnhde.natureserve.org/help</a>. 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



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Appendix A – NMFS Coordination



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



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

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#### **Attachments:**

Figure 1 – Project Vicinity Map

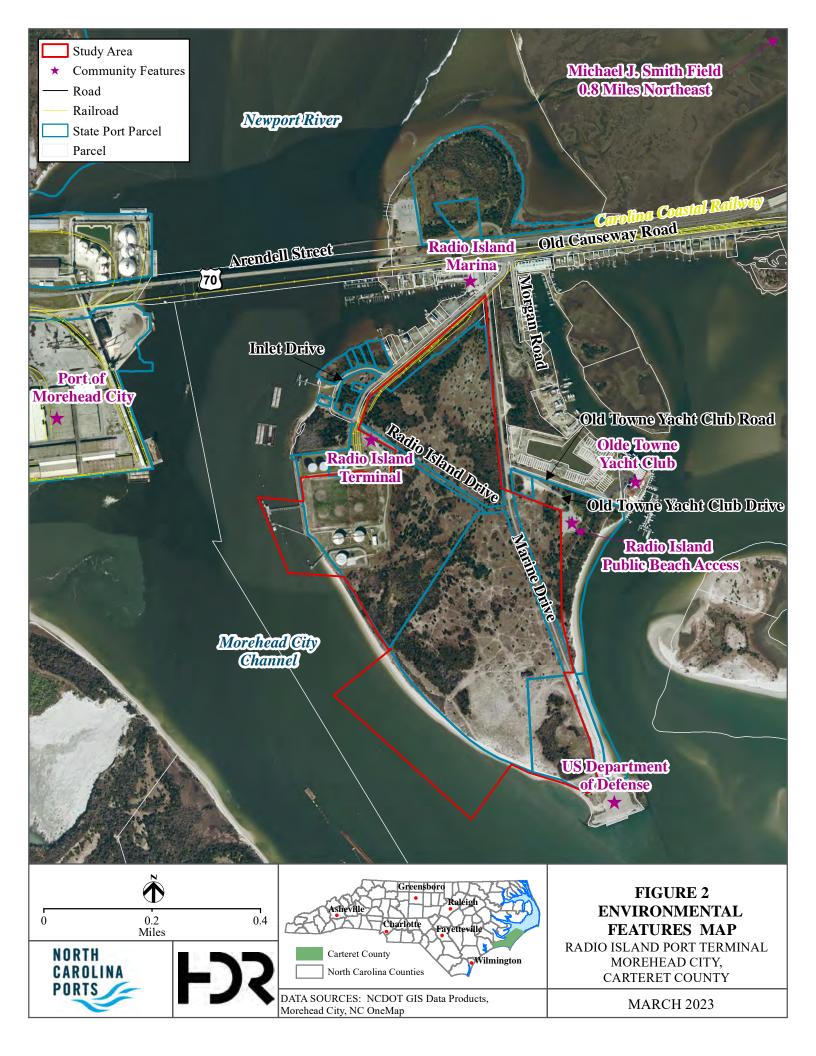
Figure 2 – Environmental Features Map

Figure 3 – Essential Fish Habitat Map

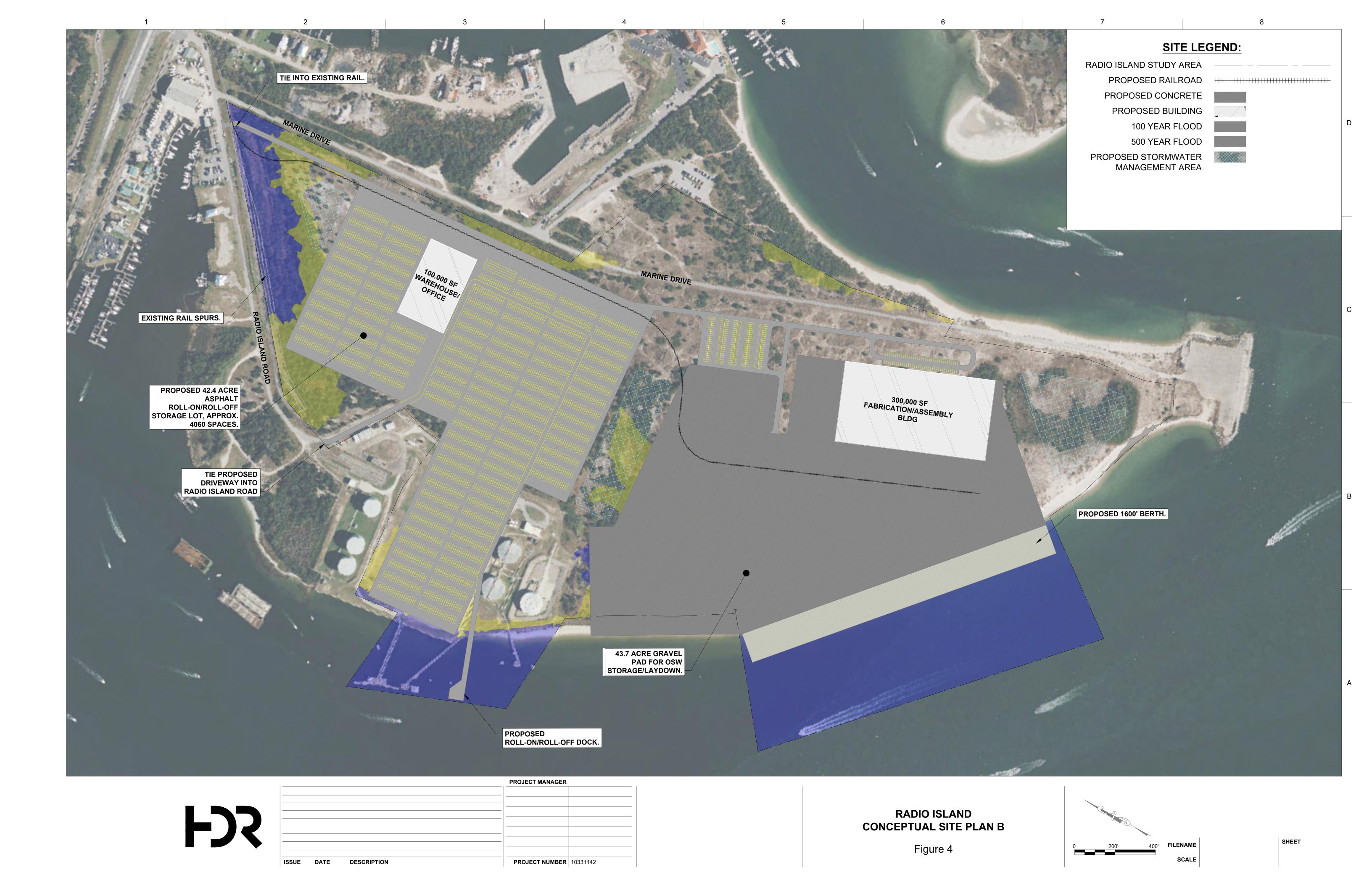
Figure 4 – Radio Island Conceptual Site Plan

Cc: Todd Walton, NCPSA Vickie Miller, HDR









**CARTERET** Agency Response: 11/2/2023 County.: Review Closed: 11/2/2023 **DEVON BORGARDT CLEARINGHOUSE COORDINATOR DEPT OF NATURAL & CULTURAL RESOURCE Project Information** National Environmental Policy Act ping Type: Applicant: North Carolina State Ports Authority Project Desc.: Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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. As a result of this review the following is submitted: ☐ No Comment Comments Below ✓ Documents Attached

Date Received: 10/3/2023

Reviewed By: DEVON BORGARDT Date: 11/20/2023

Control No.:

24-E-4620-0112



#### 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.

November 20, 2023

**MEMORANDUM** 

TO: Crystal Best crystal.best@doa.nc.gov

North Carolina State Clearinghouse Department of Administration

FROM: Ramona M. Bartos, Deputy

State Historic Preservation Officer

SUBJECT: October 2023 Draft Environmental Impact Statement, Construct multi-use terminal and

related infrastructure, Radio Island, 24-E-4620-0112, Carteret County, ER 22-1161

Reselve Ramona M. Boutos

Thank you for your October 10, 2023, notice for the above-referenced undertaking. We apologize for our delayed response caused by a heavy workload and transitioning to a new data management system.

Having reviewed the information provided in the Draft Environmental Impact Statement, we continue to note our concerns about the effect of new buildings proposed on Radio Island and their potential to adversely affect the National Register-listed Beaufort Historic District, especially the viewshed to and from the historic district. However, without plans for such buildings, we cannot offer more specific comments.

Thus, we will look forward to commenting on such plans as they are developed and for which there may be another review required either under Section 106 of the National Historic Preservation Act or North Carolina General Statue 121-12(a).

At this time, it is unlikely that any National Register eligible land or submerged archaeological resources will be affected by the proposed construction. However, we will continue to review the need for any additional archaeological survey work as planned actions are submitted for review.

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, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or <a href="mailto:environmental.review@dncr.nc.gov">environmental.review@dncr.nc.gov</a>. In all future communication concerning this project, please cite the above referenced tracking number.

**CARTERET** Agency Response: 11/2/2023 County.: Review Closed: 11/2/2023 KADISHA MOLYNEAUX **ADMINISTRATOR DEPARTMENT OF ADMINISTRATION Project Information** National Environmental Policy Act ping Type: Applicant: North Carolina State Ports Authority Project Desc.: Proposed project is to construct the Radio Island Multi-Use Terminal in the Town of Morehead City, 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. As a result of this review the following is submitted: ☐ No Comment ✓ Comments Below ✓ Documents Attached NC Commerce Comments

Date Received: 10/3/2023

Reviewed By: KADISHA MOLYNEAUX Date: 11/21/2023

Control No.:

24-E-4620-0112



Roy Cooper GOVERNOR Machelle Baker Sanders SECRETARY

November 20, 2023

North Carolina Department of Administration State Environmental Review Clearinghouse 1301 Mail Service Center Raleigh, North Carolina 27699-1301 Via electronic submittal: State.Clearinghouse@doa.nc.gov

Re: NC State Ports Authority Proposed Radio Island Multi-Use Terminal

To whom it may concern:

The following comments are submitted by the North Carolina Department of Commerce ("Department") regarding the Draft Environmental Impact Statement ("DEIS") conducted on behalf of the North Carolina State Ports Authority ("Ports") for the proposed Radio Island Multi-Use Terminal ("Terminal") in Carteret County.

The mission of the Department is to improve the economic well-being and quality of life for all North Carolinians. To accomplish this mission, the Department works closely with local, regional, national, and international organizations to propel economic, community, and workforce development for the State. The Department is actively implementing programs and policies to advance economic and workforce development in our state's transition to a clean energy economy, as directed by Governor Roy Cooper in Executive Orders 80, 218, 246, and 271.1,2,3,4 As the clean economy has grown in North Carolina, so too has the demand for focused attention from leadership to ensure growth continues and generates benefits for all North Carolinians, especially those living in underserved, under resourced communities.

To that end, the Department supports the Ports' proposal to construct the Radio Island Multi-Use Terminal. The Terminal will expand the Ports' capacity to include new services to the automotive and wind energy industries as well as provide offshore wind manufacturing, operations, or maintenance capabilities that align with Executive Order 218 ("E.O. 218"). Even before E.O. 218 was signed in June 2021, the Department led the Administration's efforts to secure economic and workforce opportunities in clean energy, including offshore wind.

https://governor.nc.gov/executive-order-no-246/open

<sup>&</sup>lt;sup>1</sup> E.O. 80. (October 29, 2018). North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy. Retrieved from: <a href="https://governor.nc.gov/documents/files/executive-order-no-80-north-carolinas-commitment-address-climate-change-and-transition-clean-energy/open">https://governor.nc.gov/documents/files/executive-order-no-80-north-carolinas-commitment-address-climate-change-and-transition-clean-energy/open</a>

<sup>&</sup>lt;sup>2</sup> E.O. 218. (June 9, 218). Advancing North Carolina's Economic and Clean Energy Future with Offshore Wind. Retrieved from: <a href="https://files.nc.gov/governor/documents/files/EO218-Advancing-NCs-Economic-Clean-Energy-Future-with-Offshore-Wind.pdf">https://files.nc.gov/governor/documents/files/EO218-Advancing-NCs-Economic-Clean-Energy-Future-with-Offshore-Wind.pdf</a>
<sup>3</sup> E.O. 246. (January 7, 2021). North Carolina's Transformation to a Clean, Equitable Economy. Retrieved from:

<sup>&</sup>lt;sup>4</sup> E.O. 271 (October 2022). Growing North Carolina's Zero Emission Vehicle Market. Retrieved from: <a href="https://governor.nc.gov/executive-order-no-271/open">https://governor.nc.gov/executive-order-no-271/open</a>

In March 2021, the Department published the *Building North Carolina's Offshore Wind Supply Chain: The roadmap for leveraging manufacturing and infrastructure advantages* report.<sup>5</sup> Of the myriad findings and recommendations, this report found that North Carolina could be well positioned for up to \$100 billion in capital expenditures and tens of thousands of family-sustaining wage jobs that are expected over the next 10 years as the result of the pipeline of offshore wind projects under development on the Atlantic coast alone. While the report ranked Radio Island comparatively low on current facility readiness and cost to redevelop in the strengths, weaknesses, opportunities, and threats analysis of major east coast ports, Radio Island scored comparatively high for other attributes, including facility availability, available acreage, channel depth, and air draft restrictions. As a result, the report's analysis demonstrates that developing the proposed Terminal is one of the few keys that can unlock the offshore wind economic investment opportunity for North Carolina.

The DEIS for the Terminal includes thoughtful consideration of the economic development potential associated with the Preferred Build Alternative (§1.5.2).6 The Department encourages the Ports and its consultant to consider recent updates, including the findings and recommendations in the 2022-2023 Annual Report<sup>7</sup> of the NC Taskforce for Offshore Wind Economic Resource Strategies ("NCTOWERS") in the preparation of the Final Environmental Impact Statement. In addition, the Department commends the population and demographics assessment (§3.1.1) and specifically, the consideration of environmental justice in the DEIS. On October 24, 2023, Governor Cooper signed Executive Order 292, Advancing Environmental Justice in North Carolina,<sup>8</sup> which directs all Cabinet agencies to incorporate environmental justice ("EJ") considerations into their policies and programs to the extent permitted by law. In keeping with this new executive action, we encourage Ports and the consultant to continue addressing EJ in the preparation of the Final EIS and any development activity that proceeds on Radio Island.

Thank you for the opportunity to share our comments on the proposed Terminal. The Preferred Build Alternative will bring economic investment and create jobs in Carteret County that will benefit the region and State for years to come.

Sincerely,

Machelle Baker Sanders, Secretary

Machelle Baker Sanders

North Carolina Department of Commerce

<sup>&</sup>lt;sup>5</sup> Building North Carolina's Offshore Wind Supply Chain: The roadmap for leveraging manufacturing and infrastructure advantages report. (March 2021). Retrieved from: <a href="https://www.commerce.nc.gov/report-building-north-carolinas-offshore-wind-supply-chain/open">https://www.commerce.nc.gov/report-building-north-carolinas-offshore-wind-supply-chain/open</a>

<sup>&</sup>lt;sup>6</sup> Radio Island Multi-Use Terminal, Draft Environmental Impact Statement. (August 2023). Retrieved from: <a href="https://ncports.com/wp-content/uploads/2023/10/NC-State-Ports-Authority">https://ncports.com/wp-content/uploads/2023/10/NC-State-Ports-Authority</a> Radio-Island-Draft-EIS 2023 10 03.pdf

<sup>&</sup>lt;sup>7</sup> 2022-2023 Annual Report to the Governor and General Assembly. (July 2023). Retrieved from: <a href="https://www.commerce.nc.gov/annual-report-north-carolina-taskforce-offshore-wind-economic-resource-strategies-nctowers/download?attachment">https://www.commerce.nc.gov/annual-report-north-carolina-taskforce-offshore-wind-economic-resource-strategies-nctowers/download?attachment</a>

<sup>&</sup>lt;sup>8</sup> E.O. 292 (October 24, 2023). Advancing Environmental Justice in North Carolina. Retrieved from: <a href="https://governor.nc.gov/executive-order-no-292/open">https://governor.nc.gov/executive-order-no-292/open</a>

### Meeting Minutes

Attendees: See attached from Cameron Weaver

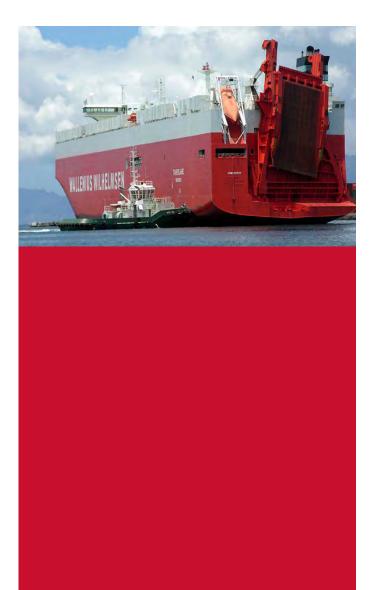
Project:	Radio Island
Subject:	Scoping Meeting Notes from 11/4/2022
Date:	Wednesday, November 09, 2022
Location:	Online Meeting

	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  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.  Todd noted that the water is deep just off the shoreline.	Fritz Rohde
4	Asked about impacts due to the new berthing area.  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.	Jonathan Howell
	Noted State Stormwater and Erosion Control Permits would be necessary	
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.	Liz Hair
	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.	
	Need to see the dredging and new docking proximity to the existing channel.	
12	Dredging windows and moratorium. Assumes the typical dredging moratorium of April $1-$ Sept. 30.	Jonathan Howell/ Andy Haines
	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.	
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.	Jonathan Howell
	Discuss impacts to navigation in the environmental document.	
	Also discuss train and truck traffic in general.	
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



## **FD3**



# Marine Study Summary Report

North Carolina State Ports Authority Radio Island EIS Study

Morehead City, NC May 8, 2023



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### 1 Introduction

### 1.1 Background

North Carolina State Ports Authority (herein referred to as The Authority) is interested in the development of a 168-acre multiuse terminal on Radio Island, located east of Morehead City in Carteret County, NC. The project includes the assessment of existing marine infrastructure and the development of new marine infrastructure for roll-on/roll-off and offshore wind operations. The Authority is planning to utilize the existing T Head Dock for roll-on/roll-off operations and develop a green field site for offshore wind operations, as shown in Figure 1-1 below.

To evaluate the suitability of the existing T Head Dock, HDR performed mooring and berthing analysis. The new docks were evaluated based on design loads and operational requirements to determine the system, its footprint, and the number of piles required to found the structure.



Figure 1-1 - Radio Island Conceptual Project Site

## 2 Proposed Offshore Wind Facility

### 2.1 Offshore Wind Dock Analysis Approach

The Authority is looking to develop the southern portion of radio island for offshore wind operations, including landside fabrication/assembly buildings, a landside storage yard and a 1600 ft. marine berth extending out into the water. A geometric study will be performed to determine the extents of the berth basin and required dredging. The marine facility will be designed for an operational live load of 6,000 psf to accommodate the loading/unloading of wind turbine components and assemblies. Dock piles will be

designed for geotechnical embedment according to the requirements of EM 1110-2-2906 *Design of Pile Foundations*.

### 2.2 Design Parameters

### 2.2.1 Proposed Dock Parameters

### Berth Dredge Depth

The offshore wind dock will be designed for a basin depth of -45 ft. Mean Lower Low Water (MLLW) in order to match the authorized navigation channel depth. Since the facility is new, the basin will need to be dredged from the face of the dock to the navigation channel limits. No future deepening of the berth or facility is assumed.

The berth will be designed for a 2.5H:1V dredge slope and will likely need riprap or concrete matting to provide slope and scour protection. The dredge slope is designed so that the waterside dock platform can be limited to 150 ft. wide.

### Operational and Geometry Considerations

The offshore wind dock will be designed as a pile supported jetty platform with a footprint of roughly 1600' long x 150' wide. The dock elevation will be set to +13' NAVD88 in order to accommodate operations from the ballast and loaded design vessel, the *Seajacks Charybdis*.

The landside facility and dock platform will need to be robust to support a larger crawler crane and self-propelled modular transport (SPMT) loads. In particular, the shore cranes used for the wind turbine assembly will need to be sized for the critical lifting operation, which is for the nacelle (enclosed housing with all generating component behind the blade hub). However, the height and size of the Nacelle is dependent on the power output of the anticipated wind turbine. For this assessment, the considered wind turbines to be assembled are 12 MW power output. The required nacelle weight for this unit is 675 MT and the anticipated hub height is 443 ft (135 m). Mobile cranes with sufficient lifting and reach capability are limited in global availability. It may be possible to utilize multiple cranes, but for this assessment a single crane will be considered.

### **Loading Considerations**

The design live load for the offshore wind dock platform will consider localized crane loads or a uniform live load of 6,000 psf. The piles and pile spacings will be sized to carry the dead plus live loads as well as lateral loads from the marine fenders and mooring bollards. Dock piles will be designed for geotechnical embedment according to the requirements of EM 1110-2-2906 *Design of Pile Foundations*.

### 2.3 Offshore Wind Facility Analysis Findings

### 2.3.1 Dock Platform Requirements

The offshore wind dock will be designed for a uniform live load of 6,000 psf and as needed to accommodate laydown, storage and transfer of components and cargo across

the dock. Localized hardpoints can be incorporated during future design phases to reduce capacity requirements over sections of the dock and reduce cost

The top of the dock is set to about +15.1' MLLW (+13' NAVD88) to accommodate the offshore wind loading and unloading operations and fendering for the *Seajacks Charybdis* design vessel. With a mudline elevation of -45' MLLW and a top of dock elevation of +15.1' MLLW, the design dredge slope should be 2.5H:1V in order to ensure that the waterside dock platform is able to transition to the landside area within the 150'. Else, a wider platform with an extra row of piles or a large retaining wall will be required.

The offshore wind dock is designed as a 1600' long x 150' wide dock. The 1600' long dock would allow the facility to accommodate loading and unloading of multiple vessels simultaneously. Due to the high live loads and long exposed height of piles at the bottom of the dredge slope, the required pile grid is spaced at 13.5' center-to-center, resulting in 1,298 piles for the 1600' long dock. These piles are 54" diameter spun cast cylinder concrete piles. If the number of piles proves problematic for costs or permitting, the initial facility could be designed for a minimum of 1,200' long, reducing the total number of 54" diameter spun cast cylinder concrete piles to 979.

The dredged berth basin for the 1600' long dock is 1875' along the berthing line and flares out at 30° to intersect with the toe of the navigation channel to allow for tug maneuvering along the ends of the dock. The total area of the dredged basin footprint is 816,763 ft² and the anticipated dredge volume on the order of 900,000 cubic yards. The dredged berth basin can be seen in Figure 2-1.

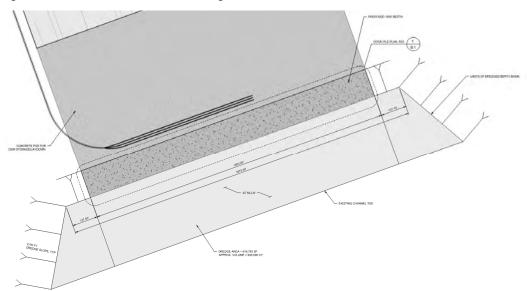


Figure 2-1 - Offshore Wind Dredged Berth Basin

### 2.3.2 Mobile Crane Requirements

The mobile crane for use on the shore side and offshore wind dock platform should be based on a Liebherr LG 1750 lattice boom mobile crane or similar. This crane has a max load capacity of 850 U.S. tons (750 MT) and a max hoist height of 633 ft (193 m). The working radius is 22 ft. at max load capacity and the total crane footprint is 52.5 ft by 61 ft.

### 2.3.3 Landside Facility Recommendations

The landside portion of the facility was not part of the maritime scope. However, the findings from the waterside analysis raise potential concerns regarding the landside paving/slab. The landside finished surface can be stone or aggregate fill and will need to provide a design bearing pressure of 3,000 psf for operations. Localized hardpoints can be added during design if needed to accommodate higher loads for landside construction or assembly operations.

### 3 Roll-on/Roll-off Facility

# 3.1 Roll-on/Roll-off Dock Mooring and Berthing Analysis Approach

The Authority is looking to assess the existing T Head Dock structure on the north side of Radio Island to determine if it can accommodate an approximately 7,000-unit roll-on/roll-off carrier, based on the *Iris Leader* design vessel. HDR performed a static mooring and berthing analysis to assess the existing marine infrastructure. Mooring analyses were performed using OPTIMOOR mooring analysis software. Berthing analyses were performed in accordance with PIANC's *Guidelines for the Design of Fenders Systems* (2002), herein referred to as PIANC. It should be noted that this memo considers only the mooring and berthing hardware (fenders and bollards) and assumes that the structures and dock platform are sufficient for the updated loading. The Authority should consider performing a condition assessment and analysis of the dock and landside structures in the future to confirm their adequacy for the new operations.

### 3.2 Design Parameters

### 3.2.1 Radio Island T-Head Dock Data

### Berth Dredge Depth

The existing berth mudline elevation is assumed to be maintained at -38.0 ft. MLLW and was taken from the supplied C-923(RI) Radio Island T-Head Dock Repair drawings from 2009. Based on the tidal range provided in Table 3-1, the water column depth in the basin is approximately 38 ft. at low tide and 42 ft. at high tide. A 2019 United States Army Corps of Engineers channel survey measured the depth at the facility as -34 ft. MLLW, though the facility is designed for a dredge depth of -38 ft. It is anticipated that the berth will require maintenance dredging before future operations. No future deepening of the berth is assumed in the mooring and berthing assessment.

### **Existing Structures and Hardware**

The existing T-Head dock has four monopile mooring structures and four breasting structures, each with a single mooring bollard. The mooring and breasting structures each support a 100 MT bollard. Each breasting dolphin also supports a 1200mm MCN cone fender from Maritime International. The mooring arrangement takes existing

hardware capacities into consideration and seeks to minimize impacts to the existing hardware. Figure 3-1 shows the existing T-head dock plan.

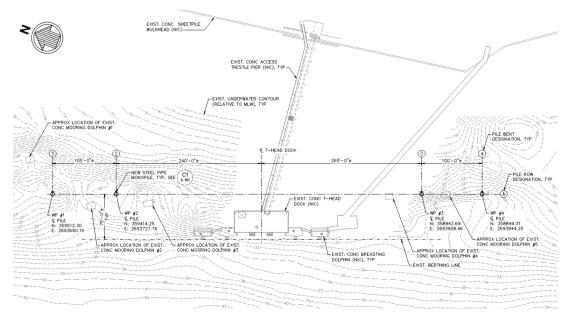


Figure 3-1 - Site Plan for Existing T-Head Dock

Note that the existing facility is a small jetty platform and there is no suitable existing landing platform for the vessel ramp. Additional improvements associated with loading and unloading operations need to be provided to the southside of the existing facility.

### Operational Considerations

HDR understands that the proposed roll-on/roll-off vessels have ramps outfitted to the starboard side to accommodate loading and unloading operations. A new roll-on/roll-off offloading dock is proposed about 500 feet south of the existing T-head dock. This new offloading dock will be outfitted with two mooring bollards to accommodate the four stern lines from the design vessel. The offloading dock will be located so that the moored vessel's ramp will rest a minimum 2 meters clear from the edge of the dock. While the ramps for different roll-on/roll-off vessels are not always identical, it is likely that the any vessel can be shifted slightly at the dock to accommodate this reach. Refer to Figure 3-2 below for ramp landing configuration.

The berthing analysis considered berthing impact on a single ship fender on the breasting structures. Note that the structures themselves are not analyzed for structural capacity. It is assumed that the existing structure is suitable for the attached hardware (fenders and mooring bollards). A condition assessment of the structural components and sections should be performed in future design phases.

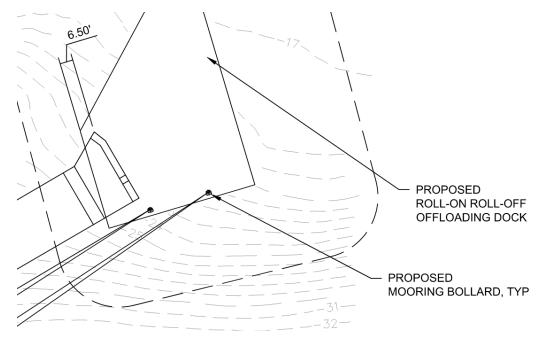


Figure 3-2 - Roll-on/Roll-off Ramp Landing Configuration

### **Loading Considerations**

Design live load for the roll-on/roll-off offloading ramp will consider vehicular wheel loads or a uniform live load of 1,000 psf. The piles and pile spacings will be sized to carry the dead plus live loads as well as the mooring bollard loads. Dock piles will be designed for geotechnical embedment according to the requirements of EM 1110-2-2906 *Design of Pile Foundations*.

### 3.2.2 Environmental Data

### Wind Velocity

The terminal operator, in concurrence with The Authority, will stop loading and unloading operations at a sustained wind velocity of 35 mph (30 knots). This upper limit operational wind velocity assumes a wind gust of 30 second duration per OCIMF recommendations for environmental design criteria.

It is expected that vessels will leave the port facility when the wind velocity exceeds 60 mph (52 knots). This is the storm wind velocity threshold for the static mooring analysis. This threshold is for a 30 second wind gust up to 60 mph and does not imply mooring design for hurricanes. It is assumed that roll-on/roll-off vessels would not be allowed to remain moored in the port during a hurricane.

### Water Elevation & Current Velocity

Tidal information was obtained from the National Oceanic and Atmospheric Administration (NOAA), Tidal Station ID: 8656483 (Beaufort, Duke Marine Lab NC). Table 3-1 summarizes the tidal information pertinent to the project site. The tidal fluctuations near the site are moderate. Based on this, water level variation and tidal currents were considered negligible.

The design vessel was assessed at a water level of 0 ft. MLLW for berthing analysis and +4.0 ft. for mooring analysis, which assumes a high tide to maximize the wind area of the vessel.

**Table 3-1 - Tidal Information** 

Vertical Datum	MLLW
Mean High Water (MHW)	+3.54 ft.
NAVD '88 (EL. 0.00)	+2.08 ft.
Mean Tide Level (MTL)	+1.70 ft.
Mean Low Water (MLW)	+0.00 ft.

### Currents and Waves

Current data was obtained from NOAA station ACT6381 Radio Island. Based on observations, the flood and ebb currents are similar in magnitude and average about 1.5 to 2.0 knots peak velocity. Previous designs have used 2.5 knots each way to envelope the peak current velocity.

Wave forces for operational conditions are considered negligible and are not included in the mooring analysis for the roll-on/roll-off facility. The possibility of waves near the south end of Radio Island may necessitate scour and slope protection for the proposed offshore wind facility.

### 3.2.3 Moored Design Vessel Data

The Authority supplied the name of the anticipated design vessel for the proposed roll-on/roll-off facility, the *Iris Leader*. The design vessel was selected to assess the existing berth's suitability to moor vessels. Mooring analyses were conducted using OPTIMOOR for the following classes, equipment location and deadweight tonnage (DWT) of design vessels:

Iris Leader – Approximately 7,000 Unit Car Carrier – 21,000 tonnes (MT)

The moored vessel was only analyzed for a starboard-to mooring orientation due to the configuration of the vessel ramps. The design vessel characteristics used for the mooring analysis are given in Table 3-2.

Table 3-2 - Moored Design Vessels' Principal Characteristics

Vessel Name	Iris Leader
Length Overall (LOA)	656 ft. (199.9 m)
Length Between Perpendiculars (LBP)	630 ft. (192.0 m)
Beam	114 ft. (34.8 m)
Ballast Draft at Berth	24.6 ft. (7.5 m)
Loaded Draft at Berth	34.8 ft. (10.6 m)
Summer DWT	20,853 t
Line Type	Steel Wire
Line Diameter	1.2 in. (30mm)
Minimum Breaking Load (MBL)	150 kips (68 MT)
No. of Available Winched Lines	12 Lines

The approximately 7,000-unit car carrier was identified by The Authority as the anticipated design vessel expected to call on the proposed roll-on/roll-off facility. Vessel information was gathered from Marine Traffic and ClassNK register of ships. Where specific data was unavailable, vessel characteristics were taken from a similar design vessel in HDR's vessel library, the *Glovis Symphony*. The *Glovis Symphony* is a 7,400-unit car carrier of similar size and DWT.

The above deck wind area for the design vessel was taken from the general arrangement drawings of the *Glovis Symphony*. These roll-on/roll-off vessels may deploy 12 mooring lines on winches. Finally, the ramp distance from the vessel was taken from the *Glovis Symphony* drawings and used to locate the design vessel at the berth.

### 3.3 Roll-on/Roll-off Facility Analysis Findings

### 3.3.1 Existing T-Head Dock Berthing Analysis and Results

The same design vessel, *Iris Leader*, was used for berthing analysis. The T-head dock is sheltered from the Atlantic. The vessel approach velocity and berthing angle were determined according to PIANC recommendations. The added mass factor was determined using the PIANC method as well. The assumptions and results of the berthing analysis are summarized in Table 3-3 below.

Table 3-3 - Berthing Energy Design Parameters & Results

Vessel Name	Iris Leader
Length Between Perpendiculars (LBP)	630 ft. (192.0 m)
Beam	114 ft. (34.8 m)
Mass Displacement	31,300 MT
Loaded Draft	35 ft. (10.1 m)
Underkeel Clearance	1 ft. (0.3 m)
Approach Velocity	0.5 ft/s (150 mm/s)
Berthing Angle	6°
Added Mass Factor (Cm)	1.80
Factor of Safety for Abnormal Impact	1.75
Calculated Berthing Energy	573 k-ft (776 kN-m)

The berthing energies were calculated in accordance with PIANC and compared to the existing fender capacities, listed below in Table 3-4.

Table 3-4 - Existing Fender Data for Existing T-Head Dock

Input	Maritime International MCN 1200 G2.5
Location	Breasting Structures
Fender Panel Width	7.0 ft. (2.1 m)
Fender Panel Height	11.00 ft. (3.4 m)
Face Area	77.0 ft. <sup>2</sup> (7.2 m <sup>2</sup> )
Height of Fender (MLLW)	+9.1 ft. (2.7 m)
Energy Absorption Capacity	610.5 kip-ft (828 kN-m)
Fender Reaction Force	285.5 kips (1271 kN)
Hull Pressure	< 200 kN/m²

The rated capacity of the existing fenders is larger than the calculated berthing energy, so the existing fenders are satisfactory to absorb the berthing energy of the *Iris Leader* design vessel. Berthing velocities should be kept under 0.5 ft/s and berthing approach should be confirmed by ship pilots and captains during detailed design.

### 3.3.2 Existing T-Head Dock Mooring Analysis and Results

The controlling mooring line loads, bollard loads, fender reactions, and vessel movements were determined and compared with the design criteria and capacities from the original dock design. OPTIMOOR was utilized to conduct the analyses. Table 3-5

summarizes the results for the Starboard-to mooring arrangement. Cells highlighted in yellow indicate where loads and vessel movements approach acceptable limits. Cells highlighted in red indicate where loads and vessel movements exceed recommended limits. Furthermore, the reported loads and movements are all maximums and do not necessarily occur at the same time or in the same load case.

Mooring analyses were performed for operational conditions and storm conditions. As stated in 3.2.2, operational conditions consider winds below 30 knots (35 mph) and the storm conditions would consider winds up to 52 knots (60 mph). If the existing facility could not accommodate the above storm wind conditions, the wind speed was reduced to determine the proposed roll-on/roll-off facility's evacuation wind limit. Mooring analysis considered vessel drafts between loaded and ballast draft. All analyses included ebb and flood currents at 2.5 knots.

As seen in Table 3-5, the results for the roll-on/roll-off mooring arrangement show the vessel line, existing fender, and existing bollard loads were generally within acceptable limits for the considered environmental loads while utilizing 11 lines. Vessel movements are acceptable for operational conditions. Note from Table 3-5 that the maximum wind conditions are limited to 35 knots (40 mph) before the vessel should consider evacuating the dock, due to mooring lines approaching their minimum breaking load and existing fenders and bollards approaching their recommended limits. As noted previously, all analyses include ebb and flood currents at 2.5 knots concurrent with the design wind speed. The concurrence of maximum wind and maximum current is a low probability event so a mooring analysis with wind only was conducted to determine the evacuation wind threshold. The maximum wind speed, with no concurrent currents is less than 39 knots (45 mph) and is limited by the available mooring lines. While available vessel line strength varies vessel to vessel, the existing bollards and fenders risk exceeding their stated capacities for wind speeds greater than 39 knots (45 mph). The final recommended mooring arrangement is shown in Figure 3-3.

Note that the purpose of the mooring analysis is to determine if loads and movements generally fall within acceptable limits and that slight variations may occur for different vessels due to their inherent differences.

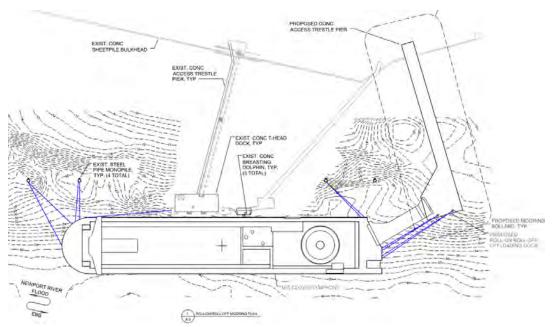


Figure 3-3 - Roll-on/Roll-off Mooring Arrangement

Table 3-5 - Roll-on/Roll-off Mooring Orientation

Iris Leader Moored	ris Leader Moored Vessel Draft		ne Loads (%	6 MBL)	Movements		Fender	Bollards (kips)			
Starboard-to	(ft)	Bow/Stern	Breast	Spring	Surge (ft)	Sway (ft)	Yaw (deg)	(kips)	Existing Breasting	Existing Mooring	New
Operational Wind Limit (35 mph)	Ballast (24.5 ft)	28%	41%	14%	1.7	1.4	0.3	178	21.7	115.5	49.0
Storm/Evacuation Wind Limit (40 mph)	Ballast (24.5 ft)	36%	55%	20%	1.8	2.1	0.5	250	29.3	156	77.0
Storm/Evacuation Wind Limit (No Current) (45mph)	Ballast (24.5 ft)	39%	60%	17%	2.0	2.4	0.4	250	25	175.9	82.4
Limits		55%	55%	55%	2.6	2.0	2.6	296	220	220	220

### 3.3.3 Roll-on/Roll-off Offloading Platform

The roll-on/roll-off offloading dock platform was designed for a uniform live load of 1,000 psf and needed to accommodate two 125 MT mooring bollards. The top of dock elevation will be set to about +15.7' MLLW to accommodate the roll-on/roll-off vessel ramp.

The required Roll-on/Roll-off Offloading Dock has a footprint of roughly 360' x 75'. The offloading dock pile plan requires about 59 piles. These piles are 24" square precast/prestressed concrete piles. 8 of these piles near the waterside face of the Roll-on/Roll-off Offloading Dock should be battered for stability in carrying the lateral loads from the mooring bollards. Piles are generally spaced at a maximum of 17'-0" and tributary areas for piling should be a maximum of 225 ft². The dock platform is designed as a concrete dock with a concrete paving surface which will transition into the landside Ro/Ro facility, which will have an asphalt paving finished surface.

### 4 Conclusion & Recommendations

The Authority has asked HDR to assess the marine structural requirements for the development of a multiuse terminal on Radio Island. Conclusions and recommendations are divided between the proposed roll-on/roll-off facility and the offshore wind facility. Draft exhibits are provided in Attachment A.

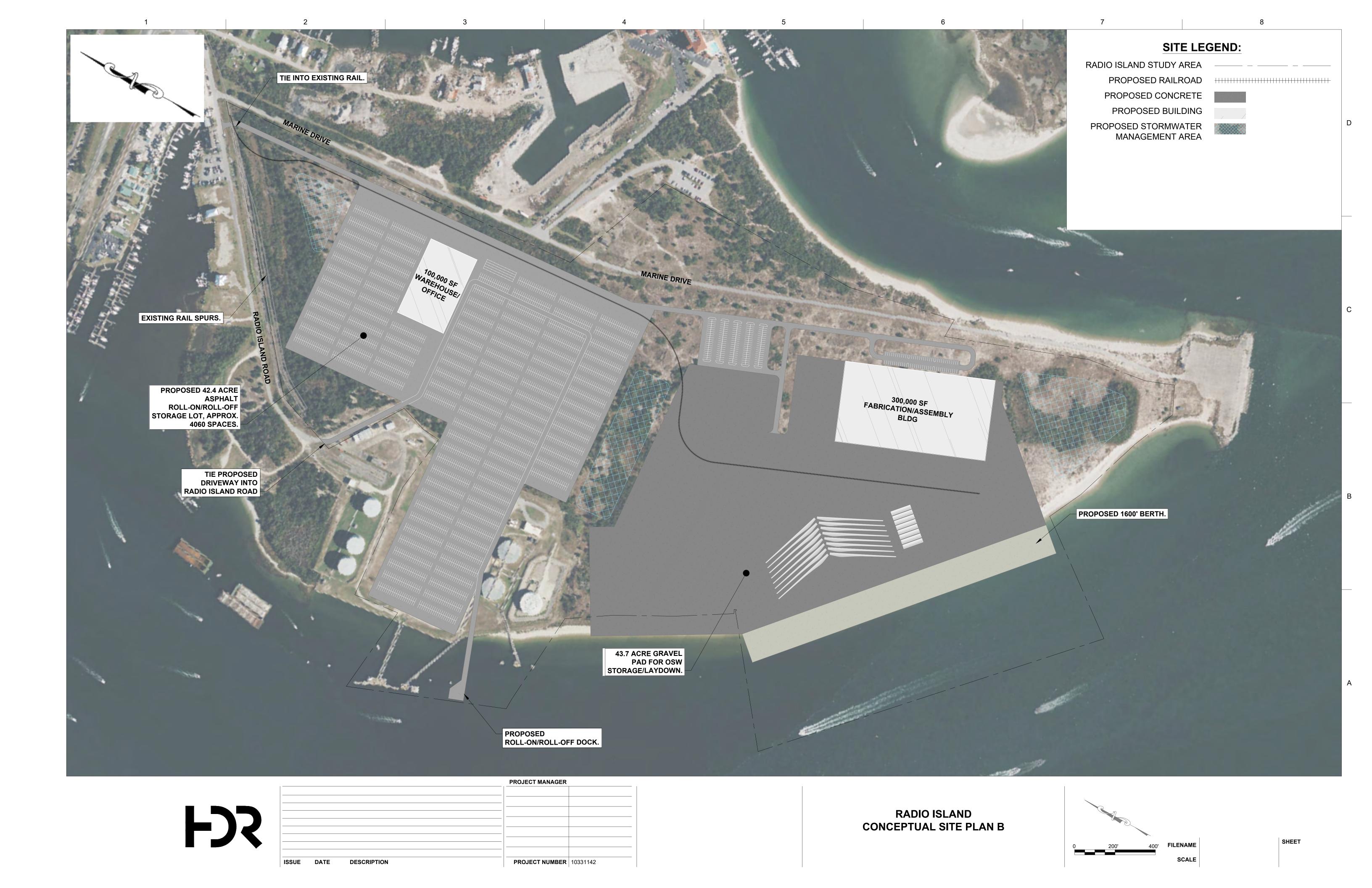
### Offshore Wind Facility Summary:

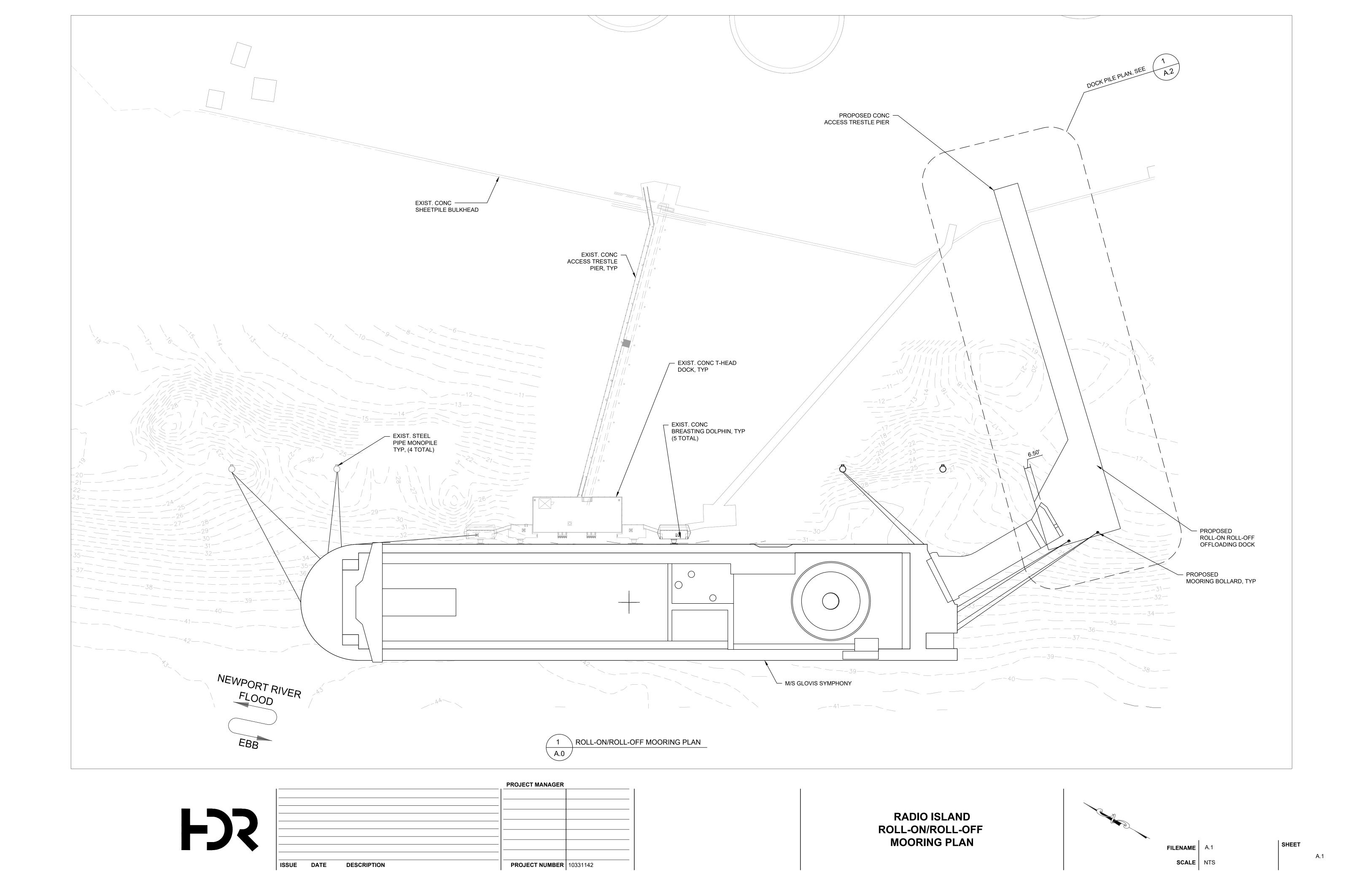
- The recommended Offshore Wind Dock has a footprint of roughly 1600' x 150'. The offshore wind dock includes about 1,298 piles.
  - The minimum recommended Offshore Wind Dock has a footprint of roughly 1200' x 150'. This offshore wind dock includes about 979 piles
- Piles are considered to be 54" diameter spun-cast cylinder concrete piles.
- Pile spacing is limited to 13.5' center-to-center.
- Dredge slope should be planned at 2.5H:1V, and scour/slope protection should be provided.
- The length of the dredged berth basin along the berthing line is 1875' to allow for tug maneuvering at the ends of the dock.
- The total area of the dredged berth basin footprint is 816,763 ft²
- The anticipated dredge volume for the Offshore Wind Dock berth basin is about 900,000 CY.
- The landside finished surface can be stone or aggregate fill and will need to
  provide a design bearing pressure of 3,000 psf for operations. Localized
  hardpoints can be added during design if needed to accommodate higher loads
  for landside construction or assembly operations.
- Mobile shore crane should be based on a Liebherr LG 1750. The crane has the following parameters
  - o Max lift of 750 MT at 22 ft. radius
  - Max hoist height of 633 ft (193m)
  - Operating footprint under loaded crane of approximately 61' x 53'

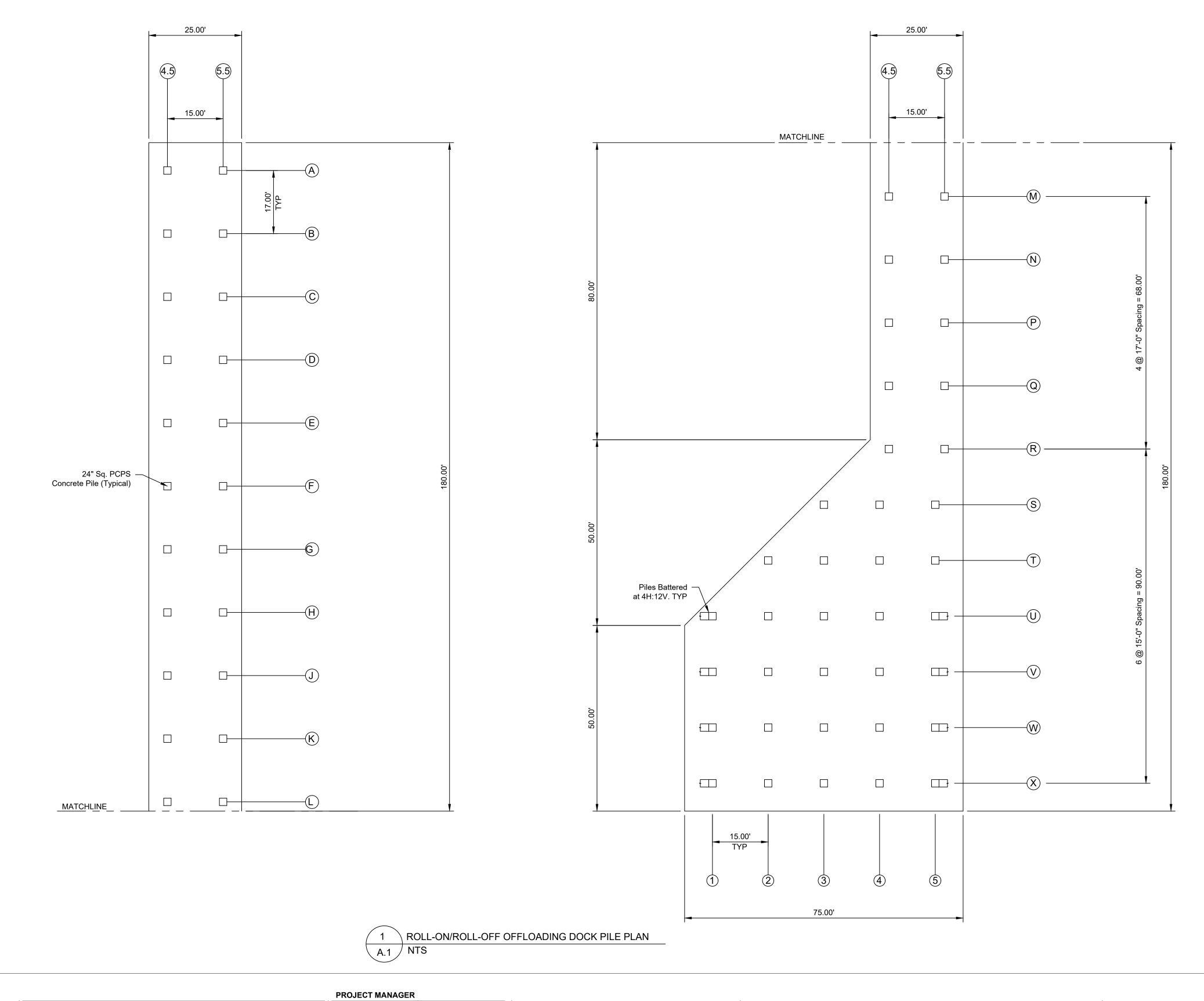
### Roll-on/Roll-off Facility Summary:

- Existing fenders are satisfactory to absorb the berthing energy of the *Iris Leader* design vessel.
- Existing mooring structures and bollards are sufficient for the anticipated mooring loads.
- Additional mooring bollards behind the ramp are required for mooring the *Iris Leader*. These additional mooring bollards can be located on the waterside face of the proposed Roll-on/Roll-off Offloading Dock.
- The recommended mooring arrangement is sufficient for operations up to 35mph. The vessel should evacuate the dock for windspeeds over 45 mph.
- The required Roll-on/Roll-off Offloading Dock has a footprint of roughly 360' x 75'. The offloading dock includes about 59 piles.
  - 8 piles near the waterside face of the Roll-on/Roll-off Offloading Dock should be battered for stability in carrying lateral loads from the bollards.
- Piles are considered to be 24" square precast/prestressed concrete piles.
  - o Piles should have a maximum tributary area of 225 ft<sup>2</sup>.
- It is assumed that the existing structure is suitable for the attached hardware (fenders and mooring bollards). A condition assessment of the structural components and sections should be performed in future design phases to confirm the adequacy of the existing structures.

# Appendix A. Marine Structural Exhibits





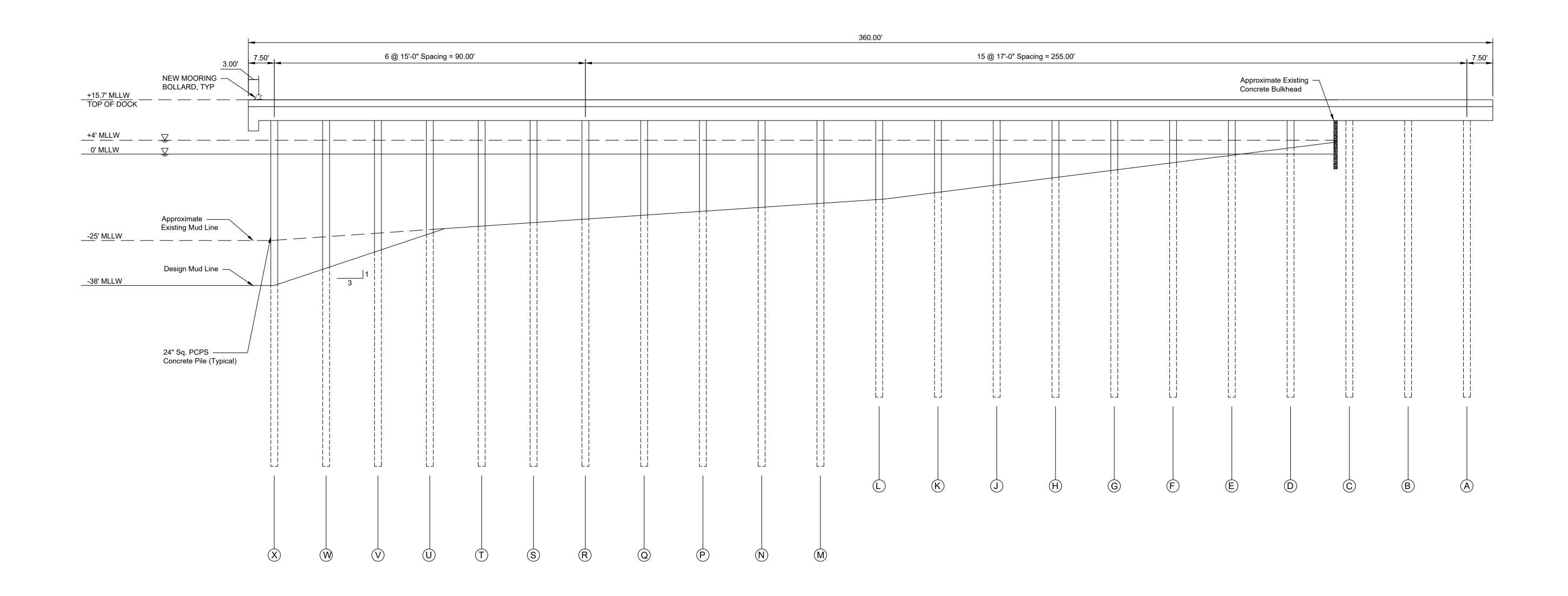


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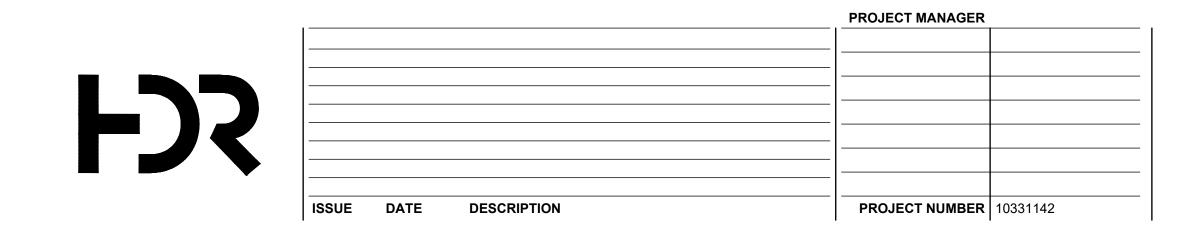
RADIO ISLAND ROLL-ON/ROLL-OFF OFFLOADING DOCK PILE PLAN

FILENAME A.2 SCALE NTS

SHEET



A TYPICAL ROLL-ON/ROLL-OFF OFFLOADING DOCK CROSS SECTION NTS



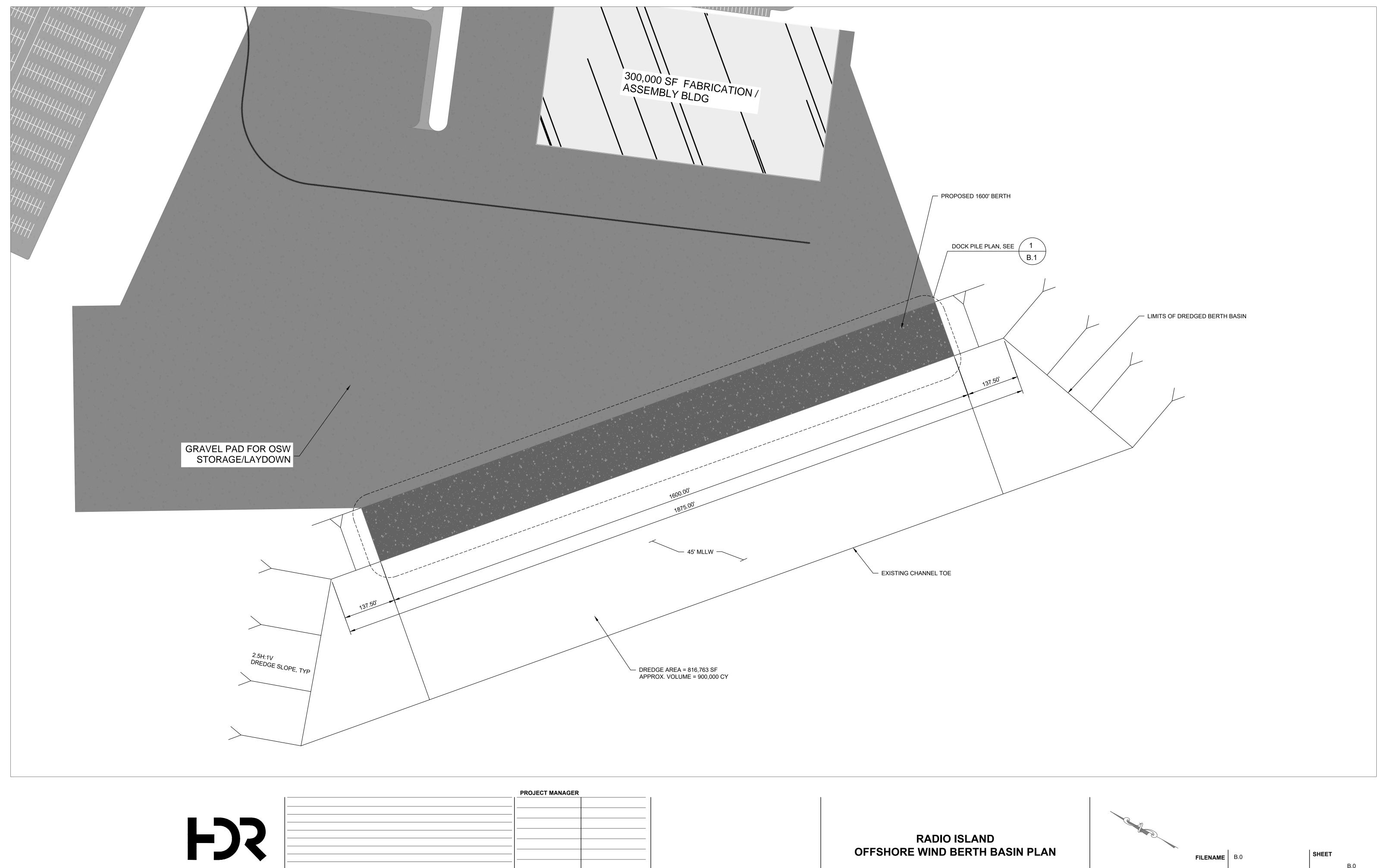
RADIO ISLAND
TYPICAL ROLL-ON/ROLL-OFF
OFFLOADING DOCK CROSS SECTION



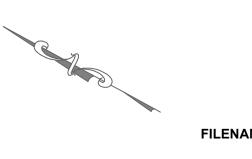
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SCALE NTS

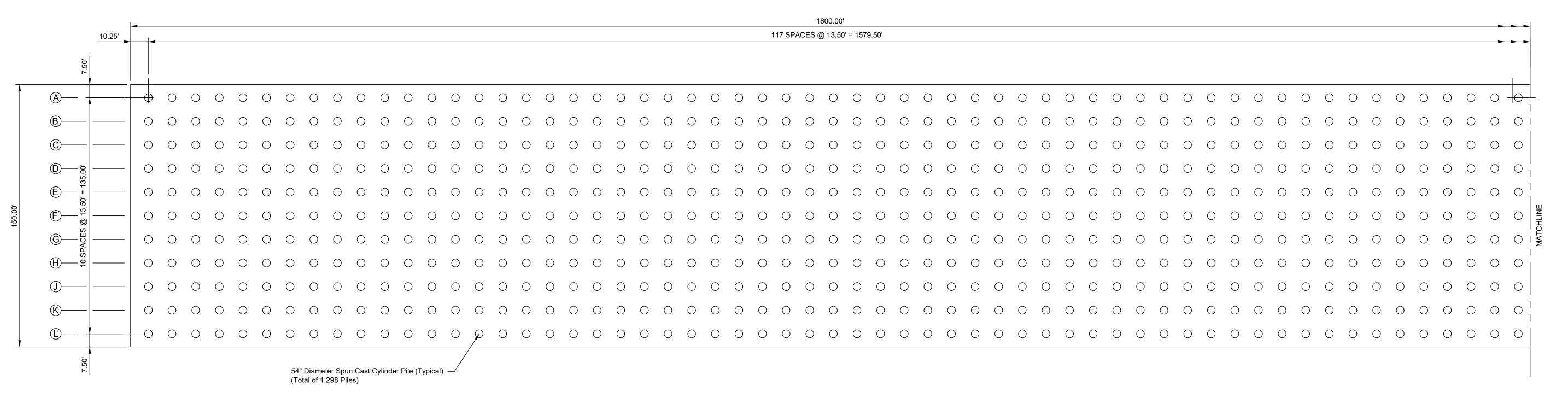
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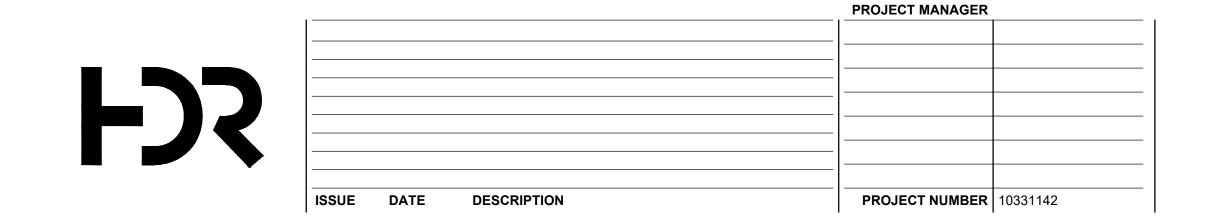
ISSUE DATE PROJECT NUMBER 10331142 DESCRIPTION



SCALE NTS



1 OFFSHORE WIND DOCK PILE PLAN B.1 NTS



RADIO ISLAND OFFSHORE WIND DOCK PILE PLAN

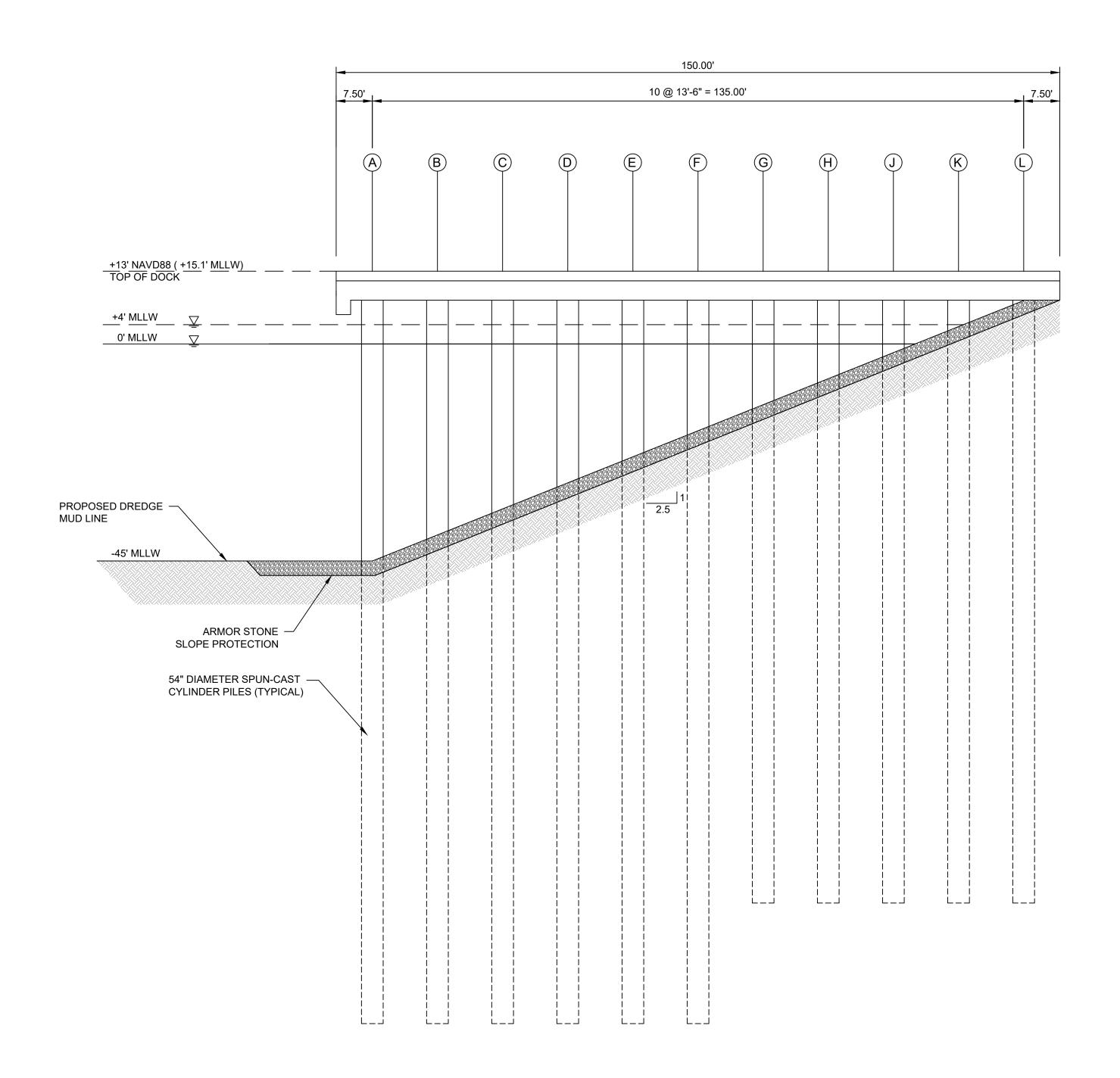


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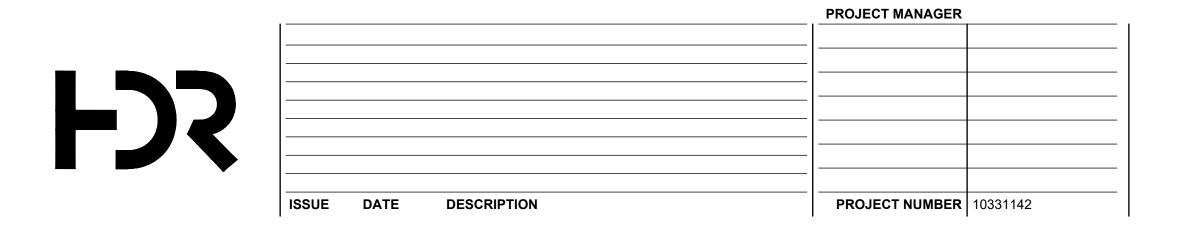
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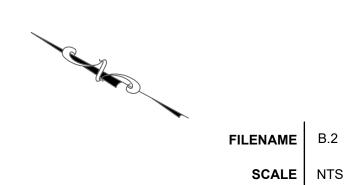
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A TYPICAL OFFSHORE WIND DOCK CROSS SECTION NTS



RADIO ISLAND
TYPICAL OFFSHORE WIND DOCK
CROSS SECTION



SHEET



# 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



### 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**.



# 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

<sup>\*</sup>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:		



2202 Burnett Boulevard Wilmington, NC 28401

Vickie Miller, NC Environmental Lead HDR 555 Fayetteville Street Suite 900 Raleigh, NC 27601



# 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*.

Company/Organization/Neighborhood:	Your Name:				
City: State: Zip Code:           E-mail:	Company/Organization/Neighborhoo	d:			
E-mail:	Address:				
	City:		_State:	Zip Code:	
	E-mail:				

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	Date: September 26, 2023		
Location: Crystal Coast Civic Center/ Main Hall			
Building 203- Carteret Community College			
3505 Arendell Street			
Morehead City, NC 28557			
<b>Project Description:</b> 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:	Gender: Male Female
Street Name: (i.e. Main Street)	Age:
Total Household Income:	☐ Less than 18 ☐ 45-64 ☐ 18-29 ☐ 65 and older
Less than \$12,000	□ 30-44
☐ \$12,000 − \$19,999 ☐ \$70,000 − \$93,999	
\$20,000 - \$30,999  \$94,000 - \$117,999 \$31,000 - \$46,999  \$118,000 or greater	Have a Disability: ☐ Yes ☐ No
Race/Ethnicity:	National Origin: (if born outside the U.S.)
☐ White ☐ Asian	Mexican
☐ Black/African American ☐ Hispanic/Latino	Central American:
American Indian/Alaskan Native	South American:
☐ Native Hawaiian/Pacific Islander	☐ Puerto Rican ☐ Vietnamese
Other (please specify):	☐ Chinese ☐ Korean
	Other (please specify):

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!



### WELCOME TO THE PORT OF MOREHEAD CITY

The Port of Morehead City, and bulk facility, breakbulk 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 Newport River from the Port of Morehead City is Radio Island, a 150acre 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-overyear growth for general cargo volume, marking a record year for tonnage and revenue

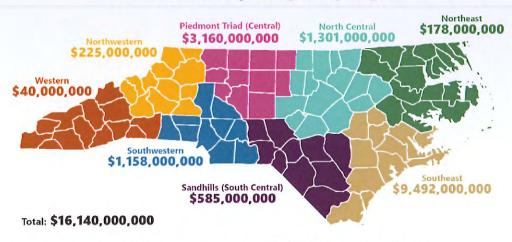
NC Ports has the capabilities to address even the most complex of cargo handling needs. Our experienced labor force and innovative ideas take us beyond the primary products we often move. The products below might be what the Port of Morehead City is known for, but they are not what our team is limited to. We are the port of problem solved.

### **Primary Products:**

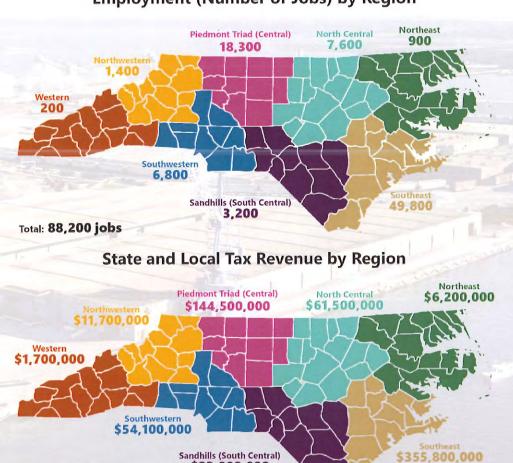
- Rubber
- Wood Chips
- Metal Products Lumber
- Aircraft Parts
- Phosphate
- Grain
- Fertilizer

Did you know? MHC is the #2 importer of raw rubber in the country

### **Economic Activity (Output) by Region**



### **Employment (Number of Jobs) by Region**



\$23,000,000

Total: \$658,500,000

# NORTH CAROLINA PORTS ECONOMIC CONTRIBUTIONS

From: <u>Joan Sugg</u>

To: Miller, Vickie M. (Raleigh)
Subject: Radio Island Multi-Use Terminal

Date: Wednesday, September 6, 2023 11:13:48 AM

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

Dear Vickie,

How will this impact vacation rental properties on Radio Island and in Beaufort?

Joan Sugg Tarboro, NC Sent from <u>Mail</u> for Windows From: <u>Cathy Almon</u>

To: Miller, Vickie M. (Raleigh)
Subject: Radio Island Multi-Use Terminal

Date: Wednesday, September 6, 2023 11:36:46 AM

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

### 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

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

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



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Please print.
Your Name: Chuck Ladford
Company/Organization/Neighborhood: Olde Towne Yacht Club.
Address: 100 Olde Towne Rd.
City: Morehead, Radio Tskud State: M.C. Zip Code:
E-mail: Chuck Whedforder gmail.com
Please provide your comments on the project presented tonight:
Tessible presentation, NOT ensuch into that we could be Positive or regative, Entrance in to Redio Island is Critical is DoT is not here to discuss these plan, throw this is the Cost to the horse, Not impresse by the Planning on such a huge Change to a lot of People's like 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.



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Your Name: E Joungh los	ed	
Company/Organization/Neighborhood:		
Address: 141 MORGAN	185	
City:	State:	Zip Code: 285/6
E-mail: eyoung Good 351	7 @gmail, com	
Please provide your comments on the p	V	Remembers
- GLANT WASTE G	OF RESOURCE	SCHOBAL TRANSPARY
- TRAFFIC/SULOM	RE & PAR TIM	FACT ON LOCAL
PROPERTY OUNTE	AS UNACCEP	TABLE
- OFFSHORE WIND	FOR NC N	LOT ELOWERALLY
		FEAGABLE
- DOT NOT FIRM	I JU THEIR T	PRATTIC MODS
- MEGOURCES BETT	EX USED ON	INSHORE MANUT
SITES	- Y	
- 1		

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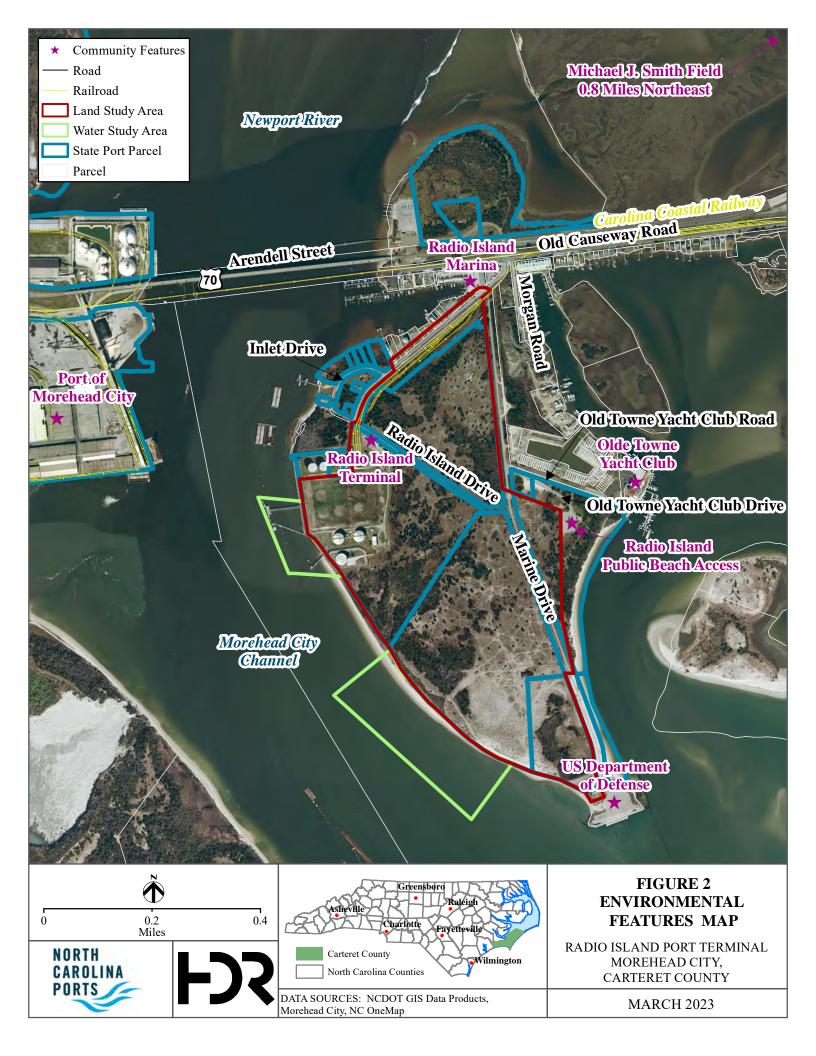
Please take a few moments to fill out this comment form and share your thoughts about the Radio Island Multi-Use Terminal on NC State Ports Authority property. Place completed form in the comment box tonight, or send it no than **October 10**, **2023**. Please note that providing your contact information will allow us to respond to any questions or concerns you raise. Your information will not be shared for any other purpose. *Please print*.

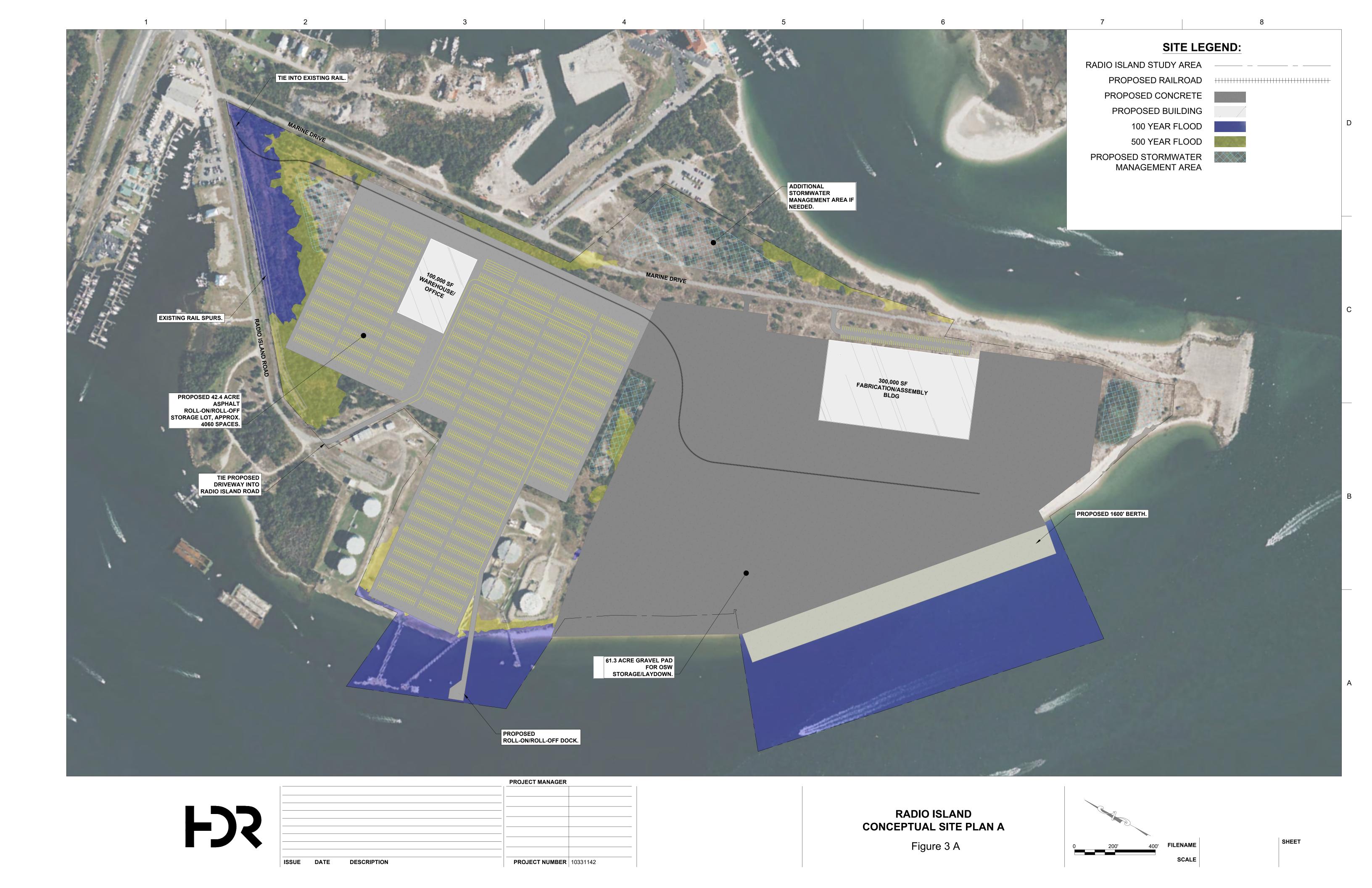
Your Name: hris Hardison
Company/Organization/Neighborhood: Morgan Creek Landing
Address: 212 Old Causeway Rd, Unit 108
City: Beaufort State: NC Zip Code: 28516
E-mail: Chris hardison @ yahoo, com
Please provide your comments on the project presented tonight:
I'm guite concerned about the rail
traffic since currently whem empty
rail cars are moved it rattles
our building. The curret spor come
very close to Morgan Creek Landing
and I suspect it has never been used
since that building was built. If loading
rall cars come that close it could
cause damage to our building from
Vibratione

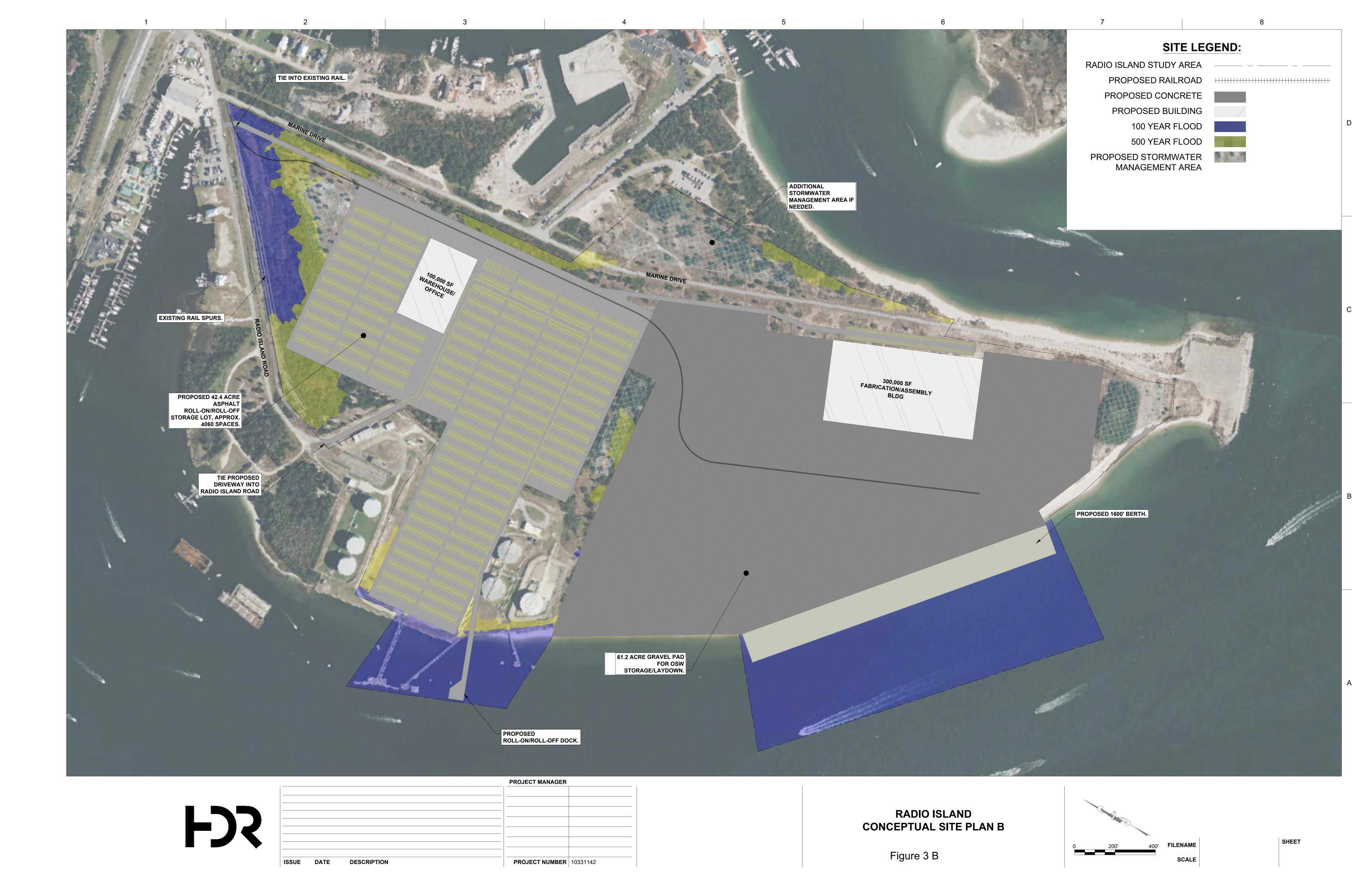
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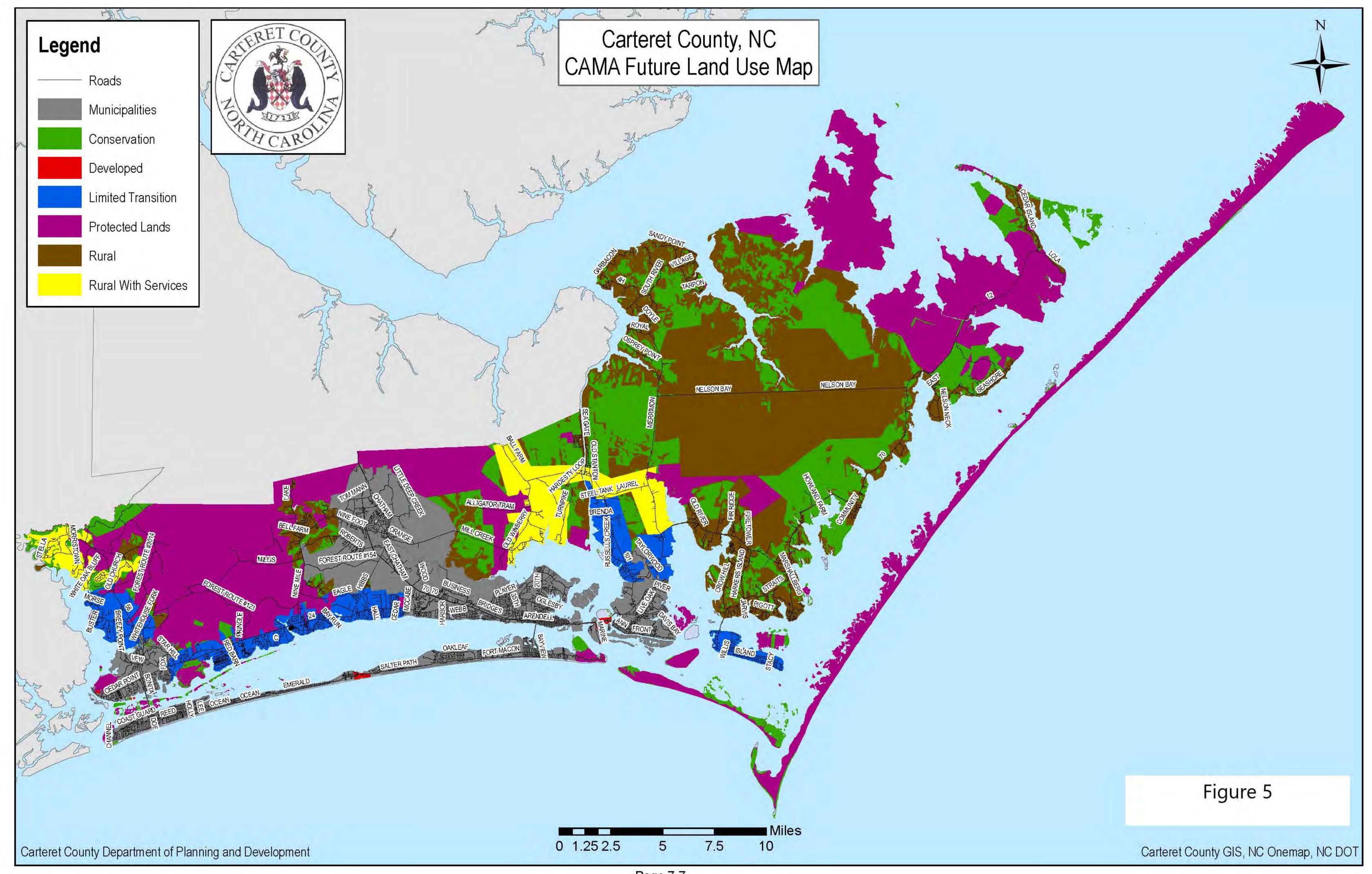




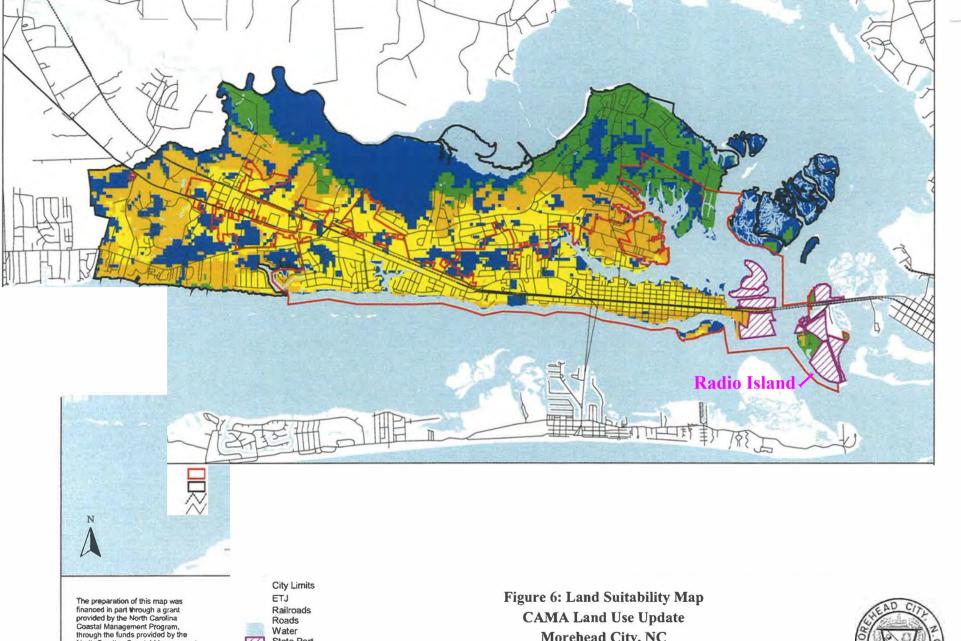








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The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through the funds provided by the North Carolina Coastal Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

State Port (not awards as per Town of Morehead City)

Land Suitability

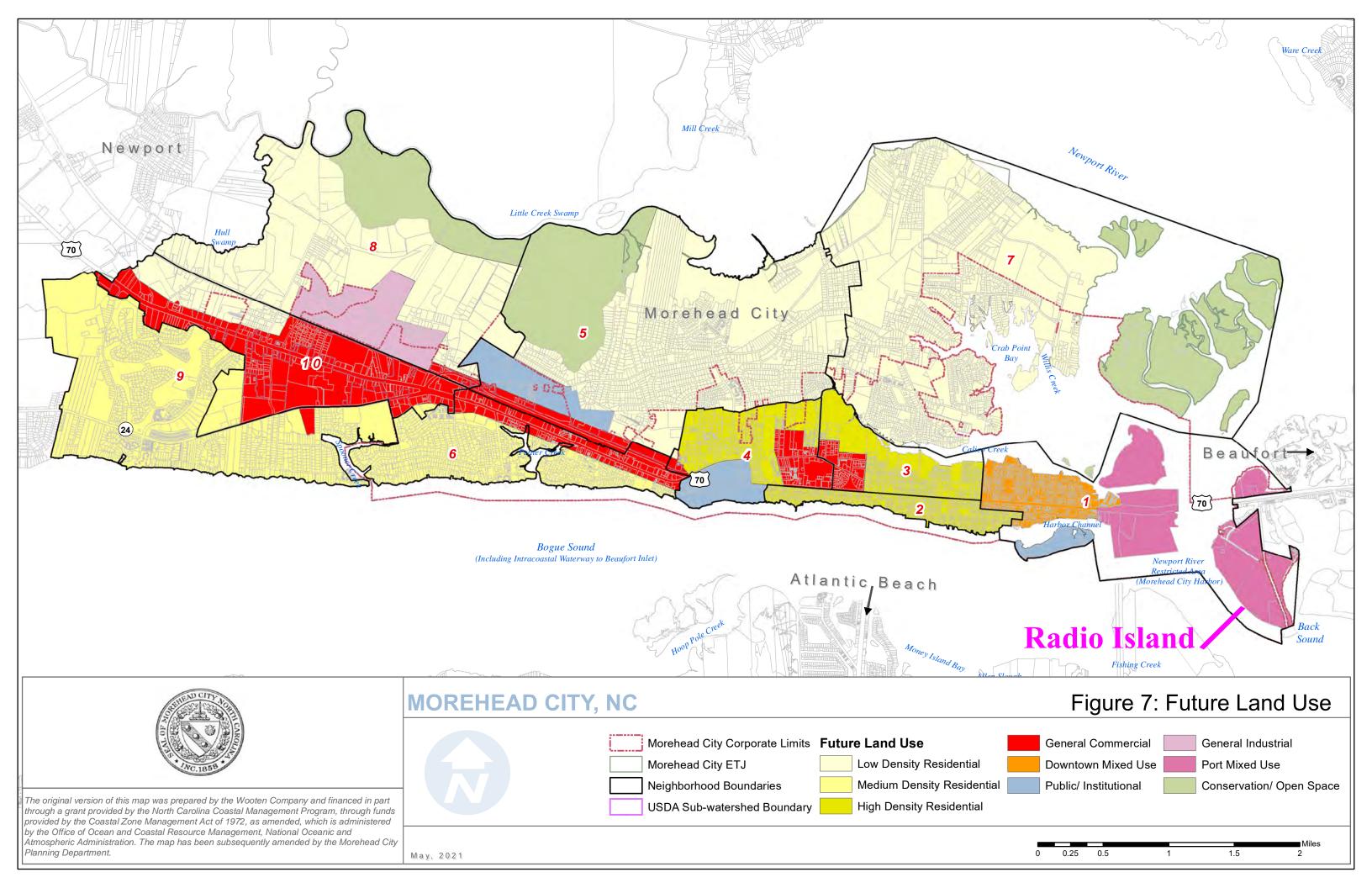
least suitable low suitability medium suitability high suitability

Morehead City, NC

Scale: 1" = 4000"

4000 8000 Feet









**FDR** 

RADIO ISLAND MULTI-USE TERMINAL NOISE STUDY AREA

FIGURE 9

